Table D1. Evidence table for observational studies

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|---|
| Badart-Smook, et al., 1997 ⁴⁷ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: White race, intention to give birth to the baby in one of the three hospitals involved in the study | Adjustments: Maternal(pregnancy) body weight, height, age, smoking |
| Study dates: NR | Pregnant enrolled 610 Pregnant withdrawals 240 Pregnant completers 370 | Exclusion Criteria: Women with diastolic blood pressure of 90mm or | habits, education, parity, and sex of the infant were included in each |
| Study design: Observational prospective | Pregnant age: 29 (4) | higher, women suffering from any metabolic, cardiovascular, neurological, or renal disorder | multiple regression model as possible confounding factors; except for the |
| Location: Netherlands | Race of Mother: White European (100) | | regression equation with gestational age as a dependent variable, |
| Funding source / conflict: NR | ····· | | gestational age at birth was also added as a confounder |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|------------------------------------|-------------------------------------|-------------------|--|----------|----------------------------|---------|
| Badart-Smook 1997 ⁴⁷ | Birth weight N Total: 370 | | Sum of n-3 PUFAs+AA n-3 Measure: FFQ | | | |
| | Length of gestation N Total: 370 | | Sum of n-3 PUFAs+AA n-3 Measure: FFQ | | | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|---|--|
| Bakker, et al., 2003 ¹⁶³ Study name: Maastricht Essential Fatty Acid Birth (MEFAB) Cohort Study dates: Recruitment December 1990 to January 1994 Study design: Observational prospective Location: Netherlands | Study Population: Healthy infants Infants enrolled 750 Infants withdrawals 444 Infants completers 306 Pregnant age: 29.8 (4.1) Infant age: birth Race of Mother: White European (100) | Inclusion Criteria: 750 Caucasian children, 7 y old, born between December 1990 and January 1994 in the course of an earlier study on maternal and neonatal LCPUFA status and pregnancy outcome Exclusion Criteria: Not reported | Adjustments: Social class, maternal intelligence, parenting skills, maternal smoking and drinking habits during pregnancy, breastfeeding duration, and the child's sex, birth order and birthweight |
| Funding source / conflict: Government Follow-up: 7 years Original, same study, or follow-up studies: Bakker, 2009 ¹³⁴ and two articles in original report: Ghys, 2002 and Al, 1995 | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|----------------------------|---|-------------------|--|----------|--|
| Bakker 2003 ¹⁶³ | Cognitive function K-ABC Mental | 7 years | AA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | All | Coefficient Estimate: -0.223 95% Cl(-1.051,-0.605) |
| | Cognitive function K-ABC Mental N Total: 306 | 7 years | DHA n-3 Measure: Umbilical plasma n-3 Units: % wt/wt | All | Coefficient Estimate: -0.517 95% CI(-1.471, -0.437) |
| | Cognitive function K-ABC Sequential | 7 years | AA n-3 Measure: Umbilical plasma | All | Coefficient Estimate: 0.035 95% Cl(-0.886, -0.956) |
| | Cognitive function K-ABC Sequential | 7 years | DHA n-3 Measure: Umbilical plasma | All | Coefficient Estimate: -0.072 95% CI(-1.104, – 0.960) |
| | Cognitive function K-ABC Simultaneous | 7 years | AA n-3 Measure: Umbilical plasma | All | Coefficient Estimate: -0.34 95% Cl(-1.156, 0.476) |
| | Cognitive function K-ABC Simultaneous | 7 years | DHA n-3 Measure: Umbilical plasma | All | Coefficient Estimate: -0.61 95% CI(-1.557, -0.337) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|--|
| Bakker, et al., 2009 ¹³⁴ | Study Population: Healthy infants | Inclusion Criteria: 750 Caucasian children of 7 y old, born between December 1990 and January 1994 in the course of an earlier study | Adjustments: Gender, cognitive function, gestational age, age at |
| Study dates: 12/90-1/94 | Infants enrolled 750 Infants withdrawals 444 Infants completers 306 | on maternal and neonatal LCPUFA status and pregnancy outcome | measurement |
| Study design: Observational prospective | Pregnant age: 29.8 (4.1) | Exclusion Criteria: Not reported | |
| Location: Netherlands | Infant age: gestational age: boys: 39.8; girls 40.0 (boys 1.7; | | |
| Funding source / conflict: Government | girls 1.4) | | |
| Follow-up: 7 years | Race of Mother: White European (100) | | |
| Original, same study, or follow-up studies: Bakker, 2003 ⁸⁰ and two articles in original report: Ghys, 2002 and AI, 1995 | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|--|-------------------|---|----------|----------------------------|------------------|
| Bakker 2009 ¹³⁴ | Maastricht Motor test quality score N Total: 306 | 7 years | AA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.052 |
| | Maastricht Motor test quality score N Total: 306 | 7 years | DHA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.01 |
| | Maastricht Motor test quantity score N Total: 306 | 7 years | AA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.78 |
| | Maastricht Motor test quantity score N Total: 306 | 7 years | DHA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.30 |
| | Maastricht Motor test total score N Total: 306 | 7 years | AA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.069 |
| | Maastricht Motor test total score N Total: 306 | 7 years | DHA n-3 Measure: Umbilical plasma n-3 Units: %wt/wt | | Coefficient | P value: P=0.01 |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | | |
|---|---|---|---|--|--|
| Bernard, et al., 2013 ⁸⁹ | Study Population: Healthy pregnant women | Inclusion Criteria: < 24 weeks amenorrhea | Adjustments: Center, child gender & age, gestational age, maternal age, | | |
| Study name: EDEN | Pregnant enrolled 2,002 Pregnant completers 1,882 | Exclusion Criteria: multiple pregnancies, known diabetes before pregnancy, illiteracy, and intention to move outside the region in the | obesity, energy intake, tobacco & alcohol consumption, parental | | |
| Study dates: Recruitment 2003 to 2005 | Infants enrolled 1.882 Infants completers 1,510 | next 3 years | education & income, first born, main | | |
| Study design: Observational prospective | Pregnant age: 29.2 years (at conception) (4.8 years) NR | | daytime caregiver, and frequency of maternal stimulations | | |
| Location: NR | Infant age: < 24 weeks gestation (NR) NR | | | | |
| Funding source / conflict: Industry, Government | Race of Mother: NR (100) | | | | |
| Follow-up: 2 and 3 years | | | | | |
| Original, same study, or follow-up studies: Drouillet, 2009 ⁸⁰ | | | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-----------------------------|---|-------------------|---|----------|---|---------------|
| Bernard, 2013 ⁸⁹ | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | (LC)PUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.19 95% CI(-0.76, 0.38) | P value: 0.51 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.09 95% CI(-29.53, 29.35) | P value: 1 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 3.29 95% CI(-8.41, 14.99) | P value: 0.58 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 7.48 95% CI(-10.51, 25.47) | P value: 0.42 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 15.28 95% CI(-18.63, 49.19) | P value: 0.38 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.23 95% CI(-0.82, 0.36) | P value: 0.45 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 3.61 95% CI(-4.17, 11.39) | P value: 0.36 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.22 95% CI(-0.81, 0.37) | P value: 0.45 |
| | Ages and Stages Questionnaire - Breastfed children N Total: 786 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.63 95% CI(-1.39, 0.13) | P value: 0.11 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--|-------------------|---|----------|---|----------------|
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | (LC)PUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.33 95% CI(-2.58, -0.08) | P value: 0.04 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -104.25 95% CI(-162.11, -46.39) | P value: 0.001 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.39 95% CI(-31.22, 26.44) | P value: 0.87 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.77 95% CI(-49.10, 45.56) | P value: 0.94 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 24.51 95% CI(-60.08, 109.10) | P value: 0.57 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.34 95% CI(-2.65, -0.03) | P value: 0.05 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.43 95% CI(-21.52, 16.66) | P value: 0.8 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.37 95% CI(-2.68, -0.06) | P value: 0.04 |
| | Ages and Stages Questionnaire - Never-breastfed children N Total: 270 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.52 95% CI(-3.01, -0.03) | P value: 0.05 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | (LC)PUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.13 95% CI(-2.21, -0.05) | P value: 0.04 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -33.93 95% CI(-83.64, 15.78) | P value: 0.18 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 13.84 95% CI(-10.21, 37.89) | P value: 0.26 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 6.14 95% CI(-32.79, 45.07) | P value: 0.76 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 13.98 95% CI(-57.56, 85.52) | P value: 0.7 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.23 95% CI(-2.37, -0.09) | P value: 0.03 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 7.02 95% Cl(-9.13, 23.17) | P value: 0.39 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--|-------------------|--|----------|--|----------------|
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.24 95% CI(-2.36, -0.12) | P value: 0.03 |
| | Communicative Development Inventory - Never- breastfed children N Total: 309 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.13 95% CI(-3.40, -0.86) | P value: 0.001 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | (LC)PUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.23 95% CI(-0.34, 0.80) | P value: 0.43 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 6.29 95% CI(-22.56, 35.14) | P value: 0.67 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.77 95% CI(-14.65, 9.11) | P value: 0.65 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -3.63 95% CI(-21.72, 14.46) | P value: 0.69 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -8.55 95% CI(-42.77, 25.67) | P value: 0.62 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.25 95% CI(-0.34, 0.84) | P value: 0.4 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.23 95% CI(-10.07, 5.61) | P value: 0.58 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.25 95% CI(-0.34, 0.84) | P value: 0.4 |
| | Communicative Development Inventory -Breastfed children N Total: 901 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.38 95% CI(-0.40, 1.16) | P value: 0.34 |
| | Motor ability N Total: 257 | 3 years | (LC)PUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.17 95% CI(-0.6924, 1.0324) | |
| | Motor ability N Total: 257 | 3 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 5.07 95% CI(3.8744, 6.2656) | |
| | Motor ability N Total: 257 | 3 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.3 95% CI(-2.8288, 0.2288) | |
| | Motor ability N Total: 257 | 3 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -4.35 95% Cl(-5.526, -3.174) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|-------------------|----------------------|-------------------|--|----------|--|
| Motor N Tota | | 3 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -10.55 95% Cl(-11.4908, -9.6092) |
| Motor : N Tota | | 3 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.17 95% CI(-0.6924, 1.0324) |
| Motor : N Tota | | 3 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.72 95% CI(-2.896, -0.544) |
| Motor : N Tota | | 3 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.17 95% CI(-0.6728, 1.0128) |
| Motor : N Tota | | 3 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.49 95% CI(0.3724, 0.6076) |
| Motor : N Tota | | 3 years | (LC)PUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.1 95% CI(-0.1156, 0.3156) |
| Motor : N Tota | | 3 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -7.67 95% CI(-19.3124, 3.9724) |
| Motor : N Tota | | 3 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.29 95% CI(-4.4336, 5.0136) |
| Motor : N Tota | | 3 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -3.26 95% CI(-10.5316, 4.0116) |
| Motor : N Tota | | 3 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -9.8 95% CI(-23.5004, 3.9004) |
| Motor ; N Tota | | 3 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.12 95% Cl(-0.1152, 0.3552) |
| Motor a N Tota | | 3 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.11 95% Cl(-4.2264, 2.0064) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|--|
| | Motor ability N Total: 746 | 3 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.12 95% CI(-0.1152, 0.3552) |
| | Motor ability N Total: 746 | 3 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.3 95% CI(-0.0136, 0.6136) |
| | Neurological development N Total: 270 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -104.25 95% CI(-162.1092, - 46.3908) |
| | Neurological development N Total: 270 | 3 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -104.25 95% CI(-162.1092, - 46.3908) |
| | Neurological development N Total: 270 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.39 95% CI(-31.2216, 26.4416) |
| | Neurological development N Total: 270 | 3 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -2.39 95% CI(-31.2216, 26.4416) |
| | Neurological development N Total: 270 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.77 95% CI(-49.104, 45.564) |
| | Neurological development N Total: 270 | 3 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.77 95% CI(-49.104, 45.564) |
| | Neurological development N Total: 270 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 24.51 95% CI(-60.0836, 109.1036) |
| | Neurological development N Total: 270 | 3 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 24.51 95% CI(-60.0836, 109.1036) |
| | Neurological development N Total: 270 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.34 95% Cl(-2.6532, - 0.02679999999999999) |
| | Neurological development N Total: 270 | 3 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.34 95% CI(-2.6532, - 0.026799999999999999) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|--|
| | Neurological development N Total: 270 | 3 years | LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.33 95% CI(-2.5844, - 0.075600000000001) |
| | Neurological development N Total: 270 | 3 years | LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.33 95% CI(-2.5844, - 0.0756000000000001) |
| | Neurological development N Total: 270 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.43 95% CI(-21.5204, 16.6604) |
| | Neurological development N Total: 270 | 3 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -2.43 95% CI(-21.5204, 16.6604) |
| | Neurological development N Total: 270 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.37 95% CI(-2.6832, -0.0568) |
| | Neurological development N Total: 270 | 3 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.37 95% CI(-2.6832, -0.0568) |
| | Neurological development N Total: 270 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.52 95% CI(-3.0096, -0.0304) |
| | Neurological development N Total: 270 | 3 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.52 95% CI(-3.0096, -0.0304) |
| | Neurological development N Total: 309 | 2 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -33.93 95% CI(-83.6356, 15.7756) |
| | Neurological development N Total: 309 | 2 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -33.93 95% CI(-83.6356, 15.7756) |
| | Neurological development N Total: 309 | 2 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 13.84 95% Cl(-10.2092, 37.8892) |
| | Neurological development N Total: 309 | 2 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 13.84 95% Cl(-10.2092, 37.8892) |
| | Neurological development N Total: 309 | 2 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 6.14 95% CI(-32.7856, 45.0656) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|---|
| | Neurological development N Total: 309 | 2 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 6.14 95% CI(-32.7856, 45.0656) |
| | Neurological development N Total: 309 | 2 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 13.98 95% Cl(-57.56, 85.52) |
| | Neurological development N Total: 309 | 2 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 13.98 95% CI(-57.56, 85.52) |
| | Neurological development N Total: 309 | 2 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.23 95% CI(-2.3668, - 0.093200000000002) |
| | Neurological development N Total: 309 | 2 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.23 95% CI(-2.3668, - 0.093200000000002) |
| | Neurological development N Total: 309 | 2 years | LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.13 95% CI(-2.208, - 0.0519999999999998) |
| | Neurological development N Total: 309 | 2 years | LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.13 95% CI(-2.208, - 0.0519999999999998) |
| | Neurological development N Total: 309 | 2 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 7.02 95% Cl(-9.1304, 23.1704) |
| | Neurological development N Total: 309 | 2 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 7.02 95% CI(-9.1304, 23.1704) |
| | Neurological development N Total: 309 | 2 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -1.24 95% Cl(-2.3572, -0.1228) |
| | Neurological development N Total: 309 | 2 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -1.24 95% CI(-2.3572, -0.1228) |
| | Neurological development N Total: 309 | 2 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.13 95% CI(-3.404, -0.856) |
| | Neurological development N Total: 309 | 2 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -2.13 95% Cl(-3.404, -0.856) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|--|
| | Neurological development N Total: 786 | 3 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.09 95% CI(-29.5292, 29.3492) |
| | Neurological development N Total: 786 | 3 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -0.09 95% CI(-29.5292, 29.3492) |
| | Neurological development N Total: 786 | 3 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 3.29 95% CI(-8.4112, 14.9912) |
| | Neurological development N Total: 786 | 3 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 3.29 95% CI(-8.4112, 14.9912) |
| | Neurological development N Total: 786 | 3 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 7.48 95% CI(-10.5128, 25.4728) |
| | Neurological development N Total: 786 | 3 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 7.48 95% CI(-10.5128, 25.4728) |
| | Neurological development N Total: 786 | 3 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 15.28 95% CI(-18.628, 49.188) |
| | Neurological development N Total: 786 | 3 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 15.28 95% CI(-18.628, 49.188) |
| | Neurological development N Total: 786 | 3 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.23 95% CI(-0.818, 0.358) |
| | Neurological development N Total: 786 | 3 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -0.23 95% CI(-0.818, 0.358) |
| | Neurological development N Total: 786 | 3 years | LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.19 95% Cl(-0.7584, 0.3784) |
| | Neurological development N Total: 786 | 3 years | LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -0.19 95% CI(-0.7584, 0.3784) |
| | Neurological development N Total: 786 | 3 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 3.61 95% CI(-4.1712, 11.3912) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|--|
| | Neurological development N Total: 786 | 3 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 3.61 95% Cl(-4.1712, 11.3912) |
| | Neurological development N Total: 786 | 3 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.22 95% Cl(-0.808, 0.368) |
| | Neurological development N Total: 786 | 3 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -0.22 95% Cl(-0.808, 0.368) |
| | Neurological development N Total: 786 | 3 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -0.63 95% Cl(-1.3944, 0.1344) |
| | Neurological development N Total: 786 | 3 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -0.63 95% CI(-1.3944, 0.1344) |
| | Neurological development N Total: 901 | 2 years | AA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 6.29 95% CI(-22.5612, 35.1412) |
| | Neurological development N Total: 901 | 2 years | AA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 6.29 95% CI(-22.5612, 35.1412) |
| | Neurological development N Total: 901 | 2 years | ALA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.77 95% Cl(-14.6476, 9.1076) |
| | Neurological development N Total: 901 | 2 years | ALA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -2.77 95% CI(-14.6476, 9.1076) |
| | Neurological development N Total: 901 | 2 years | DHA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -3.63 95% CI(-21.7208, 14.4608) |
| | Neurological development N Total: 901 | 2 years | DHA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -3.63 95% CI(-21.7208, 14.4608) |
| | Neurological development N Total: 901 | 2 years | EPA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -8.55 95% CI(-42.7716, 25.6716) |
| | Neurological development N Total: 901 | 2 years | EPA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -8.55 95% CI(-42.7716, 25.6716) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P va | alue |
|---------|--|-------------------|--|----------|--|------|
| | Neurological development N Total: 901 | 2 years | LA n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.25 95% CI(-0.338, 0.838) | |
| | Neurological development N Total: 901 | 2 years | LA n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.25 95% CI(-0.338, 0.838) | |
| | Neurological development N Total: 901 | 2 years | LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.23 95% CI(-0.3384, 0.7984) | |
| | Neurological development N Total: 901 | 2 years | LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.23 95% CI(-0.3384, 0.7984) | |
| | Neurological development N Total: 901 | 2 years | n-3 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: -2.23 95% CI(-10.07, 5.61) | |
| | Neurological development N Total: 901 | 2 years | n-3 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: -2.23 95% CI(-10.07, 5.61) | |
| | Neurological development N Total: 901 | 2 years | n-6 LCPUFAs n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.25 95% CI(-0.338, 0.838) | |
| | Neurological development N Total: 901 | 2 years | n-6 LCPUFAs n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.25 95% CI(-0.338, 0.838) | |
| | Neurological development N Total: 901 | 2 years | n-6:n-3 n-3 Measure: FFQ n-3 Units: g/d | | Coefficient Estimate: 0.38 95% CI(-0.404, 1.164) | |
| | Neurological development N Total: 901 | 2 years | n-6:n-3 n-3 Measure: Maternal food frequency questionnaire n-3 Units: g/d | All | Coefficient Estimate: 0.38 95% CI(-0.404, 1.164) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|--|---|--|--|--|
| Bouwstra, et al., 2006 ¹³³ | Study Population: Healthy infants | Inclusion Criteria: All infants were born at 37–42 wk of gestation, had a native West European origin, and were born between | Adjustments: Type of postnatal feeding and potential confounders | |
| Study dates: 1997-1999 | Infants enrolled 317 Infants completers 269 | February 1997 and October 1999. | such as the postnatal age of the infant at GM assessment, paternal smoking, | |
| Study design: NR | Pregnant age: 30 (4.3) | Exclusion Criteria: children with a congenital disorder interfering with adequate functioning in daily life, children from multiple births, | and the total Obstetric Optimality Score | |
| Location: Netherlands | Infant age: 3 months (NR) | children whose mother did not master the Dutch language or had significant illness or disability, and adopted and fostered children | | |
| Funding source / conflict: Industry | Race of Mother: White European (100) | | | |
| Follow-up: 3 months | | | | |
| Original, same study, or follow-up studies: Bouwstra, 2003 ⁶² | | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|------------------------------|--|-------------------|---|----------|---|---------|
| Bouwstra 2003 ¹³³ | General movement (mildly abnormal) N Total: 269 | 3 months | AA n-3 Measure: umbilical artery | All | Standardized coefficients Estimate: 0.81 95% CI(0.68, 0.98) | |
| | General movement (mildly abnormal) N Total: 269 | 3 months | DHA deficiency index n-3 Measure: umbilical artery | All | Standardized coefficients Estimate: 2 95% CI(0.73, 5.2) | |
| | General movement (mildly abnormal) N Total: 269 | 3 months | DHA n-3 Measure: umbilical artery | All | Standardized coefficients Estimate: 0.74 95% CI(0.48, 1.1) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|--|---|
