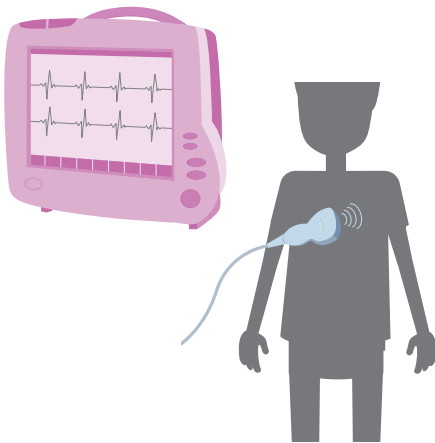
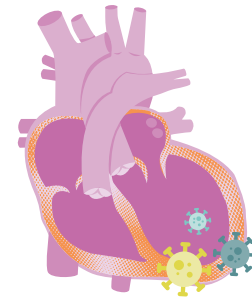


# An Introduction to Myocarditis

**What is myocarditis?** “Myocardium” is another name for the heart, and “itis” is another name for inflammation. Myocarditis is inflammation of the heart, just like you can get inflammation of a tendon (tendonitis) or joint (arthritis).



**How is myocarditis diagnosed?** Myocarditis can be diagnosed in a few ways—blood tests and EKGs are often the first tests. Certain findings from the blood work, such as an elevated “troponin” level, or EKG results can suggest a possible myocarditis diagnosis. An echocardiogram is a specific type of ultrasound that can check how the heart is pumping. Other tests, such as a cardiac MRI or a heart biopsy (which is a procedure in the catheterization lab) may be used to confirm the diagnosis of myocarditis.

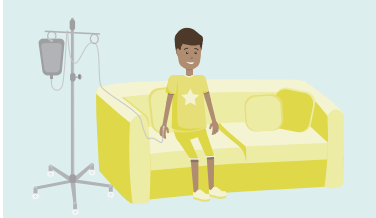
**What are the causes of myocarditis?** Often caused by a virus (such as Adenovirus, the Flu virus, and the virus that causes COVID-19), but myocarditis can also be caused by autoimmune diseases, medicines, toxins, and vaccines.



**What are the symptoms of myocarditis?** Symptoms can include a combination of the following: stomach or abdominal pain, low appetite, nausea, vomiting, feeling tired, low energy, shortness of breath, fever, chest pain, cough, and palpitations. Some children may have had a fever or “cold” symptoms 1–2 weeks before.

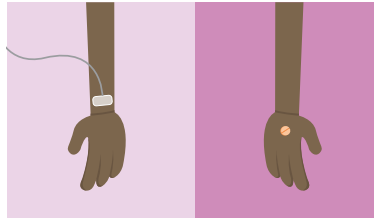
# An Introduction to Myocarditis *continued...*

**How is myocarditis initially treated?** Children diagnosed with myocarditis are often admitted to the hospital. The majority of children will initially be admitted to an intensive care unit for close monitoring. Where the child is admitted depends on how well the heart is pumping or if there are any abnormal heart rhythms.



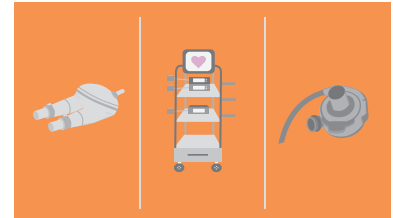
## Anti-Inflammatory Medicines

*Some children will receive an infusion called "IVIG", which is an infusion of antibodies from healthy people to help fight an infection. Some children may also receive steroids to lower the inflammation.*



## Heart Medicines

*If heart function is weak, medicines can be given through an IV to help the heart pump stronger. If heart function does not return to normal, oral medicines (taken by mouth) may be used to help the heart function improve over time.*



## Heart Pump

*In severe cases, a mechanical heart pump or heart-lung machine may be required until the heart inflammation and function improve.*

## What activity restrictions will I have with myocarditis?

Children who have been diagnosed with myocarditis will be restricted from intense exercise and competitive athletics for at least 3–6 months. Follow up testing such as blood tests, a cardiac MRI, Holter monitor, or exercise stress test may be performed to help make the decision of when to return to exercise.



## Will my heart recover from myocarditis?

While over 75% of children with myocarditis are admitted to an intensive care unit, most children with myocarditis will recover with a return to normal heart function, and over 93% of children can be discharged back home. Some children may continue to take medicines at home to help the heart squeeze better.

While some children may require a temporary machine to help with breathing or to help the heart, fewer than 5% of children will require a more permanent machine, and fewer than 5% of children need a heart transplant. While rare, myocarditis or decreased heart function can sometimes recur, so follow up with a cardiologist is important.