



Sickle cell disease and iron overload

“For the past two years, my daughter Sonia got quite a few transfusions to help treat sickle cell disease. She needed the transfusions, yet we knew that each one added extra iron to her little body. Now, the doctor says she needs to take medicine to get the extra iron out. So far she is responding well to the treatment. We are very grateful for that.”

About iron overload

Having too much iron in the body is called iron overload. This extra iron can damage the heart, liver, and other organs. The good news is that there is treatment for iron overload. Read this handout to learn more.

Could your child have iron overload from transfusions?

During a red blood cell transfusion, healthy red blood cells are put into the body. For some people with sickle cell disease, these healthy red cells can be a real lifesaver. The cells deliver oxygen and open up blood vessels.

Yet red blood cells contain iron. Over time, this iron can build up in the body and damage organs. Having 10 or more red blood cell transfusions in a lifetime can mean a higher chance of getting iron overload.

Preventing iron overload

Exchange transfusion can help. It removes old blood and its iron before fresh blood is given. This lowers the chance of iron overload.

Finding out if your child has iron overload

There are two ways to find out if your child has too much iron:

- A blood test is the most common test for iron overload. It involves taking a small sample of blood. The blood is tested for stored iron.
- A liver biopsy is the most accurate test for iron overload. It involves taking out a small piece of your child’s liver and measuring the iron it contains. A doctor will also look at this sample under a microscope to see if the liver is healthy.
- MRI (magnetic resonance imaging) machines may be used to measure iron in the liver and heart. These tests are not painful.





Treatment for iron overload

If your child has iron overload, the iron level won't go back to normal on its own. Your child will need to take a medicine that removes iron from the body called an iron chelator (KEE-lay-tor). Talk to the doctor about treatment that may be right for your child.

About iron chelators (KEE-lay-tors).

Right now, there are two iron chelators that have been approved by the FDA (Food and Drug Administration). They are:

- Deferasirox (Exjade®). This is a tablet that you mix with juice or water. Most often, you take it two times a day. Since it is taken by mouth, it is called an oral iron chelator.
- Deferoxamine (Desferal®). This is a liquid that is pumped slowly into a vein or under the skin using a tiny needle. It is given for 8 to 10 hours. Most often it is given overnight for 5 to 7 days.

Transfusions can cause your child to have too much iron. This can lead to a health problem called iron overload. Taking iron chelators can help get rid of the extra iron.

How can I learn more about iron overload?

- Talk to your child's doctor.
- Contact the SCDA (Sickle Cell Disease Association of America) at 800-421-8453. Or, go to our website: www.sicklecelldisease.org

