



Iron Disorders Institute
advancing cures for Iron-Out-of-Balance™

Mission:

Iron Disorders Institute (IDI) exists so that people with iron disorders receive an early, accurate diagnosis (complete), appropriate treatment, and are equipped to live healthy lives.

For more information about iron:

Books:

Guide to Hemochromatosis
Guide to Anemia
Exposing The Hidden Dangers of Iron
The Hemochromatosis Cookbook
Handbook of Iron Overload Disorders

Newsletter:

IRON NEWS free online

At-a-Glance Desk Reference Charts for Physicians:

Hereditary Hemochromatosis
Iron Overload with Anemia

Web sites: www.irondisorders.org
www.hemochromatosis.org

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**... more
than one
million*
Americans
have the
genes...**

* Classic type of Hemochromatosis. As many as 11 million Americans may have some type of hemochromatosis. SOURCE: Steinberg KK, Cogswell ME, Chang JC, Caudill SP, McQuillan GM, Bowman BA, Grummer-Strawn LM, Sampson EJ, Khoury MJ, Gallagher ML. *JAMA*. 2001 May 2;285(17):2216-22. "Prevalence of C282Y and H63D mutations in the hemochromatosis (HFE) gene in the United States."



Definition

Hemochromatosis (HHC) is an inherited metabolic condition that causes a person to absorb extra iron from the diet. The body has no natural way to get rid of **excess iron** except through blood loss or in some cases with medications formulated to remove iron.

Most at risk for HHC are white adult males and females who no longer have a period.

If **not detected or treated** hemochromatosis can result in damage to major organs which leads to diseases, such as, heart or liver failure, bone and joint disease, diabetes, impotence, infertility and hormone imbalances.

During the early stages most people with hemochromatosis **have no symptoms**. Later, they may **suffer many symptoms**. Chronic fatigue and joint pain are the most commonly reported but these two symptoms can occur in many diseases so hemochromatosis often is not detected until other disease develops. Some people are never diagnosed and may die prematurely of heart failure, liver cancer or liver failure, or they may need liver transplantation.

**...excess iron
damages vital
organs &
can be fatal...**

Detection

Hereditary hemochromatosis can be diagnosed with a genetic test.

Excess iron is determined with an **iron panel** which includes:

- 1. fasting serum iron** (*nothing by mouth after midnight except prescription medications*)
- 2. TIBC (total iron binding capacity)**
Fasting serum iron & TIBC are used to determine the transferrin-iron saturation percentage (TS%).
- 3. serum ferritin (SF)**
- 4. hemoglobin (Hgb)**

RESULTS:

Normal Ranges For Adults

- **TS%: 25-35%**
- **SF: 50-150ng/mL**
- **Hgb: men: >13.5 g/dL
women >12.0 g/dL**

Treatment

The treatment for excess iron is **therapeutic phlebotomy (TP)**. *TP is just like a blood donation, except that therapeutic phlebotomy requires a physician's prescription.*

*If hemochromatosis is found **early enough** a person may never need therapeutic phlebotomy. Instead they may become **regular blood donors** and **modify their diet**.*

Because HHC runs in families, *all blood relatives are at risk and need to have their iron levels checked.*

- Waiting for symptoms could cost you your life.
- Once serum ferritin is over 1,000ng/mL organ damage may be irreversible.