

# Exercise Instructions: Pulmonary Hypertension

*Always follow the advice of your provider (doctor/nurse practitioner/physician assistant). The instructions below are general and should only be done with their approval.*

## **PRECAUTIONS**

- Your physician should clear you before you start an exercise program.
- All training should be started under direct supervision.
- Oxygen saturation may need to be checked during exercise.
- Outdoor exercise should be avoided during hot and humid weather.
- Exercise may result in fluid loss (dehydration) so drink fluids to prevent low blood pressure after exercise. Patients on fluid restriction should ask for more specific advice from their physician.

## **General Guidelines**

Warm-up	5-10 minutes
Aerobic	10-30 minutes continuous exercise (use Rating of Perceived Exertion - see next page)
Weight Training	10-20 minutes
Cool Down	5-10 minutes
Stretching	Up to 5 minutes of light stretching

## **Warm Up**

Easy/light movement that prepares muscles for aerobic and/or weight training exercise.

## **Aerobic**

- Done most days of the week.
- Uses large muscle groups working together.
- This should cause an increase in heart rate (HR) and breathing rate, but you should still be able to carry on a conversation.
- Examples: walking and swimming.

**It is not recommended to exercise upper and lower limbs at the same time (example: NordicTrack or Nustep®).**

If unable to perform 30 minutes of continuous exercise, try interval training.

- Continuous exercise - exercise at the same pace for the entire time
- Interval training - vary exercise with easier to harder segments, for example:
  - Walk at a comfortable pace for 2 minutes,
  - Then try increasing speed or elevation for up to 1 minute,
  - Then return back to original pace for another 2 minutes,
  - Repeat as tolerated

## **Weight Training**

- Aim for high repetitions (reps) with light weights 2-3 days per week.
- Start with 1 set of 15 reps per muscle group (legs, back, chest, shoulders, and arms).
- Increase to 3 sets of 15 reps when able to tolerate.
- Strength training should only be performed after some form of aerobic warm-up.
- Be sure to exhale (breathe out) on the exertional part of the exercise (when you are contracting the specific muscle you are training).
- Heavy lifting is not recommended.

**Note:** It is not safe to do isometric training (pushing or pulling against a fixed object like a wall or bar) at this time.

## Cool Down

Similar to the warm up; light movement to help bring your heart rate (HR) back to its resting level.

## Stretching

- Decreases muscle soreness and increases flexibility.
- Done after every workout session.
- Hold stretch up to 30 seconds (as tolerated) without moving, and be sure to keep breathing - no breath holding.

## WHEN TO CALL & WHO TO CALL

If you have any of these symptoms before or during exercise, stop exercise immediately and contact your physician:

- Chest pain
- Shortness of breath
- Lightheadedness
- Overnight weight gain of +2 pounds
- Increase in swelling/edema (ankle, abdomen)
- Anything that feels different than usual.

## BORG RATING OF PERCEIVED EXERTION (RPE)

Use this scale to find the intensity level of your exercise. A rating of 11-13 is ideal.

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	

For questions about exercise, call the exercise consultants at:

**Cardiovascular Center** 888-287-1082

**Cardiovascular Medicine at Domino's Farms** 734-998-5666

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