| Brantsaeter, et al., 2012 ⁸¹ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: first participation for women with multiple participation in MoBa and women with singleton births. | Adjustments: Adjusted for maternal age, height, pre-pregnant BMI, parity, |
| Study name: Norwegian Mother and Child Cohort Study | Pregnant enrolled 76218 Pregnant completers 62099 | | pregnancy duration, maternal |
| (MoBa) | Race of Mother: NR | Exclusion Criteria: participants with a pregnancy duration <28 weeks or >42 weeks (n=628), if the birth weight of the baby | education, smoking status, mother tongue other than Norwegian and total |
| Study dates: 2002-2009 | | had not been recorded or if the birth weight was, <600 g (n = 35). We also excluded participants who had not given birth to a | energy intake, and with intakes of seafood/seafood items and |
| Study design: Observational prospective | | live baby (n 153). Lastly, we excluded women having improbable energy intakes, i.e. energy intake , >4.5 MJ or .<20 MJ (n 1063) | supplementary n-3 mutually adjusted |
| Location: Norway | | energy intakes, i.e. energy intake , >4-5 MJ 01.<20 MJ (111063) | |
| Funding source / conflict: Government | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------------|--------------------------------|-------------------|--|---|--|---------|
| Brantsaeter 2012 ⁸¹ | Birth weight N Total: 61387 | | n-3 supplement n-3 Measure: FFQ n-3 Units: g/day | 0 (No) N Quantile: NR N Cases: NR | | |
| | Birth weight N Total: 61387 | | n-3 supplement n-3 Measure: FFQ n-3 Units: g/day | 0.40 - 6.9 N Quantile: NR N Cases: NR | 0.74 95% CI(-7.6, 9.07) | |
| | Birth weight N Total: 61387 | | n-3 supplement n-3 Measure: FFQ n-3 Units: g/day | < 0.39 N Quantile: NR N Cases: NR | -2.03 95% CI(-10.4, 6.29) | |
| | Birth weight N Total: 61387 | | n-3 supplement n-3 Measure: FFQ n-3 Units: g/day | Per g increase N Quantile: NR N Cases: NR | Coefficient Estimate: 0.53 95% CI(-3.25, 4.31) | |

| Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|--|
| Study Population: Healthy pregnant women Postpartum women Pregnant enrolled 997 Pregnant completers 698 Pregnant age: NR (NR) Race of Mother: Asian (100) | Inclusion Criteria: Within range of 18-50 years, recruited from 2 major public maternity units in NUH and KKH. Were Singaporean citizens or permanent resident of Chinese, Malay, Indian ethnicity with parents of homogeneous ethnic background, with the intention to deliver in the two hospitals and residing in Singapore for next 5 years and willing to donate birth tissues including cord, placenta, cord blood at delivery Exclusion Criteria: pre-existing health conditions such as type 1 diabetes, depression, or mental health related disorders self- reported during recruitment | Adjustments: Adjusted for ethnicity, parity, education level, marital status, maternal body mass index at 26-28 week's gestation, maternal age, employment status, obstetric and neonatal complications, smoking status and smoke exposure before and during pregnancy, alcohol consumption before and during pregnancy, history of abortion, miscarriage, stillbirth, exercise |
| | Study Population: Healthy pregnant women Postpartum women Pregnant enrolled 997 Pregnant completers 698 Pregnant age: NR (NR) | Study Population: Healthy pregnant women Postpartum women Inclusion Criteria: Within range of 18-50 years, recruited from 2 major public maternity units in NUH and KKH. Were Singaporean citizens or permanent resident of Chinese, Malay, Indian ethnicity with parents of homogeneous ethnic background, with the intention to deliver in the two hospitals and residing in Singapore for next 5 years and willing to donate birth tissues including cord, placenta, cord blood at delivery Race of Mother: Asian (100) Exclusion Criteria: pre-existing health conditions such as type 1 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|--------------------------|---|-----------------------|---|--------------------------------------|---|
| Chong 2015 ⁹⁵ | Antenatal and Postpartum Depression N Total: 698 | 26- 28 wk | Log plasma AA:DHA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 1.05 95% CI(0.08, 13.44) |
| | Antenatal and Postpartum Depression N Total: 698 | 26- 28 wk | Log plasma AA:DPA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 1.65 95% CI(0.12, 23.39) |
| | Antenatal and Postpartum Depression N Total: 698 | 26- 28 wk | Log plasma AA:EPA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 1.38 95% Cl(0.31, 6.18) |
| | Antenatal and Postpartum Depression N Total: 698 | 26- 28 wk | Log plasma total omega-3 n-3 Measure: Maternal n-3 Units: ug/ml | All N Quantile: na N Cases: na | OR Estimate: 1.4 95% CI(0.29, 6.73) |
| | Antenatal and Postpartum Depression N Total: 698 | 3 month postpartum | Log plasma AA:DHA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 0.74 95% Cl(0.08, 6.69) |
| | Antenatal and Postpartum Depression N Total: 698 | 3 month postpartum | Log plasma AA:DPA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 3.81 95% Cl(0.39, 37.06) |
| | Antenatal and Postpartum Depression N Total: 698 | 3 month postpartum | Log plasma AA:EPA ratio n-3 Measure: Maternal | All N Quantile: na N Cases: na | OR Estimate: 0.54 95% Cl(0.16, 1.85) |
| | Antenatal and Postpartum Depression N Total: 698 | 3 month postpartum | Log plasma total omega-4 n-3 Measure: Maternal n-3 Units: ug/ml | All N Quantile: na N Cases: na | OR Estimate: 1.48 95% CI(0.40, 5055) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|--|
| Clausen, et al., 2001 ⁶⁸ | Study Population: Healthy pregnant women | Inclusion Criteria: Caucasian women seen at Aker University Hospital for prenatal care and who agreed to undergo ultrasound at | Adjustments: Age, smoking (yes or no), BMI (<=20, 20-25, 25-30, >30), |
| Study dates: 12/94-8/96 | Pregnant enrolled 3,771 Pregnant completers 3,133 | their first prenatal visit and who completed a FFQ | systolic blood pressure before 20 weeks' gestation, and nullipara (yes or |
| Study design: Observational prospective | Pregnant age: 29.8 (4.5) | Exclusion Criteria: Pregestational diabetes, abortion, twin or triplet pregnancies, patients who give birth at other hospitals, missing | no) |
| Location: Norway | Race of Mother: White European (100) | records, loss to follow-up | |
| Funding source / conflict: NR | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value | e |
|----------------------------|-------------------------------|-------------------|--|-----------------------------|---|---|
| Clausen 2001 ⁶⁸ | Preeclampsia N Total: 3133 | | n-3 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T1 <=0.9 N Cases: 39 | OR | |
| | Preeclampsia N Total: 3133 | | n-3 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T2 0.9 - 1.6 N Cases: 35 | OR Estimate: 1.4 95% Cl(0.9, 2.3) | |
| | Preeclampsia N Total: 3133 | | n-3 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T3 >1.6 N Cases: 11 | OR Estimate: 1.9 95% Cl(0.9, 3.8) | |
| | Preeclampsia N Total: 3133 | | n-6 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T1 <=3.8 N Cases: 34 | OR | |
| | Preeclampsia N Total: 3133 | | n-6 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T2 3.8 - 5.8 N Cases: 38 | OR Estimate: 1.5 95% Cl(0.9, 2.4) | |
| | Preeclampsia N Total: 3133 | | n-6 fatty acids n-3 Measure: FFQ n-3 Units: Energy % | T3 >5.8 N Cases: 13 | OR Estimate: 2.2 95% CI(1.1, 4.4) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|---|---|
| Dirix, et al., 2009 ⁸⁴ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: gestational age of <16 weeks at study entry, singleton pregnancy, Caucasian race, diastolic blood pressure, 90 | Adjustments: Infant sex, gestational age, maternal height |
| Study name: Maastricht Essential Fatty Acid Birth (MEFAB) Cohort | Pregnant enrolled 1238 Pregnant completers 782 | mmHg and the absence of any metabolic, cardiovascular, neurological or renal disorder at the time of recruitment | -g., |
| | Infants enrolled 1238 Infants completers 782 | 0 | |
| Study dates: 1990-1997 | | Exclusion Criteria: excluded if infants were born preterm | |
| | Pregnant age: 29.0 26.2-31.7 | (gestational age < 37 weeks,), mothers had diabetes or | |
| Study design: Observational prospective | Infant and 10.1 w/ 20.2.11.0 | developed pregnancy-induced hypertension, mothers had | |
| Location: Netherlands | Infant age: 40.1 wk 39.3-41.0 | reported specific health problems in the past (e.g. diabetes mellitus, hypertension and heart, kidney, liver, gall bladder or | |
| Location. Nethenands | Race of Mother: White European (100) | thyroid gland disorders, one or both parents were non- | |
| Funding source / conflict: Government | | Caucasians or values for any of the afore-mentioned | |
| | | exclusion criteria were missing. The mother - infant pairs | |
| | | were also excluded if fatty acid analyses were not reported or | |
| | | values were missing for birth weight, birth length and head circumference | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------|------------------------------|-------------------|--|--------------------------------|---|---------|
| Dirix 2009 ⁸⁴ | Birth weight N Total: 782 | | DHA @ 16 weeks n-3 Measure: Maternal plasma phospholipids n-3 Units: per %, w/w plasma phospholipids increase | N Quantile: 665 N Cases: NR | Coefficient Estimate: 52.1 95% CI(20.4, 83.8) | |
| | Birth weight N Total: 782 | | DHA @ 22 weeks n-3 Measure: Maternal plasma phospholipids n-3 Units: per %, w/w plasma phospholipids increase | N Quantile: 623 N Cases: NR | Coefficient Estimate: 31.18 95% CI(-4.301, 66.67) | |
| | Birth weight N Total: 782 | | DHA @ 32 weeks n-3 Measure: Maternal plasma phospholipids n-3 Units: per %, w/w plasma phospholipids increase | N Quantile: 644 N Cases: NR | Coefficient Estimate: 33.08 95% CI(-5.699, 71.86) | |
| | Birth weight N Total: 782 | | DHA @ delivery n-3 Measure: Maternal plasma phospholipids n-3 Units: per %, w/w plasma phospholipids increase | N Quantile: 608 N Cases: NR | Coefficient Estimate: 3.423 95% CI(-34.95, 41.8) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|---|---|--|--|--|
| Drouillet, et al., 2009 ⁸⁰ | Study Population: Healthy pregnant women | Inclusion Criteria: NR | Adjustments: Centre, mother's age and height, smoking habits, parity, | |
| Study name: EDEN | Pregnant enrolled 2002 Pregnant completers 1446 | Exclusion Criteria: twin pregnancies, known diabetes before pregnancy, not being able to speak and read French, and | gestational age, newborn's sex, delay between birth and anthropometric measures, and BMI | |
| Study dates: February 2003 - September 2003 | Pregnant age: 29.2 (4.8) | planned moving away from the region | | |
| Study design: Observational prospective | Race of Mother: NR | | | |
| Location: NR | | | | |
| Funding source / conflict: Industry, Government, Multiple foundations and Societies | | | | |
| Original, same study, or follow-up studies: Bernard, 2013 ⁸⁹ | | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|------------------------------|-------------------------------|-------------------|--|----------|--|-----------------|
| Drouillet 2009 ⁸⁰ | Birth weight N Total: 1446 | | Increase of 1 SD of the intake consumed per d n-3 Measure: FFQ n-3 Units: n-3 FA (% PUFA intake) | | Coefficient Estimate: 6.4 95% CI(NR) | P value: P=0.54 |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|---|--|---|--|--|
| Guxens, et al., 2011 ¹⁴⁴ | Study Population: Healthy infants Breast-feeding women | Inclusion Criteria: age older than 16 years, intent to deliver at the reference hospital, singleton pregnancy | Adjustments: Child's age, maternal and paternal: education, social class, | |
| Study name: INMA | Pregnant enrolled 657 Pregnant completers 622 | Exclusion Criteria: no problems of communication, no assisted | attachment to child, mental health; maternal age, maternal alcohol use during pregnancy, use of gas stove, child age of food introduction | |
| Study dates: Recruitment: July 2004 to July 2006 Follow-up: 14 months | Lactating enrolled 622 Lactating completers 582 | conception | | |
| Study design: Observational prospective | Infants enrolled 622 Infants completers 582 (319 with LCPUFA data) | | | |
| Location: Spain | Lactating enrolled 622 Lactating completers 582 | | | |
| Funding source / conflict: Government, Multiple foundations and Societies | Lactating age: 31.6 years (4.2 years) | | | |
| | Infant age: 2 to 5 days postpartum | | | |
| Follow-up: 14 months Original, same study, or follow-up studies: Julvez, 2014 ¹⁴³ | Race of Mother: NR (NR) | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-----------------------------|---------------------------------------|-------------------|--|--|--|---------|
| Guxens, 2011 ¹⁴⁴ | Cognitive Development N Total: 504 | 14 months | ALA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | High versus low levels dichotomized at median | Coefficient Estimate: 1.25 95% CI(-1.43, 3.93) | |
| | Cognitive Development N Total: 504 | 14 months | ALA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | Sample divided into only 2 groups - High vs Low levels | Coefficient Estimate: 1.25 95% CI(-1.43, 3.93) | |
| | Cognitive Development N Total: 504 | 14 months | DHA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | High versus low levels dichotomized at median | Coefficient Estimate: 0.58 95% CI(-2.08, 3.23) | |
| | Cognitive Development N Total: 504 | 14 months | DHA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | Sample divided into only 2 groups - High vs Low levels | Coefficient Estimate: 0.58 95% CI(-2.08, 3.23) | |
| | Cognitive Development N Total: 504 | 14 months | DPA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | High versus low levels dichotomized at median | Coefficient Estimate: 1.35 95% CI(-1.39, 4.08) | |
| | Cognitive Development N Total: 504 | 14 months | DPA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | Sample divided into only 2 groups - High vs Low levels | Coefficient Estimate: 1.35 95% CI(-1.39, 4.08) | |
| | Cognitive Development N Total: 504 | 14 months | EPA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | High versus low levels dichotomized at median | Coefficient Estimate: 0.63 95% CI(-2.18, 3.44) | |
| | Cognitive Development N Total: 504 | 14 months | EPA n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | Sample divided into only 2 groups - High vs Low levels | Coefficient Estimate: 0.63 95% CI(-2.18, 3.44) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|---------------------------------------|-------------------|--|--|---|---------|
| | Cognitive Development N Total: 504 | 14 months | Total n-3 n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | High versus low levels dichotomized at median | Coefficient Estimate: 1.76 95% CI(-0.88, 4.4) | |
| | Cognitive Development N Total: 504 | 14 months | Total n-3 n-3 Measure: Biomarker (colostrum) n-3 Units: weight (%) | Sample divided into only 2 groups - High vs Low levels | Coefficient Estimate: 1.76 95% CI(-0.88, 4.4) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|--|
| Jordi Julvez, et al., 2014 ¹⁴³ | Study Population: Breast-feeding women | Inclusion Criteria: age older than 16 years, intent to deliver at the reference hospital, singleton pregnancy | Adjustments: Test conditions, child age & sex, parental age, parity, |
| Study name: INMA | Pregnant enrolled 657 Pregnant completers 622 | Exclusion Criteria: no problems with communication, no assisted | alcohol consumption and smoking during pregnancy, day care |
| Study dates: Enrollment conducted July 2004 to July 2006 Follow-up: 4 years | Lactating enrolled 622 Lactating completers 582 | conception | attendance, country of birth, maternal education, social class, mental health, attachment to child, and perceptive |
| | Infants enrolled 622 Infants completers 434 | | |
| Study design: Observational prospective | Lactating enrolled 622 Lactating completers 582 | | performance IQ at 14 months, maternal psych symptoms, verbal IQ |
| Location: Spain | Lactating age: 31.6 years (4.2 years) | | at 4 years, pollutant exposure during pregnancy. |
| Funding source / conflict: Government, Multiple foundations and Societies | Infant age: 2 to 5 days after birth | | |
| Follow-up: 4 years | Race of Mother: NR (NR) | | |
| Original, same study, or follow-up studies: Guxens, 2011 ¹⁴⁴ | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-----------------------------|--|-------------------|--|-------------------------|---|---------|
| Julvez, 2013 ¹⁴³ | Neuropsychological development N Total: 434 | 4 years | Total n-3 fatty acids n-3 Measure: Biomarker (colostrum) n-3 Units: NR | Tertile 2 vs. Tertile 1 | Coefficient Estimate: 0.5 95% CI(-2.9, 3.9) | |
| | Neuropsychological development N Total: 434 | 4 years | Total n-3 fatty acids n-3 Measure: Biomarker (colostrum) n-3 Units: NR | Tertile 2 vs. Tertile 2 | Coefficient Estimate: 1.8 95% CI(-1.7, 5.4) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|--|
| Keim, et al., 2012 ¹⁶² Study name: Pregnancy, Infection and Nutrition Study Study dates: Recruitment between January 2001 and June 2005 Follow-up: 1 year Study design: Observational prospective Location: US Funding source / conflict: Government | Study Population: Healthy infants Breast-feeding women Pregnant enrolled 1,169 Pregnant completers 689 Infants enrolled 408 Infants completers 358 Pregnant age: NR Infant age: 20 weeks gestation NA Race of Mother: White European (79.1%) Other race/ethnicity (21.0) | Inclusion Criteria: health women at less than 20 weeks of pregnancy Exclusion Criteria: pregnant with multiple fetuses, unable to communicate in English, under age 16 years, no access to a telephone, intention to go elsewhere for future care or delivery | Adjustments: Laboratory, infant sex, race, parity, maternal smoking, education, breastfeeding status and preterm status |
| Follow-up: 12 months | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|--|-------------------|--|----------|--|---------|
| Keim, 2012 ¹⁶² | Mullen Scales of Early Learning - composite score N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0.9 95% CI(-1.5, 3.4) | |
| | Mullen Scales of Early Learning - composite score N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: -0.5 95% CI(-2.7, 1.7) | |
| | Mullen Scales of Early Learning - expressive language scale N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0.7 95% CI(-0.9, 2.3) | |
| | Mullen Scales of Early Learning - expressive language scale N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: -0.6 95% CI(-2.1, 0.8) | |
| | Mullen Scales of Early Learning - fine motor scale N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0 95% CI(-2, 2) | |
| | Mullen Scales of Early Learning - fine motor scale N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0.2 95% CI(-1.7, 2) | |
| | Mullen Scales of Early Learning - gross motor scale N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 1.2 95% CI(-1.1, 3.4) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|---|-------------------|--|----------|--|---------|
| | Mullen Scales of Early Learning - gross motor scale N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 1.1 95% CI(-0.9, 3.1) | |
| | Mullen Scales of Early Learning - receptive language scale N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0.3 95% CI(-1.2, 1.7) | |
| | Mullen Scales of Early Learning - receptive language scale N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: -0.1 95% CI(-1.4, 1.2) | |
| | Mullen Scales of Early Learning - visual reception scale N Total: 266 | 12 months | AA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: 0.7 95% CI(-1.3, 2.8) | |
| | Mullen Scales of Early Learning - visual reception scale N Total: 266 | 12 months | DHA n-3 Measure: breast milk and formula n-3 Units: a change in fatty acid concentration of 1.0%. | | Coefficient Estimate: -0.1 95% CI(-2, 1.8) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|---|
| Klebanoff, et al., 2011 ⁴⁹ | Study Population: Healthy pregnant women | Inclusion Criteria: at least one prior singleton preterm delivery between 20 0/7 and 36 6/7 weeks of gestation after spontaneous | Adjustments: Study center, number of previous preterm births, gestation of |
| Study dates: Jan 2005- Oct 2006 | Pregnant enrolled 852 Pregnant completers 852 | preterm labor or premature rupture of the membranes, and a current singleton pregnancy between 16 and 21 6/7 weeks of | earliest prior spontaneous preterm birth, receipt of omega-3 versus |
| Study design: Observational prospective | Pregnant age: <1/month, 27.1 (5.6) 0.5-3 per week, 28.0 (5.6) >3 per week, 27.3 (5.7) (<1/month, 27.1 (5.6) 0.5-3 per week, | gestation | placebo supplement, smoking, age, education, body mass index and |
| Location: US | 28.0 (5.6) >3 per week, 27.3 (5.7)) | Exclusion Criteria: evidence of a major fetal anomaly, intake of a fish oil supplement in excess of 500 mg per week at any time | ethnicity |
| Funding source / conflict: Government | Race of Mother: NR | during the preceding month, allergy to fish, anticoagulation therapy, hypertension, White's classification D or higher diabetes, drug or | |
| Original, same study, or follow-up studies: Harper, 2010 ²⁹ | | alcohol abuse, seizure disorder, uncontrolled thyroid disease, clotting disorder, current or planned cerclage, or a plan to deliver either elsewhere or before 37 weeks of gestation | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|------------------------------|-------------------------------|-------------------|---|----------------------------------|--|---------|
| Klebanoff 2011 ⁴⁹ | Preterm birth N Total: 852 | | Erythrocyte DHA + EPA n-3 Measure: Maternal red blood cells n-3 Units: % of total fatty acids | Q1 <3.052 - N Cases: 176 | OR | |
| | Preterm birth N Total: 852 | | Erythrocyte DHA + EPA n-3 Measure: Maternal red blood cells n-3 Units: % of total fatty acids | Q2 3.052 - 3.719 N Cases: 175 | OR Estimate: 0.59 95% CI(0.37, 0.94) | |
| | Preterm birth N Total: 852 | | Erythrocyte DHA + EPA n-3 Measure: Maternal red blood cells n-3 Units: % of total fatty acids | Q3 3.723 - 4.426 N Cases: 175 | OR Estimate: 0.84 95% CI(0.53, 1.32) | |
| | Preterm birth N Total: 852 | | Erythrocyte DHA + EPA n-3 Measure: Maternal red blood cells n-3 Units: % of total fatty acids | Q4 >4.426 N Cases: 175 | OR Estimate: 0.71 95% CI(0.45, 1.15) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|--|
| Leung, et al., 2013 ⁹⁴ | Study Population: Healthy pregnant women | Inclusion Criteria: at least 16 years old with gestational age =27 weeks. Women must be in the first (T1) or second (T2) trimester | Adjustments: Born in Canada, prenatal and postnatal social support, prenatal |
| Study name: Alberta Pregnancy Outcomes and Nutrition | Pregnant enrolled 600 Pregnant withdrawals 125 Pregnant | | EPDS, selenium |
| (APrON) study | completers 475 | Exclusion Criteria: Any woman who was 28 weeks or beyond, Non- English speakers, known drug and alcohol abusers, and those | |
| Study dates: %n Study design: Observational prospective | Pregnant age: 31.2 not depressed 31.6 depressed (4.16 not depressed 4.7 depressed) not reported | planning to move out of the region within 6 months | |
| Location: Canada | Race of Mother: White European (87%) Other race/ethnicity (13%) | | |
| Funding source / conflict: NR | () | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------|----------------------|-------------------|--|-------------|--------------------------------------|---------|
| Leung 2013 ⁹⁴ | PPD N Total: 475 | | Biomarkers | N Cases: 59 | OR Estimate: 1 95% CI(0.99, 1) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|---|--|
| Lim, et al., 2015 ⁷¹ | Study Population: Healthy pregnant women | Inclusion Criteria: Healthy women in early pregnancy at one of 3 tertiary care hospitals in Singapore | Adjustments: Adjusted for age, ethnicity, education, exercise, alcohol |
| Study dates: 2009-2012 | Pregnant enrolled 1162 Pregnant completers 751 | | intake, smoking status, BMI, and |
| Study design: Observational prospective | Infants completers | Exclusion Criteria: receiving chemotherapy, taking psychotropic drugs, or having type 1 diabetes | height at the 26th to the 28th week of gestation, gestational diabetes, and heart rate, fish oil supplementation |
| Location: NR | Pregnant age: 1st tertile 29.9 2nd tertile 30.0 3rd tertile 31.7 _ (1st tertile 5. 2 2nd tertile 5.2, 3rd tertile 4.8) | | |
| Funding source / conflict: Industry, Government | Race of Mother: Asian (100) | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|------------------------|--|-------------------|---|--------------------------------------|--|
| Lim 2015 ⁷¹ | Gestational hypertension N Total: 751 | 26-28 weeks | AA n-3 Measure: Biomarker (maternal plasma) n-3 Units: 1% increase in % total FA | All N Quantile: NR N Cases: 28 | OR Estimate: 1.07 95% CI(0.95, 1.22) |
| | Gestational hypertension N Total: 751 | 26-28 weeks | Total n-3 PUFAs n-3 Measure: Biomarker (maternal plasma) n-3 Units: 1% increase in % total FA | All N Quantile: NR N Cases: 28 | OR Estimate: 0.76 95% CI(0.60, 0.97) |
