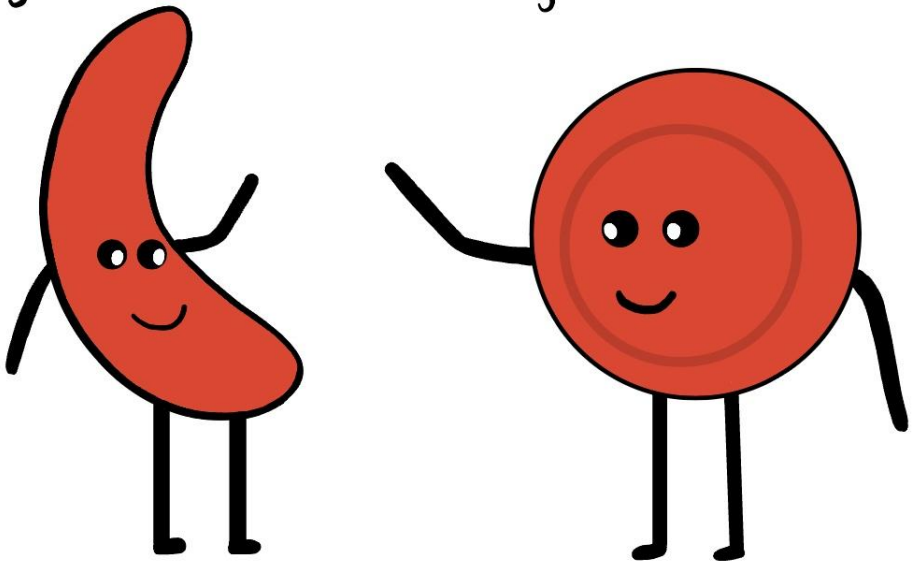
The fraternal twins:

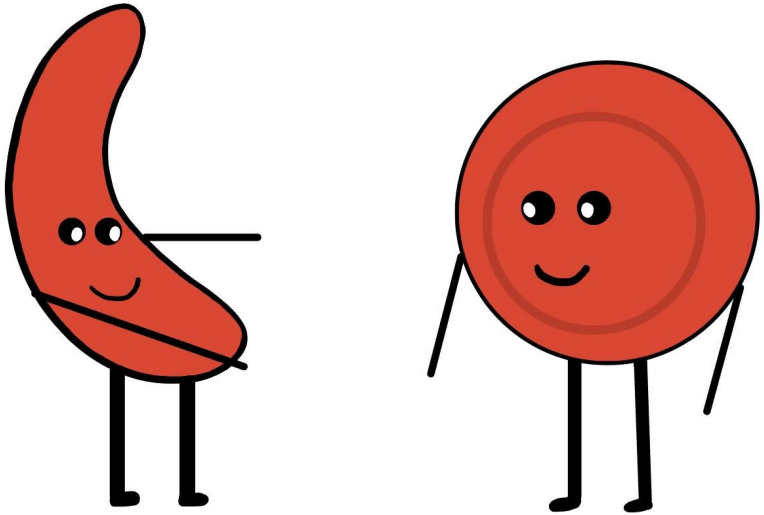
Suzy the Sickle Cell & Ruby the Red Blood Cell

