

Rating of perceived exertion: Borg scales

Rating of perceived exertion (RPE) is a widely used and reliable indicator to monitor and guide exercise intensity. The scale allows individuals to subjectively rate their level of exertion during exercise or exercise testing (American College of Sports Medicine, 2010). Developed by Gunnar Borg, it is often also referred to as the Borg Scale.

Two RPE scales are commonly used:

1. the original Borg scale or category scale (6 to 20 scale), and
2. the revised category-ratio scale (0 to 10 scale).

The original scale was developed in healthy individuals to correlate with exercise heart rates (e.g., RPE 15 would approximate a HR of 150 bpm), and to enable subjects to better understand terminology (Borg, 1982). The category ratio scale was later developed and has since also been modified to more specifically record symptomatic breathlessness (Modified Borg Dyspnoea Scale).

RPE scales are particularly valuable when HR measures of exercise intensity are inaccurate or dampened, such as in patients on beta blocker medication. This is due to the scale's ability to capture the perceived exertion from central cardiovascular, respiratory and central nervous system functions (Borg, 1982).

Both the 6-20 and 0-10 scales are used in clinical practice to measure perceived exertion; no current recommendations exist regarding use of one scale in preference to another. The Modified Borg Dyspnoea Scale is most commonly used to assess symptoms of breathlessness.

Despite being a subjective measure of exercise intensity, RPE scales provide valuable information when used correctly. It is therefore important that clinicians take sufficient time to educate the patient and ensure appropriate understanding prior to use (Whaley et al., 1997; Borg 1998,).

Rating of Perceived Exertion (RPE) Category Scale

| | |
|----|------------------|
| 6 | |
| 7 | Very, very light |
| 8 | |
| 9 | Very light |
| 10 | |
| 11 | Fairly light |
| 12 | |
| 13 | Somewhat hard |
| 14 | |
| 15 | Hard |
| 16 | |
| 17 | Very hard |
| 18 | |
| 19 | Very, very hard |
| 20 | |

Borg G. Borg's Perceived Exertion and Pan Scales. Champaign, IL: Human Kinetics, 1998.

Rating of Perceived Exertion (RPE) Category-Ratio Scale

- 0 Nothing at all
- 0.3
- 0.5 Extremely weak Just noticeable
- 0.7
- 1 Very weak
- 1.5
- 2 Weak Light
- 2.5
- 3 Moderate
- 4
- 5 Strong Heavy
- 6
- 7 Very strong
- 8
- 9
- 10 Extremely strong "Maximal"
- 11
- Absolute maximum Highest Possible

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Modified Borg Dyspnoea Scale

- 0 Nothing at all
- 0.5 Very, very slight (just noticeable)
- 1 Very slight
- 2 Slight
- 3 Moderate
- 4 Somewhat severe
- 5 Severe
- 6
- 7 Very severe
- 8
- 9 Very, very severe (almost maximal)
- 10 Maximal

Patient Instructions for Borg Dyspnoea Scale

“This is a scale that asks you to rate the difficulty of your breathing. It starts at number 0 where your breathing is causing you no difficulty at all and progresses through to number 10 where your breathing difficulty is maximal. How much difficulty is your breathing causing you right now?”