Exercise in Children with Cardiomyopathy

The American Heart Association suggests that all children should take part in at least an hour of moderate-intensity exercise daily. However, some children diagnosed with cardiomyopathy may face physical activity restrictions due to the severity of their heart condition. Children with cardiomyopathy may experience breathlessness, fatigue and chest pain, making it difficult for them to exercise or participate in physical activities.

Children with a mild case of cardiomyopathy who have no or few symptoms may be able to exercise with few restrictions. Some children with cardiomyopathy may have an increased risk of sudden cardiac arrest. Risk of a sudden cardiac arrest is dependent upon numerous factors:

- Family history of cardiomyopathy or other related cardiac issues
- Child's age
- Presence and severity of other symptoms

Balancing the Benefits and Risks of Exercise

Determining the amount of required activity restriction in a child with cardiomyopathy is often difficult because there are no published exercise guidelines that address the variability of the disease. An individualized activity plan needs to be developed for each child. Finding a safe balance can be challenging, and the benefits and risks need to be considered together.

Benefits of Exercising

- Helps to maintain a healthy body weight
- Improves fitness and controls risk factors such as blood sugars and cholesterol levels
- Enhances mood, confidence and self-esteem, and can help to reduce anxiety
- Offers opportunities to interact with peers and be part of a team

Managing the Risks

- Adopt an appropriate lifestyle and follow the exercise guidelines and treatment plan advised by your child's physician.
- Consider an implantable cardioverter defibrillator (ICD) if there is a family history of arrhythmia or sudden death, and if your child is considered to be at higher risk for sudden cardiac arrest.

- Children with ICDs need to avoid contact activities, since physical contact may interfere with the lead system. Overexertion may also trigger an unnecessary shock due to an increase in heart rate.
- Know the warning signs and risk factors such as dizziness, heart palpitations, chest pain, shortness of breath, and fatigue during exercise.
- Children should learn to self-regulate, understand their physical limits, and communicate their experiences and concerns to their pediatric cardiologist.

Developing a Physical Activity Plan

Because cardiomyopathy is extremely variable, a pediatric cardiologist should advise what is the appropriate level of activity for your child. Your child's cardiologist will work with you to develop a plan that reduces the risk of adverse events while allowing your child to still enjoy the benefits of exercising. Certain low to moderate-intensity activities may be approved, such as walking, golf, bowling, skating, tennis, and swimming. Jogging, cycling, horseback riding, sailing, and softball may also be appropriate for some children with cardiomyopathy.

Factors such as emotional stress, dehydration and environmental conditions (temperature, humidity, altitude) related to certain physical activities can have an effect on cardiomyopathy patients and should be discussed with your child's pediatric cardiologist.

It is important to work with your child's school to implement the cardiologist's recommendations through an Individualized Education Plan (IEP). CCF offers *Ensuring a Good Learning Environment,* a resource kit to help parents and schools implement appropriate accommodations for students affected by cardiomyopathy.