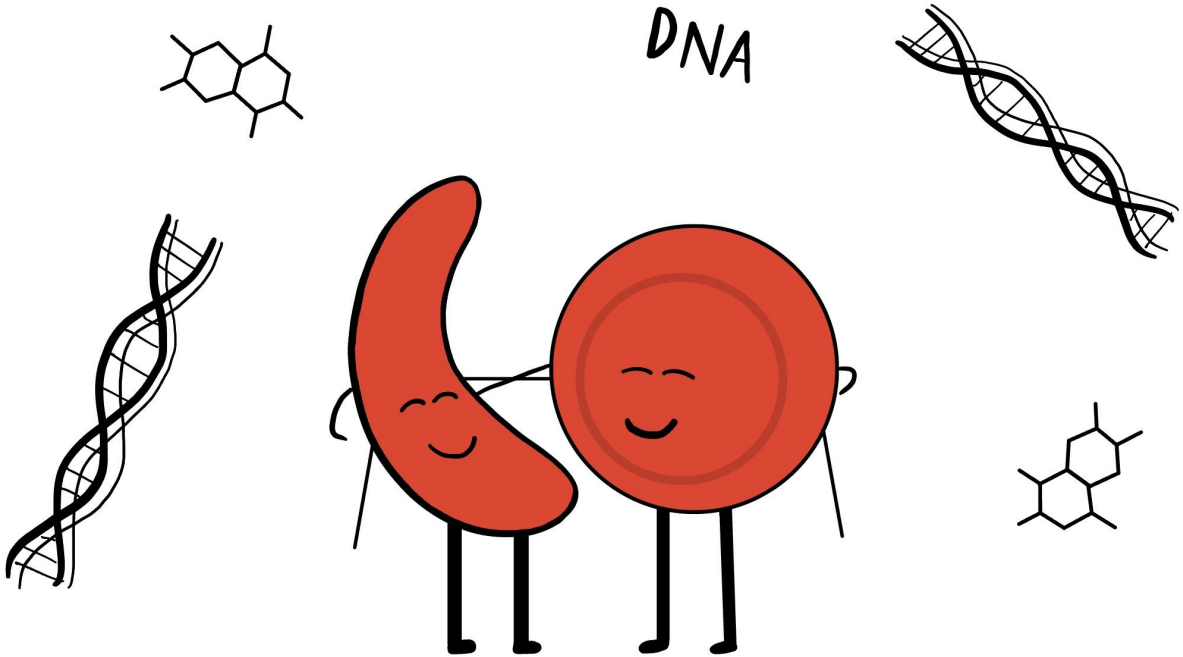


an illustrative story featuring the differences between normal red blood cells and sickle cells from the perspective of a sickle cell

Story and illustrations by: Gianna Josten

Hi, I'm Suzy the sickle cell and this is my fraternal twin Ruby. She's a regular red blood cell. We have many similarities and many differences. We'd love to tell you a little more about us.

