

Vitamin B₁₂ Deficiency

This leaflet explains the importance of vitamin B₁₂ for maintaining good health and the changes to the availability of vitamin B₁₂ supplements for adults on NHS prescription in Brent

Why do we need Vitamin B₁₂?

Vitamin B₁₂ (cyanocobalamin) performs several important functions within the body, including healthy blood function and growth, child development, and also helps to keep the eyes, brain and nervous system functioning normally. A lack of vitamin B₁₂ can lead to the body producing abnormally large red blood cells that cannot function properly.

Where do we get vitamin B₁₂ from?

Animal-derived foods (eggs, dairy products and meat) are a primary source of vitamin B₁₂. Diets which exclude all animal products need to ensure that they obtain their recommended daily intake from fortified sources (such as breakfast cereals and yeast extracts) or supplements.

What are the signs and symptoms of vitamin B₁₂ deficiency:

- extreme tiredness
- poor appetite
- a lack of energy
- pins and needles (most likely in the hands, legs and feet)
- a sore and red tongue
- mouth ulcers
- muscle weakness
- disturbed vision
- psychological problems, which may include depression and confusion, problems with memory, understanding and judgement

What are the causes of vitamin B₁₂ deficiency?

Age: Vitamin B₁₂ deficiency is more common in older people, affecting around 1 in 10 people aged 75 or over, and 1 in 20 people aged 65 to 74.

Inadequate dietary intake: more likely to develop in a vegan or vegetarian diet

Some specific medications:

HRT/metformin/oral contraceptives

Pregnancy

Inadequate absorption: gastric surgery, coeliac disease

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HRT/metformin/oral contraceptives

Is vitamin B₁₂ deficiency tested for?

Your GP or practice nurse will decide whether to test for vitamin B₁₂ deficiency depending on both the cause and the symptoms you have.

How to treat vitamin B₁₂ deficiency?

Vitamin B₁₂ deficiency can be corrected by including the following dietary sources in your diet:

- Eggs
- Dairy products (milk, cheese, yogurt)
- Fortified breakfast cereals
- Beef
- Fish (tuna, sardines, salmon)

You may also be asked to purchase and take vitamin B₁₂ supplements. The choice of treatment depends on the cause and severity of the deficiency. If the vitamin B₁₂ deficiency is due to a dietary (for example, a vegan or vegetarian diet), an option is to treat with vitamin B₁₂ supplementation at a dose of 50-150 micrograms daily which needs to be purchased over the counter. **Patients with a vegan diet are likely to need lifelong supplementation.**

For patients who cannot absorb vitamin B₁₂, this will likely need injectable treatment which your doctor will need to prescribe.

Where can I purchase vitamin B₁₂ supplements?

There is a wide range of vitamin B₁₂ supplements available (as single preparations or incorporated into multivitamin products) to buy from pharmacies, most supermarkets and health food shops.

Examples of supplements:



Where can I obtain further information?

NHS Overview:

<https://www.nhs.uk/conditions/vitamin-b12-or-folate-deficiency-anaemia/>

Vegetarian Society:

<https://www.vegsoc.org/info-hub/health-and-nutrition/vitamin-b12/>