

EXERCISE INTENSITY

Classification of physical activity intensity, based on physical activity lasting up to 60 min.							
Endurance-type activity							Resistance-type activity
	Relative Intensity		Absolute intensity (METs) in healthy adults (age in years)				Relative Intensity *
Intensity	HR Reserve	RPE †	Young (20-39yr)	Middle-aged (40-69 yr)	Old (65-79 yr)	Very Old (80+ yr)	Max Voluntary Contraction (%)
Very light	<20	<10	<2.4	<2.0	<1.6	≤1.0	<30
Light	20-39	10-11	2.4-4.7	2.0-3.9	1.6-3.1	1.1-1.9	30-49
Moderate	40-59	12-13	4.8-7.1	4.0-5.9	3.2-4.7	2.0-2.9	50-69
Hard	60-84	14-16	7.2-10.1	6.0-8.4	4.8-6.7	3.0-4.25	70-84
Very hard	≥85	17-19	≥10.2	≥8.5	≥6.8	≥4.25	≥85
Maximal‡	100	20	12.0	10.0	8.0	5.0	100

*Based on 8-12 repetitions for persons under age 50-60 years and 10-15 repetitions for persons aged 50-60 yr and older.

†Borg rating of Perceived Exertion 6-20 scale (Borg, 1982).

‡Maximal values are mean values achieved during maximal exercise by healthy adults. Absolute intensity (METs) values are approximate mean values for men. Mean values for women are approximately 1-2 METs lower than those for men; V(dot)O2R = oxygen uptake reserve.

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Borg rating of Perceived Exertion Scale (Borg, 1982)

- 6 No exertion at all
- 7 Extremely light
- 8
- 9 Very light - (easy walking slowly at a comfortable pace)
- 10
- 11 Light
- 12
- 13 Somewhat hard (It is quite an effort; you feel tired but can continue)
- 14
- 15 Hard (heavy)
- 16
- 17 Very hard (very strenuous, and you are very fatigued)
- 18
- 19 Extremely hard (You can not continue for long at this pace)
- 20 Maximal exertion

Calculating Target Heart Rate using the **HEART RATE RESERVE METHOD**

1. Max HR: 220- your age = _____
2. Your resting HR is: _____
3. Calculation of HR Reserve:
Intensity * (HR max - HR rest) + HR rest = _____
- _____ * (_____ - _____) + _____ = _____
- _____ * (_____ - _____) + _____ = _____

Use intensities from the table above to calculate a lower and upper intensity range, a.k.a., target zone