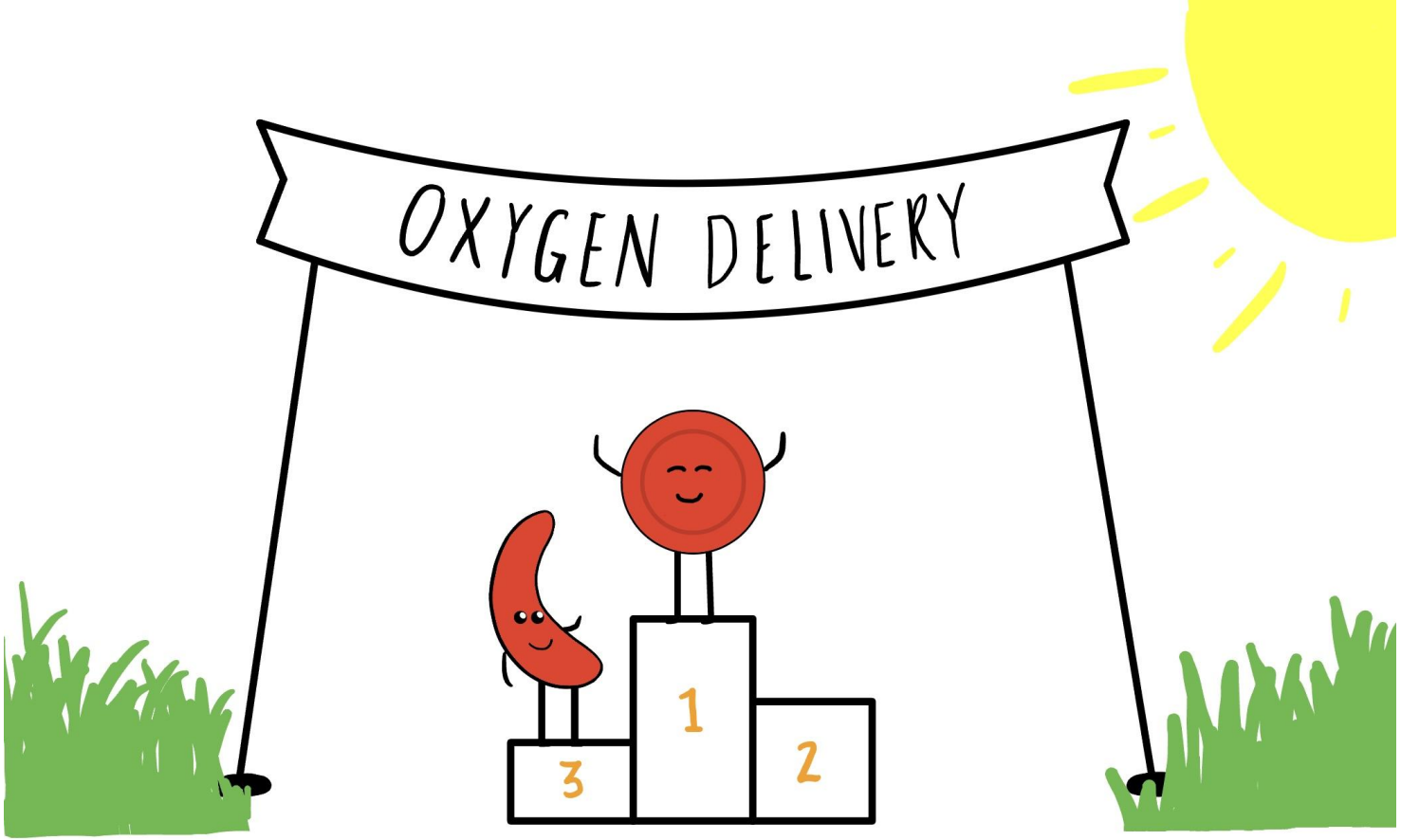




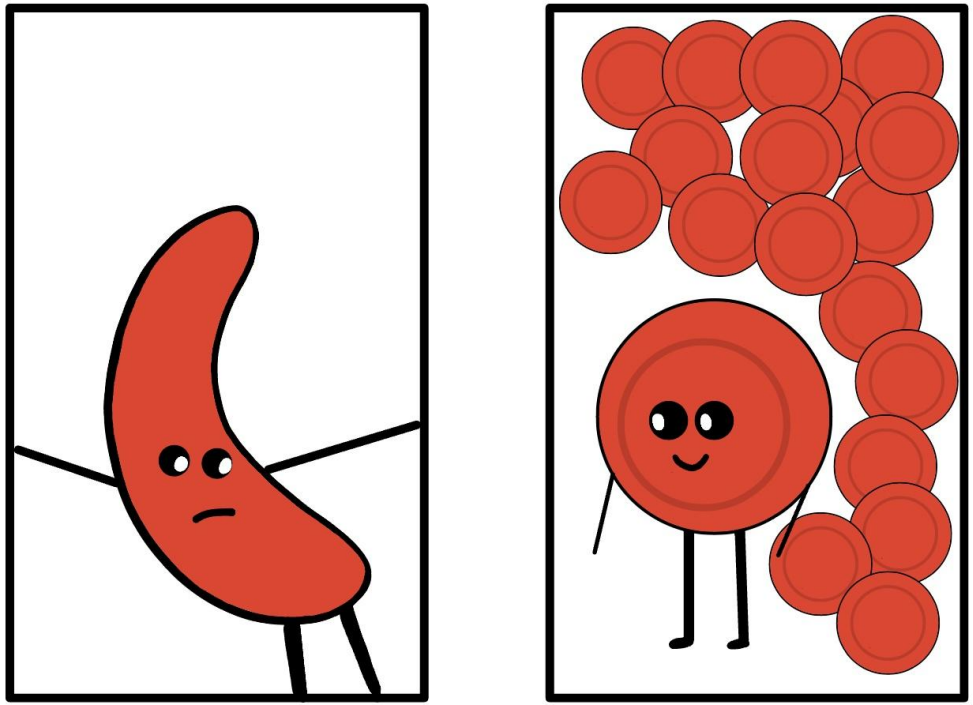
You might be wondering why Ruby and I are different. Well, it's because of genetics!

Oxygen attaches to something called hemoglobin which is found in the blood. It helps bring oxygen around the body. Ruby has regular hemoglobin and I have a different type of hemoglobin called hemoglobin S.