| | Gestational hypertension N Total: 751 | 26-28 weeks | n-3 LCPUFA n-3 Measure: Biomarker (maternal plasma) n-3 Units: 1% increase in % total FA | All N Quantile: NR N Cases: 28 | OR Estimate: 0.77 95% CI(0.60, 0.98) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|--|
| Lumia, et al., 2011 ¹⁸⁸ | Study Population: NR | Inclusion Criteria: infants at three university hospitals in Finland (Turku, Tampere and Oulu) whose cord blood was screened for | Adjustments: Maternal age, mode of delivery, duration of gestation, number |
| Study name: Finnish Type 1 Diabetes Prediction and Prevention Nutrition Study | Infants enrolled 2908 Infants completers 2679 | HLA-conferred genetic susceptibility to type 1 diabetes (HLA- DQB1) and were found to have high or moderate genetic risk of | of earlier deliveries, birth weight, sex of the child, area of birth, maternal |
| Study dates: 1997-2004 | Pregnant age: 14.8% <25 years at birth 35.4% 25-29 years 30.4% 30-34 years 19.5% =35 years | type 1 diabetes | smoking during pregnancy, parental asthma or allergic rhinitis, maternal |
| Study design: NR | Race of Mother: White European (100%) | Exclusion Criteria: Severe congenital malformations or diseases, parents of non-Caucasian origin or parents who did not have a working knowledge of Finnish, Swedish or English | vocational education, pets at home, farming, contact with cow stable during the first year of life and the |
| Location: Finland | | | duration of total breastfeeding |
| Funding source / conflict: Industry, Government, Multiple foundations and Societies, None | | | |

Follow-up: 5 years

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|-------------------------|-------------------|--|---|--|----------------|
| umia 2011 ¹⁸⁸ - | Asthma N Total: 2679 | 5 years | AA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <0.06 N Quantile: NR N Cases: NR | RR Estimate: 0.52 95% CI(0.32, 0.84) | P value: 0.025 |
| | Asthma N Total: 2679 | 5 years | AA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 0.06- 0.11 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | AA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >0.11- N Quantile: NR N Cases: NR | RR Estimate: 0.77 95% CI(0.51, 1.17) | |
| | Asthma N Total: 2679 | 5 years | ALA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <1.83 N Quantile: NR N Cases: NR | RR Estimate: 1.7 95% Cl(1.14, 2.53) | P value: 0.022 |
| | Asthma N Total: 2679 | 5 years | ALA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 1.83- 3.18 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | ALA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >3.18- N Quantile: NR N Cases: NR | RR Estimate: 1.06 95% CI(0.68, 1.65) | |
| | Asthma N Total: 2679 | 5 years | DHA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <0.10 N Quantile: NR N Cases: NR | RR Estimate: 0.8 95% CI(0.52, 1.23) | P value: 0.467 |
| | Asthma N Total: 2679 | 5 years | DHA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 0.1- 0.32 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | DHA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >0.32- N Quantile: NR N Cases: NR | RR Estimate: 0.83 95% CI(0.53, 1.29) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|-------------------------|-------------------|--|---|--|----------------|
| | Asthma N Total: 2679 | 5 years | EPA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <0.04 N Quantile: NR N Cases: NR | RR Estimate: 1.09 95% CI(0.72, 1.65) | P value: 0.604 |
| | Asthma N Total: 2679 | 5 years | EPA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 0.04- 1.13 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | EPA n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >1.13- N Quantile: NR N Cases: NR | RR Estimate: 0.84 95% Cl(0.54, 1.31) | |
| | Asthma N Total: 2679 | 5 years | n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <2.24 N Quantile: NR N Cases: NR | RR Estimate: 1.66 95% CI(1.11, 2.48) | P value: 0.036 |
| | Asthma N Total: 2679 | 5 years | n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 2.24- 3.84 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >3.84- N Quantile: NR N Cases: NR | RR Estimate: 1.09 95% CI(0.7, 1.7) | |
| | Asthma N Total: 2679 | 5 years | n-6/n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q1 - <3.07 N Quantile: NR N Cases: NR | RR Estimate: 0.95 95% CI(0.62, 1.46) | P value: 0.835 |
| | Asthma N Total: 2679 | 5 years | n-6/n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q2,Q3 3.07- 3.82 N Quantile: NR N Cases: NR | RR | |
| | Asthma N Total: 2679 | 5 years | n-6/n-3 PUFAs n-3 Measure: Maternal FFQ n-3 Units: g/d | Q4 >3.82- N Quantile: NR N Cases: NR | RR Estimate: 1.1 95% CI(0.72, 1.68) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|--|
| Lyall, et al., 2013 ¹⁷¹ | Study Population: Healthy pregnant women | Inclusion Criteria: female nurses who were 25–42 years of age in 1989, with index births between 1991 (the year of first collection of | Adjustments: Adjusted for total energy intake, maternal age, child's year of |
| Study name: Nurses Health Study | Pregnant enrolled 18,045 Pregnant completers 5,884 | dietary information) and 2007; women reported a child with ASD either in 2005 or 2009 not both, if 1) the reason for non-reporting on | birth, income level, race, body mass index, and pre-pregnancy smoking |
| Study dates: Births 1991 to 2007 | Pregnant age: Q1 34.7y Q4 33.7 y NR | the other questionnaire was on participation in that questionnaire year; 2) the nurse confirmed the diagnosis in a previous substudy; | status. Removal of adjustment for smoking did not affect results. |
| Study design: NR | Infant age: birth | or 3) for women reporting on the 2009 questionnaire only, the child was born after 2000 (in which case, the child might have been too | Additional adjustment for child birth order, maternal physical activity level, |
| Location: US | Race of Mother: White European (Q1: 96%; Q4: 98%) Other race/ethnicity (Q1 4%; Q4 2%) | young for report of diagnosis by the 2005 questionnaire mailing) | spouse's education level, or multivitamin use, or for trans-fat in |
| Funding source / conflict: Government | | Exclusion Criteria: Women reporting competing diagnoses (fragile X syndrome, Rett Syndrome, tuberous sclerosis, Down syndrome, trisomy 18; in a previous sub-study were not included women without food frequency questionnaire data or without autism diagnosis info on child | PUFA model, did not materially alter estimates |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|---|-------------------|--|----------|--|------------------|
| Lyall, 2013 ¹⁷¹ | Autism Spectrum Disorders N Total: 17728 | | Total LCPUFA n-3 Measure: FFQ | Q1 7.8 | RR | P value: P<0.008 |
| | Autism Spectrum Disorders N Total: 17728 | | Total LCPUFA n-3 Measure: FFQ | Q2 9.5 | RR Estimate: 0.97 95% CI(0.73, 1.3) | |
| | Autism Spectrum Disorders N Total: 17728 | | Total LCPUFA n-3 Measure: FFQ | Q3 11 | RR Estimate: 0.82 95% CI(0.82, 1.11) | |
| | Autism Spectrum Disorders N Total: 17728 | | Total LCPUFA n-3 Measure: FFQ | Q4 13.4 | RR Estimate: 0.67 95% CI(0.49, 0.92) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|--|
| Miyake, et al., 2009 ¹⁸² | Study Population: Healthy infants | Inclusion Criteria: pregnant women living in Neyagawa City, Osaka Prefecture or the surrounding cities | Adjustments: Maternal age, gestation at baseline, residential municipality, |
| Study name: Osaka maternal and child health study | Pregnant enrolled 1,002 Pregnant completers 763 | Exclusion Criteria: Not reported | family income, maternal and paternal education, maternal and paternal |
| Study dates: 2002-2003 | Infants enrolled 1,002 Infants completers 763 | | history of asthma, atopic eczema and allergic rhinitis, maternal intake of |
| Study design: Observational prospective | Pregnant age: 30.0 (4.0) | | vitamins D and E during pregnancy, changes in maternal diet in the |
| Location: Japan | Race of Mother: NR (100) | | previous 1 month, season when data at baseline were collected, maternal |
| Funding source / conflict: Government, None | | | older siblings, baby's sex, baby's birth weight, household smoking in the same room as the infant, breastfeeding duration and time of delivery before the third survey |

| Article | Outcome, Coh | hort size Follow up | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|------------------------|---------------------|---|--|--|---------------|
| Miyake 2009 ¹⁸² | Eczema N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.3 N Quantile: NR N Cases: 35 | OR | P value: 0.06 |
| | Eczema N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 1.6 N Quantile: NR N Cases: 33 | OR Estimate: 1.28 95% CI(0.71, 2.29) | |
| | Eczema N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 1.9 N Quantile: NR N Cases: 35 | OR Estimate: 1.69 95% CI(0.91, 3.13) | |
| Eczema N Total: 763 | | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.3 N Quantile: NR N Cases: 39 | OR Estimate: 1.79 95% CI(0.93, 3.5) | |
| | Eczema N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.15 N Quantile: NR N Cases: 40 | OR | P value: 0.57 |
| N Ec N Ec | Eczema N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.24 N Quantile: NR N Cases: 40 | OR Estimate: 1.5 95% CI(0.76, 3.02) | |
| | Eczema N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.32 N Quantile: NR N Cases: 32 | OR Estimate: 1.11 95% CI(0.49, 2.54) | |
| | Eczema N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.46 N Quantile: NR N Cases: 30 | OR Estimate: 0.86 95% CI(0.33, 2.28) | |
| | Eczema N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.08 N Quantile: NR N Cases: 39 | OR | P value: 0.95 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------|-------------------|--|--|--|---------------|
| | Eczema N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.13 N Quantile: NR N Cases: 36 | OR Estimate: 0.99 95% CI(0.51, 1.89) | |
| | Eczema N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.18 N Quantile: NR N Cases: 33 | OR Estimate: 1.12 95% CI(0.52, 2.45) | |
| | Eczema N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.28 N Quantile: NR N Cases: 34 | OR Estimate: 0.98 95% CI(0.39, 2.5) | |
| | Eczema N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.7 N Quantile: NR N Cases: 35 | OR | P value: 0.2 |
| | Eczema N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 2.2 N Quantile: NR N Cases: 38 | OR Estimate: 1.72 95% CI(0.95, 3.13) | |
| | Eczema N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 2.5 N Quantile: NR N Cases: 33 | OR Estimate: 1.63 95% CI(0.83, 3.22) | |
| | Eczema N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 3 N Quantile: NR N Cases: 36 | OR Estimate: 1.74 95% CI(0.82, 3.73) | |
| | Eczema N Total: 763 | 16-24 months | n-3/n-6 n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.17 N Quantile: NR N Cases: 31 | OR | P value: 0.18 |
| | Eczema N Total: 763 | 16-24 months | n-3/n-7 n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.19 N Quantile: NR N Cases: 33 | OR Estimate: 1.24 95% CI(0.68, 2.28) | |
| | Eczema N Total: 763 | 16-24 months | n-3/n-8 n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.21 N Quantile: NR N Cases: 46 | OR Estimate: 2.13 95% CI(1.17, 3.96) | |
| | Eczema N Total: 763 | 16-24 months | n-3/n-9 n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.24 N Quantile: NR N Cases: 32 | OR Estimate: 1.32 95% CI(0.65, 2.71) | |
| | Wheeze N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.3 N Quantile: NR N Cases: 53 | OR | P value: 0.08 |
| | Wheeze N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 1.6 N Quantile: NR N Cases: 38 | OR Estimate: 0.63 95% CI(0.37, 1.07) | |
| | Wheeze N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 1.9 N Quantile: NR N Cases: 45 | OR Estimate: 0.78 95% CI(0.45, 1.35) | |
| | Wheeze N Total: 763 | 16-24 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.3 N Quantile: NR N Cases: 33 | OR | |
| | Wheeze N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.15 N Quantile: NR N Cases: 55 | OR | P value: 0.14 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------|-------------------|--|--|--|---------------|
| | Wheeze N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.24 N Quantile: NR N Cases: 29 | OR Estimate: 0.41 95% CI(0.2, 0.81) | |
| | Wheeze N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.32 N Quantile: NR N Cases: 50 | OR Estimate: 0.72 95% CI(0.33, 1.57) | |
| | Wheeze N Total: 763 | 16-24 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.46 N Quantile: NR N Cases: 35 | OR | |
| | Wheeze N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.08 N Quantile: NR N Cases: 48 | OR | P value: 0.58 |
| | Wheeze N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.13 N Quantile: NR N Cases: 39 | OR Estimate: 0.77 95% CI(0.42, 1.41) | |
| | Wheeze N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.18 N Quantile: NR N Cases: 38 | OR Estimate: 0.76 95% CI(0.37, 1.58) | |
| | Wheeze N Total: 763 | 16-24 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.28 N Quantile: NR N Cases: 44 | OR Estimate: 0.76 95% CI(0.33, 1.8) | |
| | Wheeze N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.7 N Quantile: NR N Cases: 53 | OR | P value: 0.13 |
| | Wheeze N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 2.2 N Quantile: NR N Cases: 38 | OR Estimate: 0.57 95% CI(0.33, 0.99) | |
| | Wheeze N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 2.5 N Quantile: NR N Cases: 42 | OR Estimate: 0.66 95% CI(0.36, 1.22) | |
| | Wheeze N Total: 763 | 16-24 months | n-3 PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 3 N Quantile: NR N Cases: 36 | OR Estimate: 0.53 95% CI(0.26, 1.08) | |
| | Wheeze N Total: 763 | 16-24 months | n-3/n-6 n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.17 N Quantile: NR N Cases: 46 | OR | P value: 0.38 |
| | Wheeze N Total: 763 | 16-24 months | n-3/n-7 n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.19 N Quantile: NR N Cases: 44 | OR Estimate: 0.88 95% CI(0.52, 1.51) | |
| | Wheeze N Total: 763 | 16-24 months | n-3/n-8 n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.21 N Quantile: NR N Cases: 37 | OR Estimate: 0.69 95% CI(0.39, 1.23) | |
| | Wheeze N Total: 763 | 16-24 months | n-3/n-9 n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.24 N Quantile: NR N Cases: 42 | OR Estimate: 0.81 95% CI(0.42, 1.55) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|---|--|
| Miyake, et al., 2013 ¹⁸³ | Study Population: Healthy infants | Inclusion Criteria: Women living in one of 7 prefectures on Kyushu Island who became pregnant from 2007-2008 | Adjustments: Maternal age, gestation at baseline, residential municipality, |
| Study name: Kyushu Okinawa Maternal and Child Health Study | Pregnant enrolled 1757 Pregnant completers 1354 | Exclusion Criteria: Failure to complete the study surveys | family income, maternal and paternal education, maternal and paternal |
| Study dates: 2007-2010 | Infants enrolled 1757 Infants completers 1354 | | history of asthma, atopic eczema and allergic rhinitis, maternal intake of |
| | Pregnant age: 31.5 (4.1) | | vitamins D and E during pregnancy, |
| Study design: Observational prospective | Race of Mother: NR (100) | | changes in maternal diet in the previous 1 month, season when data |
| Location: Japan | | | at baseline were collected, maternal smoking during pregnancy, baby's |
| Funding source / conflict: Industry, Government, Multiple foundations and Societies | | | older siblings, baby's sex, baby's birth weight, household smoking in the same room as the infant, |
| Follow-up: 23-29 months | | | breastfeeding duration and time of delivery before the third survey |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|----------------------------|------------------------|-------------------|---|--|--|
| Miyake 2013 ¹⁸³ | Eczema N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.09 N Quantile: NR N Cases: 56 | OR |
| | Eczema N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.12 N Quantile: NR N Cases: 61 | OR Estimate: 1.08 95% CI(0.72, 1.63) |
| | Eczema N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.14 N Quantile: NR N Cases: 61 | OR Estimate: 1.07 95% CI(0.71, 1.6) |
| | Eczema N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.18 N Quantile: NR N Cases: 51 | OR Estimate: 0.87 95% Cl(0.57, 1.33) |
| | Eczema N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.2 N Quantile: NR N Cases: 61 | OR |
| | Eczema N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 1.5 N Quantile: NR N Cases: 52 | OR Estimate: 0.82 95% CI(0.54, 1.24) |
| | Eczema N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 1.8 N Quantile: NR N Cases: 61 | OR Estimate: 0.97 95% CI(0.65, 1.45) |
| | Eczema N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.2 N Quantile: NR N Cases: 55 | OR Estimate: 0.86 95% Cl(0.57, 1.29) |
| | Eczema N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.15 N Quantile: NR N Cases: 45 | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|--|--|--|
| | Eczema N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.23 N Quantile: NR N Cases: 64 | OR Estimate: 1.51 95% CI(0.99, 2.32) |
| | Eczema N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.3 N Quantile: NR N Cases: 58 | OR Estimate: 1.35 95% CI(0.88, 2.08) |
| | Eczema N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.45 N Quantile: NR N Cases: 62 | OR Estimate: 1.45 95% Cl(0.95, 2.24) |
| | Eczema N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.22 N Quantile: NR N Cases: 48 | OR |
| | Eczema N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.35 N Quantile: NR N Cases: 62 | OR Estimate: 1.35 95% CI(0.89, 2.06) |
| | Eczema N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.47 N Quantile: NR N Cases: 55 | OR Estimate: 1.18 95% CI(0.77, 1.82) |
| | Eczema N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.73 N Quantile: NR N Cases: 64 | OR Estimate: 1.42 95% CI(0.93, 2.17) |
| | Eczema N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.07 N Quantile: NR N Cases: 54 | OR |
| | Eczema N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.13 N Quantile: NR N Cases: 56 | OR Estimate: 1.03 95% Cl(0.68, 1.57) |
| | Eczema N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.17 N Quantile: NR N Cases: 55 | OR |
| | Eczema N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.28 N Quantile: NR N Cases: 64 | OR Estimate: 1.21 95% CI(0.8, 1.83) |
| | Eczema N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.6 N Quantile: NR N Cases: 56 | OR |
| | Eczema N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 2.1 N Quantile: NR N Cases: 53 | OR Estimate: 0.93 95% CI(0.61, 1.41) |
| | Eczema N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 2.4 N Quantile: NR N Cases: 68 | OR Estimate: 1.21 95% CI(0.81, 1.81) |
| | Eczema N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.9 N Quantile: NR N Cases: 52 | OR Estimate: 0.89 95% CI(0.58, 1.35) |
| | Eczema N Total: 763 | 23-29 months | n-3:n-6 n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.17 N Quantile: NR N Cases: 50 | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------|-------------------|---|---|--|---------|
| | Eczema N Total: 763 | 23-29 months | n-3:n-7 n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.19 N Quantile: NR N Cases: 59 | OR Estimate: 1.21 95% CI(0.8, 1.85) | |
| | Eczema N Total: 763 | 23-29 months | n-3:n-8 n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.21 N Quantile: NR N Cases: 57 | OR Estimate: 1.14 95% CI(0.75, 1.76) | |
| | Eczema N Total: 763 | 23-29 months | n-3:n-9 n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.25 N Quantile: NR N Cases: 63 | OR Estimate: 1.28 95% CI(0.84, 1.95) | |
| | Wheeze N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.09 N Quantile: NR N Cases: 91 | OR | |
| | Wheeze N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.12 N Quantile: NR N Cases: 99 | OR Estimate: 1.12 95% CI(0.79, 1.59) | |
| | Wheeze N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.14 N Quantile: NR N Cases: 92 | OR Estimate: 1.04 95% CI(0.74, 1.48) | |
| | Wheeze N Total: 763 | 23-29 months | AA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.18 N Quantile: NR N Cases: 91 | OR Estimate: 0.95 95% CI(0.66, 1.34) | |
| | Wheeze N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.2 N Quantile: NR N Cases: 91 | OR | |
| | Wheeze N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 1.5 N Quantile: NR N Cases: 92 | OR Estimate: 1.02 95% CI(0.72, 1.44) | |
| | Wheeze N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 1.8 N Quantile: NR N Cases: 97 | OR Estimate: 1.06 95% CI(0.75, 1.5) | |
| | Wheeze N Total: 763 | 23-29 months | ALA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.2 N Quantile: NR N Cases: 93 | OR Estimate: 0.96 95% CI(0.68, 1.36) | |
| | Wheeze N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.15 N Quantile: NR N Cases: 98 | OR | |
| | Wheeze N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.23 N Quantile: NR N Cases: 107 | OR Estimate: 1.14 95% CI(0.81, 1.6) | |
| | Wheeze N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.3 N Quantile: NR N Cases: 86 | OR Estimate: 0.82 95% CI(0.58, 1.17) | |
| | Wheeze N Total: 763 | 23-29 months | DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.45 N Quantile: NR N Cases: 82 | OR Estimate: 0.77 95% CI(0.54, 1.1) | |
| | Wheeze N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.22 N Quantile: NR N Cases: 100 | OR | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|------------------------|-------------------|--|---|--|
| | Wheeze N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.35 N Quantile: NR N Cases: 103 | OR Estimate: 1.07 95% CI(0.76, 1.51) |
| | Wheeze N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.47 N Quantile: NR N Cases: 93 | OR Estimate: 0.87 95% CI(0.62, 1.25) |
| | Wheeze N Total: 763 | 23-29 months | EPA+DHA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.73 N Quantile: NR N Cases: 77 | OR Estimate: 0.7 95% CI(0.49, 1.003) |
| | Wheeze N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.07 N Quantile: NR N Cases: 100 | OR |
| | Wheeze N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.13 N Quantile: NR N Cases: 109 | OR Estimate: 1.19 95% CI(0.84, 1.67) |
| | Wheeze N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.17 N Quantile: NR N Cases: 86 | OR Estimate: 0.79 95% CI(0.55, 1.13) |
| | Wheeze N Total: 763 | 23-29 months | EPA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.28 N Quantile: NR N Cases: 78 | OR Estimate: 0.73 95% CI(0.5, 1.04) |
| | Wheeze N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q1 1.6 N Quantile: NR N Cases: 95 | OR |
| | Wheeze N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q2 2.1 N Quantile: NR N Cases: 99 | OR Estimate: 1.05 95% CI(0.75, 1.49) |
| | Wheeze N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q3 2.4 N Quantile: NR N Cases: 96 | OR Estimate: 0.97 95% CI(0.69, 1.38) |
| | Wheeze N Total: 763 | 23-29 months | n-3-PUFA n-3 Measure: FFQ n-3 Units: median, g/d | Q4 2.9 N Quantile: NR N Cases: 83 | OR Estimate: 0.79 95% CI(0.55, 1.12) |
| | Wheeze N Total: 763 | 23-29 months | n-3:n-6 n-3 Measure: FFQ n-3 Units: median, g/d | Q1 0.17 N Quantile: NR N Cases: 90 | OR |
| | Wheeze N Total: 763 | 23-29 months | n-3:n-7 n-3 Measure: FFQ n-3 Units: median, g/d | Q2 0.19 N Quantile: NR N Cases: 104 | OR Estimate: 1.24 95% CI(0.88, 1.75) |
| | Wheeze N Total: 763 | 23-29 months | n-3:n-8 n-3 Measure: FFQ n-3 Units: median, g/d | Q3 0.21 N Quantile: NR N Cases: 97 | OR Estimate: 1.08 95% CI(0.76, 1.54) |
| | Wheeze N Total: 763 | 23-29 months | n-3:n-9 n-3 Measure: FFQ n-3 Units: median, g/d | Q4 0.25 N Quantile: NR N Cases: 82 | OR Estimate: 0.85 95% CI(0.59, 1.22) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|--|--|---|--|--|
| Mohanty, et al., 2015 ⁸⁵ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: initiated prenatal care at or before 20 weeks gestation, were aged = 18 years, able to speak and read English, | Adjustments: Adjusted for maternal age (years), non-Hispanic white race, | |
| Study dates: 1996-2008 | Pregnant completers 534 | planned to carry the pregnancy to term, and to deliver at either of the two hospitals | post high-school education, unmarried marital status, pre-pregnancy body | |
| Study design: Observational prospective | Race of Mother: White European (88) | Exclusion Criteria: multi-fetal pregnancies, implausible total energy | mass index (indicator variables: 18.5- 24.9, 25-29.9, =30 kg/m2), total | |
| Location: US | | intake of <500 or >3500 kcal/day, pregnancies complicated by fetal | energy (kcal/day), current recreational | |
| Funding source / conflict: Government | | demise (after 20 weeks of gestation), missing labor and delivery information, missing information on fetal growth indices, missing seafood intake information | physical activity, current smoking, current alcohol intake, nulliparity, intake of red/processed meats (servings/day), male infant sex. | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|------------------------------------|-------------------|--|---------------------------------|---|---------|
| Mohanty 2015 ⁸⁵ | Birth weight N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q1 2.28-4.49 N Quantile: 133 | Mean difference | |
| | Birth weight N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q2 4.49-5.25 N Quantile: 134 | Mean difference Estimate: -59 95% CI(-207.5, 89.6) | |
