Fast Facts

Adult Variant Hemoglobins

Hemoglobin is a protein responsible for carrying oxygen and giving blood its red color. Worldwide, there are hundreds of different hemoglobin types. The type of hemoglobin you have depends on your genetic inheritance. Genes are chemical messengers passed on from your parents. These messengers determine characteristics such as eye color, skin color, and hemoglobin type.

The healthy carrier

Most people are born with two genes for the production of normal adult hemoglobin, called hemoglobin (A). It is not uncommon for someone to inherit one gene for normal hemoglobin (A) from one of their parents, and one gene for different or "variant" hemoglobin from the other. Common hemoglobin variants include sickle cell trait (A/S) and hemoglobin C trait (A/C).

Hemoglobin identification

Hemoglobin variants are identified in all races and ethnic groups. Using high performance liquid chromatography (HPLC), most screening laboratories have the ability to identify only 10 to 15 of the most common hemoglobin variants.

Hemoglobin type A with Variant: A/V Trait

Variant "V" is not a type of hemoglobin, it is a collective term used to group those rare hemoglobin types that our screening test could not identify. If your test result reads, A/V, this means you have inherited one gene for normal hemoglobin (A) production from one of your parents and an unidentified variant from the other. Most variants cause no medical problems or complications. However, if you are currently pregnant, or planning a family, you may want to have your partner tested. When both parents have a hemoglobin variant, they may be at risk for having a child with a serious disorder of the blood.

For more information contact:

The Virginia Sickle Cell Awareness Program

(804) 864-7769