

Dilated Cardiomyopathy

The aim of this fact sheet is to explain what Dilated Cardiomyopathy is, what effect it will have on a child and how it can be treated.

What is Dilated Cardiomyopathy?

Dilated means enlarged.
 Cardio means of the heart.
 Myopathy is any disease of muscles.

Dilated Cardiomyopathy (DCM) means an enlargement of the heart muscle.

DCM weakens the heart muscle so that it works less efficiently and cannot pump enough blood to the lungs and around the body.

What causes Dilated Cardiomyopathy?

It is not certain what causes DCM to develop. However, there are some factors that are thought to contribute to the disease. These include a viral infection, a family history of the disease, and auto-immune disease.

How it can affect your child

- ♥ DCM can result in heart failure, and when this happens, your child's organs can retain water. If water starts to fill up in the lungs, your child may find it difficult to breathe. You may also see that your child's abdomen swells with this retained water.
- ♥ Because the heart is weak, muscles may not receive enough blood to allow your child to run around without quickly becoming exhausted.
- ♥ Blood flows more slowly through the heart and this can allow blood clots to form that could cause damage to the lungs, brain or other organs. Your child may need to be treated with anticoagulant medication (aspirin or warfarin) to prevent such clots from forming.

- ♥ Changes in the heart muscle may interfere with the electrical activity that regulates the heartbeat, causing the pulse to slow (heart block or bradycardia) or to race (atrial fibrillation).

Fig 1 – Dilated Cardiomyopathy

Dilated Cardiomyopathy

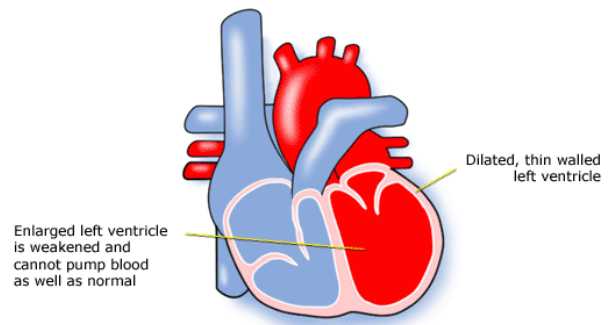
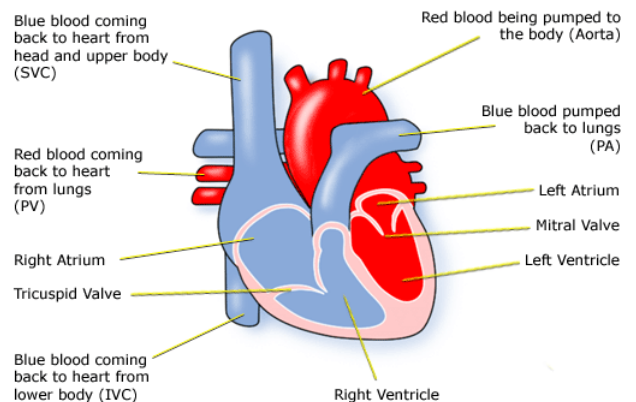


Fig 2 – Normal heart

Normal Heart



Diagnosis

DCM is often discovered because a child becomes tired a lot, breathless, and perhaps has some swelling. There may also be a fast or slow heart beat, and the doctor may hear abnormal heart sounds through a stethoscope (heart murmur), or a large heart may be seen on an x-ray.

When a heart problem is suspected the tests used can be:

- pulse, blood pressure, temperature, and number of breaths a child takes a minute
- listening with a stethoscope for changes in the heart sounds
- an oxygen saturation monitor to see how much oxygen is getting into the blood
- a chest x-ray to see the size and position of the heart
- an ECG (electrocardiogram) to check the electrical activity of the heart
- checks for chemical balance in blood and urine
- an ultrasound scan (echocardiogram) to see how the blood moves through the heart and how well the heart is working.
- cardiac catheter test – inserting a tube in the top of the leg under general anaesthetic, through a blood vessel. This allows pictures to be taken of the heart, measurements of the pressures

and sometimes a biopsy – taking small pieces of the heart muscle

- exercise testing –to check breathing, blood pressure and rhythm during exercise on a treadmill.

Treatment

Treatment cannot cure DCM but drugs can help your child's heart to stabilise, and in many cases not to deteriorate any further, and it is possible that your child may recover spontaneously.

- Drugs - Ace inhibitors, antiarrhythmics, beta blockers, digoxin, diuretics and anticoagulant can all treat symptoms and improve the heart's efficiency .
- Pacemaker -If your child's heart rate is too slow, a pacemaker may be needed
- Implantable Cardioverter Defibrillators (ICD) - in rare cases an ICD can be implanted to shock your child's heart out of a dangerous fast rhythm.

Heart Transplant

If your child's condition cannot be controlled using these treatments he or she may be assessed for a heart transplant.