| | Birth weight N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q3 5.26-6.07 N Quantile: 133 | Mean difference Estimate: 49.6 95% CI(-100.9, 200.1) | |
| | Birth weight N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q4 6.07-9.55 N Quantile: 134 | Mean difference Estimate: -39.4 95% CI(-194.5, 115.7) | |
| | Head circumference N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q1 2.28-4.49 N Quantile: 133 | Mean difference | |
| | Head circumference N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q2 4.49-5.25 N Quantile: 134 | Mean difference Estimate: 0.3 95% CI(-0.3, 0.9) | |
| | Head circumference N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q3 5.26-6.07 N Quantile: 133 | Mean difference Estimate: 0.5 95% CI(-0.1, 1.1) | |
| | Head circumference N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q4 6.07-9.55 N Quantile: 134 | Mean difference Estimate: 0.2 95% CI(-0.4, 0.9) | |
| | Length N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q1 2.28-4.49 N Quantile: 133 | Mean difference | |
| | Length N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q2 4.49-5.25 N Quantile: 134 | Mean difference Estimate: -0.1 95% CI(-0.9, 0.6) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI | P value |
|---------|------------------------|-------------------|--|---------------------------------|--|---------|
| | Length N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q3 5.26-6.07 N Quantile: 133 | Mean difference Estimate: -0.1 95% CI(-0.9, 0.6) | |
| | Length N Total: 534 | | Erythrocyte DHA + EPA n-3 Measure: Maternal n-3 Units: % total fatty acids | Q4 6.07-9.55 N Quantile: 134 | Mean difference Estimate: 0 95% CI(-0.9, 0.8) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|---|
| Molto-Puigmarti, et al., 2014 ⁴⁸ | Study Population: Healthy pregnant women | Inclusion Criteria: nr, Described in Ref 37 | Adjustments: Adjusted for child gender, study recruitment group, |
| Study name: KOALA Birth Cohort Study | Pregnant enrolled 2669 Pregnant completers 1516 | Exclusion Criteria: nr | maternal education, parity, maternal smoking status during pregnancy, |
| Study dates: 2000-2002 | Infants enrolled 2669 Infants completers 1515 | | maternal alcohol use in pregnancy, |
| Study design: Observational prospective | Pregnant age: years (.7yrs) | | and maternal age at delivery |
| Location: Netherlands | Race of Mother: NR (100) | | |
| Funding source / conflict: Multiple foundations and Societies | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------------------|-------------------------------------|-------------------|--|--------------------------------------|--|---------|
| Molto-Puigmarti 2014 ⁴⁸ | Birth weight N Total: 2606 | | DHA n-3 Measure: Maternal n-3 Units: mg/d | All N Quantile: na N Cases: na | Coefficient Estimate: 0.16 95% CI(0.008, 0.313) | |
| | Pregnancy duration N Total: 2606 | | DHA n-3 Measure: Maternal n-3 Units: mg/d | All N Quantile: na N Cases: na | Coefficient Estimate: 0.004 95% CI(0.001, 0.007) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|--|
| Morales, et al., 2012 ¹⁸⁴ Study name: INfancia y Medio Ambiente (INMA) Project Study dates: 2004-2007 Study design: Observational prospective | Study Population: Healthy infants Healthy pregnant women Pregnant enrolled 622 Pregnant completers 580 Infants enrolled 622 Infants completers 580 Mother age: 31.6 (4.2) | Inclusion Criteria: to be resident in the study area, to be at least 16 years old, to have a singleton pregnancy, to not have followed any programme of assisted reproduction, to wish to deliver in the reference hospital, and to have no communication problems Exclusion Criteria: NR | Adjustments: Child gender, maternal social class, siblings at birth, maternal smoking in pregnancy, and DDE levels in cord blood for wheezing outcome |
| Location: Spain Funding source / conflict: Government Follow-up: 14 months | Race of Mother: NR (100) | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-----------------------------|--------------------------|-------------------|---|---|--|---------|
| Morales 2012 ¹⁸⁴ | Wheezing N Total: 197 | 6 &14 months | AA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.34 95% CI(0.44, 4.06) | |
| | Wheezing N Total: 197 | 6 &14 months | ALA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.57 95% CI(0.42, 5.84) | |
| | Wheezing N Total: 197 | 6 &14 months | All n-3 n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.08 95% CI(0.37, 3.18) | |
| | Wheezing N Total: 197 | 6 &14 months | DHA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.91 95% CI(0.31, 2.67) | |
| | Wheezing N Total: 197 | 6 &14 months | EPA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.56 95% CI(0.15, 2.08) | |
| | Wheezing N Total: 269 | 7-14 months | AA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.36 95% CI(0.69, 2.65) | |
| | Wheezing N Total: 269 | 7-14 months | ALA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.82 95% CI(0.4, 1.69) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--------------------------|-------------------|---|---|--|---------|
| | Wheezing N Total: 269 | 7-14 months | All n-3 n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.72 95% CI(0.36, 1.44) | |
| | Wheezing N Total: 269 | 7-14 months | DHA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.94 95% CI(0.48, 1.86) | |
| | Wheezing N Total: 269 | 7-14 months | EPA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.58 95% CI(0.27, 1.24) | |
| | Wheezing N Total: 272 | 0-6 months | AA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.19 95% CI(0.51, 2.76) | |
| | Wheezing N Total: 272 | 0-6 months | ALA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.54 95% CI(0.62, 3.78) | |
| | Wheezing N Total: 272 | 0-6 months | All n-3 n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 1.35 95% CI(0.58, 3.13) | |
| | Wheezing N Total: 272 | 0-6 months | DHA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 0.91 95% CI(0.41, 2.03) | |
| | Wheezing N Total: 272 | 0-6 months | EPA n-3 Measure: Colostrum fatty acid concentration n-3 Units: weight-percentage (wt%, mg/100 mg) of total fatty acids | Highest vs. lowest tertile odds ratios N Quantile: NR | OR Estimate: 2.24 95% CI(0.76, 6.55) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|--|
| Much, et al., 2013 ¹⁰¹ | Study Population: Healthy infants Breast-feeding women | Inclusion Criteria: Gestational age =15th wk of gestation, between | Adjustments: Gestational age, parity, |
| Study name: INFAT | Pregnant enrolled 208 | 18 and 43 y of age, pre-pregnancy BMI (in kg/m2) between 18 and 30, willingness to implement the dietary recommendations, sufficient German language skills, and written informed consent | infant sex, group, ponderal index at birth, breastfeeding status of infants at 6 wk, 4 mo, and 1 yr. |
| Study dates: Recruitment: 2006-2009 Follow-up: 1 year | Lactating enrolled 152 at 6 weeks/120 at 4 months | | ,, |
| Study design: Observational prospective | Infants enrolled 56 at 4 months/31 at 12 months | Exclusion Criteria: High-risk pregnancy (multiple pregnancy, rhesus incompatibility, hepatitis B infection, or parity >4); hypertension; chronic diseases (e.g., diabetes) or gastrointestinal disorders | |
| Location: Germany | Lactating enrolled 152 at 6 weeks/120 at 4 months | accompanied by maldigestion, malabsorption, or elevated energy and nutritional requirements (e.g., gluten enteropathy); known | |
| Funding source / conflict: Industry, Government, Some authors employed by industry (companies that make the supplements) | Pregnant age: Intervention: 31.9 Control: 31.6 (Intervention: 4.9 Control: 4.5) | metabolic defects (e.g., phenylketonuria); psychiatric diseases; hyperemesis gravidarum; supplementation with n–3 LCPUFAs before randomization; and alcohol abuse and smoking | |
| Follow-up: 1 year | Race of Mother: NR (NR) | | |
| Original, same study, or follow-up studies: Hauner, 2012 ³⁷ | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------|--------------------------------|-------------------|---|----------|---|---------|
| Much 2013 ¹⁰¹ | BMI at 1 yr N Total: 117 | 1 y | DHA n-3 Measure: Breast milk at 4 mo postpartum n-3 Units: % wt | | Coefficient Estimate: 0.86 95% CI(0.11, 1.62) | |
| | Length at 1 yr N Total: 117 | 1 y | EPA n-3 Measure: Breast milk at 4 mo postpartum n-3 Units: % wt | | Coefficient Estimate: -12.43 95% CI(-20.36, -4.231) | |
| | Length at 4 mo N Total: 119 | 4 mo | EPA n-3 Measure: Breast milk at 4 mo postpartum n-3 Units: % wt | | Coefficient Estimate: -7.85 95% CI(-14.94, -0.73) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|---|---|
| Much, et al., 2013 ⁸³ | Study Population: Healthy infants Breast-feeding women | Inclusion Criteria: Healthy pregnant women at 14th week of gestation | Adjustments: Pregnancy duration, group, parity, and sex |
| Study name: INFAT | Pregnant enrolled 208 | • | group, parity, and sex |
| Study dates: >2009-<2013 | Infants completers 187 | Exclusion Criteria: None reported | |
| Study design: Observational prospective | Race of Mother: NR (NR) | | |
| Location: Germany | | | |
| Funding source / conflict: Industry, Government, Some authors employed by industry (companies that make the supplements), Multiple foundations and Societies, None | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-------------------------|------------------------------|-------------------|---|----------|---|---------|
| Much 2013 83 | Birth weight N Total: 187 | | DHA at 32 wks gestation n-3 Measure: Maternal red blood cells n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 24.38 95% CI(0.42, 48.33) | |
| | Birth weight N Total: 187 | | n-3 LCPUFA at 32 wks gestation n-3 Measure: Maternal red blood cells n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 20.38 95% CI(2.78, 37.99) | |
| Much 2013 ⁸³ | BMI N Total: 169 | 12 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: -0.04 95% CI(-0.11, 0.04) | |
| | BMI N Total: 169 | 12 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: -0.02 95% CI(-0.08, 0.04) | |
| | BMI N Total: 172 | 4 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.04 95% CI(-0.04, 0.12) | |
| | BMI N Total: 172 | 4 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.03 95% CI(-0.03, 0.09) | |
| | BMI N Total: 177 | 6 wks | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.05 95% CI(-0.02, 0.12) | |
| | BMI N Total: 177 | 6 wks | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.04 95% CI(-0.01, 0.09) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------------------|-------------------|---|----------|--|---------|
| | BMI N Total: 187 | Birth | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.04 95% CI(-0.03, 0.1) | |
| | BMI N Total: 187 | Birth | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.03 95% CI(-0.02, 0.08) | |
| | Head circumference N Total: 169 | 12 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.01 95% CI(-0.08, 0.22) | |
| | Head circumference N Total: 169 | 12 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.01 95% CI(-0.05, 0.08) | |
| | Head circumference N Total: 172 | 4 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.02 95% CI(-0.04, 0.09) | |
| | Head circumference N Total: 172 | 4 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.03 95% CI(-0.02, 0.08) | |
| | Head circumference N Total: 177 | 6 wks | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.02 95% CI(-0.04, 0.1) | |
| | Head circumference N Total: 177 | 6 wks | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.02 95% CI(-0.02, 0.07) | |
| | Head circumference N Total: 187 | Birth | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.07 95% CI(0, 0.14) | |
| | Head circumference N Total: 187 | Birth | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.06 95% CI(0.01, 0.12) | |
| | Length N Total: 169 | 12 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.07 95% CI(-0.08, 0.22) | |
| | Length N Total: 169 | 12 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.04 95% CI(-0.07, 0.15) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------|-------------------|---|----------|---|---------|
| | Length N Total: 172 | 4 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.03 95% CI(-0.09, 0.15) | |
| | Length N Total: 172 | 4 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.02 95% CI(-0.07, 0.11) | |
| | Length N Total: 177 | 6 wks | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.05 95% CI(-0.07, 0.18) | |
| | Length N Total: 177 | 6 wks | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.05 95% CI(-0.04, 0.15) | |
| | Length N Total: 187 | Birth | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.12 95% CI(-0.01, 0.24) | |
| | Length N Total: 187 | Birth | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 0.1 95% CI(0.01, 0.19) | |
| | Weight N Total: 169 | 12 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: -0.99 95% CI(-58.1, 56.12) | |
| | Weight N Total: 169 | 12 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 1.4 95% CI(-40.7, 43.5) | |
| | Weight N Total: 172 | 4 mo | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 19.72 95% CI(-19.25, 58.69) | |
| | Weight N Total: 172 | 4 mo | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 15.17 95% CI(-13.49, 43.84) | |
| | Weight N Total: 177 | 6 wks | DHA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 24.16 95% CI(-8.96, 57.29) | |
| | Weight N Total: 177 | 6 wks | n-3 LCPUFA n-3 Measure: Maternal red blood cells at 32 wks gestation n-3 Units: per unit increase in % of total FA | | Coefficient Estimate: 21.53 95% CI(-2.81, 45.86) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|--|
| Muthayya, et al., 2009 ⁷² | Study Population: Healthy pregnant women | Inclusion Criteria: pregnant women aged 17–40 years and at <20 weeks of gestation, registered for antenatal screening at the | Adjustments: Adjusted for maternal age, maternal education, parity, |
| Study dates: Jan 2002- Mar 2006 | Pregnant enrolled 829 Pregnant completers 676 | Department of Obstetrics and Gynecology at St John's Medical College Hospital. | maternal weight/maternal weight gain per week and gestational age |
| Study design: Observational prospective | Pregnant age: group 1, 23 group 2, 23 group 3, 23 total, 24 | | |
| Location: NR | group 1, 21-26 group 2, 21-27 group 3, 23-29 total: 21-27 | Exclusion Criteria: Women with multiple pregnancies, those with a clinical diagnosis of chronic illness such as diabetes mellitus. | |
| Funding source / conflict: Industry, Government | Race of Mother: Asian (Indian, 100%) | hypertension, heart disease and thyroid disease, those who tested positive for HbSAg/HIV/VDRL infection or who anticipated moving out of the city before delivery were excluded | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|-----------------------------|----------------------------------|-------------------|--|-------------------------|---|---------|
| Muthayya 2009 ⁷² | Low birth weight N Total: 419 | | EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: mg/day | T1 0.28 N Cases: 133 | AOR Estimate: 2.75 95% Cl(1.26, 6.02) | |
| | Low birth weight N Total: 419 | | EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: mg/day | T2 3.03 N Cases: 148 | AOR Estimate: 2.54 95% Cl(1.17, 5.5) | |
| | Low birth weight N Total: 419 | | EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: mg/day | T3 9.53 N Cases: 138 | AOR | |
| | Low birth weight N Total: 675 | | EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: mg/day | T1 0.24 N Cases: 225 | AOR Estimate: 1.61 95% CI(0.92, 2.8) | |
| | Low birth weight N Total: 675 | | EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: mg/day | T2 2.1 N Cases: 224 | AOR Estimate: 1.05 95% CI(0.59, 1.9) | |
| | Low birth weight N Total: 675 | | EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: mg/day | T3 9.37 N Cases: 226 | AOR | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|---|---|
| Newson, et al., 2004 ¹⁷⁶ Study name: Avon Longitudinal Study of Parents and Children (ALSPAC) Study dates: Recruitment: April 1, 1991 to December 31, 1992 Follow-up: 42 months Study design: Observational prospective Location: UK Funding source / conflict: Government, Multiple foundations and Societies Follow-up: 42 months Original, same study, or follow-up studies: Golding et al., 2001 (ALSPAC) | Study Population: Healthy infants Pregnant enrolled 4136 Infants enrolled 4202 Infants completers 1762 Infant age: Prenatal Race of Mother: NR (100%) | Inclusion Criteria: Pregnant women with expected date of delivery between April 1, 1991, and December 31, 1992, and place of residence within the 3 Bristol-based health districts of the former county of Avon, United Kingdom Exclusion Criteria: NR for enrollment. Exclusion for analysis: multiple pregnancies or in small missing value categories for various confounders. | Adjustments: Child's sex, gestational age at birth, and birth weight, and for the mother's age, education level, housing tenure, parity, ethnicity, and smoking in pregnancy (for variable categories see Table EI in the Journal's Online Repository at http://www.mosby.com/jaci), as well as maternal atopic disease (asthma, eczema, rhinoconjunctivitis), child's head circumference at birth (< 33 cm, 33-34.99 cm, 35-36.99 cm, 37+ cm, unknown), child's crown to heel length at birth (< 48 cm, 48-50.99 cm, 51-53.99 cm, 54+ cm, unknown), mother's body mass index (from prepregnancy self-reported weight and height; < 18.5 kg/m2, 18.5-24.99 kg/m2, 25-29.99 kg/m2, 30+ kg/m2, unknown), breast-feeding |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI | P value |
|----------------------------|-------------------------|-------------------|--|----------|---|---------|
| Newson 2004 ¹⁷⁶ | Eczema N Total: 1238 | 30 months | 18:3 n-3 ALA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1 95% CI(0.9, 1.11) | |
| | Eczema N Total: 1238 | 30 months | 20:4 n-6 AA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.08 95% CI(0.93, 1.25) | |
| | Eczema N Total: 1238 | 30 months | 20:5 n-3 EPA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.95 95% CI(0.86, 1.06) | |
| | Eczema N Total: 1238 | 30 months | 22:6 n-3 DHA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1 95% CI(0.91, 1.1) | |
| | Eczema N Total: 1238 | 30 months | AA: EPA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.14 95% CI(1, 1.31) | |
| | Eczema N Total: 2945 | 30 months | 18:3 n-3 ALA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1 95% CI(0.91, 1.09) | |
| | Eczema N Total: 2945 | 30 months | 20:4 n-6 AA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.98 95% CI(0.88, 1.1) | |
| | Eczema N Total: 2945 | 30 months | 20:5 n-3 EPA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.03 95% CI(0.94, 1.12) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|---------------------------|-------------------|--|----------|---|
| | Eczema N Total: 2945 | 30 months | 22:6 n-3 DHA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.02 95% CI(0.94, 1.12) |
| | Eczema N Total: 2945 | 30 months | AA: EPA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.95 95% Cl(0.85, 1.05) |
| | Wheezing N Total: 1191 | 42 months | 18:3 n-3 ALA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.99 95% CI(0.85, 1.15) |
| | Wheezing N Total: 1191 | 42 months | 20:4 n-6 AA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.05 95% CI(0.86, 1.27) |
| | Wheezing N Total: 1191 | 42 months | 20:5 n-3 EPA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.01 95% CI(0.87, 1.17) |
| | Wheezing N Total: 1191 | 42 months | 22:6 n-3 DHA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.05 95% CI(0.93, 1.19) |
| | Wheezing N Total: 1191 | 42 months | AA: EPA n-3 Measure: Cord blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.01 95% CI(0.85, 1.21) |
| | Wheezing N Total: 2764 | 42 months | 18:3 n-3 ALA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.03 95% CI(0.91, 1.16) |
| | Wheezing N Total: 2764 | 42 months | 20:4 n-6 AA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.02 95% CI(0.86, 1.2) |
| | Wheezing N Total: 2764 | 42 months | 20:5 n-3 EPA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.94 95% CI(0.84, 1.06) |
| | Wheezing N Total: 2764 | 42 months | 22:6 n-3 DHA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 0.99 95% CI(0.86, 1.13) |
| | Wheezing N Total: 2764 | 42 months | AA: EPA n-3 Measure: Maternal blood n-3 Units: % of total RBC membrane phospholipid | All | Per doubling OR Estimate: 1.11 95% CI(0.95, 1.3) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|--|---|
| Notenboom, et al., 2011 ¹⁷⁹ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: Conventional participants: participation in ongoing study of pelvic girdle pain Alternative participants: | Adjustments: Adjusted for recruitment group, maternal age, maternal |
| Study name: KOALA Birth Cohort Study | Infants enrolled 1275 Infants completers 1253 (samples for 815) | frequented locations associated with organic diet and similar lifestyles Subsample: participants recruited from January 2002 | ethnicity, maternal education level, maternal smoking during pregnancy, |
| Study dates: Recruitment from October 2000 onwards and Follow-up: 6-7 years | Mother age: 32.6 (3.8) | onwards who consented to biosampling. Exclusion Criteria: Current multiple pregnancy n=9 Prematurity | parental history of atopy, term of gestation, season of birth, gender, |
| Study design: Observational prospective | Race of Mother: White European (Dutch 96.3%) | n=15 Perinatal infant death n=2 Down syndrome n=4 No response after birth n=51 | birth weight, mode of delivery, exposure to environmental tobacco, presence of older siblings and sibling |
| Location: Netherlands | | | atopy, breastfeeding, child day care, and pets at home |
| Funding source / conflict: Industry, Government, Multiple foundations and Societies | | | |

Follow-up: 3 - 84 months

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|-------------------------------|--|-------------------|---|--|---|
| Notenboom 2011 ¹⁷⁹ | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: 192 N Cases: 13 | OR |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: 199 N Cases: 14 | OR Estimate: 1.04 95% CI(0.47, 2.27) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: 190 N Cases: 15 | OR Estimate: 1.17 95% CI(0.54, 2.53) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: 199 N Cases: 12 | OR Estimate: 0.87 95% CI(0.39, 1.197) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: 171 N Cases: 15 | OR Estimate: 1.3 95% CI(0.59, 2.83) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: 176 N Cases: 14 | OR |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: 189 N Cases: 16 | OR Estimate: 1.07 95% CI(0.51, 2.26) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|--|-------------------|---|--|--|
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: 191 N Cases: 8 | OR Estimate: 0.51 95% CI(0.21, 1.25) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: 205 N Cases: 15 | OR Estimate: 0.92 95% CI(0.43, 2) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: 190 N Cases: 16 | OR Estimate: 1.09 95% CI(0.51, 2.31) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: 195 N Cases: 8 | OR |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: 194 N Cases: 14 | OR Estimate: 1.81 95% Cl(0.74, 4.41) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: 187 N Cases: 18 | OR Estimate: 2.48 95% Cl(1.05, 5.85) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: 183 N Cases: 12 | OR Estimate: 1.62 95% Cl(0.64, 4.06) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: 192 N Cases: 17 | OR Estimate: 2.24 95% Cl(0.94, 5.34) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: 195 N Cases: 19 | OR |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: 185 N Cases: 10 | OR Estimate: 0.53 95% CI(0.24, 1.17) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: 182 N Cases: 16 | OR Estimate: 0.89 95% CI(0.44, 1.79) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|--|--|
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: 191 N Cases: 16 | OR Estimate: 0.85 95% CI(0.42, 1.71) |
| | Allergic rhinoconjunctivitis N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: 198 N Cases: 8 | OR Estimate: 0.4 95% CI(0.17, 0.92) |
| | Allergic sensitization N Total: 768 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: 156 N Cases: 45 | OR |
| | Allergic sensitization N Total: 768 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: 159 N Cases: 42 | OR Estimate: 0.81 95% CI(0.48, 1.34) |
| | Allergic sensitization N Total: 768 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: 159 N Cases: 52 | OR Estimate: 1.15 95% CI(0.7, 1.9) |
| | Allergic sensitization N Total: 768 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: 153 N Cases: 41 | OR Estimate: 0.86 95% CI(0.51, 1.46) |
| | Allergic sensitization N Total: 768 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: 141 N Cases: 33 | OR Estimate: 0.69 95% CI(0.39, 1.23) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: 152 N Cases: 44 | OR |
