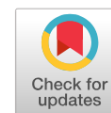


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## RESEARCH ARTICLE – SUPPLEMENTARY INFORMATION

### **External validation of a digital anthropometry application for estimating girths and body composition in physically active individuals: The Cybermetron Project – Phase 1**

➤ **Validación externa de una aplicación de antropometría digital para la estimación de perímetros y composición corporal en individuos físicamente activos: Proyecto CyberMetron – Fase 1**

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### CITE

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**Supplementary Table S1.** Comparison between physical activity level

<b>Moderate (n = 31) versus High (n = 110) Physical Activity Levels</b>					
<b>Variable</b>	<b>M<sub>diff</sub></b>	<b>Lower CI</b>	<b>Upper CI</b>	<b>p value</b>	<b>ξ</b>
Age	-0.91467	-3.46209	1.6327	0.469	0.1068
Body Mass	0.45522	-4.94061	5.8511	0.864	0.0745
Stature	2.18214	-1.11269	5.477	0.189	0.2035
Relaxed Arm Right_ISAK	-0.00793	-2.2441	2.2282	0.994	0.0766
Relaxed Arm Left_ISAK	0.34258	-1.7816	2.4668	0.741	0.0713
Flexed and Tensed Arm_ISAK	0.84904	-1.23762	2.9357	0.41	0.1404
Forearm Right_ISAK	0.43365	-0.81365	1.681	0.482	0.0942
Forearm Left_ISAK	0.46089	-0.77241	1.6942	0.45	0.1105
Torax_ISAK	0.98622	-3.31291	5.2854	0.641	0.0876
Waist_ISAK	-0.67978	-5.15287	3.7933	0.757	0.079
Abdominal_WHO	-1.95036	-5.92946	2.0287	0.322	0.154
Hips_ISAK	0.55064	-3.24454	4.3458	0.767	0.0735
Thigh 1cm Gluteal Right_ISAK	0.49797	-2.10526	3.1012	0.697	0.0832
Thigh 1cm Gluteal Left_ISAK	0.26998	-2.20099	2.7409	0.824	0.06
Thigh middle_ISAK	-0.15235	-2.50062	2.1959	0.894	0.0827
Calf Right_ISAK	-0.34761	-1.41793	0.7227	0.512	0.107
Calf Left_ISAK	-0.47588	-1.70202	0.7503	0.432	0.1558
BMC_DXA	0.08111	-0.21854	0.3808	0.544	0.2551
Fat mass_DXA	-3.52132	-8.07467	1.032	0.108	0.471
FFM_DXA	5.11417	-1.49724	11.7256	0.115	0.5529
BF%_DXA	-6.47647	-	0.9267	0.077	0.7496
Lean body mass LST_DXA	5.06684	-1.35594	11.4896	0.109	0.495
%BF_Digital	0.8299	-0.66216	2.322	0.268	0.1386
Torax (Chest)_Digital	0.0236	-1.59832	1.6455	0.977	0.0993
Abdominal (Stomach)_Digital	1.02432	-0.50203	2.5507	0.183	0.1953
Waist girth	0.18262	-1.36763	1.7329	0.814	0.0943
Hip_Digital	1.26172	-0.29747	2.8209	0.109	0.2336
Relaxed Arm Left_Digital	-0.09904	-0.65543	0.4573	0.721	0.093
Relaxed Arm Right_Digital	-0.10606	-0.67632	0.4642	0.708	0.0757
Forearm Left_Digital	-0.08166	-0.5405	0.3772	0.72	0.1
Forearm Right_Digital	-0.06427	-0.56112	0.4326	0.794	0.0857
Thigh Left_Digital	0.71292	-0.30892	1.7348	0.165	0.1985
Thigh Right_Digital	0.66627	-0.40917	1.7417	0.215	0.1639
Calf Left_Digital	0.16188	-0.32348	0.6472	0.503	0.1069
Calf Right_Digital	0.11547	-0.38083	0.6118	0.64	0.1104
Lean Body Mass_Digital	0.19466	-1.91708	2.3064	0.852	0.0683

ξ: Cohen's ξ; CI: confidence interval. Statistically significance ( $p < 0.05$  of the two-tailed  $p$  value) for the Yuen-Dixon test would indicate difference between moderate and high physical activity level.

**Supplementary Table S2.** Correlation analysis ISAK versus digital by sex

<b>Correlation analysis ISAK vs Digital (Women)</b>				
<b>Variable</b>	<b>Pearson's <i>r</i></b>	<b>Lower CI</b>	<b>Upper CI</b>	<b><i>p</i> value</b>
Relaxed Arm Right	0.239	0.0407	0.418	0.048
Relaxed Arm Left	0.346	0.1573	0.511	0.004
Forearm Right	0.384	0.1997	0.542	0.001
Forearm Left	0.324	0.133	0.492	0.007
Torax	0.417	0.2364	0.569	<.001
Abdominal	0.419	0.2389	0.571	<.001
Waist	0.454	0.2798	0.6	<.001
Hips	0.464	0.2916	0.608	<.001
Thigh 1cm Gluteal Right	0.389	0.2052	0.546	<.001
Thigh 1cm Gluteal Left	0.36	0.1724	0.522	0.002
Calf Right	0.248	0.0504	0.426	0.04
Calf Left	0.258	0.062	0.436	0.032
<b>Correlation analysis ISAK vs Digital (Men)</b>				
<b>Variable</b>	<b>Pearson's <i>r</i></b>	<b>Lower CI</b>	<b>Upper CI</b>	<b><i>p</i> value</b>
Relaxed Arm Right	0.328	0.1416	0.492	0.005
Relaxed Arm Left	0.374	0.1931	0.531	0.001
Forearm Right	0.311	0.1234	0.478	0.008
Forearm Left	0.263	0.0708	0.436	0.026
Torax	0.34	0.1544	0.502	0.004
Abdominal	0.328	0.1418	0.492	0.005
Waist	0.316	0.1284	0.482	0.007
Hips	0.425	0.2505	0.573	<.001
Thigh 1cm Gluteal Right	0.383	0.2031	0.539	<.001
Thigh 1cm Gluteal Left	0.406	0.2289	0.557	<.001
Calf Right	0.255	0.0625	0.429	0.031
Calf Left	0.406	0.2282	0.557	<.001

CI: 90% Confidence Interval.

**Supplementary Table S3.** Bland-Altman analysis of body composition by sex

<b><i>Bland-Altman Analysis DXA vs Digital (Women)</i></b>			
<b>Variable</b>	<b>Bias (n = 41)</b>	<b>Lower LoA</b>	<b>Upper LoA</b>
Body fat percentage	4.69	-7.91	17.29
Lean soft tissue	-7.31	-20.31	5.69
Fat-free mass	-5.08	-18.57	8.42
<b><i>Bland-Altman Analysis DXA vs Digital (Men)</i></b>			
<b>Variable</b>	<b>Bias (n = 25)</b>	<b>Lower LoA</b>	<b>Upper LoA</b>
Body fat percentage	-4.32	-17.36	8.71
Lean soft tissue	3.35	-15.84	22.54
Fat-free mass	6.07	-13.76	25.9

LoA: limit of agreement.