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## World Sickle Cell Disease Day 2021

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### Why in News

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To commemorate the **World Sickle Cell Disease (SCD) Day** on **19<sup>th</sup> June**, the **Ministry of Tribal Affairs (MOTA)** flagged off mobile vans under the **Unmukt project** for strengthening screening and timely management of SCD in tribal districts of Jharkhand and Chhattisgarh.

- The **United Nations General Assembly (UNGA)** adopted a resolution recognising SCD as a public health problem on **22<sup>th</sup> December, 2008**.
- The UNGA also recognised SCD as one of the first **genetic diseases**.

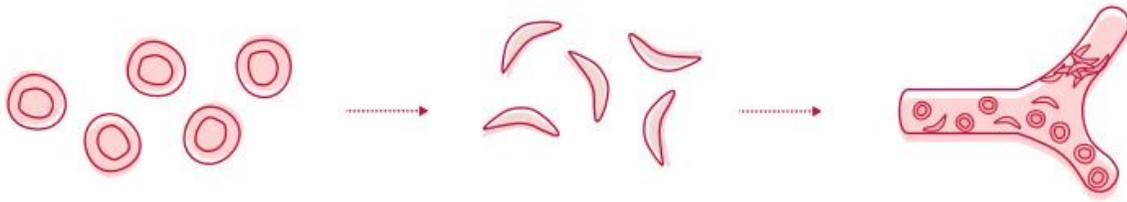
### Key Points

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#### Sickle Cell Disease:

- It is an **inherited blood disease** which is most common among people of African, Arabian and Indian origin.
- It is a group of disorders that **affects hemoglobin, the molecule in red blood cells that delivers oxygen** to cells throughout the body.
- People with this disease have atypical hemoglobin molecules called **hemoglobin S, which can distort red blood cells into a sickle**, or crescent shape.  
This **blocks blood flow and oxygen from reaching all parts of the body**.

# What is Sickle Cell Disease?



## SCD is a blood disorder

Sickle Cell Disease (SCD) is an **inherited blood disorder** that affects red blood cells. Normal red blood cells are round and flexible, which lets them travel through small blood vessels to deliver oxygen to all parts of the body.

## Causing misshapen blood cells

SCD causes red blood cells to **form into a crescent shape**, like a sickle.

## Creating painful complications

The sickle-shaped red blood cells break apart easily, clump together, and stick to the walls of blood vessels, **blocking the flow of blood**, which can cause a range of serious health issues.

- **Symptoms:**

- It can cause **severe pain**, referred to as sickle cell crises.
- Over time, people with sickle cell disorders can experience **damage to organs including the liver, kidney, lungs, heart and spleen**. Death can also result from complications of the disorder.

- **Treatment:**

Medication, blood transfusions and rarely a bone-marrow transplant.

- **Related Data:**

- India alone is home to about **1,50,000 patients with SCD and about 88% of Sickle Cell Anemia (SCA) cases in Asia**.
- The disease in India occurs predominantly in eastern **Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, western Odisha** and in pockets of the **Nilgiri Hills in north Tamil Nadu and Kerala**.
- The disease is **prevalent among tribal communities** (including children).  
As per MOTA, SCD is affecting more women and children and nearly **20% of tribal children with SCD die before reaching the age of two**, and **30% children die before reaching adulthood**.

- **Challenges:**
  - **Social Stigma and Prevalence among Tribal Population** (where access to care for SCD is limited).
  - **School Drop Out:**
    - Children with sickle cell disease often have to drop out from school.
  - **Policy Issue:**
    - The delayed implementation of the **2018 draft policy on haemoglobinopathies.**
    - The policy aims to provide evidence-based treatment for patients and reduce the number of new-born children with sickle cell disease through initiatives such as the Sickle Cell Anaemia Control Program, screening and prenatal diagnosis.
- **Initiatives by India:**
  - **Initiative by the Ministry of Tribal Affairs:**
    - **SCD Support Corner**, a portal to collect real time data and provide relevant information related to Sickle Cell.
      - It will help in making a **Central Repository of data.**
    - An **'Action Research' project** under which Yoga dependent lifestyle is promoted to reduce the complications in the patient suffering from this disease.
  - **Expanded Screening:**
    - Certain states, such as Chhattisgarh and Gujarat, have **expanded their screening programmes from hospital to school-based screenings.**
    - Extrapolating such screening efforts and implementation strategies to other states will help **map the prevalence of the disease.**
  - **Disability Certificate:**
    - The Ministry of Social Justice and empowerment has increased the validity of disability certificates for SCD patients from **1 year to 3 year.**

**Source: PIB**