***Supplementary table 1*** Lung function of elite athletes participating in different sports.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Swimming  n=30 | Cross Country S  n=32 | Speed skating  n=16 | Rowing/paddling  n=11 | Ball games  n=40 |
|  |  |  |  |  |  |
| FVC (L)  FVC (%pred) | 5.94  (5.58, 6.30)  114.1  (109.7, 118.5) | 5.50  (5.12, 5.88)  105.2  (101.7, 108.7) | 5.80  5.31, 6.29)  102.0  (98.3, 105.6) | 5.94  (4.94, 6.94)  107.0  (100.1, 113.9) | 4.73  (4.54, 4.93)  107.9  (104.4, 111.3) |
| *B* (95%*CI*) | 6.2 (1.3, 11.2)\* | -2.6 (-7.5, 2.2) | -5.9 (-11.9, 0.16) | -0.8 (-7.8, 6.1) | Ref |
|  |  |  |  |  |  |
| FEV1 (L)  FEV1 (%pred) | 4.71  (4.38, 5.01)  105.5  (101.5, 109.6) | 4.26  (4.00, 4.52)  97.9  (93.8, 102.0) | 4.65  (4.23, 5.06)  97.5  (92.5, 102.6) | 4.61  (3.82, 5.39)  99.9  (92.7, 107.0) | 4.04  (3.88, 4.20)  107.9  (104.7, 111.2) |
| *B* (95%*CI*) | -2.4 (-7.5, 2.7) | -10.0 (-15.0, -5.0)\* | -10.4 (-16.6, -4.2)\* | -8.1 (-15.2,-0.9)\* | Ref |
|  |  |  |  |  |  |
| FEF25-75 (L·sec.-2)  FEF25-75 (%pred) | 4.88  (4.38, 5.38)  90.8  (82.7, 98.9) | 4.54  (4.09, 5.00)  81.1  (73.2, 89.0) | 5.14  (4.42, 5.87)  89.7  (77.6, 101.7) | 4.49  (3.49, 5.50)  81.9  (68.3, 95.5) | 4.78  (4.50, 5.07)  104.6  (97.9, 111.4) |
| *B* (95%*CI*) | -13.8 (-24.2, -3.5)\* | -23.5(-33.7,-13.4)\* | -15.0 (-27.6, -2.3)\* | -22.7 (-37.3, -8.2)\* | Ref |
|  |  |  |  |  |  |
| FEV1/FVC  FEV1/FVC (%pred) | 0.79  (0.77, 0.82)  92.1  (88.6, 95.5) | 0.78  (0.75, 0.81)  92.5  (89.6, 95.5) | 0.80  (0.77, 0.83)  94.8  (91.4, 98.1) | 0.78  (0.74, 0.82)  92.8  (87.6, 97.9) | 0.86  (0.84, 0.88)  99.5  (97.3, 101.7) |
| *B* (95%*CI*) | -7.5 (-11.2, -3.8)\* | -7.0 (-10.6, -3.3)\* | -4.7 (-9.3, -0.2)\* | -6.7 (-12.0, -1.5)\* | Ref |

Results are provided as mean with 95% CI for absolute values and mean with 95% CI and unstandardized regression coefficients (B) with 95% CI in % predicted according to Global Lung initiative (GLI) reference equation published by Quanjer et al. 2012.

FEV1– Forced expiratory volume in one second; FVC – Forced vital capacity; FEF25-75 – Forced expiratory flow at 25-75 % of vital capacity; sec– second

\*statistically significant difference from reference (p≤0.05)