

Measuring Exercise Intensity

fact
sheet

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Exercise intensity is the amount of physical energy you use whilst exercising. The intensity that you work at determines the health benefits you'll receive from that workout.

It is important to know the right level of exertion for your program in order to gain maximum benefits and avoid injury.

There are two basic ways to measure exercise intensity:

1. **How you feel – your perceived exertion.**
2. **Your heart rate.**

Many wearable fitness trackers use heart rate monitoring as a tool. However, these are not recommended for people who have had a heart or lung transplant as their reliability is impacted by the

procedure and your medication. Regardless of the type of transplant you've had, it is recommended that you check with your doctor to find out if your medications affect your heart rate before using this to monitor your exercise intensity.

Rather than relying on heart rate monitoring, we recommend keeping it simple and using the Borg Scale.

Borg Scale

The Borg Scale is a way of measuring physical activity intensity level through rating your perceived exertion (RPE).

Research shows that the Borg Scale is an accurate indicator of how hard you are working.

Borg Rate of Perceived Exertion (RPE)

0	Rest	
1	Extremely Easy	Restful breathing, can sing
2	Very Easy	Can talk in complete sentences
3	Easy	Can maintain for hours
4	Moderate	Talking first becomes broken
5	Somewhat Hard	Heavier breathing begins
6	Moderately Hard	Deep breaths, talking is avoided
7	Hard	Deep forceful breathing (but still sustainable)
8	Very Hard	Labored, cannot talk, cannot maintain beyond a few minutes
9	Very, Very Hard	Very labored, breathless, can only hold for less than a minute
10	Extremely Hard – max!	Gasping for air, 5-20 second maximum

The Borg Scale is a subjective rating, which means you judge it for and about yourself. This helps you stay conscious of your body while you're being active and helps you assess whether you're doing too little, too much or getting it just right.

Use the Borg Scale to ensure you're working out at the right intensity for your activity.

For your **warm-up** you should gradually increase from an RPE of 1 to 4.

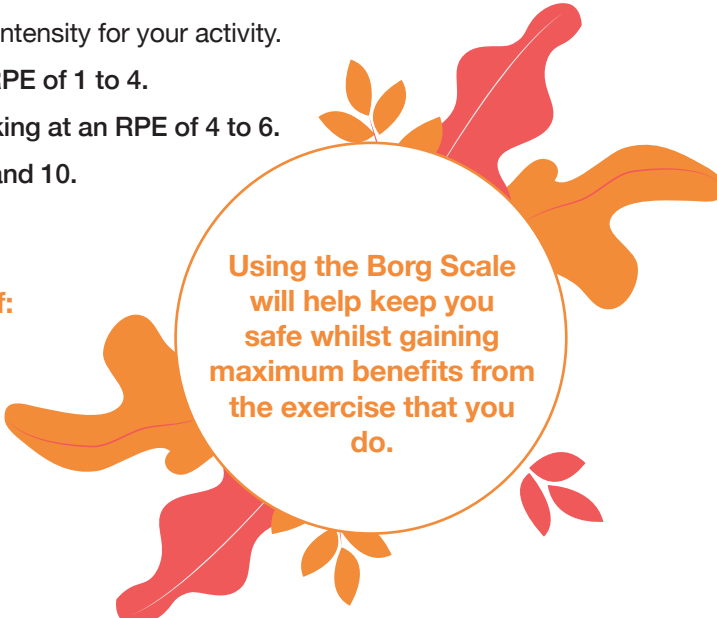
For **moderate intensity** exercise you should aim to be working at an RPE of 4 to 6.

Vigorous activity should feel more like an RPE between 7 and 10.

For your **cool-down**, work in reverse of your warm-up, from an RPE of 4 to 1.

Remember the weekly physical activity guidelines of:

- 2.5 – 5hrs of moderately intense physical activity, OR
- .25-2.5hrs of vigorous activity, OR
- A combination of the two.



Using the Borg Scale
will help keep you
safe whilst gaining
maximum benefits from
the exercise that you
do.

Other Technology

Technology is moving rapidly, and with this comes new ways to track and monitor your health and fitness.

Wearable fitness trackers and phone apps are very popular and can be useful, particularly to assist with motivation. Step counters, found in watches and on smartphones can help you keep track of your daily activity and meet your targets if walking or running is your activity of choice.

Some devices have other features such as medical sensors to gauge everything from sleep patterns to stress levels and blood oxygen levels. If these tools help to keep you on track with your wellness you should feel free to use them. Just remember that your transplant and the medications that you take may impact on the accuracy of some features.