| | Allergic sensitization N Total: 768 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: 158 N Cases: 42 | OR Estimate: 0.88 95% CI(0.53, 1.49) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: 152 N Cases: 41 | OR Estimate: 0.96 95% Cl(0.57, 1.62) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: 151 N Cases: 47 | OR Estimate: 1.1 95% Cl(0.65, 1.85) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: 155 N Cases: 39 | OR Estimate: 0.82 95% CI(0.48, 1.4) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|--|-------------------|---|--|--|
| | Allergic sensitization N Total: 768 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: 143 N Cases: 40 | OR |
| | Allergic sensitization N Total: 768 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: 150 N Cases: 42 | OR Estimate: 1.01 95% Cl(0.59, 1.72) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: 155 N Cases: 44 | OR Estimate: 1.03 95% Cl(0.6, 1.76) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: 167 N Cases: 44 | OR Estimate: 0.92 95% Cl(0.53, 1.6) |
| | Allergic sensitization N Total: 768 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: 153 N Cases: 43 | OR Estimate: 1.04 95% Cl(0.6, 1.8) |
| | Allergic sensitization N Total: 768 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: 169 N Cases: 51 | OR |
| | Allergic sensitization N Total: 768 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: 146 N Cases: 39 | OR Estimate: 0.79 95% Cl(0.47, 1.33) |
| | Allergic sensitization N Total: 768 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: 154 N Cases: 43 | OR Estimate: 0.83 95% Cl(0.5, 1.4) |
| | Allergic sensitization N Total: 768 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: 159 N Cases: 38 | OR Estimate: 0.73 95% CI(0.44, 1.24) |
| | Allergic sensitization N Total: 768 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: 140 N Cases: 42 | OR Estimate: 0.94 95% CI(0.56, 1.6) |
| | Asthma N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: NR N Cases: NR | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|---|---|--|
| | Asthma N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: NR N Cases: NR | OR Estimate: 1.69 95% CI(0.7, 4.1) |
| | Asthma N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: NR N Cases: NR | OR Estimate: 1.29 95% CI(0.52, 3.2) |
| | Asthma N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: NR N Cases: NR | OR Estimate: 0.82 95% CI(0.31, 2.15) |
| | Asthma N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: NR N Cases: NR | OR Estimate: 1.7 95% Cl(0.67, 4.33) |
| | Asthma N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: NR N Cases: NR | OR |
| | Asthma N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: NR N Cases: NR | OR Estimate: 1.14 95% CI(0.51, 2.55) |
| | Asthma N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: NR N Cases: NR | OR Estimate: 0.55 95% Cl(0.21, 1.45) |
| | Asthma N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: NR N Cases: NR | OR Estimate: 1.08 95% CI(0.47, 2.49) |
| | Asthma N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: NR N Cases: NR | OR Estimate: 0.6 95% Cl(0.23, 1.56) |
| | Asthma N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: NR N Cases: NR | OR |
| | Asthma N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% Cl(0.43, 2.89) |
| | Asthma N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: NR N Cases: NR | OR Estimate: 1.47 95% Cl(0.56, 3.85) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|-----------------------------------|-------------------|---|--|--|
| | Asthma N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: NR N Cases: NR | OR Estimate: 2.07 95% CI(0.82, 5.24) |
| | Asthma N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: NR N Cases: NR | OR Estimate: 1.87 95% CI(0.76, 4.63) |
| | Asthma N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: NR N Cases: NR | OR |
| | Asthma N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: NR N Cases: NR | OR Estimate: 1.85 95% CI(0.83, 4.12) |
| | Asthma N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% Cl(0.45, 2.71) |
| | Asthma N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: NR N Cases: NR | OR Estimate: 0.92 95% Cl(0.37, 2.29) |
| | Asthma N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: NR N Cases: NR | OR Estimate: 0.85 95% Cl(0.34, 2.16) |
| | Atopic dermatitis N Total: 807 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: 161 N Cases: 20 | OR |
| | Atopic dermatitis N Total: 807 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: 166 N Cases: 23 | OR Estimate: 1.15 95% CI(0.59, 2.28) |
| | Atopic dermatitis N Total: 807 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: 166 N Cases: 24 | OR Estimate: 1.24 95% CI(0.63, 2.44) |
| | Atopic dermatitis N Total: 807 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: 162 N Cases: 26 | OR Estimate: 1.35 95% CI(0.79, 2.65) |
| | Atopic dermatitis N Total: 807 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: 152 N Cases: 18 | OR Estimate: 0.94 95% CI(0.44, 1.98) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|-----------------------------------|-------------------|---|--|--|
| | Atopic dermatitis N Total: 807 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: 159 N Cases: 18 | OR |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: 163 N Cases: 18 | OR Estimate: 0.89 95% CI(0.43, 1.85) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: 156 N Cases: 24 | OR Estimate: 1.63 95% CI(0.81, 3.27) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: 161 N Cases: 31 | OR Estimate: 2.17 95% CI(1.1, 4.27) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: 168 N Cases: 20 | OR Estimate: 1.16 95% CI(0.56, 2.39) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: 155 N Cases: 23 | OR |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: 154 N Cases: 21 | OR Estimate: 0.94 95% Cl(0.49, 1.83) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: 162 N Cases: 24 | OR Estimate: 1.21 95% CI(0.63, 2.35) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: 175 N Cases: 22 | OR Estimate: 0.98 95% CI(0.49, 2) |
| | Atopic dermatitis N Total: 807 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: 162 N Cases: 21 | OR Estimate: 0.9 95% CI(0.45, 1.81) |
| | Atopic dermatitis N Total: 807 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: 174 N Cases: 22 | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|-----------------------------------|-------------------|--|---|--|
| | Atopic dermatitis N Total: 807 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: 155 N Cases: 24 | OR Estimate: 1.24 95% CI(0.64, 2.42) |
| | Atopic dermatitis N Total: 807 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: 163 N Cases: 24 | OR Estimate: 1.1 95% CI(0.56, 2.17) |
| | Atopic dermatitis N Total: 807 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: 164 N Cases: 21 | OR Estimate: 1 95% CI(0.5, 1.98) |
| | Atopic dermatitis N Total: 807 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: 151 N Cases: 20 | OR Estimate: 0.92 95% CI(0.46, 1.86) |
| | Eczema N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: NR N Cases: NR | OR Estimate: 0.94 95% CI(0.67, 1.31) |
| | Eczema N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: NR N Cases: NR | OR Estimate: 1.03 95% CI(0.73, 1.44) |
| | Eczema N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: NR N Cases: NR | OR Estimate: 0.77 95% CI(0.55, 1.09) |
| | Eczema N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: NR N Cases: NR | OR Estimate: 0.81 95% CI(0.56, 1.15) |
| | Eczema N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: NR N Cases: NR | OR Estimate: 1.04 95% CI(0.73, 1.47) |
| | Eczema N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% CI(0.8, 1.57) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|---|---|--|
| | Eczema N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: NR N Cases: NR | OR Estimate: 0.83 95% CI(0.58, 1.19) |
| | Eczema N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: NR N Cases: NR | OR Estimate: 0.94 95% CI(0.66, 1.34) |
| | Eczema N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: NR N Cases: NR | OR Estimate: 0.72 95% CI(0.51, 1) |
| | Eczema N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: NR N Cases: NR | OR Estimate: 0.68 95% CI(0.49, 0.96) |
| | Eczema N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: NR N Cases: NR | OR Estimate: 0.7 95% CI(0.49, 0.98) |
| | Eczema N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: NR N Cases: NR | OR Estimate: 0.6 95% CI(0.42, 0.87) |
| | Eczema N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: NR N Cases: NR | OR Estimate: 1.21 95% CI(0.85, 1.73) |
| | Eczema N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: NR N Cases: NR | OR Estimate: 1.02 95% CI(0.71, 1.47) |
| | Eczema N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: NR N Cases: NR | OR Estimate: 1.3 95% CI(0.91, 1.85) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--------------------------------|-------------------|---|--|--|
| | Eczema N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: NR N Cases: NR | OR Estimate: 1.29 95% CI(0.91, 1.83) |
| | High total IgE N Total: 776 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: 158 N Cases: 57 | OR |
| | High total IgE N Total: 776 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: 159 N Cases: 44 | OR Estimate: 0.69 95% Cl(0.42, 1.15) |
| | High total IgE N Total: 776 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: 162 N Cases: 67 | OR Estimate: 1.29 95% CI(0.8, 2.09) |
| | High total IgE N Total: 776 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: 153 N Cases: 49 | OR Estimate: 0.83 95% CI(0.5, 1.37) |
| | High total IgE N Total: 776 | 24 months | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: 144 N Cases: 39 | OR Estimate: 0.72 95% CI(0.42, 1.24) |
| | High total IgE N Total: 776 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: 152 N Cases: 47 | OR |
| | High total IgE N Total: 776 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: 158 N Cases: 43 | OR Estimate: 0.82 95% CI(0.5, 1.41) |
| | High total IgE N Total: 776 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: 154 N Cases: 51 | OR Estimate: 1.04 95% CI(0.63, 1.72) |
| | High total IgE N Total: 776 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: 153 N Cases: 63 | OR Estimate: 1.42 95% CI(0.86, 2.35) |
| | High total IgE N Total: 776 | 24 months | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: 159 N Cases: 52 | OR Estimate: 0.88 95% CI(0.53, 1.47) |
| | High total IgE N Total: 776 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: 147 N Cases: 51 | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|--------------------------------|-------------------|---|--|--|
| | High total IgE N Total: 776 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: 150 N Cases: 46 | OR Estimate: 0.83 95% CI(0.5, 1.39) |
| | High total IgE N Total: 776 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: 155 N Cases: 53 | OR Estimate: 0.97 95% CI(0.58, 1.61) |
| | High total IgE N Total: 776 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: 169 N Cases: 50 | OR Estimate: 0.84 95% Cl(0.5, 1.42) |
| | High total IgE N Total: 776 | 24 months | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: 155 N Cases: 56 | OR Estimate: 1.02 95% Cl(0.61, 1.71) |
| | High total IgE N Total: 776 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: 169 N Cases: 63 | OR |
| | High total IgE N Total: 776 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: 149 N Cases: 44 | OR Estimate: 0.74 95% Cl(0.45, 1.22) |
| | High total IgE N Total: 776 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: 156 N Cases: 54 | OR Estimate: 0.93 95% Cl(0.57, 1.52) |
| | High total IgE N Total: 776 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: 159 N Cases: 48 | OR Estimate: 0.79 95% Cl(0.48, 1.3) |
| | High total IgE N Total: 776 | 24 months | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: 143 N Cases: 47 | OR Estimate: 0.88 95% Cl(0.53, 1.46) |
| | Wheeze N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -6.46 N Quantile: NR N Cases: NR | OR |
| | Wheeze N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 6.47-7.15 N Quantile: NR N Cases: NR | OR Estimate: 1.23 95% Cl(0.87, 1.73) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|---|---|--|
| | Wheeze N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 7.16-7.85 N Quantile: NR N Cases: NR | OR Estimate: 1.08 95% CI(0.78, 1.5) |
| | Wheeze N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 7.86-8.6 N Quantile: NR N Cases: NR | OR Estimate: 1.08 95% Cl(0.78, 1.49) |
| | Wheeze N Total: 951 | 6-7 years | AA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 8.61- N Quantile: NR N Cases: NR | OR Estimate: 1.03 95% Cl(0.74, 1.44) |
| | Wheeze N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -60.72 N Quantile: NR N Cases: NR | OR |
| | Wheeze N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 60.73-72.35 N Quantile: NR N Cases: NR | OR Estimate: 1.04 95% Cl(0.76, 1.42) |
| | Wheeze N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 72.36-82.29 N Quantile: NR N Cases: NR | OR Estimate: 0.87 95% Cl(0.64, 1.19) |
| | Wheeze N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 83.3-102.69 N Quantile: NR N Cases: NR | OR Estimate: 0.9 95% Cl(0.66, 1.23) |
| | Wheeze N Total: 951 | 6-7 years | Ratio LA to ALA n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 102.7- N Quantile: NR N Cases: NR | OR Estimate: 0.91 95% Cl(0.68, 1.23) |
| | Wheeze N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -1.91 N Quantile: NR N Cases: NR | OR |
| | Wheeze N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 1.92-2.24 N Quantile: NR N Cases: NR | OR Estimate: 0.88 95% Cl(0.63, 1.23) |
| | Wheeze N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 2.25-2.52 N Quantile: NR N Cases: NR | OR Estimate: 1.03 95% Cl(0.75, 1.42) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|---|---|--|
| | Wheeze N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 2.53-2.84 N Quantile: NR N Cases: NR | OR Estimate: 0.83 95% Cl(0.59, 1.18) |
| | Wheeze N Total: 951 | 6-7 years | Ratio n-6 LCPs (LGLA and AA) to n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 2.85- N Quantile: NR N Cases: NR | OR Estimate: 0.97 95% Cl(0.7, 1.35) |
| | Wheeze N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q1 -3.93 N Quantile: NR N Cases: NR | OR |
| | Wheeze N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q2 3.94-4.44 N Quantile: NR N Cases: NR | OR Estimate: 0.96 95% Cl(0.7, 1.31) |
| | Wheeze N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q3 4.45-4.93 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% Cl(0.82, 1.53) |
| | Wheeze N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q4 4.94-5.64 N Quantile: NR N Cases: NR | OR Estimate: 1.15 95% Cl(0.85, 1.57) |
| | Wheeze N Total: 951 | 6-7 years | n-3 LCPs (EPA, DPA n-3, DHA) n-3 Measure: maternal venous plasma phospholipids n-3 Units: wt% | Q5 5.65- N Quantile: NR N Cases: NR | OR Estimate: 0.98 95% Cl(0.7, 1.37) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|---|
| Nwaru, et al., 2012 ¹⁸⁰ | Study Population: NR | Inclusion Criteria: Newborn infants with human leucocyte antigen (HLA)- conferred susceptibility to type 1 diabetes recruited from | Adjustments: Sex of child, hospital of birth, duration of gestation, maternal |
| Study name: Finnish Type 1 Diabetes Prediction and Prevention Nutrition Study | Pregnant enrolled NR Pregnant completers 3523 | three university hospitals in Finland | age at delivery, maternal basic education, maternal smoking during |
| Study dates: Infants recruited between 20 October 1997 and | Infants enrolled 3253 Infants completers 2441 | Exclusion Criteria: Infants with severe systemic disease or anomalies, or both parents non-Caucasian | pregnancy, mode of delivery, number of siblings at the time of the child's |
| 29 February 2004; Follow-up to 5 years of age | Infant age: birth | | birth, parental asthma, parental allergic rhinitis, pets at home by 1 ye |
| Study design: Observational prospective | Race of Mother: White European (100%) | | of age. A second adjusted model was |
| Location: Finland | | | computed for the FA in which potentially confounding nutrients, |
| Funding source / conflict: Government, Multiple foundations and Societies | | | vitamin C, Zn, Se, vitamin D and vitamin E were included as additional covariates |
| Follow-up: 5 years | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|------------------------------------|-------------------|--|--|--|---------|
| Nwaru 2012 ¹⁸⁰ | Allergic rhinitis N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -4.45 N Quantile: NR N Cases: NR | OR Estimate: 1.01 95% CI(0.79, 1.29) | |
| | Allergic rhinitis N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 4.45-6.4 N Quantile: NR N Cases: NR | OR | |
| | Allergic rhinitis N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 6.4-8.9 N Quantile: NR N Cases: NR | OR Estimate: 0.74 95% CI(0.56, 0.99) | |
| | Allergic rhinitis N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -0.19 N Quantile: NR N Cases: NR | OR Estimate: 0.94 95% CI(0.72, 1.22) | |
| | Allergic rhinitis N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 0.19-0.6 N Quantile: NR N Cases: NR | OR | |
| | Allergic rhinitis N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.6-3.5 N Quantile: NR N Cases: NR | OR Estimate: 0.93 95% CI(0.72, 1.21) | |
| | Allergic rhinitis N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -0.07 N Quantile: NR N Cases: NR | OR Estimate: 0.99 95% CI(0.76, 1.29) | |
| | Allergic rhinitis N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 0.07-0.23 N Quantile: NR N Cases: NR | OR | |
| | Allergic rhinitis N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.23-1.25 N Quantile: NR N Cases: NR | OR Estimate: 0.99 95% CI(0.76, 1.28) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------------------|-------------------|---|--|--|
| | Allergic rhinitis N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 NR-NR N Quantile: NR N Cases: NR | OR Estimate: 1.09 95% Cl(0.84, 1.43) |
| | Allergic rhinitis N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 NR-NR N Quantile: NR N Cases: NR | OR |
| | Allergic rhinitis N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 NR-NR N Quantile: NR N Cases: NR | OR Estimate: 1.35 95% Cl(1.05, 1.73) |
| | Allergic rhinitis N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -5.55 N Quantile: NR N Cases: NR | OR Estimate: 0.89 95% Cl(0.69, 1.15) |
| | Allergic rhinitis N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 5.55-7.34 N Quantile: NR N Cases: NR | OR |
| | Allergic rhinitis N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 7.35-11.28 N Quantile: NR N Cases: NR | OR Estimate: 0.82 95% Cl(0.63, 1.08) |
| | Atopic eczema N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -4.45 N Quantile: NR N Cases: NR | OR Estimate: 1.05 95% Cl(0.86, 1.3) |
| | Atopic eczema N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 4.45-6.4 N Quantile: NR N Cases: NR | OR |
| | Atopic eczema N Total: 2441 | 5 years | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 6.4-8.9 N Quantile: NR N Cases: NR | OR Estimate: 0.99 95% Cl(0.8, 1.23) |
| | Atopic eczema N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -0.19 N Quantile: NR N Cases: NR | OR Estimate: 1.18 95% Cl(0.95, 1.46) |
| | Atopic eczema N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 0.19-0.6 N Quantile: NR N Cases: NR | OR |
| | Atopic eczema N Total: 2441 | 5 years | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.6-3.5 N Quantile: NR N Cases: NR | OR Estimate: 0.98 95% Cl(0.79, 1.2) |
| | Atopic eczema N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -0.07 N Quantile: NR N Cases: NR | OR Estimate: 1.07 95% Cl(0.86, 1.33) |
| | Atopic eczema N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 0.07-0.23 N Quantile: NR N Cases: NR | OR |
| | Atopic eczema N Total: 2441 | 5 years | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.23-1.25 N Quantile: NR N Cases: NR | OR Estimate: 0.94 95% CI(0.76, 1.16) |
| | Atopic eczema N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 NR-NR N Quantile: NR N Cases: NR | OR Estimate: 0.99 95% CI(0.8, 1.22) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--------------------------------|-------------------|---|--|--|---------|
| | Atopic eczema N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 NR-NR N Quantile: NR N Cases: NR | OR | |
| | Atopic eczema N Total: 2441 | 5 years | Ratio of n-6 to n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 NR-NR N Quantile: NR N Cases: NR | OR Estimate: 1.01 95% CI(0.82, 1.24) | |
| | Atopic eczema N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 -5.55 N Quantile: NR N Cases: NR | OR Estimate: 1.03 95% CI(0.84, 1.27) | |
| | Atopic eczema N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 & Q3 5.55-7.34 N Quantile: NR N Cases: NR | OR | |
| | Atopic eczema N Total: 2441 | 5 years | n-3 PUFA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 7.35-11.28 N Quantile: NR N Cases: NR | OR Estimate: 0.93 95% CI(0.75, 1.14) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|---|---|
| Oken, et al., 2004 ⁴⁶ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: delivered a live infant, and completed at least one dietary questionnaire | Adjustments: Enrollment site, infant sex, and maternal age, height, |
| Study name: Project Viva | Pregnant enrolled 2109 Pregnant completers 2109 | | intrapartum weight gain, pre- |
| Study dates: 1999-2002 | Pregnant age: 14-<20, 3% 20-<25, 6% 25-<30, 21% 30-<35, 42% 35=<40, 23% >=40, 4% (14-44) | Exclusion Criteria: taking cod liver or fish oil supplement | pregnancy BMI, race/ethnicity, smoking during pregnancy, education, and gravidity |
| Study design: Observational prospective | | | C <i>i</i> |
| Location: US | Race of Mother: White European (66) Black (16) Asian (6) Hispanic (7) Other race/ethnicity (4) | | |
| Funding source / conflict: Government, Multiple foundations and Societies | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|-------------------------|-------------------------------|-------------------|--|---|------------------------------------|
| Oken 2004 ⁴⁶ | Birth weight N Total: 1663 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q1 0.02 N Quantile: 416 N Cases: NR | 50 95% CI(-19, 119) |
| | Birth weight N Total: 1663 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q2 0.09 N Quantile: 416 N Cases: NR | 49 95% CI(-19, 117) |
| | Birth weight N Total: 1663 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q3 0.18 N Quantile: 416 N Cases: NR | -23 95% CI(-92, 47) |
| | Birth weight N Total: 1663 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q4 0.38 N Quantile: 416 N Cases: NR | |
| | Birth weight N Total: 1797 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q1 0.02 N Quantile: 449 N Cases: NR | 94 95% CI(23, 166) |
| | Birth weight N Total: 1797 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q2 0.09 N Quantile: 449 N Cases: NR | 35 95% CI(-36, 107) |
| | Birth weight N Total: 1797 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q3 0.18 N Quantile: 449 N Cases: NR | 32 95% CI(-39, 103) |
| | Birth weight N Total: 1797 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q4 0.36 N Quantile: 449 N Cases: NR | |
| | Birth weight N Total: 2070 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q1+Q2 0.05 N Quantile: 1035 N Cases: NR | 90 95% CI(33, 147) |
| | Birth weight N Total: 2070 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q3 0.09 N Quantile: 518 N Cases: NR | 11 95% CI(-58, 81) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--------------------------------------|-------------------|---|---|---|---------|
| | Birth weight N Total: 2070 | | DHA+EPA n-3 Measure: FFQ n-3 Units: g/day | Q4 0.27 N Quantile: 518 N Cases: NR | | |
| | Length of gestation N Total: 1663 | | DHA+EPA @ 2nd trimester n-3 Measure: FFQ n-3 Units: g/day | Q1 0.02 N Quantile: 416 N Cases: NR | Q1-Q4 (difference in weeks) Estimate: 0.3 95% CI(-1.4, 2.1) | |
| | Length of gestation N Total: 1663 | | DHA+EPA @ 2nd trimester n-3 Measure: FFQ n-3 Units: g/day | Q2 0.09 N Quantile: 416 N Cases: NR | Q2-Q4 (difference in weeks) Estimate: -0.4 95% CI(-2.1, 1.3) | |
| | Length of gestation N Total: 1663 | | DHA+EPA @ 2nd trimester n-3 Measure: FFQ n-3 Units: g/day | Q3 0.18 N Quantile: 416 N Cases: NR | Q3-Q4 (difference in weeks) Estimate: 0.3 95% CI(-1.4, 2) | |
| | Length of gestation N Total: 1663 | | DHA+EPA @ 2nd trimester n-3 Measure: FFQ n-3 Units: g/day | Q4 0.38 N Quantile: 416 N Cases: NR | | |
| | Length of gestation N Total: 1797 | | DHA+EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: g/day | Q1 0.02 N Quantile: 449 N Cases: NR | Q1-Q4 (difference in weeks) Estimate: 0.3 95% CI(-1.3, 19) | |
| | Length of gestation N Total: 1797 | | DHA+EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: g/day | Q1 vs. Q4 | OR Estimate: 1.1 95% CI(0.7, 1.9) | |
| | Length of gestation N Total: 1797 | | DHA+EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: g/day | Q2 0.09 N Quantile: 449 N Cases: NR | Q2-Q4 (difference in weeks) Estimate: -0.3 95% CI(-1.9, 1.3) | |
