



**About Tamilore:** 10 years old.

**Genetic disorder:** Sickle Cell Anaemia

**Likes:** School, Formula One, Golf, Rugby, Football, Tennis, Singing, Public Speaking and Holidays

**Dislikes:** Missing school, being admitted to hospital

**Home town:** Barnet, Hertfordshire

**Mum:** Laura

**Dad:** Kayode

**Siblings:** Tarami (age 6)

## SICKLE CELL ANAEMIA

• An **inherited blood disorder** which causes **unpredictable** and sometimes **intense** bouts of **pain** known as a '**crisis**'.

• A **crisis** happens when the **red blood cells**, which are usually **round and flexible**, become **sticky** and '**sickle**'-shaped, causing **temporary blockages** which **restrict blood flow**.

• **Sickle Cell Anaemia** is a **recessive genetic disorder** that occurs when two copies of an altered gene are **inherited** - one from each **parent**.

• Both **Sickle Cell Anaemia** and **Sickle Cell Trait** (aka being a carrier when one altered gene is inherited) protects, to some extent, against **malaria** so it is **more common** in people from **West Africa, the Caribbean, some parts of India and the Mediterranean**, and their descendants.

• It's the **one of the commonest genetic disorders** in England. **1 in 2000** babies are born with it.

• The condition was discovered by **Dr James Herrick** who reported finding '**peculiar elongated cells**' in a patient's blood in 1910

## GENETIC DISORDERS

• We have **two copies** of each **gene**, one from each **parent**. **Genes** are made out of **DNA** and most contain **instructions for making proteins**.

• A **genetic disorder** happens when a **change** in one or more genes causes **vital proteins** in the body to be **missing or not work properly**.

• Most genetic disorders are **recessive**, occurring when someone inherits **two copies** of the faulty gene - one from each parent.

• Others are **dominant**, meaning a **single copy** of the faulty gene is enough to cause the condition.

• **X-linked** disorders are caused by a faulty gene on the **x-chromosome**, of which **girls** have two (**XX**) and **boys** only one (**XY**). These usually **only affect boys**.

• **Half** of all **childhood deaths** in the UK are linked to a **genetic disorder**.

• Some other examples of genetic disorders include **Cystic Fibrosis, Sickle Cell Anaemia, Huntington's Disease** and **Haemophilia**.

## CURRICULUM LINKS

• **KS2 Science:** Scientific enquiry - considering evidence and evaluating; Humans and other animals - circulation.

• **KS2 PSHE and Citizenship:** Developing good relationships and respecting the differences between people.

• **KS2 Maths:** Using and applying numbers.

## USEFUL LINKS

• **The Sickle Cell Society:**  
[www.sicklecellsociety.org](http://www.sicklecellsociety.org)

• **Sickle Cell and Young Stroke Survivors:**  
[www.scyss.org](http://www.scyss.org) Find out more about living with Sickle cell anaemia.

• **Kids Health:** <http://kidshealth.org> Easy to understand information about a range of conditions including sickle cell anaemia.

FOR MORE RESOURCES LIKE THESE, AND TO SIGN UP FOR JEANS FOR GENES DAY, VISIT US AT [WWW.JEANSFORGENESDAY.COM](http://WWW.JEANSFORGENESDAY.COM)

