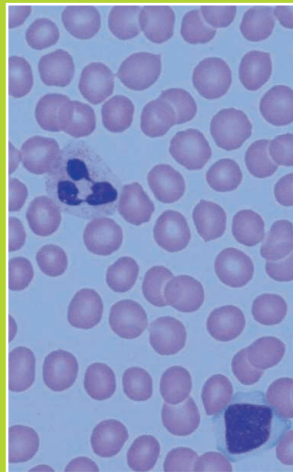


### Treatment of Thalassaemic Patients

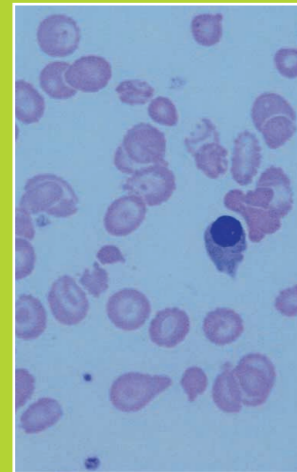
- Patients need monthly blood transfusions for their entire life.
- Frequent blood transfusions will result in iron accumulating in major organs such as the liver, spleen, heart and endocrine glands. This eventually results in multiple organ malfunction.
- Treatment to remove excess iron in the body has to be carried out 5 times a week.
- Bone marrow transplant is an option if there is a suitable donor in the family.

### Thalassaemia Major Can be Prevented!

- Get tested if you:
  1. are a teenager
  2. have a family history of Thalassaemia
  3. are planning to get married
- If you are a thalassaemia carrier, avoid marrying another carrier.



Normal red blood cells



Thalassaemic blood cells



*Your child's future is in your hands.*  
**Get tested for Thalassaemia.**



For further information:

Please contact  
the nearest hospital, clinic or  
Thalassaemia Association

**THALASSAEMIA**  
What every Malaysian needs to know!



MINISTRY OF HEALTH MALAYSIA



Do you carry the thalassaemia gene?  
**1 in 20 Malaysians are carriers!**

### What is Thalassaemia?

Thalassaemia is a genetic disorder of the red blood cells. Thalassaemia is inherited from either or both parents and can occur in males and females.

There are two types of thalassaemia

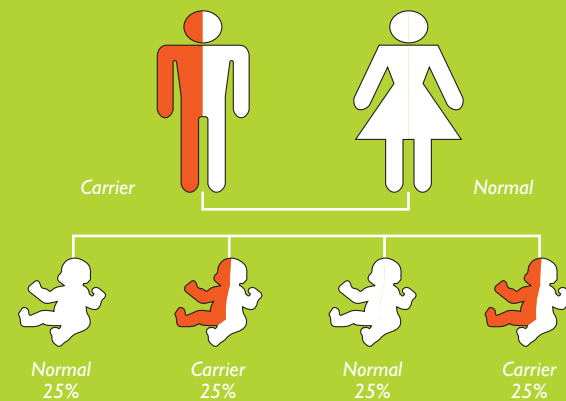
1. **Thalassaemia carrier** (*Thalassaemia minor*)
2. **Thalassaemia patient** (*Thalassaemia major*)

### Thalassaemia Carrier

A thalassaemia carrier does not have any symptoms or health problems. The condition can only be detected through a special blood test. Carriers can pass on the thalassaemia gene to their children.

**IF EITHER PARENT IS A THALASSAEMIA CARRIER, THE FOLLOWING CAN OCCUR:**

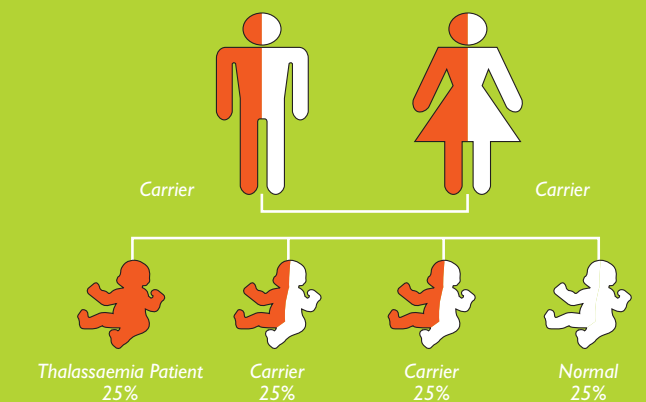
When *EITHER* the mother or father is a thalassaemia carrier.



If you are a Thalassaemia Carrier, avoid marrying another Carrier.

**IF BOTH PARENTS ARE THALASSAEMIA CARRIERS, THERE IS A HIGH CHANCE THAT IN EVERY PREGNANCY, THE CHILD CAN GET THE THALASSAEMIA DISEASE - A LIFE THREATENING CONDITION.**

When *BOTH* parents are thalassaemia carriers



### Signs & Symptoms of a Thalassaemic Patient (*Thalassaemia major*)

- Children with Thalassaemia major appear normal at birth. However they start to suffer from serious anaemia between 3 to 18 months of age.
- Increasingly visible paleness, accompanied by constant fatigue and lethargy
- Difficulty in breathing due to severe anaemia
- Jaundice
- Distended abdomen due to swelling of the liver and spleen
- Stunted growth
- As the child grows changes occur in the facial bone structures