KnowMy Trait

It is believed in these regions of the world, the human organisms underwent a slight change in their genes - a genetic adjustment, or a mutation, as called in biology. This change lead to important changes in the environment of the red cells that prevent malaria parasites from growing and multiplying in them, thus giving these people a survival advantage over those in whom this genetic change did not occur.

It is believed that carriers of the thalassaemia trait (a & b) as well as carriers of other Hb disorders, such as Sickle Cell, were thus better able to survive malaria than healthy individuals, so the number of carriers increased significantly over the years in malaria-endemic regions of the world as large numbers of healthy individuals died as a result of severe malaria infection.

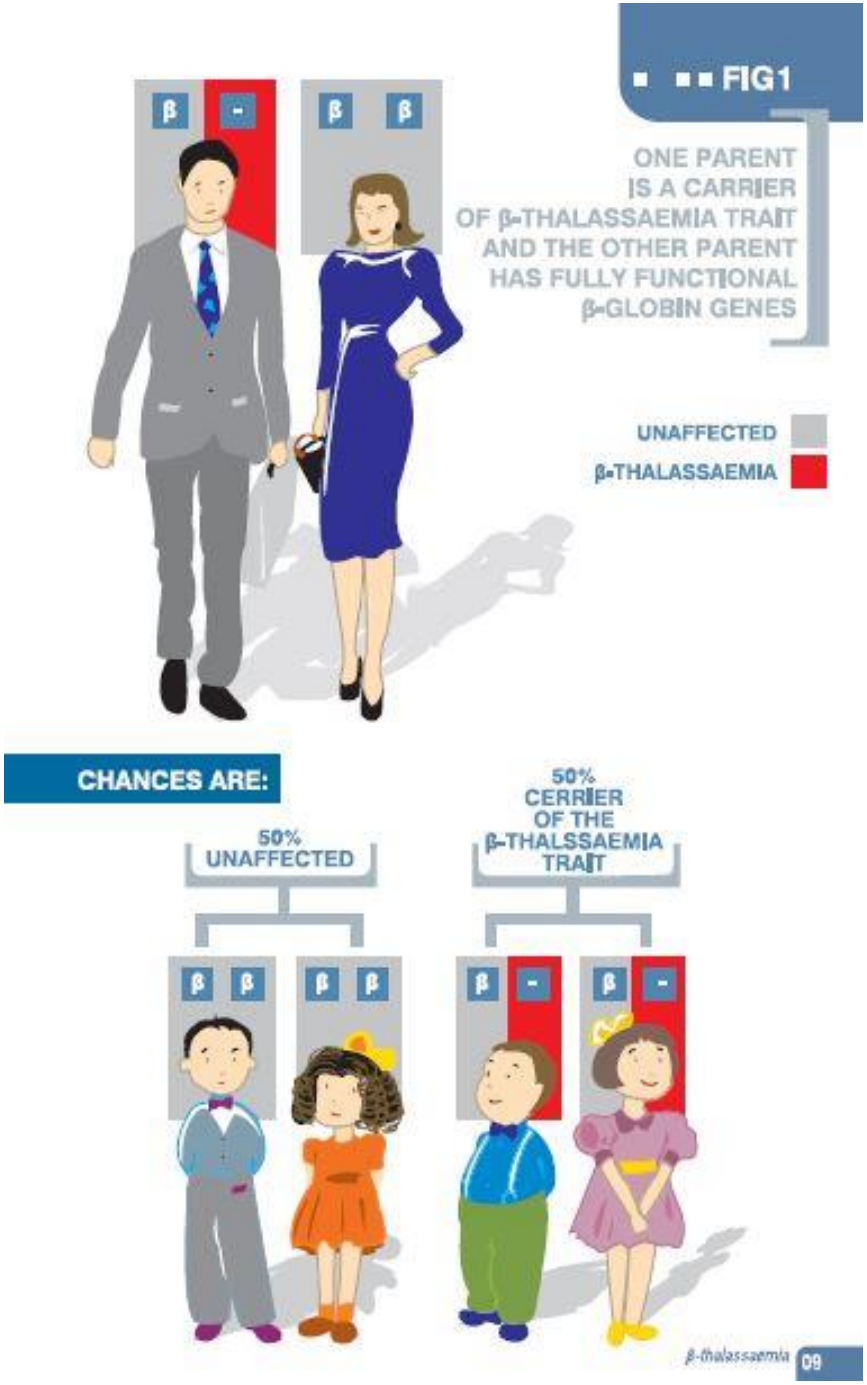
Population migration and intermarriage between different ethnic groups has introduced thalassaemia in almost every country of the world, malaria endemic or not, including northern Europe and other countries where thalassaemia did not previously exist.

