## Supplementary Table S1: The change (Δ, post - pre) evoked by the provocation.

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|  | **Adenosine** | **AMP** | **p- value** |
| **Δ Borg#** | 3.95 (2.07) | 3.77 (2.11) | 0.65t |
| **Δ FEV1 (L)#** | -0.68 (0.30) | -0.62 (0.28) | 0.07t |
| **Δ FEF25 (Ls-1)#** | -1.34 (-2.27; -0.84) | -1.18 (-1.78; -0.75) | 0.36w |
| **Δ FEF50 (Ls-1)@** | -0.63 (-1.14; -0.40) | -0.65 (-1.01; -0.33) | 0.64w |
| **Δ FEF75 (Ls-1)@** | -0.17 (-0.34; -0.07) | -0.15 (-0.35; -0.02) | 0.51w |
| **Δ FEF25-75 (Ls-1)@** | -0.47 (-0.92; -0.29) | -0.47 (-0.84; -0.27) | 0.40w |
| **Δ FVC (L)#** | -0.73 (0.44) | -0.66 (0.39) | 0.27t |
| **Δ R5 (kPa sL-1)#** | 0.33 (0.23) | 0.35 (0.24) | 0.76t |
| **Δ R20 (kPa sL-1)#** | 0.05 (0.08) | 0.07 (0.09) | 0.04t |
| **Δ R5-R20 (kPa sL-1)#** | 0.27 (0.20) | 0.28 (0.22) | 0.81t |
| **Δ AX (kPa L-1)@** | 2.97 (1.84; 5.15) | 3.31 (1.72; 5.83) | 0.50w |
| **Δ X5 (kPa sL-1)#** | -0.32 (0.19) | -0.33 (0.26) | 0.64t |
| **Δ Fres (s-1)#** | 10.03 (8.22) | 10.85 (6.92) | 0.63t |
| **Δ LCI2.5%@\*** | 3.42 (2.01; 4.58) | 2.83 (1.63; 5.45) | 0.03w |
| **Δ LCI5%@\*** | 1.53 (0.89; 2.32) | 1.46 (0.65; 2.71) | 0.07w |
| **Δ Scond#\*** | 0.02 (0.04) | 0.03 (0.03) | 0.58t |
| **Δ Sacin@\*** | 0.12 (0.03; 0.27) | 0.05 (0.03; 0.12) | 0.01w |

Data is presented as mean with standard deviation (#) or median with inter quartile range (@).\* = multiple breath nitrogen washout (MBNW) was measured in 36 subjects. Comparison is either done with a paired t-test (t) or a Wilcoxon signed rank test (w). Δ = post provocation – pre provocation value; FEV1= forced expiratory volume in the first second; FVC = forced vital capacity; FEF25= forced expiratory flow at 25% of FVC; FEF50= forced expiratory flow at 50% of FVC; FEF75= forced expiratory flow at 75% of FVC; FEF25-75= forced expiratory flow at 25% to 75% of FVC; R5= resistance to 5Hz; R20= resistance to 20Hz; R5-R20= difference in resistance to 5Hz and 20Hz; AX= reactance area; X5= reactance to 5Hz; Fres= resonance frequency; Scons= ventilation heterogeneity of the conducting airways; Sacin= ventilation heterogeneity of the acinar airways.

## Supplementary Table S2: Spearman’s univariate correlation for the change in Borg (ΔBorg).

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|  | Adenosine | AMP |
| Gender | 0.08 (0.54) | -0.05 (0.72) |
| Smoking status | 0.15 (0.26) | 0.00 (0.99) |
| Δ FEV1 (L) | -0.17 (0.21) | -0.23 (0.10) |
| Δ FEF25 (Ls1) | -0.32 (0.01) | -0.21 (0.14) |
| Δ FEF50 (Ls1) | -0.25 (0.06) | -0.11 (0.42) |
| Δ FEF75 (Ls1) | -0.37 (<0.01) | 0.01 (0.92) |
| Δ FEF25 75 (L) | -0.34 (<0.01) | -0.05 (0.71) |
| Δ FVC(L) | -0.02 (0.87) | -0.02 (0.88) |
| Δ R5 (kPa sL-1) | 0.13 (0.33) | 0.21 (0.13) |
| Δ R20 (kPa sL-1) | -0.03 (0.83) | -0.04 (0.76) |
| Δ R5-R20 (kPa sL-1) | 0.20 (0.14) | 0.23 (0.10) |
| Δ AX (kPa sL-1) | 0.10 (0.47) | 0.28 (0.05) |
| Δ X5 (kPa sL-1) | -0.01 (0.93) | -0.30 (0.04) |
| Δ Fres (kPa sL-1) | 0.14 (0.31) | -0.00 (0.99) |
| Δ LCI2.5%\* | 0.07 (0.71) | -0.00 (0.99) |
| Δ LCI5%\* | 0.12 (0.54) | 0.12 (0.54) |
| Δ Scond\* | 0.24 (0.16)  ) | -0.04 (0.84) |
| Δ Sacin\* | -0.06 (0.76) | -0.07 (0.69) |

Δ = post provocation – pre provocation value; FEV1= forced expiratory volume in the first second; FVC = forced vital capacity; FEF25= forced expiratory flow at 25% of FVC; FEF50= forced expiratory flow at 50% of FVC; FEF75= forced expiratory flow at 75% of FVC; FEF25-75= forced expiratory flow at 25% to 75% of FVC; R5= resistance to 5Hz; R20= resistance to 20Hz; R5-R20= difference in resistance to 5Hz and 20Hz; AX= reactance area; X5= reactance to 5Hz; Fres= resonance frequency; Scons= ventilation heterogeneity of the conducting airways; Sacin= ventilation heterogeneity of the acinar airways. \* = multiple breath nitrogen washout (MBNW) was measured in 36 subjects.