

# Exercising after a Heart or Lung Transplant

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sheet

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Unless otherwise specified, the information in this set of fact sheets is applicable to all people who've had a solid organ transplant. However, if you've had a heart and/or lung transplant there is some additional information you should be aware of.

## For Heart Transplant recipients only

### Heart Rate Response

After a heart transplant, your heart responds differently to exercise.

Some of the nerve connections that assist in heart response are not reconnected and thus your heart is now called denervated. You will find that you have a higher than normal resting heart rate and that your heart rate rises slowly in response to exercise. Your heart rate will also stay elevated for a longer time following exercise.

Therefore, it is essential that you complete a warm-up and cool-down session each time you exercise.

### Warming Up & Cooling Down

To warm-up you will need to complete a session of approximately 10 minutes of slowly increasing cardiovascular exercise eg. walking that gets faster over 10 minutes.

Following your exercise or sport session, you will need to cool down for another 10 minutes. To do this, slowly decrease your exercise intensity over the cool-down period.

Do not rely on heart rate as a measure of activity work rate as it is not accurate for those who have had a heart transplant. It is best to use the Borg Scales or an assessment of how you feel.

## For Both Heart and Lung Transplant Recipients

It is recommended that you perform a minimum of 30 minutes of cardiovascular exercise daily using the Borg Scales. Additionally, you need to perform bone building exercise (weight bearing) at least 3 times a week.



## 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.



## Monitoring Your Exercise

When exercising, it is important to listen to any signals your body is giving you. Certain symptoms may be an indication of rejection or infection.

### Signs to slow down

- shortness of breath
- unexplained fatigue

If these symptoms do not improve, then you need to stop exercising and contact your Doctor or Transplant Co-ordinator.

## Signs to stop exercising

- Dizziness
- Nausea
- Cold sweats
- Chest Pain

If you have any unexplained pain, it is important that you stop exercising until you have contacted your Doctor.

## Remember

If you have been unwell (eg. with infection or rejection) and are recommencing exercise, it is important to do a lower level of exercise initially and gradually build back up from your previous level.