

Thalassemia

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Thalassemia Latest News

Scientists recently tested a gene-editing method called adenine base editing to fix two severe mutations that cause -thalassemia, a genetic blood disease.

About Thalassemia

- It is an **inherited blood disorder**.
- It **affects your body's ability to produce normal hemoglobin**.
- **Hemoglobin** is a **protein in red blood cells (RBCs)**. It **allows your RBCs to transport oxygen** throughout your body.
- **If you have thalassemia**, your **body produces fewer healthy hemoglobin** proteins, and your bone marrow **produces fewer healthy RBCs**.
- The **condition of having fewer RBCs** is called **anemia**. That can make you feel tired and weak.
- As RBCs serve the vital role of delivering oxygen to tissues in your body, not having enough healthy RBCs can **deprive your body's cells of the oxygen they need to make energy** and thrive.

- Thalassaemia is **caused by inheriting a gene mutation** (change in the normal DNA) **from one or both parents**.
- Traits for thalassemia are **more common in people from Mediterranean countries**, like **Greece and Turkey**, and in people from **Asia, Africa, and the Middle East**.
- There are **different types** of thalassemia. The type someone has depends on which gene mutation they inherit.
- **Symptoms:** Thalassemia can cause **mild or severe anemia** and other complications over time (such as **iron overload**).
 - **Symptoms of Anemia Include:**
 - Fatigue.
 - Trouble breathing.
 - Feeling cold.
 - Dizziness.
 - Pale skin.
 - **Severe thalassemia may cause death.**
- **Treatments:**
 - **Blood transfusions** – regular blood transfusions treat and prevent anaemia; in severe cases these are needed around once a month.
 - **Chelation therapy** – **treatment with medicine to remove the excess iron** from the body that builds up as a result of having regular blood transfusions.
 - The **only possible cure** for thalassemia is a **stem cell or bone marrow transplant**, but this is not done very often because of the risks involved.

Source: TH

Source: <https://vajiramandravi.com/current-affairs/what-is-thalassemia/>

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