Your antenatal blood test result: you may be a carrier of alpha thalassaemia +/- iron deficiency

This information is for you if you are pregnant and have had a blood test which shows you may be **a carrier of alpha thalassaemia** (also known as possible alpha thalassaemia carrier).

As your screening test cannot confirm if you are a carrier of alpha thalassaemia, we have written the information in this leaflet **as if you are an alpha thalassaemia carrier** and to help you understand if further action is needed during your pregnancy.

Key points

- This result is not a diagnosis**.** It only suggests the **possibility** of being a carrier.
- Being a **possible** carrier of alpha thalassaemia does not mean you are ill or will become sick. Most carriers live normal, healthy lives and do not need treatment.
- A common cause of your result is iron deficiency, which is easy to check and treat. Your midwife will arrange this.
- You only need iron if you're low in iron.
  Do not take iron supplements unless a test shows you need them. Taking iron unnecessarily can be unhelpful.

How your test result is written

Your test result is written as: Results consistent with possible alpha thalassaemia carrier and/or iron deficiency.

What your blood test result means

Haemoglobin is the substance in red blood cells that carries oxygen around your body. Your recent blood test has shown your red blood cells are smaller than usual. This is usually caused by a lack of iron in your blood (iron deficiency), which is the most common cause of anaemia but can also be caused by thalassaemia. Your midwife will offer testing to check if you are iron deficient.

What is alpha thalassaemia?

Haemoglobin conditions are blood disorders inherited from both biological parents. There are many haemoglobin conditions. Alpha thalassaemia is an inherited condition. The type of condition your baby could inherit will depend on what type of haemoglobin genes both

biological parents have. Carriers usually don't have any health problems and don't need treatment. Some conditions are more serious than others. It becomes important if your baby's biological father is also a carrier, because this could increase the chance of your baby inheriting a more serious condition.

Your healthcare professional can discuss this with you, so that you understand what condition your baby could inherit and how this could affect the health of your baby.

What else is important to know as an alpha thalassaemia carrier?

- If you are having a blood test, tell your doctor that you may be a carrier of alpha thalassaemia as it can be misdiagnosed as iron deficiency. If they already know that you might carry alpha thalassaemia, they can avoid offering you unnecessary tests and prescribing you iron medication.
- You should only take iron medication if a blood test shows that you have iron deficiency.
- You can donate blood (when not pregnant) if you are not anaemic (do not have a lower level of haemoglobin than usual). For more information, go to Giving Blood // Welsh Blood Service (welsh-blood.org.uk)

How would my baby inherit alpha thalassaemia?

- Alpha thalassaemia can be passed on to your children and this is why it is important to be aware you may be a carrier.
- There is a chance if you are an alpha thalassaemia carrier that your children may have a serious haemoglobin disorder if their biological father is also an alpha thalassaemia carrier or a carrier of other haemoglobin variants.
- In pregnancy, for **most** women who may be an alpha thalassaemia carrier it is very unlikely that they will have a child with a serious haemoglobin disorder.

Should my baby's biological father be offered testing?

You were asked specific questions about your family origins before this screening test, and this was taken into account when interpreting your blood result.

Further action is only necessary if your screening test report recommends that the biological father of the baby is tested.

This would only be recommended if:

- you and the biological father of your baby originate from countries where alpha zero thalassaemia is most commonly found, such as South East Asia (China, including Hong Kong, Thailand, Taiwan, Cambodia, Laos, Vietnam, Indonesia, Myanmar, Malaysia, Singapore or Philippines) or East Mediterranean (Cyprus, Greece, Turkey, Sardinia or unknown);

  phw.nhs.wales/services-and-teams/screening/antenatal-screening-wales/information-resources/leaflets/sickle-cell-and-thalassaemia/sickle-cell-and-thalassaemia/information-for-fathers-invited-for-a-screening-test-for-sickle-cell-disorder-and-thal/

If the test shows your baby's biological father is a carrier of an unusual haemoglobin gene you will be offered specialist counselling and prenatal diagnosis.

Next steps and choices

Tell your healthcare professional if you:

- became pregnant as a result of fertility treatment with donor sperm or a donor egg
- have had a bone marrow or stem cell transplant; or
- are pregnant as a surrogate

More information

You can get more information from:

- NHS 111 Wales - Health A-Z: Thalassaemia

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