



[Home](#) → [Medical Encyclopedia](#) → Hemoglobin C disease

URL of this page: [//medlineplus.gov/ency/article/000572.htm](https://medlineplus.gov/ency/article/000572.htm)

Hemoglobin C disease

Hemoglobin C disease is a blood disorder passed down through families. It leads to a type of anemia, which occurs when red blood cells break down earlier than normal.

Causes

Hemoglobin C is an abnormal type of hemoglobin, the protein in red blood cells that carries oxygen. It is a type of hemoglobinopathy. The disease is caused by a problem with a gene called beta globin.

The disease most often occurs in African Americans. You are more likely to have hemoglobin C disease if someone in your family has had it.

Symptoms

Most people do not have symptoms. In some cases, jaundice may occur. Some people may develop gallstones that need to be treated.

Exams and Tests

A physical exam may show an enlarged spleen.

Tests that may be done include:

- Complete blood count
- Hemoglobin electrophoresis
- Peripheral blood smear
- Blood hemoglobin

Treatment

In most cases, no treatment is needed. Folic acid supplements may help your body produce normal red blood cells and improve the symptoms of the anemia.

Outlook (Prognosis)

People with hemoglobin C disease can expect to lead a normal life.

Possible Complications

Complications may include:

- Anemia
- Gallbladder disease
- Enlargement of the spleen

When to Contact a Medical Professional

Contact your health care provider if you have symptoms of hemoglobin C disease.

Prevention

You may want to seek genetic counseling if you are at high risk for the condition and are considering having a baby.

Alternative Names

Clinical hemoglobin C

References

Howard J. Sick cell disease and other hemoglobinopathies. In: Goldman L, Cooney KA, eds. *Goldman-Cecil Medicine*. 27th ed. Philadelphia, PA: Elsevier; 2024:chap 149.

Smith-Whitley K, Kwiatkowski JL. Hemoglobinopathies. In: Kliegman RM, St. Geme JW, Blum NJ, et al, eds. *Nelson Textbook of Pediatrics*. 22nd ed. Philadelphia, PA: Elsevier; 2025:chap 511.

So JCC, Ma ESK. Hemoglobin and hemoglobinopathies. In: Rifai N, Chiu RWK, Young I, Burnham CAD, Wittwer CT, eds. *Tietz Textbook of Laboratory Medicine*. 7th ed. St Louis, MO: Elsevier; 2023:chap 77.

Wilson CS, Vergara-Lluri ME, Brynes RK. Evaluation of anemia, leukopenia, and thrombocytopenia. In: Jaffe ES, Arber DA, Campo E, Harris NL, Quintanilla-Martinez L, eds. *Hematopathology*. 2nd ed. Philadelphia, PA: Elsevier; 2017:chap 11.

Review Date 3/31/2024

Updated by: Todd Gersten, MD, Hematology/Oncology, Florida Cancer Specialists & Research Institute, Wellington, FL. Review provided by VeriMed Healthcare Network. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

Learn how to cite this page



A.D.A.M., Inc. is accredited by [URAC](#), for Health Content Provider ([www.urac.org](#)). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.



National Library of Medicine 8600 Rockville Pike, Bethesda, MD 20894 U.S. Department of Health and Human Services
National Institutes of Health