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| **Supplementary table 1.** PRE and 9-month adjusted acquisition in bone mineral content (BMC, g) hip structural analysis parameters and trabecular bone score of the intervention and control groups | | | | | | | | | | | | |
| TOTAL (N=93) | SWIMMERS | | | | FOOTBALLERS | | | | CYCLISTS | | | |
| INTERVENTION  (N=19) | | CONTROL  (N=18) | INTERVENTION  (N=15) | | | CONTROL  (N=15) | | INTERVENTION  (N=19) | | CONTROL  (N=18) | |
| PRE | 9-month adjusted acquisition  Δ (95% CI) | PRE | 9-month adjusted acquisition  Δ (95% CI) | PRE | 9-month adjusted acquisition  Δ (95% CI) | PRE | 9-month adjusted acquisition  Δ (95% CI) | PRE | 9-month adjusted acquisition  Δ (95% CI) | PRE | 9-month adjusted acquisition  Δ (95% CI) |
| Lumbar Spine BMC | 50.8 ±  11.0 | 7.8  (6.7-8.8) | 51.9 ±  12.4 | 6.9  (5.8-8.0) | 46.2 ±  14.4 | 9.2  (8.0-10.3) | 47.5 ±  11.1 | 7.8  (6.6-9.0) | 48.0 ±  12.8 | **8.5**  **(7.3-9.7)** | 41.9 ±  12.4 | 5.7  (4.4-7.0) |
| Femoral Neck BMC | 5.0 ±  0.7 | **0.6**  **(0.4-0.7)** | 5.0 ±  0.9 | 0.3  (0.2-0.4) | 5.1 ±  1.0 | 0.6  (0.5-0.8) | 5.2 ±  0.8 | 0.5  (0.3-0.6) | 5.0 ±  0.9 | **0.6**  **(0.5-0.8)** | 4.5 ±  0.9 | 0.1  (-0.1-0.3) |
| CSA | 155.7 ± 23.3 | 20.9  (15.5-26.3) | 149.3 ±  27.5 | 9.4  (3.9-14.9) | 157.7 ±  26.8 | 25.2  (18.9-31.5) | 159.3 ±  23.5 | 20.0  (13.7-26.3) | 154.2 ±  27.2 | **23.1**  **(16.9-29.3)** | 140.0 ±  25.7 | 5.6  (-1.1-12.3) |
| CSMI | 11106 ±  3592 | **2678**  **(2238-3119)** | 11349 ±  3565 | 1500  (1035-1965) | 10893 ±  3988 | 2813  (2309-3316) | 10998 ±  3492 | 2402  (1901-2903) | 11220 ±  3715 | **2668**  **(2167-3169)** | 8840 ±  2917 | 1214  (665-1764) |
| Section Modulus | 655.8 ±  152.5 | 125.5  (90.2-160.8) | 673.2 ±  168.5 | 89.3  (52.0-126.5) | 655.3 ±  176.1 | 161.1  (120.6-201.6) | 666.4 ±  184.8 | 122.1  (81.5-162.6) | 658.7 ±  161.2 | 117.7  (77.7-157.7) | 557.1 ±  139.4 | 48.8  (4.8-92.7) |
| Trabecular bone score | 1.390 ±  0.058 | 0.102  (0.078-0.125) | 1.370 ±  0.072 | 0.054  (0.029-0.080) | 1.429 ±  0.075 | 0.122  (0.084-0.141) | 1.404 ±  0.050 | 0.113  (0.095-0.148) | 1.364 ±  0.073 | **0.103**  **(0.075-0.129)** | 1.348 ±  0.081 | 0.042  (0.012-0.071) |
| Raw values at PRE are mean ± standard deviation. Values at 9-month were adjusted for pre bone values, change in lean mass and post peak height velocity, and presented as mean and 95% CI. BMC: Bone mineral content. Bold values denote significant higher acquisition compared to the sport specific control group, p<0.05. | | | | | | | | | | | | |