

The background of the slide is a dark red, semi-transparent overlay on a microscopic image of red blood cells. Some cells are normal biconcave discs, while others are elongated and curved into a sickle shape, characteristic of sickle cell disease.

Sickle Cell Disease

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A detailed 3D rendering of a blood vessel filled with red blood cells. The vessel walls are shown as a textured, reddish-pink surface. The red blood cells are depicted as dark red, biconcave discs, some appearing normal and others slightly distorted. The overall scene is bathed in a warm, red light, creating a sense of depth and focus on the cellular level.

Introduction

- SCD affects approximately 100,000 Americans.
- From personal experience while living with this disease day to day, I know the mental and physical challenges that come with it.
- For my speech I will define and describe what Sickle Cell Disease is, The different types, and treatments.

What is Sickle Cell ?

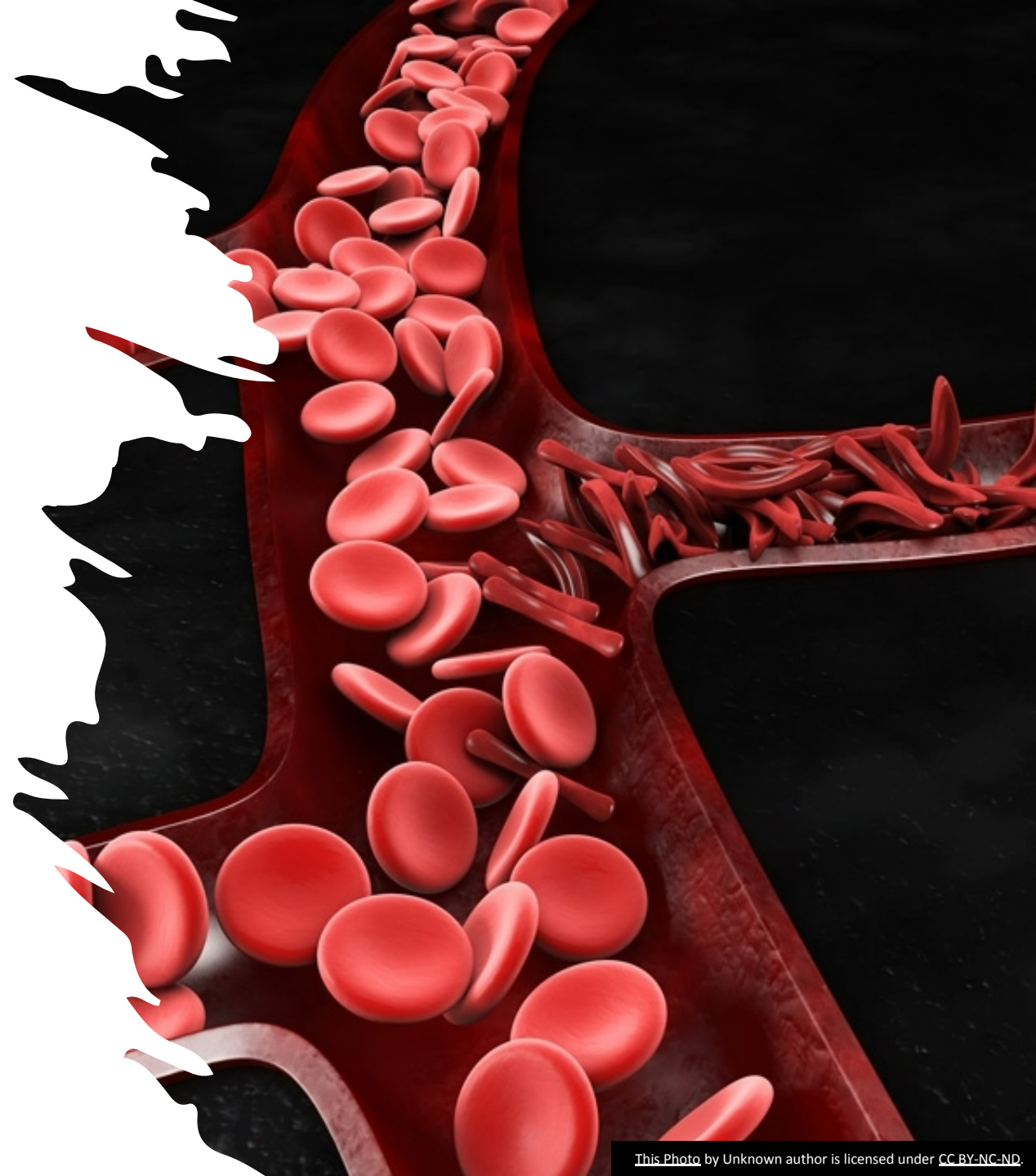
- "Sickle cell disease is a group of inherited red blood cell disorders that affect hemoglobin, the protein that carries oxygen through the body. The condition affects more than 100,000 people in the United States and 20 million people worldwide"(National heart, Lung, and blood institute, 2022).
- Normally, red blood cells are disc-shaped and flexible enough to move easily through the blood vessels. If you have sickle cell disease, your red blood cells are crescent- or “sickle”-shaped. These cells do not bend or move easily and can block blood flow to the rest of your body.



