Children's of Alabama

UAB MEDICINE

SICKLE CELL CLINIC

Kidney

What is the kidney?

The kidney is an organ in your body that works to filter blood. It takes the waste products that your body does not need and combines it with water to make urine.

How does sickle cell effect my kidney?

Sickle cells can cause four complications with the kidney:

Water concentration problems:

- When people are dehydrated, the kidneys work to keep more water in the body.
- Urine that looks clear means there is a lot of water in the body.
- Urine that looks yellow means there is less water in the body.
- In sickle cell disease, some patients do not have the ability to hold onto water even when their body needs it.
- It is important to drink lots of water to keep well hydrated.

Filtering the blood:

- Blood tests are done yearly on sickle cell patients to see how much blood is being filtered through the kidneys. This test is very important.
- Children with sickle cell disease may filter too much blood.
- Over time, the kidney will become injured and begin to filter too little blood.

Not filtering the blood well:

- About 1/3 of children with sickle cell anemia begin to develop holes in their filtering system.
- Your doctor can detect this by checking a urine test.

Blood in your urine:

- If you have a sickle cell crisis in your kidney, you would notice some blood in your urine.
- Within a short time, the bleeding will stop.
- IV fluids should be given during this time to make sure your kidney has plenty of water going to it.
- If you notice blood in her urine, you should see your doctor or emergency room immediately so they can start these IV fluids.

What are the major problems from kidney disease in sickle cell disease?

- Our entire kidneys have a lot of individual cells that help them work.
- In sickle cell disease, the individual cells may become damaged and not work.
- Over time, the entire kidney may stop working well.
- Young adults may learn that their entire kidney is not working well (this is rare in children).
- If the kidney does not work well, a patient may need dialysis or a kidney transplant.