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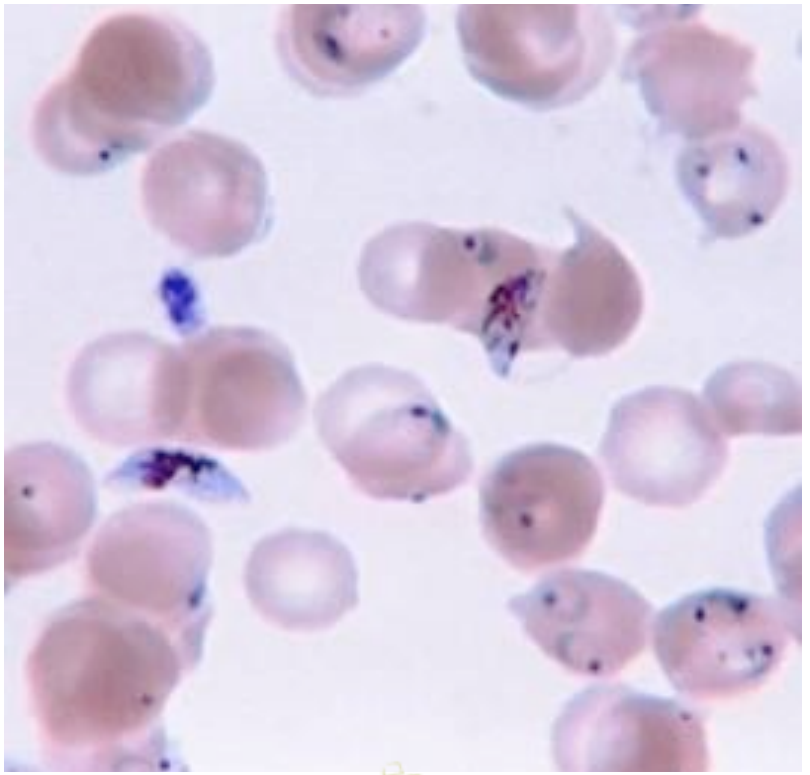
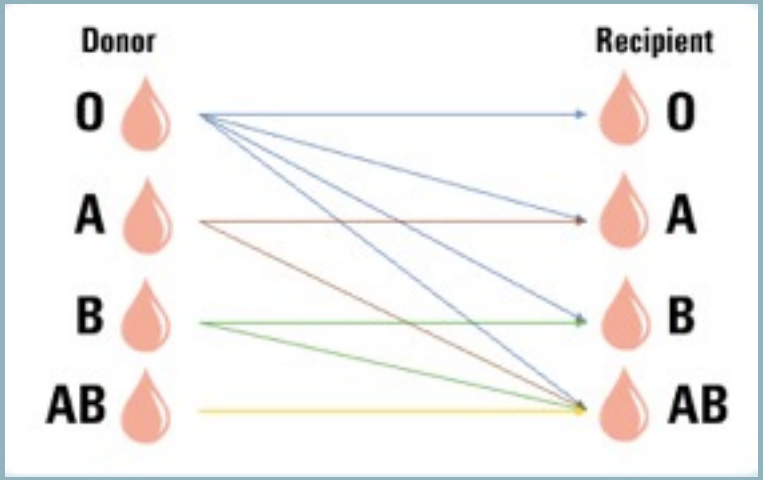
Sickle Cell Anemia

Aaron Tang E band



Learn more about this disease!

"Blood Types." *American Red Cross*. N.p., n.d. Web. 10 Apr. 2015. <http://www.redcrossblood.org/learn-about-blood/blood-types>.



Here is a diagram where different types of blood can be transfer.

What is a Sickle Cell Anemia?

Sickle Cell Anemia is a disease called (SCD) where the red blood cells are shaped like a crescent. The normal red blood cells are full sized circles that look like doughnuts. Sickle Cell Anemia can block passage way from the artery and gets clogged up. Someone will have trouble breathing and it can damage some organs. With this condition, people will have less red blood cells in the vessels. The sickle cells are can blog in the blood stream.

