SICKLE-CELL
ANEMIA AWARENESS
Start by testing.

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What Causes Sickle Cell Disease?

Sickle cell disease is a group of conditions passed down in families through their genes. The type of sickle cell disease a person has depends on the **hemoglobin genes** each parent passes down to them. Hemoglobin is the protein inside **red blood cells that carries oxygen.** Someone with sickle cell disease has at least **one sickle cell gene**. The **other hemoglobin gene** can be either another sickle cell gene or a gene for a different type of **abnormal hemoglobin.** The genes cause the body to make hemoglobin that causes the red blood cells to **become sickle shaped.**

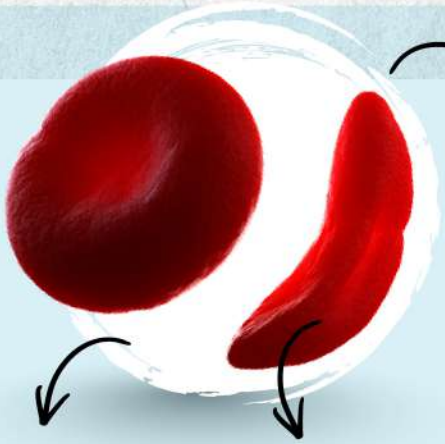
Did you know?

The two most common symptoms of sickle cell disease are pain and anemia.

- **Sickle cell disease and sickle cell trait** usually are found at birth with a blood test during routine newborn screening tests. A second blood test (called a **hemoglobin electrophoresis**) will confirm the diagnosis.
- Sickle cell disease also might be diagnosed before **a baby is born with a test** on the amniotic fluid or with a sample of tissue from the placenta.
- People with sickle cell anemia may have jaundice (skin and whites of the eyes look yellow). This happens because the sickle-shaped red blood cells break down faster than normal cells.

What Is Sickle Cell Disease?

Sickle cell disease is a group of conditions in which red blood cells are not shaped as they should be. Red blood cells normally look like round discs. But in sickle cell disease, they're shaped like sickles, or crescent moons.



The pain caused by sickle cell disease is called a pain crisis or vaso-occlusive crisis. In a pain crisis:

They break down faster than normal red blood cells. That leads to too few red blood cells, a condition called anemia.

Why does the sickle shaped cells cause problems ?

They are stiff and sticky and block small blood vessels when they get stuck together. This stops blood from moving as it should, which can lead to pain and organ damage.

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What happens if I'm diagnosed with sickle cell disease? How do I continue with my daily life?

A) REDUCE COMPLICATIONS

- GET REGULAR MEDICAL CARE.
- STAY UP TO DATE ON VACCINES.
- LEARN HOW TO MANAGE PAIN.

If your pain worsens, drink plenty of fluids and take a nonsteroidal anti-inflammatory pain reliever like ibuprofen. Doctors recommend acetaminophen instead if you have kidney problems. If you are unable to control your pain at home, go to a SCD day hospital/outpatient unit or an emergency room for additional, stronger medications and intravenous fluids. Sometimes pain can be managed at home. But someone with severe pain might need treatment in a hospital.

B) ESTABLISH A BALANCED LIFESTYLE.

- EXERCISE REGULARLY.
- CHOOSE HEART-HEALTHY FOODS.
- DRINK WATER TO AVOID DEHYDRATION.
- QUIT SMOKING.
- GET ADEQUATE SLEEP 7-9 HOURS A NIGHT.

Signs of Anemia

- Paleness seen in the skin, lips, or nailbeds
- Tiredness
- Dizziness
- Being short of breath
- Feeling lightheaded
- Being irritable
- Trouble paying attention
- A fast heartbeat

Here's how sickle cell genes can run in families:

- A child who gets two sickle cell genes, one from each parent, will have sickle cell disease.
- A child who gets a sickle cell gene from one parent and a normal hemoglobin gene from the other parent has sickle cell trait. Most people with sickle cell trait don't have symptoms, but they can pass the sickle cell gene to their children.
- Someone who gets a sickle cell gene from one parent and another kind of abnormal gene from the other parent may have a different form of sickle cell disease, such as hemoglobin SC disease or sickle beta thalassemia.

SCD is a chronic life-threatening illness. The good news is that a number of new medications that will help alleviate symptoms have been approved in recent years. Following a diagnosis, your doctor may advise you to take one of these medications.

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