

Fitness Zones for Recommended and Optional Test Items Boys With Congenital Anomaly or Amputation

Age (yr.)	PACER (20 m laps)		1-mile run ^{c,d} (VO ₂ MAX)		TAMT (pass/fail)		Percent body fat ^e			Triceps and calf skinfold ^{e,f} (mm)		Seated push-up (# completed)	
	NI ^a	HFZ ^b	NI (health risk)	NI	HFZ ^e	Very lean	HFZ	NI	NI (health risk)	HFZ	HFZ	NI	AFZ ^e
10	≤16	≥17	≤37.3	37.4–40.1	≥40.2	F	P	8.9–22.4	22.5	≥33.2	11–29	≤4	≥5–20
11	≤19	≥20	≤37.3	37.4–40.1	≥40.2	F	P	8.8–23.6	23.7	≥35.4	11–31	≤4	≥5–20
12	≤22	≥23	≤37.6	37.7–40.2	≥40.3	F	P	8.4–23.6	23.7	≥35.9	10–31	≤4	≥5–20
13	≤28	≥29	≤38.6	38.7–41.0	≥41.1	F	P	7.8–22.8	22.9	≥35.0	9–30	≤4	≥5–20
14	≤35	≥36	≤39.6	39.7–42.4	≥42.5	F	P	7.1–21.3	21.4	≥33.2	8–28	≤4	≥5–20
15	≤41	≥42	≤40.6	40.7–43.5	≥43.6	F	P	6.6–20.1	20.2	≥31.5	8–26	≤4	≥5–20
16	≤46	≥47	≤41.0	41.1–44.0	≥44.1	F	P	6.5–20.1	20.2	≥31.6	8–26	≤4	≥5–20
17	≤49	≥50	≤41.2	41.3–44.1	≥44.2	F	P	6.7–20.9	21.0	≥33.0	8–27	≤4	≥5–20

Age (yr.)	Bench press (# completed)		Dumbbell press (# completed)		Grip strength (kg)		Curl-up (# completed)		Trunk lift (in.)		Modified Apley (score)		Shoulder stretch (pass/fail)		Sit-and-reach (in.)		Target stretch (score)	
	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e	NI	HFZ ^e
10					≤17	≥18	≤11	≥12	≤8	9–12	2	3	F	P	≤7	8	≤1	2
11					≤20	≥21	≤14	≥15	≤8	9–12	2	3	F	P	≤7	8	≤1	2
12					≤24	≥25	≤17	≥18	≤8	9–12	2	3	F	P	≤7	8	≤1	2
13	≤19	20–50	≤13	14–50	≤28	≥29	≤20	≥21	≤8	9–12	2	3	F	P	≤7	8	≤1	2
14	≤32	33–50	≤18	19–50	≤32	≥33	≤23	≥24	≤8	9–12	2	3	F	P	≤7	8	≤1	2
15	≤39	40–50	≤20	21–50	≤36	≥37	≤23	≥24	≤8	9–12	2	3	F	P	≤7	8	≤1	2
16	≤46	47–50	≤23	24–50	≤42	≥43	≤23	≥24	≤8	9–12	2	3	F	P	≤7	8	≤1	2
17	≤49	50	≤26	27–50	≤48	≥49	≤23	≥24	≤8	9–12	2	3	F	P	≤7	8	≤1	2

- Lap counts from Winnick and Short, 2014, developed with an equation provided by The Cooper Institute (2013).
- Reprinted, by permission, from The Cooper Institute, 2014, *Goal setting chart for aerobic capacity and PACER test*.
- Reprinted, by permission, from The Cooper Institute, 2013, *Fitnessgram/Activitygram test administration manual*, updated 4th ed. (Champaign, IL: Human Kinetics), 65.
- Because the VO₂ max formula includes body mass index, VO₂ max will be overestimated if body mass index is not adjusted for the weight of a missing limb.
- Based on data from Project Target (1998).
- The Cooper Institute, 2013, *Fitnessgram/Activitygram test administration manual*, updated 4th ed. (Champaign, IL: Human Kinetics), 65, 101.

From J. Winnick and F. Short, 2014, *Brookport physical fitness test manual: A health-related assessment for youngsters with disabilities* (Champaign, IL: Human Kinetics).