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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Swimmingn=30 | Cross Country Sn=32 | Speed skatingn=16 | Rowing/paddlingn=11 | Ball gamesn=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) | 5.805.31, 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/FVCFEV1/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)