| | Length of gestation N Total: 1797 | | DHA+EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: g/day | Q3 0.18 N Quantile: 449 N Cases: NR | Q3-Q4 (difference in weeks) Estimate: 0.6 95% CI(-1, 2.2) | |
| | Length of gestation N Total: 1797 | | DHA+EPA @ 1st trimester n-3 Measure: FFQ n-3 Units: g/day | Q4 0.36 N Quantile: 449 N Cases: NR | | |
| | Length of gestation N Total: 2070 | | DHA+EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: g/day | Q1+Q2 0.05 N Quantile: 1035 N Cases: NR | Q1+Q2-Q4 (difference in weeks) Estimate: 0.5 95% CI(-0.7, 1.7) | |
| | Length of gestation N Total: 2070 | | DHA+EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: g/day | Q3 0.09 N Quantile: 518 N Cases: NR | Q3-Q4 (difference in weeks) Estimate: -0.7 95% C1(-2.2, 0.8) | |
| | Length of gestation N Total: 2070 | | DHA+EPA @ 3rd trimester n-3 Measure: FFQ n-3 Units: g/day | Q4 0.27 N Quantile: 518 N Cases: NR | | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|---|--|
| Oken, et al., 2007 ⁶⁹ | Study Population: Healthy pregnant women | Inclusion Criteria: 1st trimester pregnant women attending 1st prenatal visit | Adjustments: Maternal age, pre- pregnancy BMI, 1st trimester sBp, |
| Study name: Project Viva | Pregnant enrolled 2,128 Pregnant completers 1,718 | | race/ethnicity, education, parity; |
| Study dates: Recruitment 1999-2002 | Pregnant age: 93% were 20-40 years | Exclusion Criteria: Post hoc: no live birth, no medical records, failure to complete dietary questionnaires, pre-existing chronic hypertension and no subsequent preeclampsia | nutrients adjusted for total energy intake |
| Study design: Observational prospective | Race of Mother: White European (72%) Black (12%) Hispanic (6%) Other race/ethnicity (10%) | | |
| Location: US | | | |
| Funding source / conflict: Government, Multiple foundations and Societies | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|-------------------------|----------------------------------|-------------------|---|--------------------------------|--|
| Oken 2007 ⁶⁹ | Gestational HTN N Total: 1718 | Term | AA n-3 Measure: FFQ n-3 Units: per 100 mg | N Quantile: NR N Cases: 119 | OR Estimate: 1.03 95% CI(0.97, 1.1) |
| | Gestational HTN N Total: 1718 | Term | ALA n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 119 | OR Estimate: 1.14 95% CI(0.68, 1.92) |
| | Gestational HTN N Total: 1718 | Term | DHA+EPA/AA n-3 Measure: calculated n-3 Units: ratio | N Quantile: NR N Cases: 119 | OR Estimate: 0.99 95% CI(0.93, 1.07) |
| | Gestational HTN N Total: 1718 | Term | DHA+EPA n-3 Measure: FFQ n-3 Units: per 100 mg | N Quantile: NR N Cases: 119 | OR Estimate: 1.01 95% CI(0.95, 1.08) |
| | Gestational HTN N Total: 1718 | Term | LA n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 119 | OR Estimate: 1.01 95% CI(0.95, 1.08) |
| | Gestational HTN N Total: 1718 | Term | Total n-3 n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 119 | OR Estimate: 1.13 95% CI(0.79, 1.61) |
| | Gestational HTN N Total: 1718 | Term | n-3/n-6 n-3 Measure: calculated n-3 Units: ratio | N Quantile: NR N Cases: 119 | OR Estimate: 1.02 95% CI(0.96, 1.08) |
| | Preeclampsia N Total: 1718 | Term | AA n-3 Measure: FFQ n-3 Units: per 100 mg | N Quantile: NR N Cases: 59 | OR Estimate: 0.99 95% CI(0.91, 1.08) |
| | Preeclampsia N Total: 1718 | Term | ALA n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 59 | OR Estimate: 1.35 95% Cl(0.66, 2.74) |
| | Preeclampsia N Total: 1718 | Term | DHA+EPA/AA n-3 Measure: calculated n-3 Units: ratio | N Quantile: NR N Cases: 59 | OR Estimate: 0.82 95% CI(0.66, 1.01) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI | P value |
|---------|-------------------------------|-------------------|--|-------------------------------|--|---------|
| | Preeclampsia N Total: 1718 | Term | DHA+EPA n-3 Measure: FFQ n-3 Units: per 100 mg | N Quantile: NR N Cases: 59 | OR Estimate: 0.84 95% CI(0.69, 1.03) | |
| | Preeclampsia N Total: 1718 | Term | LA n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 59 | OR Estimate: 0.99 95% CI(0.91, 1.08) | |
| | Preeclampsia N Total: 1718 | Term | Total n-3 n-3 Measure: FFQ n-3 Units: per g | N Quantile: NR N Cases: 59 | OR Estimate: 1.01 95% CI(0.55, 1.85) | |
| | Preeclampsia N Total: 1718 | Term | n-3/n-6 n-3 Measure: calculated n-3 Units: ratio | N Quantile: NR N Cases: 59 | OR Estimate: 0.99 95% CI(0.89, 1.11) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|--|--|
| Olafsdottir, et al., 2005 ⁸² | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: absence of pre-eclampsia, hypertension or diabetes mellitus | Adjustments: Gender, gestational age, mother's height, BMI, hemoglobin, |
| Study dates: 1999-2001 | Pregnant enrolled 436 Pregnant completers 436 | | alcohol consumption in first trimester, |
| Study design: Observational prospective | Pregnant age: No 27.8; Yes 29.6 (no 4.9; yes 4.6) | Exclusion Criteria: women whose personal data could not be found or who moved abroad before giving birth (n 8), had a miscarriage or stillbirth (n 17), twins or triplets (n 5), a preterm birth | parity, smoking during pregnancy, weight gain during pregnancy |
| Location: NR | Race of Mother: NR | (n=4) | |
| Funding source / conflict: Government, Multiple foundations and Societies | | (1=4) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------------|------------------------------|-------------------|---|---|---|---------|
| Olafsdottir 2005 ⁸² | Birth weight N Total: 350 | | Liquid cod liver oil in first trimester (y/n) n-3 Measure: FFQ n-3 Units: grams | Yes vs. no N Quantile: NR N Cases: NR | Coefficient Estimate: 132.1 95% CI(18.3, 246) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|--|---|
| Olafsdottir, et al., 2006 ⁷⁰ | Study Population: Healthy pregnant women | Inclusion Criteria: Pregnant women attending first prenatal visit at Center of Prenatal Care in Reykjavik from 1999-2001, who gave | Adjustments: Weight gain during pregnancy, BMI X weight gain, |
| Study dates: 1999-2001 | Pregnant enrolled 549 Pregnant completers 488 | birth to full-term babies completed the study. | smoking, parity and diastolic and systolic blood pressure early in |
| Study design: Observational prospective | Pregnant age: 28 (5) | Exclusion Criteria: Essential hypertension, gestational diabetes, miscarriage/stillbirth, twins/triplets, preterm birth, loss of personal | pregnancy |
| Location: NR | Race of Mother: White European (NR) | data, moved, missing data, | |
| Funding source / conflict: Government, Multiple foundations and Societies | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------------|--|-------------------|--|-----------------------------|--|---------|
| Olafsdottir 2005 ⁷⁰ | Gestational hypertension or preeclampsia | | n-3 LCPUFAs (0.1-0.23g/d) n-3 Units: g/d | 11th-50th N Cases: NR | OR | |
| | Gestational hypertension or preeclampsia | | n-3 LCPUFAs (0.24-0.87g/d) n-3 Units: g/d | 51st-90th N Cases: NR | OR | |
| | Gestational hypertension or preeclampsia | | n-3 LCPUFAs (<0.9g/d) n-3 Units: g/d | 10th centile N Cases: NR | OR | |
| | Gestational hypertension or preeclampsia | | n-3 LCPUFAs (>0.87g/d) n-3 Units: g/d | >90th N Cases: NR | OR | |
| | Gestational hypertension or preeclampsia N Total: 488 | | n-3 LCPUFAs n-3 Units: yes/no | All N Cases: 49 | OR Estimate: 4.7 95% CI(1.8, 12.6) | |
| | Gestational hypertension N Total: 488 | | Cod liver oil liquid n-3 Measure: FFQ yes/no n-3 Units: yes/no | All N Cases: 30 | OR Estimate: 5.2 95% CI(1.5, 17.8) | |
| | Preeclampsia N Total: 488 | | Yes/no | All N Cases: 19 | OR Estimate: 4.2 95% CI(0.8, 20.9) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|--|--|---|---|--|
| Parker, et al., 2015 ⁹⁷ | Study Population: Healthy pregnant women Postpartum women | Inclusion Criteria: Women between 34 and37 weeks of pregnancy and attending an obstetric service. Participants had to be more than | Adjustments: Age, education level, income level, marital status, number of | |
| Study dates: NR Study design: Observational prospective | Pregnant enrolled 1232 Pregnant completers 831 | 18 years of age, be proficient in English and able to provide informed consent | children, neuroticism scores, the presence or absence of a lifetime mood disorder, coffee drinking, | |
| Location: Australia | Pregnant age: 31.0 (5.7) | Exclusion Criteria: nr | cigarette smoking and alcohol intake, as well as stress levels during | |
| Funding source / conflict: Government | Race of Mother: NR (100) | | pregnancy | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|---|-------------------|--|--------------------|----------------------------|---------|
| Parker 2015 ⁹⁷ | Postnatal depression measured by EPDS N Total: 773 | | PUFA variables: total omega-6; total omega-3; omega-6/omega-3 ratio; DHA; DPA; DPE; EPA+DHA; AA n-3 Measure: Maternal RBC phospholipids at 36 weeks of pregnancy n-3 Units: percentage of total fatty acids in erythrocyte phospholipids | NR N Cases: 138 | OR | |
| | Postnatal depression measured by MINIAD N Total: 819 | | PUFA variables: total omega-6; total omega-3; omega-6/omega-3 ratio; DHA; DPA; DPE; EPA+DHA; AA n-3 Measure: Maternal RBC phospholipids at 36 weeks of pregnancy n-3 Units: percentage of total fatty acids in erythrocyte phospholipids | NR N Cases: 87 | OR | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|---|
| Pike, et al., 2012 ¹⁸⁶ | Study Population: Healthy infants | Inclusion Criteria: mothers and children in the Southampton Women's Survey | Adjustments: Child's age, maternal asthma, and paternal rhinitis for airway |
| Study name: Southampton Women's Survey | Pregnant enrolled | | inflammation outcome |
| Study dates: 2006-2010 | Infants enrolled 1485 Infants completers 865 | Exclusion Criteria: Infants born = 35 weeks' gestation were excluded to avoid abnormal lung development associated with prematurity | |
| Study design: Observational prospective | Pregnant age: 30.4 (3.8) | pondany | |
| Location: UK | Race of Mother: NR (100) | | |
| Funding source / conflict: Government, Some authors serve on scientific advisory boards for corporations | | | |
| Follow-up: Birth to 6 years | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|--------------------------|-------------------------------------|-------------------|--|----------|---|
| Pike 2012 ¹⁸⁶ | Airway inflammation N Total: 452 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.108 95% CI(0.014, 0.201) |
| | Airway inflammation N Total: 452 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: -0.05 95% CI(-0.144, 0.044) |
| | Airway inflammation N Total: 452 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.095 95% CI(0.002, 0.189) |
| | Airway inflammation N Total: 452 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: -0.022 95% Cl(-0.119, 0.074) |
| | Airway inflammation N Total: 452 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.042 95% CI(-0.052, 0.135) |
| | Airway inflammation N Total: 452 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.039 95% Cl(-0.053, 0.131) |
| | Atopy N Total: 638 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1.1 95% CI(0.96, 1.26) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|---|-------------------|--|----------|---|
| | Atopy N Total: 638 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.99 95% Cl(0.86, 1.14) |
| | Atopy N Total: 638 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1 95% Cl(0.87, 1.14) |
| | Atopy N Total: 638 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.94 95% Cl(0.83, 1.06) |
| | Atopy N Total: 638 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.99 95% Cl(0.87, 1.13) |
| | Atopy N Total: 638 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1 95% Cl(0.88, 1.14) |
| | Lung function N Total: 702 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0 95% CI(-0.014, 0.015) |
| | Lung function N Total: 702 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: -0.009 95% CI(-0.024, 0.005) |
| | Lung function N Total: 702 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.008 95% CI(-0.006, 0.022) |
| | Lung function N Total: 702 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.013 95% Cl(-0.001, 0.027) |
| | Lung function N Total: 702 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.01 95% Cl(-0.004, 0.024) |
| | Lung function N Total: 702 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.01 95% CI(-0.004, 0.024) |
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1.06 95% CI(0.82, 1.36) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|----------|--|
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.91 95% CI(0.7, 1.19) |
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.74 95% CI(0.55, 1) |
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.65 95% Cl(0.43, 0.98) |
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.72 95% Cl(0.54, 0.96) |
| | Persistent/late wheeze with atopy N Total: 861 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.73 95% Cl(0.54, 0.99) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.76 95% CI(0.6, 0.96) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1.17 95% CI(0.87, 1.58) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.67 95% CI(0.49, 0.93) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.57 95% Cl(0.37, 0.89) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.69 95% Cl(0.51, 0.95) |
| | Persistent/late wheeze without atopy N Total: 861 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.73 95% CI(0.53, 0.99) |
| | Persistent/late wheeze N Total: 861 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.88 95% CI(0.76, 1.02) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P v | alue |
|---------|--|-------------------|--|----------|--|------|
| | Persistent/late wheeze N Total: 861 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1.09 95% CI(0.96, 1.24) | |
| | Persistent/late wheeze N Total: 861 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.91 95% CI(0.76, 1.08) | |
| | Persistent/late wheeze N Total: 861 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.91 95% CI(0.73, 1.14) | |
| | Persistent/late wheeze N Total: 861 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.93 95% CI(0.79, 1.11) | |
| | Persistent/late wheeze N Total: 861 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.94 95% CI(0.79, 1.12) | |
| | Transient wheeze N Total: 861 | 6 years | AA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.94 95% CI(0.88, 1.02) | |
| | Transient wheeze N Total: 861 | 6 years | ALA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 1.06 95% CI(0.98, 1.14) | |
| | Transient wheeze N Total: 861 | 6 years | DHA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.95 95% CI(0.88, 1.03) | |
| | Transient wheeze N Total: 861 | 6 years | EPA% n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.98 95% CI(0.92, 1.06) | |
| | Transient wheeze N Total: 861 | 6 years | Total n-3 PUFAs n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | All | RR Estimate: 0.97 95% CI(0.9, 1.04) | |
| | Transient wheeze N Total: 861 | 6 years | Total n-3:n-6 n-3 Measure: Maternal plasma phosphatidylcholine at 34 weeks gestation n-3 Units: % total fatty acids | Ail | RR Estimate: 0.98 95% CI(0.92, 1.05) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|--|---|
| Saito, et al., 2010 ¹⁸¹ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: Pregnant women living in Neyagawa City (one of the 43 municipalities in Osaka Prefecture) and a few municipalities | Adjustments: Maternal age, gestation at baseline, family income, maternal |
| Study name: Osaka maternal and child health study | Pregnant completers 771 | other than Neyagawa | and paternal education, maternal and paternal history of asthma, atopic |
| Study dates: Recruitment: November 2001 to March 2003 Follow-up: 3-4 months | Infants completers 771 | Exclusion Criteria: Survey completed outside 3-5 month postpartum window | eczema and allergic rhinitis, mite allergen level from maternal |
| Study design: Observational prospective | Pregnant age: 29.9 (4.0) | | bedclothes, vacuuming living room, mold in kitchen, changes in maternal |
| Location: Japan | Race of Mother: NR (100%) | | diet in the previous 1 month, season when data at baseline were collected. |
| • | | | baby's older siblings, baby's sex, |
| Funding source / conflict: Government | | | baby's birth weight, breastfeeding and bathing or showering infant. |
| Follow-up: 3-4 months | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|------------------------------|-------------------------------|-------------------|--|---|--|---------|
| Yokoyama 2010 ¹⁸¹ | Atopic eczema N Total: 771 | 3-5 months | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 1.3 N Quantile: 192 N Cases: 13 | OR | |
| | Atopic eczema N Total: 771 | 3-5 months | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 1.6 N Quantile: 193 N Cases: 19 | OR Estimate: 1.59 95% CI(0.73, 3.57) | |
| | Atopic eczema N Total: 771 | 3-5 months | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q3 1.9 N Quantile: 193 N Cases: 23 | OR Estimate: 2.26 95% CI(1.06, 5.03) | |
| | Atopic eczema N Total: 771 | 3-5 months | ALA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 2.3 N Quantile: 193 N Cases: 10 | OR Estimate: 0.76 95% CI(0.3, 1.87) | |
| | Atopic eczema N Total: 771 | 3-5 months | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 0.15 N Quantile: 192 N Cases: 16 | OR | |
| | Atopic eczema N Total: 771 | 3-5 months | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 0.24 N Quantile: 193 N Cases: 14 | OR Estimate: 0.96 95% CI(0.43, 2.11) | |
| | Atopic eczema N Total: 771 | 3-5 months | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q3 0.31 N Quantile: 193 N Cases: 16 | OR Estimate: 0.93 95% CI(0.42, 2.05) | |
| | Atopic eczema N Total: 771 | 3-5 months | DHA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.46 N Quantile: 193 N Cases: 19 | OR Estimate: 1.43 95% CI(0.68, 3.07) | |
| | Atopic eczema N Total: 771 | 3-5 months | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 0.07 N Quantile: 192 N Cases: 13 | OR | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|-------------------------------|-------------------|---|---|--|
| | Atopic eczema N Total: 771 | 3-5 months | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 0.13 N Quantile: 193 N Cases: 20 | OR Estimate: 1.57 95% CI(0.72, 3.53) |
| | Atopic eczema N Total: 771 | 3-5 months | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q3 0.18 N Quantile: 193 N Cases: 13 | OR Estimate: 0.98 95% CI(0.41, 2.31) |
| | Atopic eczema N Total: 771 | 3-5 months | EPA n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.27 N Quantile: 193 N Cases: 19 | OR Estimate: 1.84 95% CI(0.84, 4.15) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3 Polyunsaturated fatty acids n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 1.71 N Quantile: 192 N Cases: 13 | OR |
| | Atopic eczema N Total: 771 | 3-5 months | n-3 Polyunsaturated fatty acids n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 2.1 N Quantile: 193 N Cases: 22 | OR Estimate: 2.06 95% CI(0.97, 4.55) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3 Polyunsaturated fatty acids n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q3 2.5 N Quantile: 193 N Cases: 14 | OR Estimate: 1.33 95% CI(0.57, 3.11) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3 Polyunsaturated fatty acids n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 3 N Quantile: 193 N Cases: 16 | OR Estimate: 1.45 95% CI(0.64, 3.31) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3/n-6 Polyunsaturated fatty acid ratio n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q1 0.17 N Quantile: 192 N Cases: 15 | OR |
| | Atopic eczema N Total: 771 | 3-5 months | n-3/n-6 Polyunsaturated fatty acid ratio n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q2 0.19 N Quantile: 193 N Cases: 16 | OR Estimate: 0.95 95% CI(0.43, 2.11) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3/n-6 Polyunsaturated fatty acid ratio n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q3 0.21 N Quantile: 193 N Cases: 19 | OR Estimate: 1.27 95% CI(0.59, 2.78) |
| | Atopic eczema N Total: 771 | 3-5 months | n-3/n-6 Polyunsaturated fatty acid ratio n-3 Measure: Intake (FFQ) n-3 Units: g/d | Q4 0.24 N Quantile: 193 N Cases: 15 | OR Estimate: 1.17 95% CI(0.52, 2.62) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|---|--|
| Sallis, et al., 2014 ⁹⁶ | Study Population: Healthy pregnant women | Inclusion Criteria: All women with an expected due date between April 1991 and December 1992 were eligible for the study. Only | Adjustments: Social class (I/II, III or IV/V) and maternal age |
| Study name: Avon Longitudinal Study of Parents and Children (ALSPAC) | Pregnant enrolled 14,541 Pregnant withdrawals 11,144 Pregnant completers 3,397 | women with data available on genotype, FA levels and depressive symptoms during pregnancy or at 8 weeks postnatally and women with a self-reported ethnicity of White European were included in | |
| Study dates: 1991-1992 | Pregnant age: 28.9 (4.5) not reported | this analysis. | |
| Study design: Observational prospective | Race of Mother: White European (100%) | Exclusion Criteria: Mothers who lost a child during the neonatal period and those with a still birth; mothers with multiple births. | |
| Location: NR | | | |
| Funding source / conflict: Industry, Government | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|---|-------------------|---|---------------------|---|---------|
| Sallis 2014 ⁹⁶ | Antenatal depression N Total: 2911 | | EPA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All N Cases: 441 | OR Estimate: 0.97 95% Cl(0.91, 1.04) | |
| | Antenatal depression N Total: 2912 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | OR Estimate: 0.99 95% CI(0.91, 1.07) | |
| | Antenatal depression N Total: 2912 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | RD Estimate: 0.05 95% CI(-0.09, 0.19) | |
| | Perinatal onset depression N Total: 2377 | | EPA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All N Cases: 306 | OR Estimate: 1.07 95% Cl(0.99, 1.15) | |
| | Perinatal onset depression N Total: 2378 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | OR Estimate: 1.08 95% CI(0.98, 1.19) | |
| | Perinatal onset depression N Total: 2378 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | RD Estimate: 0.08 95% CI(-0.05, 0.22) | |
| | Postnatal depression N Total: 2756 | | EPA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All N Cases: 265 | OR Estimate: 1.04 95% CI(0.96, 1.13) | |
| | Postnatal depression N Total: 2757 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | OR Estimate: 1.04 95% CI(0.94, 1.15) | |
| | Postnatal depression N Total: 2757 | | DHA n-3 Measure: Maternal red blood cells n-3 Units: % total RBC phospholipid | All | RD Estimate: 0.02 95% CI(-0.08, 0.13) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|---|--|
| Scholtens, et al., 2009 ¹⁰³ | Study Population: NR | Inclusion Criteria: Children of mothers recruited from the general population during pregnancy | Adjustments: Age of child at breast- milk collection and total breast-feeding |
| Study name: The Prevention and Incidence of Asthma and Mite Allergy (PIAMA) birth cohort study | Pregnant enrolled 4146 Infants enrolled 276 Infants completers 244 | Exclusion Criteria: None reported | duration |
| Study dates: Recruitment: 1996-1997 Follow-up: 1 year Study design: Observational prospective | Infant age: Birth | | |
| Location: Netherlands | Race of Mother: NR (NR) | | |
| Funding source / conflict: Industry, Government, Multiple foundations and Societies, None | | | |
| Follow-up: 1 year | | | |
| Original, same study, or follow-up studies: Study described in Brunekreef, 2002 | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI | P value |
|-------------------------------|-------------------------------|-------------------|--|----------|---|---------|
| Scholtens 2008 ¹⁰³ | Mean BMI gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.002 95% CI(0.002, -0.01) | |
| | Mean BMI gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.007 95% CI(0.007, -0.004) | |
| | Mean BMI gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.004 95% CI(0.004, -0.008) | |
| | Mean BMI gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.009 95% CI(0.009, -0.003) | |
| | Mean BMI gain N Total: 244 | 1 y | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.003 95% CI(-0.003, -0.015) | |
| | Mean BMI gain N Total: 244 | 1 y | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.004 95% CI(-0.004, -0.015) | |
| | Mean BMI gain N Total: 244 | 1 y | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.009 95% CI(-0.009, -0.021) | |
| | Mean BMI gain N Total: 244 | 1 y | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.01 95% Cl(-0.01, -0.021) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|----------------------------------|-------------------|--|----------|---|---------|
| | Mean BMI gain N Total: 244 | 1 y | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.001 95% CI(-0.001, -0.013) | |
| | Mean BMI gain N Total: 244 | 1 y | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.008 95% CI(0.008, -0.004) | |
| | Mean length gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.011 95% CI(-0.011, -0.029) | |
