

# UCSF BENIOFF CHILDREN'S HOSPITAL OAKLAND

# NORTHERN CALIFORNIA

# COMPREHENSIVE THALASSEMIA CENTER

## What is Thalassemia?

Thalassemia is a genetic blood disorder that causes hemoglobin deficiency and severe anemia, starving organs of oxygen, which inhibits their ability to function properly. For more information, go to [www.thalassemia.com](http://www.thalassemia.com).

## Thalassemia Disease and Trait

Thalassemia represents a group of genetic blood disorders with a wide variety of associated symptoms that commonly appear in the first two years of life.

### Symptoms may include:

- ▶ Skin with pale, jaundiced or anemic appearance
- ▶ Slow growth
- ▶ Poor appetite
- ▶ Fatigues easily
- ▶ At risk for infections

Thalassemia is a serious medical condition. If left untreated, it can result in medical complications that may lead to death.

### Complications may include:

- ▶ Enlarged liver, spleen, and heart
- ▶ Thin and brittle bones
- ▶ Life-threatening infections
- ▶ Heart failure

### High-Risk Populations Include:

- ▶ Italian
- ▶ Greek
- ▶ Southeast Asian (Vietnamese, Laotian, Thai, Singaporean, Filipino, Cambodian, Malaysian, Burmese, and Indonesian)
- ▶ Chinese
- ▶ Asian Indian
- ▶ African
- ▶ Middle Eastern
- ▶ Transcaucasian (Georgian, Armenian, and Azerbaijani)

### Thalassemia: Quick Facts

- ▶ Thalassemia trait is not an illness and will never turn into one. Thalassemia is not contagious.
- ▶ A trait carrier of thalassemia will always be a trait carrier. The genetic trait is passed down from parents to children.
- ▶ Over 2 million people in the United States carry the genetic trait for thalassemia.
- ▶ There are two types of thalassemia trait: alpha thalassemia trait and beta thalassemia trait.
- ▶ Being a carrier of thalassemia does not cause health problems that require medical treatment. Thalassemia trait will not impair your work, diet, or exercise.
- ▶ Thalassemia carriers have smaller red blood cells that may cause a mild anemia. The anemia is so mild that it does not require medical treatment.
- ▶ Trait carriers do not need to take iron supplements unless a special blood test (serum iron or serum ferritin) confirms iron deficiency.
- ▶ Carriers can donate blood, provided that they are not anemic (do not have a lower hemoglobin than usual).
- ▶ If you and your partner both have thalassemia trait, for each pregnancy, there is a:
  - 25 percent chance that the child will have thalassemia disease.
  - 25 percent chance that the child will have normal hemoglobin levels.
  - 50 percent chance that the child will have thalassemia trait.



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[thalassemia.com](http://thalassemia.com)

### The center provides comprehensive care including:

- ▶ Primary through tertiary care for children and adults.
- ▶ Education, outreach and genetic counseling.
- ▶ Psychosocial services for patients, families and those at risk for carrying the disease.
- ▶ Nutrition education.

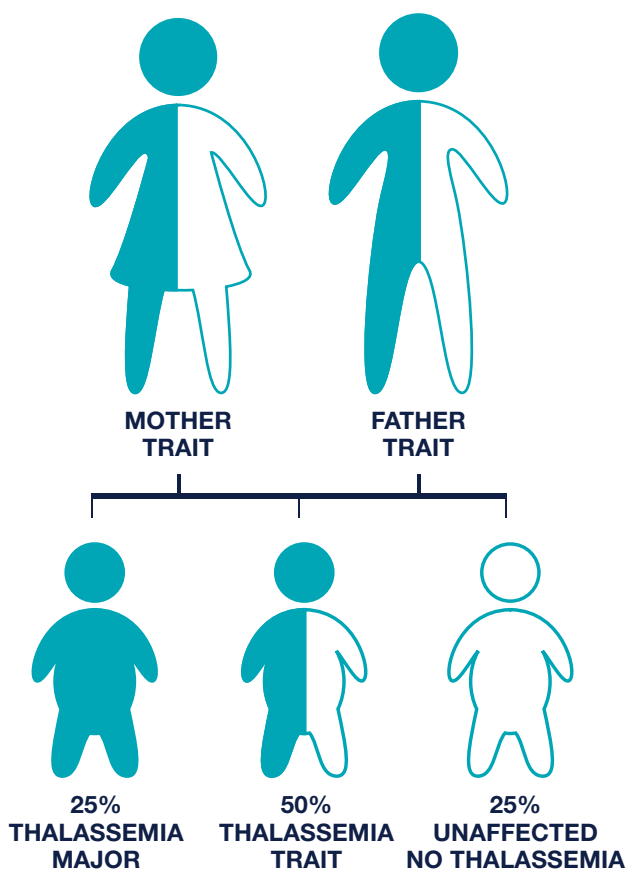


*The Northern California Thalassemia Center at UCSF Benioff Children's Hospital Oakland was established in 1991 to deliver comprehensive care to the growing number of thalassemia patients in the region. With more than 200 patients on active follow-up and over 800 patient visits every year, the center is one of the largest thalassemia programs in the country. It is one of the few federally funded centers in the nation. We are also at the forefront of research to develop new treatments for thalassemia.*

## Thalassemia Trait: Why Get Tested?

### Family Planning

- ▶ If you and your partner carry the trait for thalassemia, your children could potentially be born with thalassemia disease.
- ▶ If either you or your partner carries the trait for thalassemia, your child could inherit the thalassemia trait.
- ▶ Pregnant women who carry the thalassemia trait may be more likely to develop anemia during their pregnancies. It is important to discuss this condition with your medical provider.



### Your Health Is Important

- ▶ When a trait carrier has a blood test, his or her red blood cells may appear smaller than what is normal. Knowing that you carry the trait for thalassemia can prevent you from having unnecessary diagnostic tests.
- ▶ Doctors often mistake someone who is a carrier for thalassemia as having iron deficiency anemia due to slightly low hemoglobin and the small size of red blood cells. Therefore, they often prescribe iron supplements. Iron supplements do not improve hemoglobin levels in patients with thalassemia trait. Carriers should only take iron supplements if a blood test (serum ferritin) shows that they are iron deficient.

### Getting Tested for Trait Is Easy!

If you have not been tested or are unsure of your trait status, it is best to get tested! Trait testing is easy and virtually painless and may be ordered by your health care provider.

- ▶ All you need is a blood test that checks the following:
  - CBC—Complete Blood Count
  - Hemoglobin electrophoresis with quantitative hemoglobin A2

### Be Informed

- ▶ For more information, contact your doctor—or you can find a genetic counselor through the National Society of Genetic Counselors at [www.nsgc.org](http://www.nsgc.org).
- ▶ For more information about thalassemia trait and disease, or to find out more about the Thalassemia Outreach Program, please call (510) 428-3885, ext. 5427.
- ▶ If you have thalassemia disease and would like to come to our center for an evaluation, please call (510) 428-3347.

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Scan this with a QR reader app on your smartphone for the mobile version of the Thalassemia Standard of Care.