

Delta Beta-thalassaemia: is a disorder of haemoglobin, a major component of the red blood cells. Haemoglobin is produced at a reduced rate. One can be a carrier and in this case it is a benign disease close the β -thalassemia –trait or carrier and should be distinguished from an iron deficiency. One can have a disease close to the clinical picture of the β -thalassaemia intermedia.

What causes the disease and how common is it?

This is a genetic condition linked to decreased production of two components of the haemoglobin molecule. These are the β -globin chains and the δ -globin chains. Since these two globin chains are decreased there is an increase in the production of γ -globin chains. This means that more fetal haemoglobin is produced. Since beta chains are reduced this condition is related to beta thalassaemia but the partial compensation due to the increased fetal haemoglobin means that the clinical severity is milder than beta thalassaemia. Delta-beta thalassaemia is much less common than beta thalassaemia.

What are the most frequent symptoms if I have the disease?

If you are simply a carrier of the gene then there will be no symptoms and no treatment is needed. If you have inherited the $\delta\beta$ –thalassaemia gene from both parents then you will have anaemia of the thalassaemia intermedia type, which is a moderate form of the disease. If you have inherited the $\delta\beta$ -thalassaemia gene from one parent and the β -thalassaemia gene from the other then you will have a thalassaemia major anaemia.

Which treatment must I follow if I have the disease?

If the clinical severity is that of thalassaemia intermedia then careful follow up at a specialized centre is needed and possibly blood transfusion will be eventually required. If the clinical severity is like that of thalassaemia major then you will need regular blood transfusions and other treatments such as the removal of excess iron (chelation) which that condition requires.

What is the risk of passing the condition to my children?

If you marry a partner who is a carrier of $\delta\beta$ or β -thalassaemia then there is a 25% (1 in 4) in each pregnancy of the child being affected with either intermedia or major thalassaemia, unless you are affected in which case the chance is 50%. The other possibilities are that the child might be a carrier (50%) or completely without an abnormal gene (25%) but this is only if you are a carrier and not a patient. Ask for genetic counselling from a specialist to have a more clear picture of your risks as a couple.