

# Texas Children's Hospital

## *Caring for Your Child's Health*

### Exercise and Cystic Fibrosis

People of all ages with Cystic Fibrosis (CF) can and should exercise during each stage of the disease. Exercise should be made a part of everyone's daily routine. It can benefit your health in a number of ways.

#### **Why exercise?**

##### *Airway clearance*

- Exercise helps loosen the mucus that clogs the airways in CF.
- Coughing during or after exercise is normal.

##### *Energy and endurance*

- Exercise helps improve energy levels.
- Exercise can increase endurance making it easier to perform everyday activities with less shortness of breath.
- Exercise increases appetite.

##### *Lung function and disease control*

- Exercise helps slow the decline of lung function.
- Higher levels of fitness in people with CF are associated with improved survival.

##### *Quality of life*

- Exercise improves body image (how a person views themselves).
- Regular exercise promotes a feeling of well being and improves mood.

##### *Bone health and growth*

- Weight bearing exercises help strengthen bones and increase bone growth.
- Stretching exercises can help improve posture and flexibility.

#### **Exercise programs for different levels of lung disease**

How much you can do depends in part on the health of your lungs. People with higher lung function have more endurance and can exercise more. Your CF clinician or physical therapist can help you decide what level of exercise to aim for. If you have never exercised before or have moderate to severe lung disease, ask your CF doctor for a referral to Physical Therapy (PT) to help you get started. In the hospital, ask to have pulmonary rehabilitation with PT.

Here are some general guidelines for an exercise plan with lung disease:

##### *Healthy lungs with little or no limit in lung function*

- Aim for 30 minutes of vigorous cardiovascular exercise at least four times per week. No restrictions on activity.

##### *Moderate lung disease with reduced lung function*

- Aim for 30 minutes of moderate cardiovascular exercise at least three times per week.
- Take off every other day except for stretching exercises.

##### *Severe lung disease with low lung function*

- Aim for 15 to 20 minutes of monitored cardiovascular exercise three times per week. (Monitored means you should watch your heart rate to make sure it stays within a safe range defined by your CF doctor.)
- Monitor fatigue level taking breaks as needed.

## Examples of cardiovascular exercise

- Jogging
- Biking
- Swimming
- Skating
- Stair stepping
- Dancing
- Walking
- Soccer
- Baseball
- Karate
- Pilates



## Creating an exercise habit

- Encourage your child to begin exercising in early childhood; it helps to develop a life-long habit.
- Family support is important. Active parents have active children.
- When exercising strive to reach a moderately tired feeling.
- Start slowly and build up to 30 minutes.
- Always include a warm up before exercise and a cool down time as you finish exercising.
- It is okay to exercise with your gastrostomy (g-button) or central line (port-a-cath). Talk to your health care team about precautions for contact sports.

## Avoid dehydration – Getting fluids during exercise

People with CF have a greater chance of becoming dehydrated with exercise. This is especially true for those of us that live in hot, humid weather.

- Drink *plenty* of water and sports drinks, such as Gatorade™ or Powerade™ to replace salt lost in sweat during exercise.
- People with CF should drink 6 to 12 ounces of fluid every 20 to 30 minutes.
- If you are sweating a lot, you can add an extra 1/8 teaspoon salt to 12 ounces Gatorade™ or to 8 ounces of water.

- Avoid carbonated drinks, drinks with caffeine and sodas.

*Physical signs that you are not drinking enough fluids include:* Dry mouth, fatigue, weakness, fever, sweating heavily, muscle cramps, abdominal pain and/or vomiting. You may notice a strong smell of urine, darker urine or a decrease in how often you need to urinate.

## Staying active at school: Physical education

Participation in Physical Education (PE) classes at school is recommended for most children with CF. If you have concerns about your child taking part in PE, talk with your CF clinician.

Tell the teacher and school nurse that your child has CF so that more fluids are available for your child to drink when it is hot outside or the child is very active.

## Final thoughts

1. Exercise regularly
2. Get involved in an activity you enjoy – involve family and friends.
3. Ask your CF team how much and how often you should exercise.
4. Talk with the school about how to safely participate in PE.

## Notes and questions

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*Developed by Baylor Cystic Fibrosis Center at  
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