

Supplementary Table 1

Test battery of the Fitness test; ^a=Deutscher-Motorik Test (1), ^b=Münchener Fitness-Test (2), ^c=Fitnessgram (3); details about measurement methodology available from the authors.

References:

- (1) Bös K, Schlenker L, Büsch D, Lämmle L, Müller H, Oberger J, Seidel I, Tittlbach S. Deutscher Motorik-Test 6-18 (DMT 6-18). Hamburg: Czwalina; 2009.
 (2) Rusch H, Bradfisch J, Irrgang W. Auswahltest Sportförderunterricht. Haltung und Bewegung. 1994; 14: 4-17.
 (3) Meredith MD, Welk GJ. (Eds). Fitnessgram/Activitygram Test Administration Manual; 4th ed. Dallas: Human Kinetics; 2013.

TEST OBJECTIVE		TEST ITEM/PARAMETER	MEASURED VALUE/UNIT	ELECTRONIC MEASURING SYSTEM
Anthropometry		Height Weight	Body Mass Index (BMI) in kg/m ² Classification according to percentiles of Kromeyer-Hauschild 2001 (27)	Laboratory scale with integrated height measuring stick (seca 220)
Bio-medical health parameters		Body fat Blood pressure	Body fat content in % Systolic and diastolic value in mmHg Transformation into z-value and assignment of hypertensive value according to RKI 2013 (34)	Futrex Advanced Body Fat Analyzer 6100 AZ/L Mobil-O-Graph
Motor skills				
- Strength	Horizontal jumping strength	Standing long jump ^a	Jumping distance in cm	
	Vertical jumping strength	Standing high jump	Jumping height in cm	Talent Diagnose System
- Speed	Speed of action	20-meter sprint ^a	Time in seconds	Fusion Sport Smart Speed
	Frequency speed	Tapping	Number of contacts	Talent Diagnose System
- Endurance	Anaerobic endurance performance	Step test ^b	Difference between heart rate recovery and resting heart rate in beats/minute	Acentas Heartrate Monitoring
- Agility	Trunk flexibility	Sit and Reach ^{a (modified)}	Distance from the toes in cm	
	Shoulder mobility	Shoulder Stretch ^{c (modified)}	Distance between the fists in cm	
- Coordination	Whole body coordination under time pressure/Strength endurance	Jumping sideways	Number of valid jumps	
	Complex coordination & reaction capability/Eye-hand-leg coordination	Match 4 Point	Time in seconds	Talent Diagnose System
	Static balancing ability	One leg stand	Movement of the body's center of gravity in cm	Footscan Balance RSScan

Supplementary Table 2

Descriptive presentation of the results (mean±SD) in the additional sports motor tests differentiated by test time and group; presentation of the group/time interaction effects; significant results p≤0.05 or p*≤0.0167 (corrected according to Bonferroni) **marked in bold type**; SH_{Basic}=Skipping Hearts Basic Group, SH_{Champion}=Skipping Hearts Champion Group, CG=Control Group.

VARIABLE	GROUP			INTERACTION GROUP/TIME P-VALUE	POST HOC ANALYSIS P*		
	SH _{BASIC} PRE-TEST POST-TEST	SH _{CHAMPION} PRE-TEST POST-TEST	CG PRE-TEST POST-TEST		SH _{CHAMPION} VS. CG	SH _{BASIC} VS. CG	SH _{CHAMPION} VS. SH _{BASIC}
Match 4 Point (seconds)	50.77±17.37 39.11±8.61 (n=644)	52.88±23.39 38.17±7.62 (n=428)	49.52±16.37 40.06±8.67 (n=327)	<0.001	<0.001	0.007	0.005
Standing high jump (cm)	21.04±3.91 21.97±3.92 (n=685)	20.77±4.33 22.36±4.27 (n=427)	21.23±4.21 21.98±4.33 (n=326)	<0.001	<0.001	1.000	0.002
Tapping (contacts)	22.33±4.19 24.25±3.69 (n=710)	22.47±3.97 24.06±3.82 (n=427)	22.33±4.07 24.31±3.37 (n=318)	0.148	-	-	-
One leg stand left (cm)	107.19±70.05 104.55±65.42 (n=702)	131.76±105.40 105.66±72.25 (n=432)	104.99±58.10 106.12±67.30 (n=313)	<0.001	<0.001	0.922	<0.001
One leg stand right (cm)	121.70±85.39 118.44±86.08 (n=692)	150.45±128.80 110.61±88.73 (n=435)	111.28±65.72 117.20±87.21 (n=309)	<0.001	<0.001	0.575	<0.001
Step test (beats/minute)	10.60±15.52 10.85±14.55 (n=642)	12.26±16.31 8.93±13.31 (n=407)	5.93±16.42 9.57±13.66 (n=307)	<0.001	<0.001	0.020	0.005
Shoulder Stretch right arm up (cm)	8.82±5.56 7.67±5.32 (n=708)	9.70±5.68 7.79±5.03 (n=429)	9.26±5.63 8.58±5.47 (n=323)	<0.001	<0.001	0.081	<0.001
Shoulder Stretch left arm up (cm)	11.76±5.67 11.13±5.46 (n=708)	12.67±6.00 11.22±5.55 (n=429)	12.14±5.60 11.62±5.42 (n=324)	0.001	0.001	0.760	<0.001