

Kawasaki disease

What is Kawasaki disease?

Kawasaki disease is an illness that affects children under 5 years old, however it may affect babies as well as older children. It causes inflammation of the blood vessels throughout the body. The small blood vessels of the heart (called the coronary arteries) can be affected in 1 out of 4 children with Kawasaki disease.

What are the symptoms?

The most common symptom of Kawasaki disease is a high fever that lasts more than 5 days. There are 5 other symptoms:

- a red, bumpy rash over the body (face, chest, abdomen, diaper area in babies)
- red, bloodshot eyes (without discharge)
- red lips, mouth or tongue ('strawberry tongue'), cracked lips
- red, swollen hands and feet
- swollen glands in the neck

These symptoms can make your child feel tired, uncomfortable and irritable, and have less appetite and joint pains.

What causes Kawasaki disease?

The cause of Kawasaki disease is not known. We do not know why some children get this disease and others don't. It is not contagious – your child did not "catch it" from another child.

Some doctors think it could be caused by an infectious agent (such as a bacterium, virus, parasite or fungus) acting on a child who is more likely to develop the disease because of his or her genetic makeup.

How do you know my child has Kawasaki disease?

The doctor will examine your child and check for signs of the disease. There is no specific test for Kawasaki disease. Your child will have blood and urine tests, and an ultrasound of the heart called an echocardiogram.

The echocardiogram shows the heart, including the small arteries that provide blood flow to the heart muscle (coronary arteries). For the best results, young children may need to be sedated for this test.

How is Kawasaki disease treated?

Your child will be treated in the hospital as soon as possible after the symptoms appear. The goal of treatment is to reduce fever and inflammation, and prevent damage to the coronary arteries. These are small blood vessels that supply blood, oxygen and nutrients to the heart muscle so it can pump blood to the body. Treatment can shorten the illness and greatly reduce the chance that your child will develop heart problems.

Kawasaki disease is treated with:

- intravenous immunoglobulin (IVIG) – antibodies from donated blood are given to reduce inflammation of the blood vessels, particularly the coronary arteries
- aspirin (ASA) – your child takes these tablets to reduce the fever and rash, and prevent forming blood clots

It is important to treat Kawasaki disease with intravenous medication within the first 10 days of fever.

If not treated within this time period, 1 out of 4 children may have some lasting effects on the coronary arteries.

After treatment, the fever usually goes away. In a few children, the fever returns and a second treatment of IVIG is needed. This is called 'resistant' Kawasaki disease.

Who provides my child's care in the hospital?

A team of health professionals and support staff will care for your child. We will work closely with you to plan your child's care, treatment and follow-up.

A pediatric doctor will be responsible for your child's care. Your child may also be seen by a pediatric cardiologist (children's' heart specialist) and a rheumatologist (a specialist for problems with blood vessels and joints).

What follow-up care will my child need at home?

The nurse and doctor will review the follow-up plans for your child before you leave the hospital. Please feel free to ask any questions that you may have.

Most children go home after a few days and recover completely.

If your child has no signs of heart problems, his or her care at home will include:

- A visit to the family doctor or pediatrician in about 1 week.
- Taking your child's temperature each day until the visit with the family doctor or pediatrician.
- Continuing to give your child aspirin for 6 to 8 weeks or until the next echocardiogram shows that there are no heart problems.
- Returning to usual activities, day care or school when he or she feels well enough.
- An echocardiogram with a discussion of further follow-up plans with the pediatric cardiologist in about 6 to 8 weeks.

Your child's immunizations (shots to prevent childhood illnesses such as measles, mumps and rubella) may need to be delayed. Treatment with IVIG may prevent these shots from working well and your child would not be fully protected. The flu vaccine is not affected and may be given at any time.

While your child is taking aspirin, take care to avoid contact with chicken pox. This is because aspirin and chicken pox may lead to a serious illness called Reye's Syndrome. Keep your child away from children who have chicken pox or have been exposed to it. Tell your child's teachers about this and ask them to call you if anyone in your child's class develops chicken pox.

If treatment of Kawasaki disease with IVIG is given within 7 to 10 days, 5% of children will still develop heart problems. These children will need further tests, treatment and more frequent follow-up visits. The heart problems are related to bulging (dilatation) of the coronary arteries. The bulges (also called aneurysms) are most often small to moderate in size, and most go away completely. Very few children develop large aneurysms that don't improve. If your child has heart problems, the members of the health care team will give you more information about his or her care and follow-up.

Will my child develop heart problems in the future?

Research is being done to answer our questions about long-term effects. If your child has no lasting heart problems, it is likely that he or she has the same risk for future heart problems as a person who did not have Kawasaki Disease.

A healthy lifestyle benefits all children, but may be more important for your child after having this illness. Healthy living includes:

- Following Eating Well with Canada's Food Guide
- Active living with Canada's Physical Activity Guide
- Avoiding risky health behaviours such as smoking

Where can I get more information?

For more information talk with your family doctor, Public Health Services or visit these websites:

- Health Canada http://www.hc-sc.gc.ca/hl-vs/index_e.html
- Caring for kids (Canadian Pediatric Society) <http://www.caringforkids.cps.ca/>
- Kawasaki Disease Canada www.kdcanada.org

You can also learn from other families who have experienced Kawasaki Disease by joining a support group.

When should I call the doctor?

Call your family doctor or pediatrician if you are concerned about your child or notice any of the following problems:

- Your child's fever returns. It is very important to check for IVIG resistance when fever returns in the first few days after treatment.
- Your child has contact with someone with chicken pox (during the time he or she is taking aspirin).
- A stomach ache, bruising or blood in bowel movements (this may be caused by the aspirin).
- Fainting, chest pain or shortness of breath (signs of heart problems).

If you have any questions about Kawasaki disease, please talk with a member of your child's health care team.