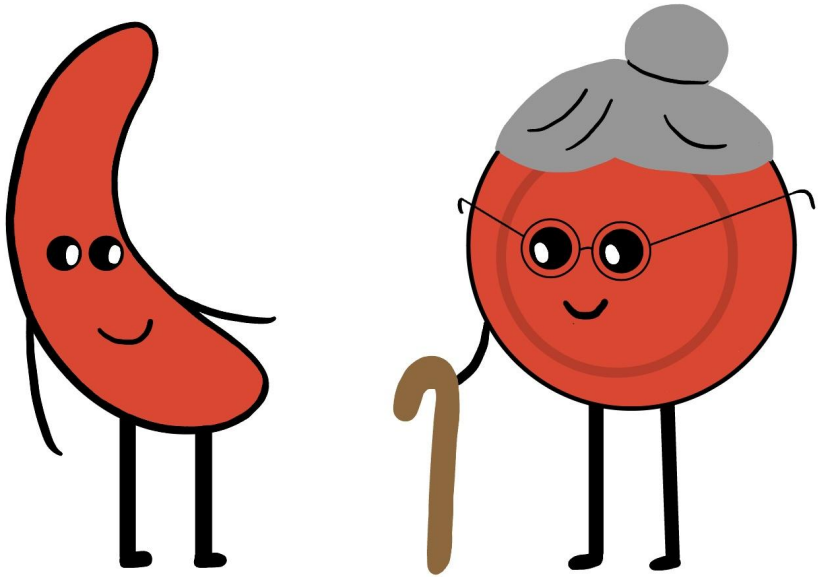
My hemoglobin S is why I'm shaped differently! This causes a disease called sickle cell anemia.



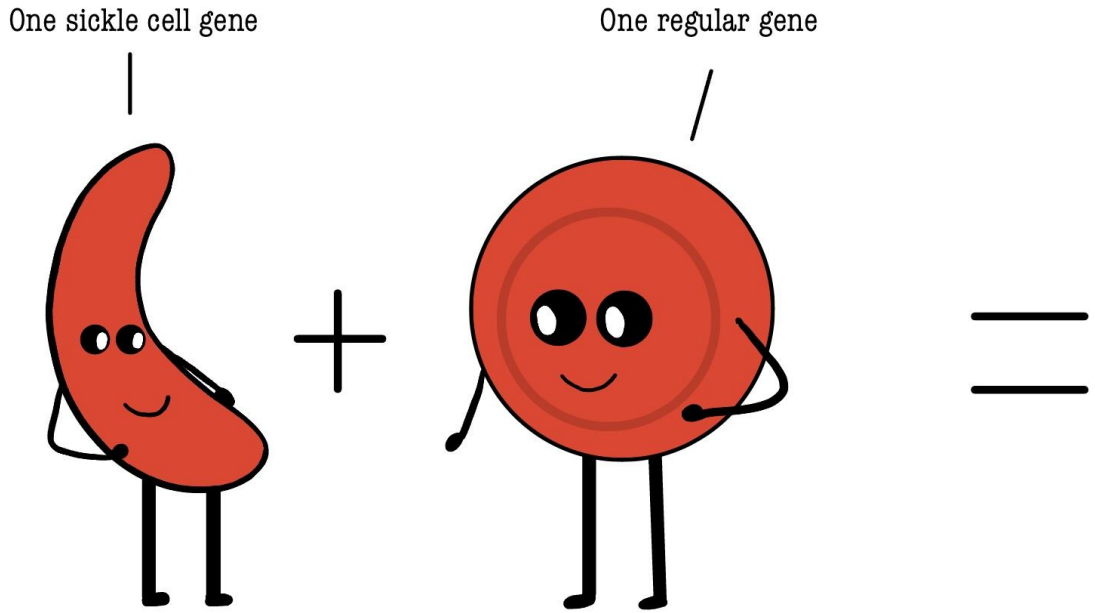
Ruby is quite a bit faster at me when it comes to the delivering oxygen race. She can deliver oxygen to the rest of the body in no time! It takes me much longer.



Ruby is also great at quickly moving through blood vessels in the body. Sometimes I get stuck in narrow spaces and block the path because my shape doesn't let me fold like Ruby's does.