| | Mean length gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.01 95% CI(-0.01, -0.028) | |
| | Mean length gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.013 95% CI(-0.013, -0.031) | |
| | Mean length gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.006 95% CI(0.006, 0.024) | |
| | Mean length gain N Total: 244 | 1 y | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.007 95% CI(0.007, -0.011) | |
| | Mean length gain N Total: 244 | 1 y | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.01 95% CI(0.01, -0.008) | |
| | Mean length gain N Total: 244 | 1 y | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.009 95% CI(0.009, -0.008) | |
| | Mean length gain N Total: 244 | 1 y | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.016 95% CI(0.016, 0.001) | |
| | Mean length gain N Total: 244 | 1 y | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.002 95% CI(-0.002, -0.02) | |
| | Mean length gain N Total: 244 | 1 y | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.004 95% CI(-0.004, -0.022) | |
| | Mean weight gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -1.64 95% CI(-1.64, -6.596) | |
| | Mean weight gain N Total: 244 | 1 y | ALA (18 : 3n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.697 95% CI(0.697, -4.275) | |
| | Mean weight gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.606 95% CI(0.606, -4.387) | |
| | Mean weight gain N Total: 244 | 1 y | DHA (22 : 6n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 0.833 95% CI(0.833, -4.124) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|----------------------------------|-------------------|--|----------|---|---------|
| | Mean weight gain N Total: 244 | 1 y | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 2.434 95% CI(2.434, -2.516) | |
| | Mean weight gain N Total: 244 | 1 у | EPA (20 : 5n-3) n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 3.187 95% Cl(3.187, -1.776) | |
| | Mean weight gain N Total: 244 | 1 у | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.329 95% Cl(-0.329, -5.282) | |
| | Mean weight gain N Total: 244 | 1 у | Total n-3 LCPUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -1.574 95% Cl(-1.574, 6.532) | |
| | Mean weight gain N Total: 244 | 1 у | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: -0.253 95% Cl(-0.253, -5.216) | |
| | Mean weight gain N Total: 244 | 1 у | Total n-3 PUFA n-3 Measure: Breast milk wt% n-3 Units: wt% | | Coefficient Estimate: 2.843 95% CI(2.843, -2.17) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|--|---|
| Smits, et al., 2013 ⁷³ | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: NR | Adjustments: Potential confounding factors were evaluated but none of |
| Study name: Amsterdam Born Children and their | Pregnant enrolled 1659 Pregnant completers 1659 | Exclusion Criteria: primiparous women or delivered preterm | them was significant confounding defined as changing the odds ratio by |
| Development (ABCD) | Infants enrolled 1659 Infants completers 1659 | | 10% |
| Study dates: Jan 2003- Mar 2004 | Pregnant age: <25 y, 5.7% 25-34 y, 61.2% >=35 y, 33.1% | | |
| Study design: Observational prospective | Infant age: 40.0 weeks (1.2) | | |
| Location: Netherlands | Race of Mother: White European (88.4) | | |
| Funding source / conflict: None | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------|-------------------------------|-------------------|--|---|-------------------------------------|---------|
| Smits 2015 ⁷³ | Birth weight N Total: 1659 | | DHA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q1 <3.74 - N Quantile: NR N Cases: NR | -118.2 95% Cl(-195.032, -41.368) | |
| | Birth weight N Total: 1659 | | DHA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q2 3.74 - 4.35 N Quantile: NR N Cases: NR | -43.8 95% CI(-120.632, 33.032) | |
| | Birth weight N Total: 1659 | | DHA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q3 4.35 - 4.86 N Quantile: NR N Cases: NR | | |
| | Birth weight N Total: 1659 | | DHA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q4 4.88 - 5.54 N Quantile: NR N Cases: NR | -34.4 95% CI(-111.232, 42.432) | |
| | Birth weight N Total: 1659 | | DHA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q5 >=5.54 - N Quantile: NR N Cases: NR | -15.4 95% CI(-92.232, 61.432) | |
| | Birth weight N Total: 1659 | | EPA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q1 <0.33 - N Quantile: NR N Cases: NR | -182.5 95% CI(-258.94, -106.06) | |
| | Birth weight N Total: 1659 | | EPA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q2 0.33 - 0.46 N Quantile: NR N Cases: NR | -66.1 95% CI(-142.54, 10.34) | |
| | Birth weight N Total: 1659 | | EPA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q3 0.46 - 0.58 N Quantile: NR N Cases: NR | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|-------------------------------|-------------------|--|--|--|
| | Birth weight N Total: 1659 | | EPA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q4 0.58 - 0.81 N Quantile: NR N Cases: NR | 18.4 95% Cl(-57.844, 94.644) |
| | Birth weight N Total: 1659 | | EPA n-3 Measure: Maternal plasma phospholipids at early pregnancy n-3 Units: mg/L | Q5 >=0.81 - N Quantile: NR N Cases: NR | -26.6 95% Cl(-103.04, 49.84) |
| | SGA N Total: 1659 | | DHA n-3 Measure: Biomarker n-3 Units: mg/L | Q1 <3.74 - N Quantile: 332 N Cases: 44 | OR Estimate: 1.11 95% Cl(0.7, 1.75) |
| | SGA N Total: 1659 | | DHA n-3 Measure: Biomarker n-3 Units: mg/L | Q2 3.74 - 4.35 N Quantile: 332 N Cases: 42 | OR Estimate: 1.05 95% Cl(0.66, 1.67) |
| | SGA N Total: 1659 | | DHA n-3 Measure: Biomarker n-3 Units: mg/L | Q3 4.35 - 4.86 N Quantile: 332 N Cases: 40 | OR |
| | SGA N Total: 1659 | | DHA n-3 Measure: Biomarker n-3 Units: mg/L | Q4 4.88 - 5.54 N Quantile: 332 N Cases: 39 | OR Estimate: 0.96 95% Cl(0.6, 1.54) |
| | SGA N Total: 1659 | | DHA n-3 Measure: Biomarker n-3 Units: mg/L | Q5 >=5.54 - N Quantile: 332 N Cases: 40 | OR Estimate: 0.99 95% Cl(0.62, 4.59) |
| | SGA N Total: 1659 | | EPA n-3 Measure: Biomarker n-3 Units: mg/L | Q1 <0.33 - N Quantile: 332 N Cases: 42 | OR Estimate: 2.09 95% Cl(1.32, 3.3) |
| | SGA N Total: 1659 | | EPA n-3 Measure: Biomarker n-3 Units: mg/L | Q2 0.33 - 0.46 N Quantile: 332 N Cases: 44 | OR Estimate: 1.42 95% Cl(0.88, 2.31) |
| | SGA N Total: 1659 | | EPA n-3 Measure: Biomarker n-3 Units: mg/L | Q3 0.46 - 0.58 N Quantile: 332 N Cases: 32 | OR |
| | SGA N Total: 1659 | | EPA n-3 Measure: Biomarker n-3 Units: mg/L | Q4 0.58 - 0.81 N Quantile: 332 N Cases: 32 | OR Estimate: 0.98 95% Cl(0.59, 1.64) |
| | SGA N Total: 1659 | | EPA n-3 Measure: Biomarker n-3 Units: mg/L | Q5 >=0.81 - N Quantile: 332 N Cases: 36 | OR Estimate: 1.13 95% Cl(0.68, 1.87) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|---|
| Standl, et al., 2014 ¹⁷⁷ | Study Population: Healthy infants | Inclusion Criteria: NR | Adjustments: Parental education, sex, time of follow-up (2 yr, 6 yr or 10 yr for |
| Study name: LISAplus | Infants enrolled 436 Infants completers 243 | Exclusion Criteria: Neonates displaying at least one of the following criteria: preterm birth (maturity <37 gestational weeks), low birth | eczema; 6 yr and 10 yr for asthma, hay fever/allergic rhinitis and |
| Study dates: Recruitment 1997-1999 | Mother age: 32.7 (3.9) NR | weight (<2,500 g), congenital malformation, symptomatic neonatal infection, antibiotic medication, hospitalization or intensive medical | aeroallergen sensitization), age, maternal age at birth, parental atopy, |
| Study design: Observational prospective | Infant age: Birth (NR) NR | care during neonatal period. In addition, newborns from mothers with immune-related diseases (autoimmune disorders, diabetes, | total sum of fatty acids |
| Location: Germany | Race of Mother: NR (100) | hepatitis B), on long-term medication or who abuse drugs and/or alcohol, and newborns from parents with a nationality other than | |
| Funding source / conflict: Government | | German or who were not born in Germany, were excluded. | |
| Follow-up: 10 years | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P | value |
|----------------------------|--|-------------------|--|--------------------|--|-------|
| Standl 2014 ¹⁷⁷ | Aeroallergen sensitization N Total: 243 | 10 y | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 43 | OR Estimate: 1.03 95% CI(0.87, 1.23) | |
| | Aeroallergen sensitization N Total: 243 | 10 y | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 43 | OR Estimate: 0.82 95% CI(0.56, 1.22) | |
| | Aeroallergen sensitization N Total: 277 | 6 у | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 24 | OR Estimate: 1.03 95% CI(0.85, 1.25) | |
| | Aeroallergen sensitization N Total: 277 | 6 у | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 24 | OR Estimate: 0.94 95% CI(0.61, 1.44) | |
| | Asthma N Total: 243 | 10 y | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 5 | OR Estimate: 1.18 95% CI(0.79, 1.75) | |
| | Asthma N Total: 243 | 10 y | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 5 | OR Estimate: 0.77 95% CI(0.29, 2.04) | |
| | Asthma N Total: 277 | 6 у | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 3 | OR Estimate: 0.83 95% CI(0.48, 1.44) | |
| | Asthma N Total: 277 | 6 у | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 3 | OR Estimate: 1.75 95% CI(0.73, 4.21) | |
| | Eczema N Total: 243 | 10 y | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 7 | OR Estimate: 0.76 95% CI(0.52, 1.12) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|--------------------|--|
| | Eczema N Total: 243 | 10 y | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 7 | OR Estimate: 1.31 95% CI(0.63, 2.71) |
| | Eczema N Total: 277 | 6 у | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 14 | OR Estimate: 1.18 95% CI(0.95, 1.48) |
| | Eczema N Total: 277 | 6 у | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 14 | OR Estimate: 0.75 95% CI(0.45, 1.25) |
| | Eczema N Total: 280 | 2 у | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 15 | OR Estimate: 0.99 95% CI(0.78, 1.25) |
| | Eczema N Total: 280 | 2 у | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 15 | OR Estimate: 0.97 95% CI(0.58, 1.63) |
| | Hay fever or allergic rhinitis N Total: 243 | 10 y | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 13 | OR Estimate: 1 95% CI(0.77, 1.3) |
| | Hay fever or allergic rhinitis N Total: 243 | 10 y | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 13 | OR Estimate: 0.84 95% CI(0.47, 1.51) |
| | Hay fever or allergic rhinitis N Total: 277 | 6 y | n-3 LC-PUFA n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 3 | OR Estimate: 0.96 95% CI(0.6, 1.56) |
| | Hay fever or allergic rhinitis N Total: 277 | 6 у | n-6/n-3 ratio n-3 Measure: Cord blood serum fatty acids n-3 Units: percentage of total fatty acids | All N Cases: 3 | OR Estimate: 0.75 95% Cl(0.27, 2.1) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|--|--|
| Steer, et al., 2013 ¹⁶⁴ Study name: Avon Longitudinal Study of Parents and Children (ALSPAC) Study dates: 1991-2000 Study design: Observational prospective Location: UK Funding source / conflict: Government | Study Population: Healthy infants Healthy pregnant women Pregnant enrolled 14,541 Infants completers 2,839 Mother age: 29.33 (4.48) Infant age: birth Race of Mother: White European (98.8) Black (0.6) Asian (0.6) | Inclusion Criteria: pregnant women with expected delivery date between 4/91 and 12/92 in Bristol UK Exclusion Criteria: Not reported | Adjustments: Maternal age, education, ethnicity, alcohol consumption and smoking; partner status, housing tenure, crowding index, parity, preterm gestation (,37 wk), low birth weight (,2500 g), multiple births, sex, breastfeeding, and measures of adversity (in pregnancy and during the first 2 y after birth) and child stimulation (both from the home environment and maternal interaction with the child) |
| Follow-up: 8 years | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|----------------------|-------------------|--|--------------------|--|---------|
| Steer 2013 ¹⁶⁴ | IQ N Total: 2839 | 7 years | AA n-3 Measure: maternal erythrocyte | Highest to other 3 | Coefficient Estimate: -1.18 95% CI(-2.53, 0.18) | |
| | IQ N Total: 2839 | 7 years | AA n-3 Measure: maternal erythrocyte | Lowest to other 3 | Coefficient Estimate: -1.54 95% CI(-2.91, -0.14) | |
| | IQ N Total: 2839 | 7 years | DHA n-3 Measure: maternal erythrocyte | Highest to other 3 | Coefficient Estimate: -0.18 95% CI(-1.52, 1.17) | |
| | IQ N Total: 2839 | 7 years | DHA n-3 Measure: maternal erythrocyte | Lowest to other 3 | Coefficient Estimate: -1.52 95% CI(-2.91, -0.14) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|---|--|---|
| Strom, et al., 2009 ⁹² Study name: Danish National Birth Cohort Study dates: 1996-2002 Study design: Observational prospective Location: Denmark Funding source / conflict: Government, Multiple foundations and Societies, Funding Affiliations trade group, March of | Study Population: Healthy pregnant women Pregnant enrolled 86,453 Pregnant withdrawals 32,251 Pregnant completers 54,202 Pregnant age: not reported (not reported) not reported Race of Mother: NR (100%) | Inclusion Criteria: All pregnant women living in Denmark between 1996 and 2002, who were fluent in Danish Exclusion Criteria: NR | Adjustments: Total energy intake, pre- pregnant BMI, maternal age, parity, alcohol intake, smoking, occupation, education, homeownership, marital status, social support, and history of previous depression |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|--------------------------|----------------------|-------------------|--|----------------------------|--|
| Strom 2009 ⁹² | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q1 9.1 N Cases: 16 | OR Estimate: 0.96 95% Cl(0.51, 1.78) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q2 14.1 N Cases: 16 | OR Estimate: 1.03 95% Cl(0.55, 1.92) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q3 18.1 N Cases: 11 | OR Estimate: 0.73 95% Cl(0.36, 1.48) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q4 22.2 N Cases: 19 | OR Estimate: 1.33 95% Cl(0.74, 2.39) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q5 27 N Cases: 17 | OR Estimate: 1.21 95% CI(0.66, 2.21) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q6 32.7 N Cases: 23 | OR Estimate: 1.65 95% CI(0.95, 2.88) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q7 39.6 N Cases: 18 | OR Estimate: 1.3 95% CI(0.72, 2.36) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q8 48.4 N Cases: 11 | OR Estimate: 0.79 95% CI(0.39, 1.59) |
| | PPD admission | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q9+Q10 72.8 N Cases: 28 | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P valu | ie |
|---------|----------------------|-------------------|--|-----------------------------|--|----|
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q1 9.1 N Cases: 110 | OR Estimate: 1.24 95% CI(0.96, 1.61) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q2 14.1 N Cases: 97 | OR Estimate: 1.17 95% Cl(0.9, 1.53) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q3 18.1 N Cases: 82 | OR Estimate: 0.99 95% Cl(0.75, 1.31) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q4 22.2 N Cases: 102 | OR Estimate: 1.29 95% CI(0.99, 1.68) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q5 27 N Cases: 83 | OR Estimate: 1.09 95% Cl(0.83, 1.44) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q6 32.7 N Cases: 85 | OR Estimate: 1.11 95% CI(0.84, 1.46) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q7 39.6 N Cases: 80 | OR Estimate: 1.04 95% CI(0.79, 1.38) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q8 48.4 N Cases: 70 | OR Estimate: 0.89 95% CI(0.67, 1.2) | |
| | PPD prescription | | n-3 PUFA intake n-3 Measure: FFQ n-3 Units: mg/d | Q9+Q10 72.8 N Cases: 157 | OR | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|--|--|--|
| Sun, et al., 2010 ¹³¹ | Study Population: Healthy infants | Inclusion Criteria: live-born singletons whose mothers provided information on fish intake from food frequency questionnaire | Adjustments: Energy intake, sex, gestational age, parity, time |
| Study name: Danish National Birth Cohort | Infants enrolled 65,754 Infants completers 65754 | | breastfeeding, maternal age, SES, |
| Study dates: Recruitment March 1996 to November 2002 | Infant age: birth | Exclusion Criteria: children with missing information on maternal smoking and parity, children who died during the neonatal period, | pre-pregnancy BMI, smoking status at recruitment, maternal history of |
| Study design: Observational prospective | Race of Mother: NR (NR) | and children born to mothers with an unlikely high (>16,700 kJ/day) or low (<4200 kJ/day) intake of energy during pregnancy | epilepsy |
| Location: Denmark | | | |
| Funding source / conflict: Government | | | |
| Follow-up: 10.8 years (median 7.8 years) | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|--------------------------|----------------------------|--|--|--|--|---------|
| Sun, 2010 ¹³¹ | Epilepsy | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 12,245 N Cases: 126 | Incidence rate ratio (IRR) Estimate: 1.33 95% CI(1.02, 1.74) | |
| | Epilepsy | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 12,318 N Cases: 97 | Incidence rate ratio (IRR) | |
| | Epilepsy | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 12,332 N Cases: 104 | Incidence rate ratio (IRR) Estimate: 1.05 95% CI(0.79, 1.38) | |
| | Epilepsy | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 12,421 N Cases: 102 | Incidence rate ratio (IRR) Estimate: 1.05 95% CI(0.81, 1.41) | |
| | Epilepsy | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 4,528 N Cases: 34 | Incidence rate ratio (IRR) Estimate: 1.01 95% CI(0.68, 1.49) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Supplements during pregnancy n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | 377 N Quantile: 4,528 N Cases: 34 | Incidence rate ratio (IRR) Estimate: 1.01 95% CI(0.68, 1.49) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: FFQ n-3 Units: mg/day | N Quantile: 11,910 N Cases: 128 | Incidence rate ratio (IRR) Estimate: 1.28 95% CI(0.98, 1.67) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | Q1 117 N Quantile: 11,910 N Cases: 128 | Incidence rate ratio (IRR) Estimate: 1.28 95% CI(0.98, 1.67) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | Q2 207 N Quantile: 12,332 N Cases: 104 | Incidence rate ratio (IRR) Estimate: 1.05 95% CI(0.79, 1.38) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|----------------------------|--|--|--|--|---------|
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | Q3 308 N Quantile: 12,318 N Cases: 97 | Incidence rate ratio (IRR) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | Q4 451 N Quantile: 12,421 N Cases: 102 | Incidence rate ratio (IRR) Estimate: 1.05 95% CI(0.81, 1.41) | |
| | Epilepsy N Total: 65754 | Up to 10.8 years, mean 7.8 years | Total n-3 LCPUFA n-3 Measure: Maternal food frequency questionnaire n-3 Units: mg/day | Q5 817 N Quantile: 12,245 N Cases: 126 | Incidence rate ratio (IRR) Estimate: 1.33 95% CI(1.02, 1.74) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|---|
| Thijs, et al., 2011 ¹⁷⁸ | Study Population: Healthy pregnant women | Inclusion Criteria: availability of complete baseline data from the 34 weeks pregnancy questionnaire and availability of a breast milk | Adjustments: Recruitment group, maternal age, maternal education, |
| Study name: KOALA Birth Cohort Study | Pregnant enrolled 312 Pregnant completers 304 | sample. | infant's gender, number of older siblings and their atopic history, |
| Study dates: 2003 | Infants enrolled 312 Infants completers 304 | Exclusion Criteria: NR | parental atopic history, maternal smoking during pregnancy and/or |
| Study design: Observational prospective | Pregnant age: 33.3 (3.9) NR | | smoking in presence of the infant, place of birth, season of breast milk |
| Location: Netherlands | Race of Mother: NR (100) | | collection, duration and exclusivity of breastfeeding, maternal n-3 fatty acids |
| Funding source / conflict: Government, None | | | supplement use, maternal probiotic supplement use, maternal probiotic |
| Follow-up: 2 years | | | dairy use, maternal antibiotic use during lactation, infant's antibiotic use, vaccination schedule, dampness of the home, pet animals in the home. |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------------------------|--|-------------------|--|--|--|
| Thijs 2011 ¹⁷⁸ | Allergic sensitisation N Total: 204 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt1 0.3-0.56 N Quantile: 41 N Cases: 10 | OR |
| | Allergic sensitisation N Total: 204 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt2 0.56-0.65 N Quantile: 44 N Cases: 13 | OR Estimate: 1.29 95% Cl(0.45, 3.68) |
| | Allergic sensitisation N Total: 204 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt3 0.65-0.78 N Quantile: 53 N Cases: 15 | OR Estimate: 1.32 95% CI(0.47, 3.72) |
| | Allergic sensitisation N Total: 204 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt4 0.78-2.55 N Quantile: 66 N Cases: 13 | OR Estimate: 0.89 95% CI(0.32, 2.5) |
| | Allergic sensitisation N Total: 220 | 1 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt1 0.3-0.56 N Quantile: 49 N Cases: 8 | OR |
| | Allergic sensitisation N Total: 220 | 1 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt2 0.56-0.65 N Quantile: 45 N Cases: 6 | OR Estimate: 0.8 95% CI(0.21, 3.08) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|--|--|--|
| | Allergic sensitisation N Total: 220 | 1 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt3 0.65-0.78 N Quantile: 58 N Cases: 9 | OR Estimate: 0.68 95% Cl(0.21, 2.2) |
| | Allergic sensitisation N Total: 220 | 1 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt4 0.78-2.55 N Quantile: 68 N Cases: 5 | OR Estimate: 0.17 95% CI(0.04, 0.77) |
| | Atopic dermatitis N Total: 207 | 2 y | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: NR | All N Cases: 31 | OR Estimate: 0.33 95% CI(0.13, 0.87) |
| | Atopic dermatitis N Total: 207 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt1 0.3-0.56 N Quantile: 43 N Cases: 10 | OR |
| | Atopic dermatitis N Total: 207 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt2 0.56-0.65 N Quantile: 44 N Cases: 7 | OR Estimate: 0.83 95% Cl(0.27, 2.57) |
| | Atopic dermatitis N Total: 207 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt3 0.65-0.78 N Quantile: 54 N Cases: 8 | OR Estimate: 0.46 95% CI(0.13, 1.59) |
| | Atopic dermatitis N Total: 207 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt4 0.78-2.55 N Quantile: 66 N Cases: 6 | OR Estimate: 0.34 95% CI(0.12, 0.97) |
| | Eczema N Total: 304 | 2 y | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: NR | All N Cases: 95 | OR Estimate: 0.6 95% Cl(0.37, 0.98) |
| | Eczema N Total: 304 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt1 0.3-0.56 N Quantile: 72 N Cases: 26 | OR |
| | Eczema N Total: 304 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt2 0.56-0.65 N Quantile: 68 N Cases: 21 | OR Estimate: 0.8 95% CI(0.37, 1.71) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|------------------------|-------------------|--|--|--|---------|
| | Eczema N Total: 304 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt3 0.65-0.78 N Quantile: 74 N Cases: 24 | OR Estimate: 0.89 95% CI(0.43, 1.88) | |
| | Eczema N Total: 304 | 2 у | Main n-3 LCPs (EPA+DHA+DPA) n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: weight-percentage (wt%, mg/100 mg) of total breast milk fat | Qt4 0.78-2.55 N Quantile: 90 N Cases: 24 | OR Estimate: 0.62 95% CI(0.3, 1.29) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment | |
|--|--|--|--|--|
| Valent, et al., 2013 ¹³² | Study Population: Healthy infants Healthy pregnant women | Inclusion Criteria: Permanent residents of the study areas for at least 2 years, at least 18 years of age, and had no absence from | Adjustments: Fish intake, fatty acids in maternal serum and proportion of | |
| Study dates: 2007-2011 | Pregnant enrolled 900 Pregnant completers 767 | the study area for more than 6 weeks during pregnancy, no history of drug abuse, no serious health problems or complications of | PUFAs, sex, birth weight, maternal IQ, weight gain during pregnancy, marital | |
| Study design: Observational prospective | Infants enrolled 767 Infants completers 632 | pregnancy, and no twin gestation | status at delivery, SES index, number of children living in home, alcohol | |
| Location: Italy | Pregnant age: 33.3 (4.3) | Exclusion Criteria: Preterm births (<37 weeks of gestational age), babies with congenital malformations or severe perinatal problems. | intake during pregnancy, breastfeeding history, child intake of | |
| Funding source / conflict: Government Infant age: Birth | | and those with severe health problems that presented postnatally and potentially compromised their neurological development | fish until age 18 months, and daycare | |
| | Race of Mother: NR (100) | | attendance at age 18 months | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|----------------------------|---|-------------------|--|----------|----------------------------|-----------------|
