

Determining VO₂max

The Cooper 12-minute Run Test is an indirect method to estimate VO₂max. In this test, you'll walk and/or run as fast as you can for 12 minutes. Results are based on the distance covered in that time. Please keep in mind: this is an individual test, not a race. There is no competition, but you are expected to try your best.

1. Warm up for 10 min. prior to walking / running.
2. On a 400m track, or using a tracking app such as Strava, or Nike, walk/run as fast as you can for 12 minutes.
3. Determine the distance covered to the nearest 0.01 km.

Using the following formula to estimate your VO₂max:

$$\text{VO}_2 \text{ max} = (22.351 \times \text{distance covered in km}) - 11.288$$

Record your VO₂ max and take note of where the number falls in the table below.

Table 1 VO₂max Norms for Men (M) and Women (F) (mL/kg/min)

Age	M/F	Very poor	Poor	Fair	Good	Excellent	Superior
13-19	M	<35.0	35.0-38.3	38.4-45.1	45.2-50.9	51.0-55.9	>55.9
	F	<25.0	25.0-30.9	31.0-34.9	35.0-38.9	39.0-41.9	>41.9
20-29	M	<33.0	33.0-36.4	36.5-42.4	42.5-46.4	46.5-52.4	>52.4
	F	<23.6	23.6-28.9	29.0-32.9	33.0-36.9	37.0-41.0	>41.0
30-39	M	<31.5	31.5-35.4	35.5-40.9	41.0-44.9	45.0-49.4	>49.4
	F	<22.8	22.8-26.9	27.0-31.4	31.5-35.6	35.7-40.0	>40.0
40-49	M	<30.2	30.2-33.5	33.6-38.9	39.0-43.7	43.8-48.0	>48.0
	F	<21.0	21.0-24.4	24.5-28.9	29.0-32.8	32.9-36.9	>36.9
50-59	M	<26.1	26.1-30.9	31.0-35.7	35.8-40.9	41.0-45.3	>45.3
	F	<20.2	20.2-22.7	22.8-26.9	27.0-31.4	31.5-35.7	>35.7
60+	M	<20.5	20.5-26.0	26.1-32.2	32.3-36.4	36.5-44.2	>44.2
	F	<17.5	17.5-20.1	20.2-24.4	24.5-30.2	30.3-31.4	>31.4

Write a brief reflection on your experience in determining your VO₂max.

