

SUPPORT GROUP FOR THOSE LIVING WITH IDIOPATHIC PULMONARY FIBROSIS

WHAT IS PULMONARY REHABILITATION?

Pulmonary rehabilitation is a program of supervised progressive exercise and education to improve your endurance, strength, flexibility, and ability to cope with the existing limitations you currently experience.

Importance of exercise and common goals:

- Reverse/minimize the effects of deconditioning
- Improve strength and flexibility of peripheral muscles (the arms and legs)
- Improve stability of core muscles (trunk and abdominals)
- Improve level of fitness/aerobic capacity
- Learn pacing strategies and acclimate to shortness of breath

How does deconditioning occur?

Deconditioning is a downward spiral of declining physical function that has to be interrupted to break the cycle. Often times a person begins to do less after an illness or when noticing that they feel short of breath with a particular activity. Over time, doing less leads to the ability to be able to do less, and the individual finds they feel short of breath with minor exertion or even personal care. This cycle eventually leads an individual to doing only those things that do not provoke shortness of breath and this may be activity that involves little outside the home.

What should you expect to do if you have a physical therapy evaluation?

The purpose of the exam is to establish a baseline level of function that involves looking at your pattern of breathing, ability to cough effectively and clear congestion, and adhere to a program of airway clearance if needed. Your posture, strength, range of motion and flexibility will be assessed, along with balance, sensation, and walking pattern. There needs to be an assessment of aerobic capacity, and that usually means a self paced 6 minute walk test. This test also serves as an outcome

measure for a comparison of improvement or deterioration in the future. Generally, recommendations will be made about the adequacy of a current exercise program if it exists, or whether that individual needs to begin a supervised exercise program.

How is an exercise program different from the activity associated with doing errands, grocery shopping, going to appointments?

Exercise is carried out for a specific purpose at a particular intensity, for a desired amount of time, at a specific frequency.

To achieve an improved level of fitness or aerobic capacity it is important to apply certain principles of Exercise Training; ie FITT

F= Frequency: 3-5x/week

I= Intensity: must go beyond current level of capacity; must reach into reserve capacity; have to utilize a sustainable challenge

T= Type: need to utilize a type of exercise that is meaningful to your daily function/life demands

T= Time: need to try to achieve 20 minutes or more of aerobic type exercise; cumulative intervals are fine, keeping rest periods short. This is a progressive increase in time, working toward continuous exercise, if possible.

What constitutes aerobic exercise?

Aerobic exercise is any type of exercise that incorporates large muscle groups moving repetitively over time; ie walking, cycling, marching, swimming, recumbent style trainers.

Performance of a structured exercise program can improve the level of physical function that then impacts performance of daily activities as an outcome. So really anyone, at any level of function, usually has potential to improve their ability to participate in repetitive activity that in the long run improves their ability to take care of themselves and do the daily activities that are most important to that individual.

Importance of using supplemental oxygen:

Everyone needs to have enough oxygen with exertion or exercise. Running a low level of oxygen puts a strain on the heart that over time is cumulative and leads to elevated pressures in the heart. This may eventually cause the pump action of the heart to be less efficient. Every muscle in the body uses oxygen to work, and a low oxygen level will be very fatiguing and lead to an inability to do enough exertion. Think of oxygen as the energy that lets the body do any level of work or exercise. Low oxygen levels can decrease the ability to think clearly as well.

There are additional principles of exercise that are important to consider:

Specificity: you need to do the kind of exercise that you'd like to do more of; i.e. if you want to be able to walk more, it is best to walk, though other forms of exercise can be beneficial.

Overload: you have to challenge yourself to exercise above your usual comfort level to make gains.

Baseline Level: what are you capable of doing now?

Reversibility: if you stop exercising, gains can be lost fairly quickly.

Why might you need assistance in starting or establishing an exercise regime?

It can be difficult to carry out an exercise program when you have trouble breathing, and there is often some degree of feeling anxious about getting short of breath with exertion. That doesn't mean that exercise is bad for you. Supervised exercise can provide assurance to you.

What happens when you stop??

In a supervised Pulmonary Rehabilitation program, there is always a desire to help each individual be successful with an ongoing exercise program at home. It is essential to continue after the structured program ends and wise to start well before it ends.

You start to lose gains right away if you stop exercising, but all is not lost....you just have to resume and possibly take a couple of steps backwards til you build up your endurance again.

If you stop exercising for several weeks, you will have to start again at a much lower intensity or perhaps in intervals, and work your way back up.

What about breathing exercises?

There are no specific general breathing exercises that will improve your breathing capacity. Having the ability to relax is important and should ease some of the effort you feel. A therapist can help you to learn to pace yourself with exertion.

Mary C. Bourgeois, PT, DPT, MS, CCS

Jessica R. Garton, PT, DPT, OCS, CLT

Massachusetts General Hospital Physical Therapy Services

Wang Ambulatory Care Center

15 Parkman Street

Boston, MA 02114

617-726-2961

Information was compiled and written by the therapists of MGH Physical Therapy Services. The information is the property of Massachusetts General Hospital and should not be copied or otherwise used without express permission of the Director of MGH Physical and Occupational Therapy Services.