

Vitamin B12 or folate deficiency anaemia

Vitamin B12 or B9 (folate) deficiency anaemia happens when you have a shortage of the relevant vitamin. The body then produces abnormally large red blood cells that can't function properly.

Red blood cells carry oxygen around the body using a substance called haemoglobin.

Anaemia means you have either:

- fewer red blood cells than normal
- a low amount of haemoglobin in each red blood cell

Symptoms of vitamin B12 or folate deficiency

Vitamin B12 and folate perform many important functions in the body. This includes keeping the nervous system healthy.

A deficiency in either of these vitamins can cause a wide range of problems, such as:

- extreme tiredness
- a lack of energy
- pins and needles (paraesthesia)
- a sore and red tongue
- mouth ulcers
- muscle weakness
- disturbed vision
- psychological problems, including depression and confusion
- problems with memory, understanding and judgement

Some of these problems can also occur if you have a deficiency in vitamin B12 or folate, but don't have anaemia.

When to see your GP

See your GP if you think you may have a vitamin B12 or folate deficiency. You can usually be diagnosed by a blood test.

It's important to start treatment as soon as possible. This is because some problems caused by the

condition can be irreversible.

Causes of a deficiency

A deficiency is more common in older people. It affects around 1 in 10 people aged 75 or over, and 1 in 20 people aged 65 to 74.

Several other causes can lead to a vitamin B12 or folate deficiency.

Pernicious anaemia

Pernicious anaemia is where your immune system attacks healthy cells in your stomach. This prevents your body from absorbing vitamin B12 from the food you eat. It's the most common cause of vitamin B12 deficiency.

Diet

A lack of B12 or folate in your diet can cause a deficiency. This is uncommon but can occur if you have a vegan diet, follow a fad diet or have a generally poor diet for a long time.

Medication

Certain medications can affect how much of these vitamins your body absorbs. These include anticonvulsants and proton pump inhibitors (PPIs).

Treating deficiency anaemia

Most cases can be treated with injections or tablets to replace the missing vitamins.

Vitamin B12 supplements are usually given by injection at first. After that you'll either need B12 tablets between meals or regular injections. This depends on whether your deficiency is related to your diet. Treatments may be needed for the rest of your life.

Folic acid tablets are used to restore folate levels. You usually need to take these for four months.

In some cases, improving your diet can help treat the condition and prevent it from recurring. Vitamin B12 is found in meat, fish, eggs, dairy products, yeast extract, and fortified foods. Sources of folate include green vegetables such as broccoli, brussel sprouts and peas.

Complications

Although it's uncommon, vitamin B12 or folate deficiency can lead to complications.

These include:

- problems with the nervous system
- temporary infertility

- heart conditions
- pregnancy complications and birth defects
- risk of developing heart failure

Complications are more likely if you've been deficient in the vitamin for some time. Some will improve with appropriate treatment. Others can be permanent, such as problems with the nervous system.

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