

Long Q-T Syndrome

What is long Q-T syndrome?

Long Q-T syndrome (LQTS) is a problem with the electric signals that start each heartbeat. It can cause a very fast or irregular heartbeat. Sometimes LQTS can cause a dangerous heart rhythm and be life threatening.

Long Q-T syndrome gets its name from the unusual pattern of the electrocardiogram (ECG or EKG) of people with the disease. An ECG is a test that measures and records your heartbeat.

An electrical signal in your heart starts each heartbeat, causing the heart muscle to squeeze (contract). Normally, this signal starts in the upper right chamber of the heart (the right atrium) at a place called the sinus node. The signal then travels to the upper left atrium and to the lower chambers of the heart (the ventricles).

What is the cause?

Several things can cause LQTS:

- It may be inherited, which means that it is passed from parents to children through their genes. Inside each cell of your body are genes. Genes contain the information that tells your body how to develop and work. Defects in the genes can affect the ability of the heart's muscle cells to use sodium and potassium properly.
- Some medicines, such as cold medicines, antibiotics, antipsychotics, antidepressants, and diuretics (water pills), can cause LQTS.
- Eating disorders, severe diarrhea or vomiting, and some thyroid problems may affect the potassium and sodium balance in the heart and cause LQTS.

LQTS is often present at birth but it can appear at any age. It most often occurs in children and young adults.

What are the symptoms?

Some people with LQTS have few or no symptoms. Sudden fainting spells are the most common symptom. Sometimes LQTS may also cause seizures.

Symptoms may happen in response to physical or emotional events, such as exercise, being in cold water, hearing loud noises, laughing, or crying. Sometimes they are triggered by a slow heartbeat, like when you are sleeping, and may cause gasping for air.

How is it diagnosed?

Your healthcare provider will ask about your symptoms and medical history and examine you. Your provider will also ask if any of your family members have had LQTS, unexplained fainting spells, or sudden death. Tests may include:

- An ECG (also called an EKG or electrocardiogram), which measures and records your heartbeat. You may have an ECG while you are resting or while you exercise on a treadmill. You may also be asked to wear a small portable ECG monitor for a few days or longer.
- Blood tests

Because LQTS runs in families, if blood tests show that you have the gene for LQTS, other family members should also be tested.

How is it treated?

Treatment may include:

- Medicine to help your heart beat more slowly
- An implantable cardiac defibrillator (ICD), which is a device that can shock the heart back to a regular rhythm. In cases of life-threatening heart rhythm problems, ICDs can provide an instant, life-saving electrical shock before medical help arrives.

You may need to avoid medicines and activities that may cause symptoms, such as sports, flying or scuba diving.

With treatment, people with LQTS can lead fairly normal lives. Most can be physically active and handle emotional stress without fear of symptoms.

How can I take care of myself?

Be sure to take all medicines as prescribed by your healthcare provider.

Try to have a heart-healthy lifestyle:

- Eat a healthy diet.
- Try to keep a healthy weight. If you are overweight, lose weight.
- Stay fit with the right kind of exercise for you. Exercise according to your healthcare provider's instructions.
- Limit caffeine.
- Learn ways to manage stress. Ask for help at home and work when the load is too great to handle. Find ways to relax, for example take up a hobby, listen to music, watch movies, or take walks. Try deep breathing exercises when you feel stressed.
- If you smoke, try to quit. Talk to your healthcare provider about ways to quit smoking.
- If you want to drink alcohol, ask your healthcare provider how much is safe for you to drink.

Follow your healthcare provider's instructions. Ask your provider:

- How and when you will hear your test results
- What activities you should avoid and when you can return to your normal activities
- How to take care of yourself at home

- What symptoms or problems you should watch for and what to do if you have them

Make sure you know when you should come back for a checkup.

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