

HEMOGLOBIN RESULTS

Hemoglobin results are reported in order of predominance with the highest percentage listed first:

F = fetal hemoglobin (2 alpha globin chains, 2 gamma globin chains)

A = adult hemoglobin (2 alpha globin chains, 2 beta globin chains)

S, C, D, G, E, O = hemoglobin, each with a different mutation in the beta globin chains

U = unidentified hemoglobin variant

Barts = non-oxygen carrying, transient hemoglobin variant (4 gamma globin chains)

Mnemonic	Description
FA	Normal newborn infant hemoglobin pattern with fetal hemoglobin (F) predominant plus measurable A hemoglobin
AF	Normal older infant result where fetal hemoglobin is declining and A hemoglobin is greater than 50%. It could also indicate a possible transfusion in a newborn.
PAH	Predominantly adult hemoglobin (would be reported as AA in older individuals) in an infant less than 60 days old. This indicates a probable prior transfusion.
AA	Normal child or adult hemoglobin with A hemoglobin present and no other variant hemoglobin in measurable amounts
FS, SS	Probable sickle cell anemia - could also be S/ β^0 thalassemia or S/hereditary persistence of fetal hemoglobin (Hb S/HPFH)
FSU	Possible sickle cell anemia or sickle β thalassemia
FSA, SA	Possible S/ β^+ thalassemia or Sickle cell trait
FSA1	Sickle cell trait or possible S/ β^+ thalassemia
FAS, AFS, ASF, AS	Probable sickle cell trait
FSC, SC	Probable Sickle C disease
FC	Probable Hemoglobin C disease (homozygous) or Hemoglobin C with thalassemia
FAC, AFC, ACF	Probable Hemoglobin C trait
F only	Possible β thalassemia in full term infant or a premature infant (not yet producing measurable A hemoglobin)
FE, EE	Possible Hemoglobin E disease (homozygous) or Hemoglobin E with thalassemia
FSE	Possible Sickle E disease
FAE, AFE, AEF, AE	Probable Hemoglobin E trait
FD	Possible Hemoglobin D disease (homozygous) or Hemoglobin D with thalassemia
FAD, AFD, AD	Probable Hemoglobin D trait
FAD/G	Possible Hemoglobin D or G trait
FAG	Probable Hemoglobin G trait
FAO	Probable Hemoglobin O trait
FU	Possible unidentified hemoglobin disease
FUA	Possible β^+ thalassemia trait or Thalassemia Intermedia
FAU, AFU	Possible unknown (slow migrating) hemoglobin variant
FA fast, AFFAST	Possible unknown (fast migrating) hemoglobin variant
Bart 10	At least 10% Barts along with F and A hemoglobin - Possible alpha thalassemia trait. Barts may be present in normal newborns and is even more likely to appear in premature infants
Bart 15	15% or more Barts along with F and A hemoglobin - Possible alpha thalassemia trait or Hemoglobin H disease