

Anaemia

This leaflet provides a general overview of anaemia. There are separate leaflets on: iron deficiency anaemia, anaemia due to lack of vitamin B12, and anaemia due to lack of folic acid (folate).

Understanding blood

Blood is made up of a fluid called plasma which contains:

- red blood cells - which take oxygen around the body.
- white blood cells - which are part of the immune system, and defend the body from infection.
- platelets - which help the blood to clot if we cut ourselves.
- proteins - and other chemicals that have various functions.

Red blood cells are made in the bone marrow, and millions are released into the bloodstream each day. A constant new supply of red blood cells is needed to replace old cells that break down. Red blood cells contain a chemical called haemoglobin. Haemoglobin binds to oxygen, and takes oxygen from the lungs to all parts of the body.

To constantly make red blood cells and haemoglobin, you need a healthy bone marrow, and nutrients from food such as iron and certain vitamins.

What is anaemia?

Anaemia means:

- you have less red blood cells than normal, or
- you have less haemoglobin than normal in each red blood cell.

In either case, a reduced amount of oxygen is carried around in the bloodstream.

What are the symptoms of anaemia?

- Common symptoms are due to the reduced amount of oxygen in the body. These include: tiredness, lethargy, feeling faint, becoming easily breathless.
- Less common symptoms include: headaches, palpitations, altered taste, and ringing in the ears (tinnitus).
- You may look pale.
- Various other symptoms may develop, depending on the underlying cause of the anaemia.

What are the causes of anaemia?

Lack of iron is the most common cause of anaemia in the UK. If you eat a normal diet, it usually contains enough iron. The following are some reasons that may cause a lack of iron.

- **Pregnancy or childhood growth spurts** are times when you need more iron than usual. The amount of iron that you eat during these times may not be enough.
- **Heavy menstrual periods.** The amount of iron that you eat may not be enough to replace the amount that you lose with the bleeding each month.
- **Poor absorption** of iron may occur with some gut diseases. For example, coeliac disease and Crohn's disease.
- **Bleeding from the guts (intestines).** Some conditions of the guts can bleed enough to cause anaemia. You may not be aware of losing blood this way. The bleeding may be slow

or intermittent, and you can pass blood out with your stools (faeces) without noticing.

- **If you eat a poor diet**, it may not contain enough iron.

There are many other causes of anaemia. These include the following.

- **Lack of certain vitamins**, such as folic acid and vitamin B12.
- **Red blood cell problems**, such as thalassaemia, sickle cell anaemia, and the haemolytic anaemias. In these conditions the red cells are 'fragile' and break easily in the bloodstream.
- **Bone marrow problems** and leukaemia are uncommon, but cause anaemia.
- **Other conditions** such as rheumatoid arthritis and kidney failure can cause anaemia.

Finding the cause of, and treating anaemia

A simple blood test can measure the amount of haemoglobin, and count the number of red blood cells per ml. This test can confirm that you are anaemic, but does not identify the cause of the anaemia.

Sometimes the underlying cause is obvious. For example, anaemia is common in pregnancy, and in women who have heavy menstrual periods. In these situations, no further tests may be needed, and treatment with iron tablets may be advised. However, the cause of the anaemia may not be clear, and further tests may be advised.

Some causes of anaemia are more serious than others, and it is important to find the reason for anaemia. The treatment of anaemia depends on the underlying cause. For many people this may simply be iron tablets. For others it may be a course of vitamins, or other more complex treatments.

© EMIS and PIP 2004 Updated: September 2004 Review Date: October 2005 CHIQ Accredited PRODIGY Validated

Comprehensive patient resources are available at www.patient.co.uk