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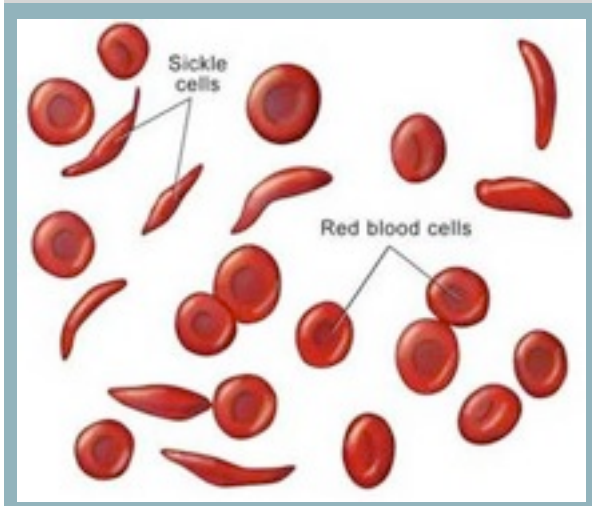


The picture on the left are sickle cells and normal red blood cells.

"Sickle Cell Anemia - Creation Studies Institute." *Sickle Cell Anemia - Creation Studies Institute*. N.p., n.d. Web. 6 Apr. 2015. <http://www.creationstudies.org/

What is it made out of?

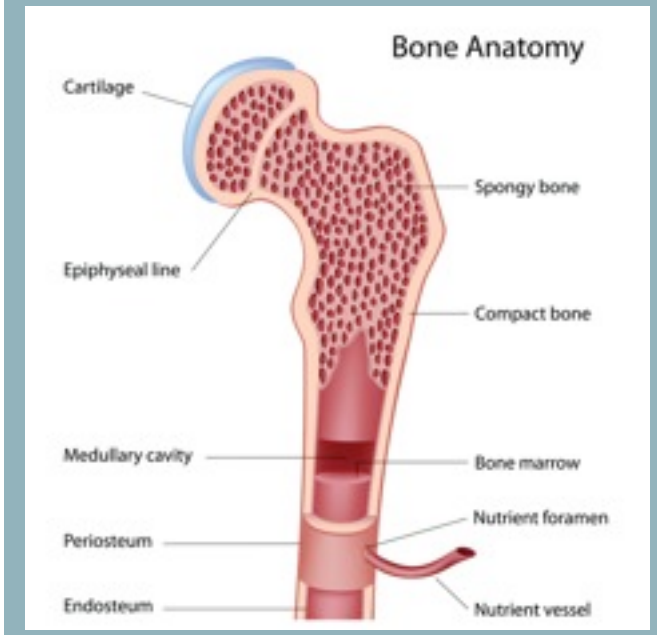
It has protein called hemoglobin. The reason why red blood cells carry protein, so it can travel to the lungs and through the body. That way humans can breathe normally and have the ability to do work. Blood cells are made in the bone called spongy marrow.

How long does blood cells last?

Red blood cells last up to 120 days. Sickle Cells only live up to 20 days. If people diagnosed with sickle cells, their bone marrow can not produce fast enough.

How do you get it?

There are possible ways to get it; if both parents have this trait, then they will inherit two genes in getting this disease, Now if one of the parents got the disease and the other parent has normal traits, then they will have sickle cell trait. When people have sickle cell hemoglobin, they can pass it on to the next generation.



Red Blood Cells are produced in the area of the bone called spongy bone.

"What Is Sickle Cell Anemia?" - *NHLBI, NIH.* N.p., n.d. Web. 15 May 2015. <http://www.nhlbi.nih.gov/health/health-topics/topics/sca>.

The diagram on the bottom right shows the possible ways children can get the sickle cell trait.

