

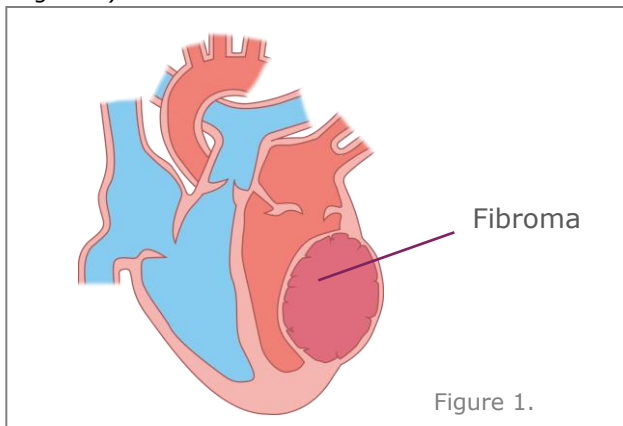
This sheet explains what a cardiac fibroma is and how Boston Children's Hospital approaches treatment.

### Key points

- A cardiac fibroma is a non-cancerous heart tumor.
- A tumor can interfere with the way the heart works, blocking blood flow to vital organs and causing an abnormal heart rhythm (arrhythmia).
- Boston Children's is experienced in surgeries to remove these tumors.

### What is a cardiac fibroma?

- Children are born with this tumor.
- The tumor is a benign (non-cancerous) mass of tissue.
- They tend to be very large. They can sometimes be almost as large as the rest of the heart.
- The tumor is usually in the left ventricle (1 of the 4 parts of the heart that blood flows through). (See figure 1).



### Is it associated with other conditions?

It is often associated with arrhythmias and ventricular tachycardia.

- An arrhythmia is an irregular with the heartbeat. An arrhythmia is potentially life threatening.
- Ventricular tachycardia is an abnormal heart rhythm that starts in the ventricles and is often associated with a sudden loss of consciousness or cardiac arrest.
- Our research suggests that these heart rhythm abnormalities may be caused by strands of heart muscle that grow through the tumor.

A fibroma is sometimes found in people with Gorlin syndrome (also known as nevoid basal cell carcinoma syndrome).

- Gorlin syndrome is a condition caused by a genetic mutation (a change in the way a gene grows) in the PTCH1 gene.
- We recommend a genetics evaluation if your child has a cardiac fibroma, to see if they have this syndrome.

### How can you tell if my child has a cardiac fibroma?

- Fibromas are often found before birth and in young infants. They are rarely discovered for the first time in older children or adults.
- The mass may be seen in the heart on a prenatal screening ultrasound.
- The diagnosis is more certain if the tumor certain characteristics on cardiac magnetic resonance imaging (MRI). This is a test that shows pictures of the inside of the body.
- When fibroma is found after birth, it is usually due to an abnormal appearance of the heart on chest x-ray or symptoms, such as:
  - Heart murmur
  - Changes in the heart rhythm
  - Loss of consciousness
  - Having trouble breathing
  - In some tragic cases, sudden death
- We may recommend monitoring your child's heart rhythm with an electrocardiogram or a Holter monitor (a small heart monitor your child wears).

### What problems does it cause?

- Even benign tumors can be life threatening because they can interfere with the way the heart works, causing blockages and dangerous arrhythmias.
- Research at Boston Children's Hospital has shown that the heart rhythm abnormalities are probably due to strands of heart muscle within the tumors.
- The mass can cause a narrowing of the pathway of blood through the heart, which may affect circulation.
- It can cause leakage in the heart valves (part of the heart that controls blood flow).

### What is the treatment?

Surgery may be an option at highly specialized hospitals like Boston Children's, where we have developed techniques to remove these large tumors.

Our experience has found that debulking (removing some of the tumor) or resection (taking out all of the tumor) in people with ventricular arrhythmias usually stops the heart rhythm abnormality.

We usually do not recommend heart transplants for children with cardiac fibroma, even when the tumors are very large.

### Contact us

- Heart Center
  - Call (617) 355-4278
  - International: +1-857-218-3913