Haemoglobin, Anaemia and Iron

Haemoglobin is the red pigment of the blood. It contains iron and carries oxygen from the lungs to the rest of the body. The haemoglobin level varies from person to person and even from day to day. Men usually have higher levels than women.

Anaemia occurs when the haemoglobin level is lower than normal. We use a finger prick test to check if you are likely to be anaemic. If your drop of blood is heavy enough to sink in the test liquid (a copper sulphate solution of defined specific gravity) you are unlikely to be anaemic and can give blood. If it does not sink then you could be anaemic or your haemoglobin may be at the lower end of the normal range. We set a fairly high cut off level because we want to be sure that your haemoglobin does not fall below normal after donation.

There are four main reasons why your haemoglobin level might be too low to donate:

Variation between people
Some people normally have a ‘lowish’ level. This is not due to any health problem.

The weather
We may get more ‘low readings’ on very hot days.

You may be anaemic
The most likely cause of this is a low level of iron.

Our testing procedure
While we take great care with our test on the session, occasionally it underestimates the amount of haemoglobin in the blood.

If the test at the session indicates that your haemoglobin is lower than it should be:

• We will ask you to give a blood sample for analysis in more detail (a full blood count) in our laboratory.
• We will write to you when we have the results and give you further advice.
• Our letter will advise you if you should delay offering to donate again for a period of time.

We understand how disappointing it is not being accepted to donate and we really do want you to come back to offer to give blood again because patients depend on donated blood, but we must always put your best interests first and foremost.

If you do not receive a letter in 2 weeks please call us on Freephone 0800 252266 between 9am and 5pm Monday to Friday or contact us at donor.care@wales.nhs.uk – tell us that you have not had the result of your full blood count.

More about iron:
Iron is important for maintaining the haemoglobin level and good health. Blood donors give away a lot of iron with their donations and it is then important to eat plenty of iron-containing foods. Vitamin C also helps to absorb more iron. Taking fruit juice with meals may help boost your iron level.

Tea, however, reduces the absorption of iron from foods. This can be prevented by not drinking tea with meals.

The following foods are high in iron:
Lean red meat, liver, kidney, oily fish such as tuna and sardines and breakfast cereals (fortified with iron).

These foods also contain iron:
Eggs, nuts, wholemeal bread, naan bread, dried fruit, beans, lentils, fresh green vegetables.