| Valent 2013 ¹³² | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | AA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.95 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | ALA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.35 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | DHA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.49 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | DPA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.28 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | EPA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.99 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | Total n-3s n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.66 |
| | Bayley Scales of Infant Dev., Version 3, Cognitive Scale N Total: 606 | 18 months | n-6/n-3 n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.82 |
| | Motor function N Total: 606 | 18 months | AA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.79 |
| | Motor function N Total: 606 | 18 months | ALA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.56 |
| | Motor function N Total: 606 | 18 months | DHA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.51 |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--------------------------------|-------------------|--|----------|----------------------------|-----------------|
| | Motor function N Total: 606 | 18 months | DPA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.22 |
| | Motor function N Total: 606 | 18 months | EPA n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.31 |
| | Motor function N Total: 606 | 18 months | Total n-3s n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.41 |
| | Motor function N Total: 606 | 18 months | n-6/n-3 n-3 Measure: Maternal prenatal serum n-3 Units: mg/ml | All | Coefficient | P value: P=0.61 |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|---|---|
| Wijga, et al., 2006 ¹⁷⁵ | Study Population: NR | Inclusion Criteria: Mothers reporting at least 1 of the following: (a history of) asthma, current hay fever, current allergy for pets, or | Adjustments: Sex, number of older siblings, maternal age, maternal |
| Study name: The Prevention and Incidence of Asthma and Mite Allergy (PIAMA) birth cohort study | Pregnant enrolled 276 Pregnant withdrawals 11 Pregnant completers 265 | current allergy for house dust or house dust mite were defined as allergic, and mothers reporting that they had none of these were defined as non-allergic. | smoking during pregnancy, and maternal body mass index before pregnancy |
| Study dates: 1995-2000 | Infants enrolled 276 Infants withdrawals 11 Infants completers 265 | Exclusion Criteria: NR | |
| Study design: Observational prospective | Pregnant age: 31.0 (3.9) NR | | |
| Location: Netherlands | Race of Mother: NR (100) | | |
| Funding source / conflict: Industry, Government | | | |
| Follow-up: 4 years | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------------------------|------------------------|-------------------|---|--------------------|--|---------|
| Wilja 2006 ¹⁷⁵ | Asthma N Total: 158 | 4 y | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.74 95% CI(0.37, 1.47) | |
| | Asthma N Total: 158 | 4 y | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.93 95% CI(0.5, 1.35) | |
| | Asthma N Total: 158 | 4 y | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.5 95% CI(0.22, 1.13) | |
| | Asthma N Total: 158 | 4 y | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.39 95% CI(0.15, 0.99) | |
| | Asthma N Total: 158 | 4 y | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.79 95% CI(0.48, 1.29) | |
| | Asthma N Total: 158 | 4 y | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.72 95% CI(0.41, 1.26) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------|-------------------|---|--------------------|--|
| | Asthma N Total: 158 | 4 у | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 14 | OR Estimate: 0.39 95% Cl(0.16, 1) |
| | Eczema N Total: 158 | 1 у | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.62 95% CI(0.36, 1.01) |
| | Eczema N Total: 158 | 1 у | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.67 95% Cl(0.39, 1.2) |
| | Eczema N Total: 158 | 1 y | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.74 95% Cl(0.45, 1.21) |
| | Eczema N Total: 158 | 1 y | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.79 95% Cl(0.5, 1.23) |
| | Eczema N Total: 158 | 1 у | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 1.06 95% Cl(0.83, 1.37) |
| | Eczema N Total: 158 | 1 y | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.9 95% Cl(0.65, 1.26) |
| | Eczema N Total: 158 | 1 y | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 26 | OR Estimate: 0.82 95% Cl(0.52, 1.27) |
| | Eczema N Total: 158 | 4 y | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.82 95% Cl(0.48, 1.39) |
| | Eczema N Total: 158 | 4 у | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.82 95% CI(0.5, 1.35) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|---|--------------------|--|
| | Eczema N Total: 158 | 4 у | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.84 95% Cl(0.54, 1.3) |
| | Eczema N Total: 158 | 4 y | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.99 95% CI(0.7, 1.41) |
| | Eczema N Total: 158 | 4 у | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.91 95% Cl(0.68, 1.23) |
| | Eczema N Total: 158 | 4 у | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.9 95% Cl(0.65, 1.26) |
| | Eczema N Total: 158 | 4 у | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 27 | OR Estimate: 0.81 95% Cl(0.52, 1.26) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.81 95% Cl(0.45, 1.48) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.66 95% Cl(0.35, 1.25) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.53 95% Cl(0.27, 1.04) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.67 95% Cl(0.37, 1.19) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.72 95% Cl(0.46, 1.14) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|-------------------|---|--------------------|--|
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.67 95% Cl(0.41, 1.1) |
| | Persistent symptoms (eczema at 1 year as well as eczema and/or asthma at age 4 years) N Total: 158 | 1 y/4 y | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 20 | OR Estimate: 0.51 95% CI(0.25, 1.03) |
| | Sensitization and symptoms N Total: 81 | 4 у | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 1.23 95% Cl(0.53, 2.82) |
| | Sensitization and symptoms N Total: 81 | 4 у | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.7 95% Cl(0.3, 1.63) |
| | Sensitization and symptoms N Total: 81 | 4 у | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.48 95% Cl(0.17, 1.31) |
| | Sensitization and symptoms N Total: 81 | 4 у | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.78 95% Cl(0.36, 1.69) |
| | Sensitization and symptoms N Total: 81 | 4 у | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.52 95% Cl(0.23, 1.18) |
| | Sensitization and symptoms N Total: 81 | 4 у | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.56 95% CI(0.26, 1.22) |
| | Sensitization and symptoms N Total: 81 | 4 у | n-3 LCP/n-6 LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 10 | OR Estimate: 0.38 95% CI(0.12, 1.22) |
| | Sensitization N Total: 52 | 4 у | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 0.62 95% Cl(0.27, 1.39) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|------------------------------|-------------------|---|--------------------|--|
| | Sensitization N Total: 52 | 4 у | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 2.43 95% Cl(1.01, 5.88) |
| | Sensitization N Total: 52 | 4 у | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 1.11 95% CI(0.86, 1.42) |
| | Sensitization N Total: 52 | 4 у | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 1.1 95% CI(0.9, 1.34) |
| | Sensitization N Total: 52 | 4 y | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 1.22 95% CI(0.92, 1.62) |
| | Sensitization N Total: 52 | 4 у | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 1.13 95% CI(0.9, 1.43) |
| | Sensitization N Total: 52 | 4 y | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 16 | OR Estimate: 1.29 95% CI(0.85, 1.95) |
| | Sensitization N Total: 81 | 4 y | AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 0.85 95% CI(0.5, 1.46) |
| | Sensitization N Total: 81 | 4 y | ALA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 0.81 95% CI(0.49, 1.35) |
| | Sensitization N Total: 81 | 4 у | All n-3 n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 0.86 95% CI(0.52, 1.41) |
| | Sensitization N Total: 81 | 4 у | DHA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 0.89 95% Cl(0.57, 1.38) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|------------------------------|-------------------|---|--------------------|--|
| | Sensitization N Total: 81 | 4 y | EPA/AA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 1.02 95% Cl(0.71, 1.46) |
| | Sensitization N Total: 81 | 4 y | EPA n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 0.85 95% Cl(0.55, 1.32) |
| | Sensitization N Total: 81 | 4 y | n-3LCP/n-6LCP n-3 Measure: Breast milk fatty acid content, median wt% (interquartile range) n-3 Units: per interquartile range increase in breast milk FA content (wt%) | All N Cases: 32 | OR Estimate: 1.12 95% CI(0.7, 1.77) |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|---|--|--|--|
| Yoshihiro Miyake, et al., 200693 | Study Population: Healthy pregnant women | Inclusion Criteria: women who became pregnant in Neyagawa City, Osaka Prefecture, Japan | Adjustments: Age, gestation, parity, cigarette smoking, family structure, |
| Study name: Osaka maternal and child health study | Pregnant enrolled 1002 Pregnant withdrawals 137 Pregnant | | family income, education, changes in |
| | completers 865 | Exclusion Criteria: NR | diet in the previous month, season |
| Study dates: 2001-2003 | Pregnant age: age reported in categories | | when data at baseline were collected, body mass index, time of delivery |
| Study design: Observational prospective | r regnant age. age reported in outegories | | before the second survey, medical |
| Location: Japan | Race of Mother: Asian (100%) | | problems in pregnancy, baby's sex and baby's birthweight |
| Funding source / conflict: Government, Multiple foundations and Societies, None | | | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P | value |
|---------------------------|----------------------|-------------------|--|----------|--|-------|
| Miyake 2006 ⁹³ | | | DHA n-3 Measure: FFQ n-3 Units: g/day | Q1 0.16 | OR | |
| | | | DHA n-3 Measure: FFQ n-3 Units: g/day | Q2 0.26 | OR Estimate: 0.76 95% CI(0.44, 1.32) | |
| | | | DHA n-3 Measure: FFQ n-3 Units: g/day | Q3 0.34 | OR Estimate: 0.62 95% CI(0.34, 1.09) | |
| | | | DHA n-3 Measure: FFQ n-3 Units: g/day | Q4 0.5 | OR Estimate: 0.85 95% CI(0.49, 1.46) | |
| | | | EPA n-3 Measure: FFQ n-3 Units: g/day | Q1 0.08 | OR | |
| | | | EPA n-3 Measure: FFQ n-3 Units: g/day | Q2 0.15 | OR Estimate: 0.93 95% Cl(0.54, 1.6) | |
| | | | EPA n-3 Measure: FFQ n-3 Units: g/day | Q3 0.21 | OR Estimate: 0.81 95% CI(0.46, 1.42) | |
| | | | EPA n-3 Measure: FFQ n-3 Units: g/day | Q4 0.32 | OR Estimate: 0.89 95% Cl(0.51, 1.55) | |
| | | | n-3 FA n-3 Measure: FFQ n-3 Units: g/day | Q1 1.6 | OR | |
| | | | n-3 FA n-3 Measure: FFQ n-3 Units: g/day | Q2 2.1 | OR Estimate: 0.68 95% CI(0.39, 1.18) | |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|----------------------|-------------------|--|----------|--|---------|
| | | | n-3 FA n-3 Measure: FFQ n-3 Units: g/day | Q3 2.4 | OR Estimate: 0.58 95% CI(0.33, 1.02) | |
| | | | n-3 FA n-3 Measure: FFQ n-3 Units: g/day | Q4 3 | OR Estimate: 0.9 95% CI(0.53, 1.53) | |

| Author, Year, Study, Location, Funding Source, Follow-up | Population and participant information | Inclusion and Exclusion Criteria | Adjustment |
|--|---|--|---|
| Yu, et al., 2015 ¹⁸⁵ Study dates: Participants recruited between June 2009 and September 2010 Study design: Observational prospective Location: NR Funding source / conflict: Industry, Government | Study Population: Healthy infants Healthy pregnant women Infants enrolled 1162 Infants completers 960 Pregnant age: NR (NR) NR Race of Mother: NR (100%) | Inclusion Criteria: Participants were mother-child pairs in the Growing Up in Singapore Towards healthy Outcomes (GUSTO) birth cohort. Exclusion Criteria: NR | Adjustments: In the models, we adjusted for maternal characteristics including maternal age, ethnicity, gravidity, education level and energy intake. The same was done for infant characteristics including sex, birth weight, gestational age, duration of breast-feeding, family history of allergic diseases (which includes allergic rhinitis, eczema and asthma in first-degree relatives of the children (i.e. father, mother and/or sibling), exposure to environmental tobacco smoking, child day care attendance and having a cat or dog at home up to 18 months of age. |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|------------------------|--|--------------------|---|---|--|
| Yu 2015 ¹⁸⁵ | Allergic sensitisation N Total: 728 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =1.0 N Quantile: NR N Cases: NR | OR |
| | Allergic sensitisation N Total: 728 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.11-0.18 N Quantile: NR N Cases: NR | OR Estimate: 0.8 95% CI(0.43, 1.49) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.19-0.27 N Quantile: NR N Cases: NR | OR Estimate: 0.92 95% CI(0.51, 1.68) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.28 N Quantile: NR N Cases: NR | OR Estimate: 0.85 95% CI(0.46, 1.55) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =3.60 N Quantile: NR N Cases: NR | OR |
| | Allergic sensitisation N Total: 728 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 3.16-4.59 N Quantile: NR N Cases: NR | OR Estimate: 0.9 95% CI(0.48, 1.65) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 4.60-5.63 N Quantile: NR N Cases: NR | OR Estimate: 0.73 95% CI(0.38, 1.40) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =5.64 N Quantile: NR N Cases: NR | OR Estimate: 1.24 95% CI(0.69, 2.24) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =0.35 N Quantile: NR N Cases: NR | OR |
| | Allergic sensitisation N Total: 728 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.36-0.51 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% CI(0.57, 2.21) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.52-0.82 N Quantile: NR N Cases: NR | OR Estimate: 1.26 95% CI(0.65, 2.47) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.83 N Quantile: NR N Cases: NR | OR Estimate: 1.82 95% CI(0.94, 3.50) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =5.00 N Quantile: NR N Cases: NR | OR |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 5.01-6.18 N Quantile: NR N Cases: NR | OR Estimate: 0.91 95% CI(0.48, 1.72) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 6.19-7.49 N Quantile: NR N Cases: NR | OR Estimate: 0.83 95% CI(0.43, 1.58) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--|--------------------|--|---|--|
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =7.50 N Quantile: NR N Cases: NR | OR Estimate: 1.41 95% CI(0.77, 2.58) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =4.52 N Quantile: NR N Cases: NR | OR |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 4.53-5.49 N Quantile: NR N Cases: NR | OR Estimate: 0.6 95% CI(0.33, 1.10) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 5.50-6.94 N Quantile: NR N Cases: NR | OR Estimate: 0.67 95% CI(0.37, 1.21) |
| | Allergic sensitisation N Total: 728 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =6.95 N Quantile: NR N Cases: NR | OR Estimate: 0.66 95% CI(0.36, 1.22) |
| | Eczema N Total: 833 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =1.0 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 833 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.11-0.18 N Quantile: NR N Cases: NR | OR Estimate: 0.87 95% CI(0.50, 1.51) |
| | Eczema N Total: 833 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.19-0.27 N Quantile: NR N Cases: NR | OR Estimate: 1.07 95% CI(0.64, 1.81) |
| | Eczema N Total: 833 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.28 N Quantile: NR N Cases: NR | OR Estimate: 0.87 95% CI(0.51, 1.47) |
| | Eczema N Total: 833 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =3.60 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 833 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 3.16-4.59 N Quantile: NR N Cases: NR | OR Estimate: 1.02 95% CI(0.61, 1.70) |
| | Eczema N Total: 833 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 4.60-5.63 N Quantile: NR N Cases: NR | OR Estimate: 0.61 95% CI(0.35, 1.07) |
| | Eczema N Total: 833 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =5.64 N Quantile: NR N Cases: NR | OR Estimate: 0.8 95% CI(0.47, 1.35) |
| | Eczema N Total: 833 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =0.35 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 833 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.36-0.51 N Quantile: NR N Cases: NR | OR Estimate: 1.14 95% CI(0.64, 2.04) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--------------------------|--------------------|--|---|--|
| | Eczema N Total: 833 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.52-0.82 N Quantile: NR N Cases: NR | OR Estimate: 1.07 95% CI(0.60, 1.89) |
| | Eczema N Total: 833 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.83 N Quantile: NR N Cases: NR | OR Estimate: 1.2 95% CI(0.68, 2.13) |
| | Eczema N Total: 833 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =5.00 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 833 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 5.01-6.18 N Quantile: NR N Cases: NR | OR Estimate: 1.02 95% CI(0.60, 1.74) |
| | Eczema N Total: 833 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 6.19-7.49 N Quantile: NR N Cases: NR | OR Estimate: 0.67 95% CI(0.38, 1.18) |
| | Eczema N Total: 833 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =7.50 N Quantile: NR N Cases: NR | OR Estimate: 0.93 95% CI(0.55, 1.60) |
| | Eczema N Total: 833 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 1.9-4.5 N Quantile: NR N Cases: NR | OR |
| | Eczema N Total: 833 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 4.6-5.4 N Quantile: NR N Cases: NR | OR Estimate: 0.55 95% CI(0.32, 0.97) |
| | Eczema N Total: 833 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 5.5-6.9 N Quantile: NR N Cases: NR | OR Estimate: 1.19 95% CI(0.72, 1.97) |
| | Eczema N Total: 833 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 7.0-16.6 N Quantile: NR N Cases: NR | OR Estimate: 1.21 95% CI(0.71, 2.06) |
| | Rhinitis N Total: 808 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =1.0 N Quantile: NR N Cases: NR | OR |
| | Rhinitis N Total: 808 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.11-0.18 N Quantile: NR N Cases: NR | OR Estimate: 1.18 95% CI(0.74, 1.89) |
| | Rhinitis N Total: 808 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.19-0.27 N Quantile: NR N Cases: NR | OR Estimate: 0.95 95% CI(0.59, 1.52) |
| | Rhinitis N Total: 808 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.28 N Quantile: NR N Cases: NR | OR Estimate: 0.86 95% Cl(0.54, 1.38) |
| | Rhinitis N Total: 808 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =3.60 N Quantile: NR N Cases: NR | OR |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and CI P value |
|---------|--------------------------|--------------------|--|---|--|
| | Rhinitis N Total: 808 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 3.16-4.59 N Quantile: NR N Cases: NR | OR Estimate: 1.53 95% Cl(0.94, 2.50) |
| | Rhinitis N Total: 808 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 4.60-5.63 N Quantile: NR N Cases: NR | OR Estimate: 1.97 95% Cl(1.22, 3.21) |
| | Rhinitis N Total: 808 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =5.64 N Quantile: NR N Cases: NR | OR Estimate: 1.42 95% Cl(0.87, 2.32) |
| | Rhinitis N Total: 808 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =0.35 N Quantile: NR N Cases: NR | OR |
| | Rhinitis N Total: 808 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.36-0.51 N Quantile: NR N Cases: NR | OR Estimate: 1.09 95% Cl(0.68, 1.77) |
| | Rhinitis N Total: 808 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.52-0.82 N Quantile: NR N Cases: NR | OR Estimate: 1.02 95% Cl(0.63, 1.66) |
| | Rhinitis N Total: 808 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.83 N Quantile: NR N Cases: NR | OR Estimate: 1.04 95% Cl(0.64, 1.69) |
| | Rhinitis N Total: 808 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =5.00 N Quantile: NR N Cases: NR | OR |
| | Rhinitis N Total: 808 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 5.01-6.18 N Quantile: NR N Cases: NR | OR Estimate: 1.56 95% Cl(0.96. 2.54) |
| | Rhinitis N Total: 808 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 6.19-7.49 N Quantile: NR N Cases: NR | OR Estimate: 1.67 95% Cl(1.03, 2.70) |
| | Rhinitis N Total: 808 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =7.50 N Quantile: NR N Cases: NR | OR Estimate: 1.34 95% Cl(0.81. 2.21) |
| | Rhinitis N Total: 808 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 1.9-4.5 N Quantile: NR N Cases: NR | OR |
| | Rhinitis N Total: 808 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 4.6-5.4 N Quantile: NR N Cases: NR | OR Estimate: 1.11 95% Cl(.7, 1.75) |
| | Rhinitis N Total: 808 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 5.5-6.9 N Quantile: NR N Cases: NR | OR Estimate: 1.34 95% CI(.85, 2.11) |
| | Rhinitis N Total: 808 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 7.0-16.6 N Quantile: NR N Cases: NR | OR Estimate: 0.66 95% CI(0.40, 1.10) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl P value |
|---------|--------------------------|--------------------|---|---|--|
| | Wheezing N Total: 859 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =1.0 N Quantile: NR N Cases: NR | OR |
| | Wheezing N Total: 859 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.11-0.18 N Quantile: NR N Cases: NR | OR Estimate: 1.22 95% CI(0.61, 2.44) |
| | Wheezing N Total: 859 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.19-0.27 N Quantile: NR N Cases: NR | OR Estimate: 1.77 95% CI(0.91, 3.46) |
| | Wheezing N Total: 859 | Up to 18 months | A-linolenic acid n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.28 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% CI(0.56, 2.24) |
| | Wheezing N Total: 859 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =3.60 N Quantile: NR N Cases: NR | OR |
| | Wheezing N Total: 859 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 3.16-4.59 N Quantile: NR N Cases: NR | OR Estimate: 0.95 95% CI(0.49, 1.86) |
| | Wheezing N Total: 859 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 4.60-5.63 N Quantile: NR N Cases: NR | OR Estimate: 0.98 95% CI(0.49, 1.96) |
| | Wheezing N Total: 859 | Up to 18 months | DHA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =5.64 N Quantile: NR N Cases: NR | OR Estimate: 1.15 95% CI(0.60, 2.22) |
| | Wheezing N Total: 859 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =0.35 N Quantile: NR N Cases: NR | OR |
| | Wheezing N Total: 859 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 0.36-0.51 N Quantile: NR N Cases: NR | OR Estimate: 1.07 95% CI(0.52, 2.21) |
| | Wheezing N Total: 859 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 0.52-0.82 N Quantile: NR N Cases: NR | OR Estimate: 1.19 95% CI(0.60, 2.36) |
| | Wheezing N Total: 859 | Up to 18 months | EPA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =0.83 N Quantile: NR N Cases: NR | OR Estimate: 1.2 95% CI(0.60, 2.39) |
| | Wheezing N Total: 859 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 =5.00 N Quantile: NR N Cases: NR | OR |
| | Wheezing N Total: 859 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 5.01-6.18 N Quantile: NR N Cases: NR | OR Estimate: 0.9 95% CI(0.45, 1.78) |
| | Wheezing N Total: 859 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 6.19-7.49 N Quantile: NR N Cases: NR | OR Estimate: 1.09 95% CI(0.56, 2.13) |

| Article | Outcome, Cohort size | Follow up Time | Exposure Intervention, n-3 measure, n-3 units | Quantile | Metric, Estimate and Cl | P value |
|---------|--------------------------|--------------------|--|--|--|---------|
| | Wheezing N Total: 859 | Up to 18 months | n-3 PUFA n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 =7.50 N Quantile: NR N Cases: NR | OR Estimate: 1.12 95% CI(0.57, 2.2) | |
| | Wheezing N Total: 859 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q1 1.9-4.5 N Quantile: NR N Cases: NR | OR | |
| | Wheezing N Total: 859 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q2 4.6-5.4 N Quantile: NR N Cases: NR | OR Estimate: 0.7 95% CI(0.38, 1.30) | |
| | Wheezing N Total: 859 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q3 5.5-6.9 N Quantile: NR N Cases: NR | OR Estimate: 0.64 95% CI(0.34, 1.23) | |
| | Wheezing N Total: 859 | Up to 18 months | n-6: n-3 PUFA ratio n-3 Measure: Maternal blood n-3 Units: % of total plasma fatty acids | Q4 7.0-16.6 N Quantile: NR N Cases: NR | OR Estimate: 0.63 95% CI(0.32, 1.25) | |