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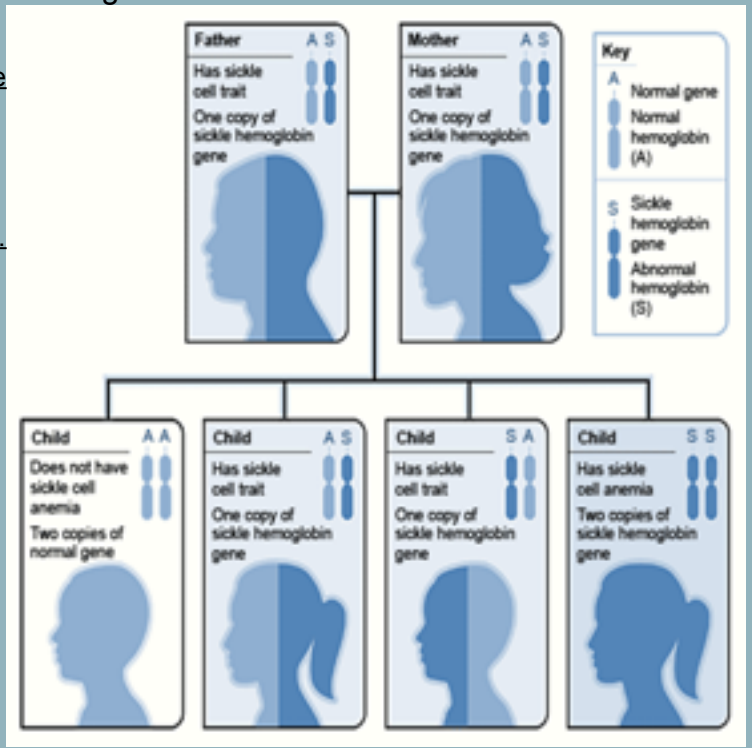

Look out

There is no cure for Sickle Cell Anemia, but there is a treatment. There are some people that have long term disease called chronic and fatigue where people get tired easily. Now people can live longer than 40 years old.

Other Names:

- HbS disease
- Hemoglobin S disease
- Hemoglobin SS disease
- Sickle cell disease
- Sickle cell disorders
- Sickling disorder due to hemoglobin S

Who can have Sickle Cell Anemia?

It can affect anyone in the world, but it is mainly in Africa, South and Central America, Caribbean Islands, Middle Eastern and Mediterranean. It is most common in Africans and Hispanics. In America, about 1 out of 500 African Americans are diagnosed while 1 out of 36,000.

Signs:

People will notice infants that have sickle cell anemia after 4 months. Here are some signs that are listed below.

- Shortness of breath
- Dizziness
- Headaches
- Coldness in the hands and feet

If there is pain throughout the body, then it is sickle cell crisis that are affected to the bones, lungs, joints as well as having sore muscles

There are two types of pain that sickle cell anemia people have; acute or chronic. Acute is when the pain that last up to weeks. As for the chronic, it is affected in the bones where the pain last up to months. People with chronic can not do physical things because they get tired easily.

With the sickle cell crisis, anyone can have it. The pain varies from different people. For example, someone can have it once a year or once a month and the pain can happen anywhere in the body. The best way to to drink water to become hydrated.

Sickle Cell Anemia can damage spleen and it is a serious, especially for younger children. The best way is to go to the doctors for check up and get medications.

Acute Chest Syndrome: The infection is within the lungs and people can get this infection in having trouble breathing. This can also lead into chest problems and fever.

Pulmonary Hypertension: This occur to the blood vessels in the lungs.

Stroke: Not enough blood in the brain. The 2nd one is very severe when the blood burst in the brain.

Eye Problems: Not a lot of blood flowing in the eyes and can ruin the retina which can lead to blindness.

Gallstones: The body is able to break down bilirubin and can form gallstones. Gallstones happens right side of the body.

Treatments:

There are so many ways to treat the disease and it depends on the severeness of the illness.

Hydroxyurea: this particular medicine is for people that have a severe sickle cell anemia. This medicine will boost the hemoglobin. It helps with the anemin. The doctors can prescribe it to younger children to improve their hemoglobin F. It reduces some white blood cells since it has more than red blood cells.

Infected: Parents should take children and when children are old enough, then it is recommended to go to the doctors for check up. They should take pneumococcal vaccine.

Video for better understanding

http://www.dnalc.org/resources/3d/17-sickle-cell.html

The video explains the general idea of everything.

Example from a person

Nicholas is one of the people that was diagnosed with Sickle Cell Anemia. His father has sickle cell trait, and the mother has Thalassemia minor. Here is a video about his life.

Here is a video of a person that has Sickle Cell Anemia. Please go to this link for a personal tragic life.

https://www.youtube.com/watch?t=56&v=iKQmQHh4E2w

If you want to play a game, use your computer! Here is the link.

http://sicklecell.starlight.org/