**Evidence Table 5a. Study characteristics: nonhyperventilation reduction breathing techniques versus control**

| **Study** | **Country** | **Group** | **N random-ized** | **Age (mean)** | **% Female** | **SABA use** | **ICS use** | **FEV1 % pred.** | **Inclusion criteria** | **Exclusion criteria** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cooper 200352 | UK | IG2 (yoga breathing device) | 30 | 44 | 44.9 | 2 puffs /d† | 657 mcg /d | 80 | Aged 18 to 70y, non-smoking volunteers with stable asthma, taking an inhaled SABA at least 2 times/w and regular ICS w/ no change in dose in previous 4w, pre-bronchodilator FEV1 of at least 50 percent predicted and 10 percent increase following 400mcg inhaled salbutamol, a PD20 of methacholine causing a 20 percent fall in FEV1 of 10.24 μmol or less, mean daily sx score of one or more during run-in. | No other important illnesses, taking tx other than sodium cromoglycate. |
| CG | 30 |
| Lehrer 200470,76,90 | US | IG (abdominal breathing w/ biofeedback) | 23 | 37.3 | 68.1 | NR | NR | NR\* | Aged 18 to 65y, history of asthma sx, positive bronchodilator test results (postbronchodilator FEV1 increase of ≥ 12%) within past 1y, positive methacholine inhalation challenge test result, or documented recent history (i.e., within past 1y) of clinical improvement and FEV1 increase ≥ 12 percent following instigation of inhaled steroid therapy among individuals with a protracted history of asthma. | Disorder that would impede performing the biofeedback procedures (e.g., abnormal cardiac rhythm), a negative methacholine challenge test result, an abnormal diffusing capacity (testing among all subjects aged > 55y or w/ > 20 pack years of smoking), current practice of any relaxation, biofeedback or breathing technique. |
| CG1 (biofeedback) | 22 |
| CG2 (placebo) | 24 |
| CG3 (waitlist) | 25 |
| CG | 16 |

\*Most patients rated as having moderate-persistent asthma according to the NAEPP guideline

Abbreviations: CG: control group; d: day(s); FEV1: forced expiratory volume in 1 second; ICS: inhaled corticosteroids; IG: intervention group; m: month(s), mcg: microgram(s); NR: not reported; pred: predicted; SABA: short-acting beta2-agonists; sx: symptom(s); tx: treatment(s); UK: United Kingdom; μmol: micromole(s); US: United States; w: week(s); y: year(s)