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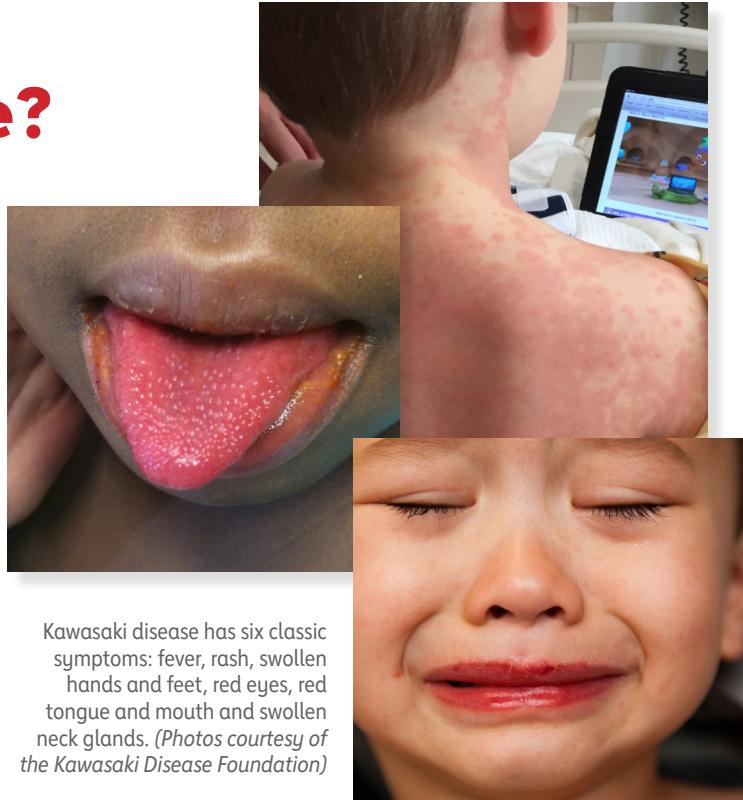
Cardiovascular Conditions

# What Is Kawasaki Disease?

Kawasaki disease (KD), also known as Kawasaki syndrome or mucocutaneous lymph node syndrome, affects children. It causes swelling (inflammation) of the blood vessels, especially in the coronary arteries. The average age of those affected is 2 years. About 77% are younger than 5. Boys are 1.5 times more likely than girls to get KD. The remaining 25% of cases are older children, adolescents and teens.

The illness occurs worldwide and across all racial or ethnic groups. It's more frequent in Japan and in children of Asian descent.

Prompt treatment is critical to prevent serious heart problems. Most children recover fully.



Kawasaki disease has six classic symptoms: fever, rash, swollen hands and feet, red eyes, red tongue and mouth and swollen neck glands. (Photos courtesy of the Kawasaki Disease Foundation)

## What are the classic signs of Kawasaki disease?

Kawasaki disease is diagnosed when a patient runs a fever of at least 100.4 degrees Fahrenheit and above for at least five days. The fever is accompanied by at least four of these five symptoms:

- Rash over the torso, arms and legs
- Swollen, red hands and feet (peeling of the skin on the fingers and toes occurs in the second and third weeks of the illness)
- Bloodshot eyes
- Swollen lymph nodes in the neck, usually on one side and measuring more than 1.5 centimeters (0.59 inches)
- Redness and swelling of the mouth, lips, throat and tongue ("strawberry" tongue is red and bumpy)

Some children have incomplete KD, where not all the symptoms occur.

## What causes it?

We don't know what causes KD. Some suspected causes include:

- Genetics
- Infectious causes, such as viruses
- Environmental factors
- Immune response

There is no evidence that it is spread from person to person. It's not hereditary. Rarely, more than one child in a family develops it.

## How does Kawasaki disease affect the heart?

Without fast treatment, KD can cause the heart's blood vessels to become wider and damaged. This can lead to blood clots and blockages in the heart's blood vessels. These blockages can reduce the oxygen supply to the heart muscle in about 1 in 4 children.

Over the first few weeks, a weakening of a coronary artery can result in enlargement of the vessel wall (aneurysm). A blood clot can form in this weakened area and block the artery. If this happens, the patient can have a heart attack.

(continued)



## What Is Kawasaki Disease?

When the illness begins, the heart muscle can be inflamed, affecting the heart's ability to squeeze. Heart rhythm and heart valve problems may occur, but they are rare. While some of this can resolve, the damage to the coronary arteries can be lifelong.

### How is it diagnosed?

There is no single test for KD. A health care professional will examine your child, review their symptoms and rule out other conditions.

An ultrasound of the heart (echocardiogram) gives a clear picture of the coronary arteries and how the heart is functioning. This may aid in making a diagnosis.

### How is Kawasaki disease treated?

Kawasaki disease is treated in the hospital with intravenous immunoglobulin (IVIG) and aspirin. When given early in the illness, IVIG can reduce the risk of coronary artery problems.

If a child is at high risk for coronary artery abnormalities or continues to have a fever after IVIG, additional medications, such as steroids or infliximab, can help.

Aspirin in moderate doses is used in the acute phase to help

control fever. After the fever is gone, aspirin is given in lower doses to help prevent blood clots. Aspirin is stopped after four to six weeks if the child has normal coronary dimensions.

### Will my child have long-term issues?

With proper treatment, most children with Kawasaki disease who don't develop aneurysms fully recover. They don't usually need long-term follow-up. But it may take one to two months for them to return to normal. Rest and gradual recovery are important.

Children with coronary artery aneurysms need ongoing care with a pediatric heart doctor. Their care should be transitioned to an adult heart doctor when they become adults.

Most importantly, people with moderate to large persistent aneurysms need lifelong cardiology follow-up. This includes:

- Yearly or twice-yearly cardiology visits
- Imaging and heart function tests
- Monitoring for complications such as narrowing of the arteries or blood clots

## HOW CAN I LEARN MORE?

- 1 Call 1-800-AHA-USA1 (1-800-242-8721) or visit [heart.org](http://heart.org) to learn more about heart disease and stroke.
- 2 Sign up for our monthly *Heart Insight* e-news for heart patients and their families, at [HeartInsight.org](http://HeartInsight.org).
- 3 Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at [SupportNetwork.heart.org](http://SupportNetwork.heart.org).
- 4 Contact the Kawasaki Disease Foundation at [kdfoundation.org](http://kdfoundation.org).

### Do you have questions for your doctor or nurse?

Take a few minutes to write down questions for the next time you see your health care professional.

For example:

**What can I do to help my child deal with Kawasaki disease?**

### MY QUESTIONS:

We have many other fact sheets to help you make healthier choices to reduce your risk of heart disease, manage your condition or care for a loved one. Visit [heart.org/AnswersByHeart](http://heart.org/AnswersByHeart) to learn more.