What is Sickle Cell Disease?

Sickle cell disease is a blood disorder that some people are born with. Learning more about this genetic disease can help you or a loved one better manage it.

You are born with sickle cell disease only if you inherit the gene from both your parents. A blood test can tell if a person carries the gene. And most babies are now screened for the blood disorder before or shortly after birth.

To help you better understand sickle cell disease, let's take a closer look at your blood. Blood contains different types of cells. These include: Red blood cells that carry oxygen throughout the body; White blood cells that help fight infections; And platelets that help with blood clotting.

Sickle cell disease affects your red blood cells. It changes a protein inside them called hemoglobin. This protein helps the cells carry oxygen throughout your body.

In a healthy person, red blood cells are flexible and round. They move easily through blood vessels. But with sickle cell disease, red blood cells become rigid and sticky. They are also shaped more like the letter C, or a sickle tool.

As these sickle-shaped cells travel through the body, they can bunch together and get stuck in smaller blood vessels. They may even burst.

This block in blood flow can cause episodes of sudden pain. These are called pain crises. They often occur in the chest, arms, and legs.

Parts of the body may also not get enough oxygen, leading to serious health problems, such as:

Blood clots; Damage to organs like the lungs, spleen, and liver; Eye problems; Infections; Stroke; And priapism, a painful erection that lasts for more than 4 hours.

People with sickle cell disease may also develop anemia. This condition is when your body doesn’t have enough red blood cells.

Sickle cells die faster than the body can create new ones. This creates a shortage of red blood cells. Symptoms of anemia include shortness of breath, dizziness, and fatigue.

Sickle cell disease is a lifelong condition. It can sometimes be cured with a bone marrow transplant. But finding the right genetic match for the procedure can be difficult.

Still, there are many ways to stay healthy if you have sickle cell disease. One way is by reducing the chance of a pain crisis. You can do this by: Staying hydrated; Not smoking; Limiting alcohol; Reducing stress; And avoiding very hot or very cold temperatures.

Your healthcare provider can also tell you about other treatments that may help. These may include medicines to ease pain or improve blood flow. You may also benefit from blood transfusions. And gene therapy may be an option.

Many people with sickle cell disease live long, healthy lives. Connect with your healthcare provider to learn about all the things you or your loved one can do to feel better and prevent complications.