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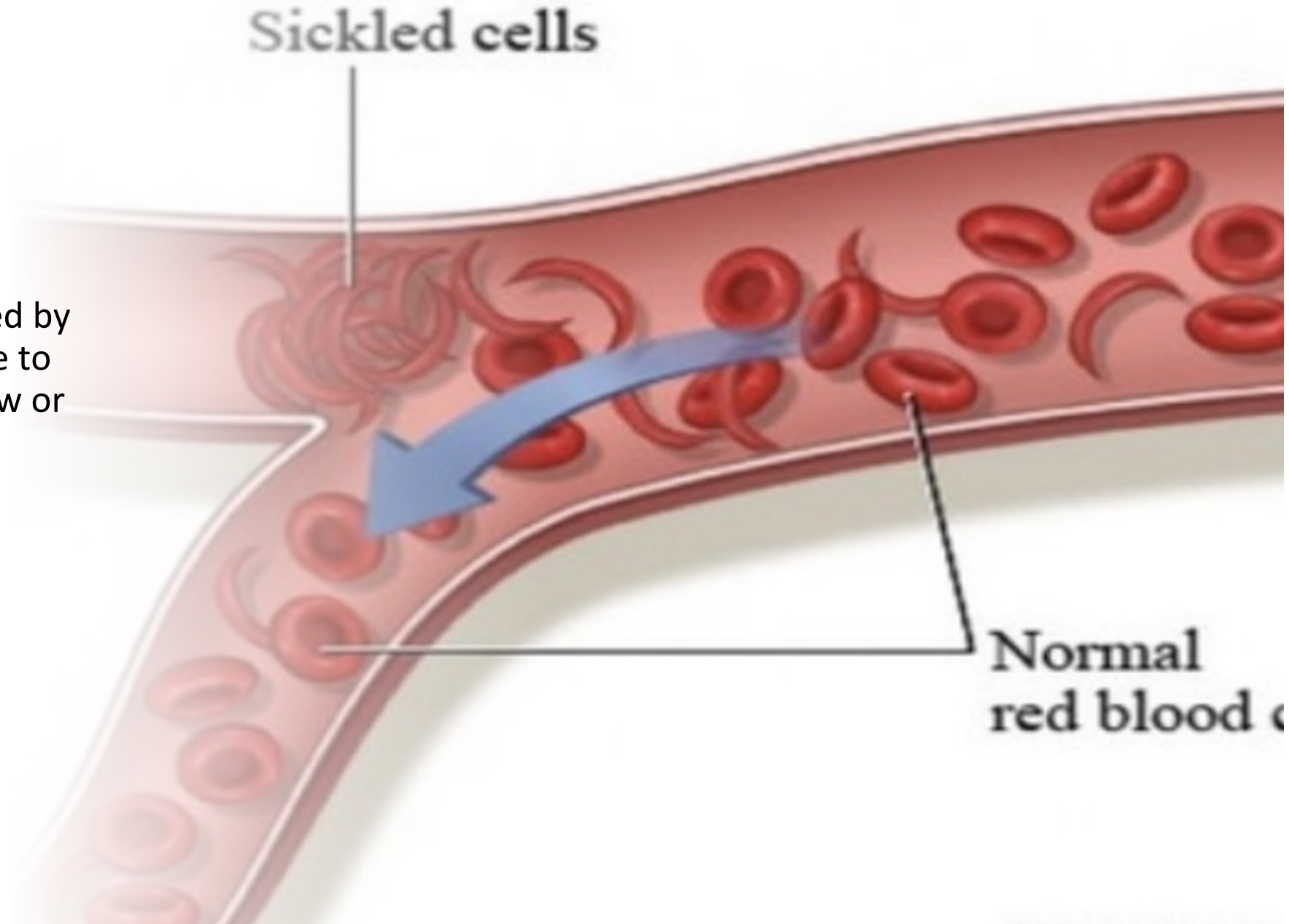
The Different Types of SCD

- Sickle Cell Anemia is the most common form of sickle cell disease. Children who have the disease inherit two genes for sickle hemoglobin —one from each parent.
- HbSS - This is commonly called *sickle cell anemia* and is usually the most severe form of the disease.
- HbSC - This is usually a milder form of SCD.
- HbS beta thalassemia - Those with HbS beta⁰-thalassemia usually have a severe form of SCD. People with HbS beta⁺-thalassemia tend to have a milder form of SCD.



Treatments

- The only therapy approved by the FDA that **MAY** be able to cure SCD is a bone marrow or stem cell transplant.
- Blood transfusion



In Conclusion

- I Defined and Described Sickle Cell Disease is, the different types, and treatments.

Reference

- Centers for Disease Controls and Prevention. (2022, August 18). *Sickle Cell Disease*. National Center on Birth Defects and Developmental Disabilities (NCBDDD). <https://www.cdc.gov/ncbddd/sicklecell/facts.html#:~:text=In%20someone%20who%20has%20SCD,shortage%20of%20red%20blood%20cells>
- Centers for Disease Controls and Prevention. (2022, May 2). *Data & Statistics on Sickle Cell Disease*. National Center on Birth Defects and Developmental Disabilities (NCBDDD). <https://www.cdc.gov/ncbddd/sicklecell/data.html>
- Sickle Cell Disease. (2022, July 22). *What is Sickle Cell Disease?* National Heart, Lung, and Blood Institute. <https://www.nhlbi.nih.gov/health/sickle-cell-disease>