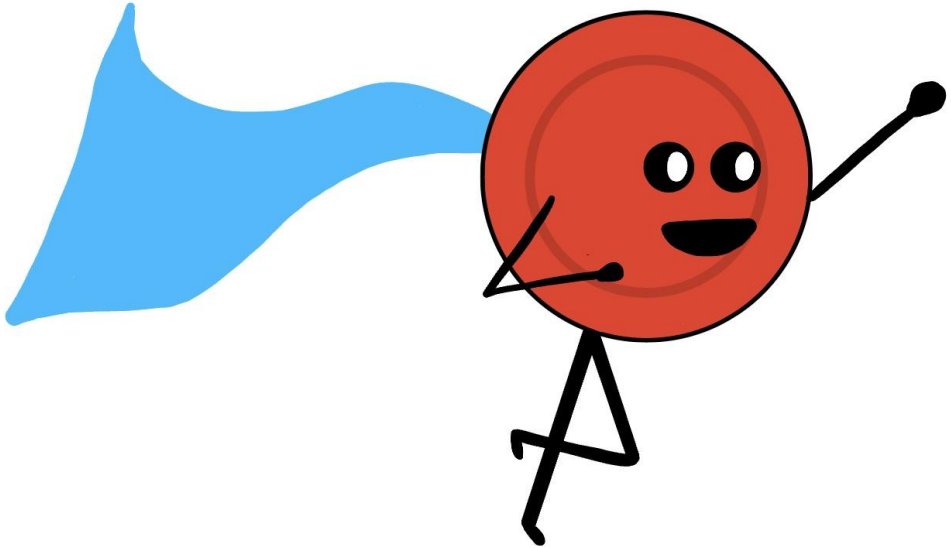


Ruby will also probably live longer than I will. Normal red blood cells usually live longer than sickle cells!

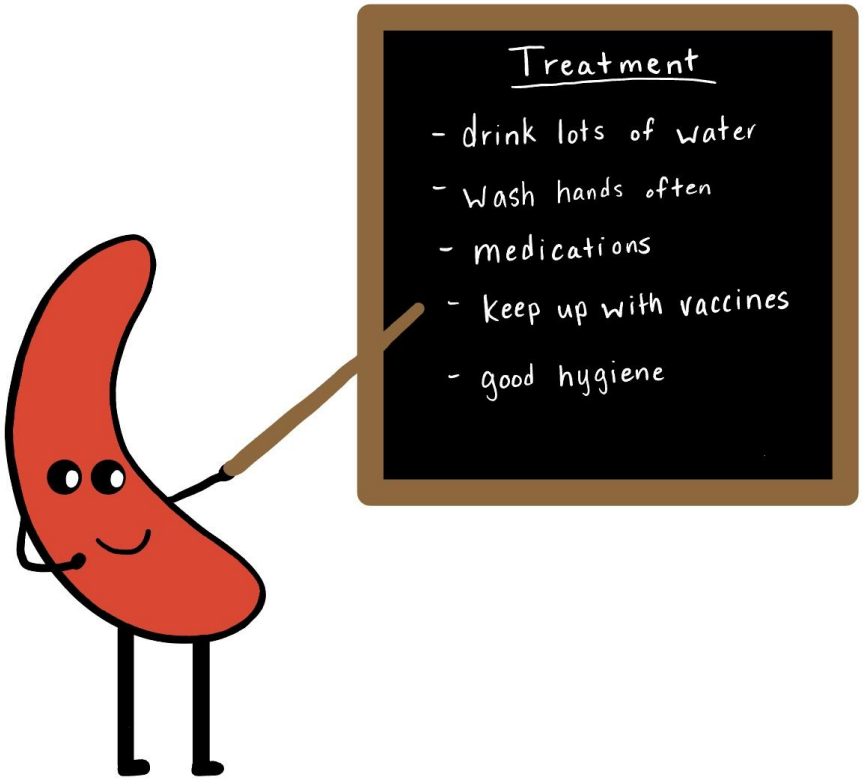


SICKLE CELL TRAIT

Being a sickle cell can be challenging, but sometimes having one gene for sickle cell is helpful.



If someone has one gene for regular red blood cells and a gene for sickle cells, they will not have sickle cell anemia. Instead, they will have something called sickle cell trait. This can protect them from a disease called malaria!



Sickle cell anemia can be a tough disease to live with, but things can get better with the right treatment! Scientists are working on new treatments everyday.

THE END