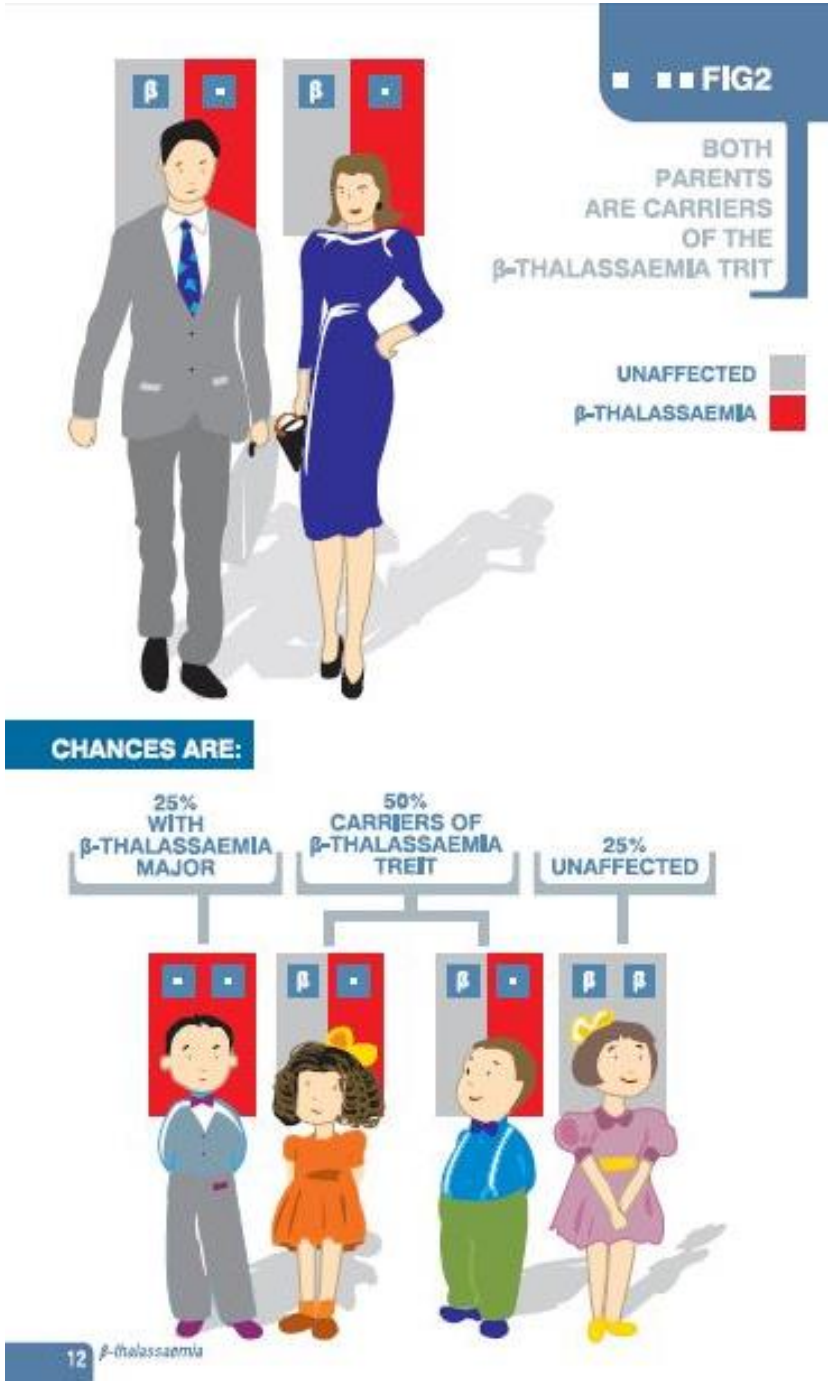
Taken from Page 29 of Thalassaemia International Federation (TIF) Booklet: Booklet 1 - About Beta-Thalassaemia, Androulla Eleftheriou (B.Sc., M.Sc., Ph.D, MBA) & Michael Angastiniotis (MD, DCH).

Note: The above information applies to carriers of other haemoglobin disorder and their traits including sickle cell anaemia.

Countries affected by malaria before establishment of control programmes

Map of haemoglobin disorders worldwide "Guidlines to the clinical Management of Thalassaemia " 2000





Inheritance risk for children is the same for thalassaemia and sickle-cell anaemia traits & disorders.

Images taken from Thalassaemia International Federation (TIF) Booklet: Booklet 1 - About Beta Thalassaemia.

See also:

About Alpha Thalassaemia - Booklet 2:

About Sickle Cell Disorders - Booklet 3