

Vitamin B₁₂ Deficiency

Patient Information Leaflet

What does Vitamin B₁₂ do?

Vitamin B₁₂ helps keep the nervous system and blood cells healthy and prevents a type of anaemia called megaloblastic anaemia. In megaloblastic anaemia the red blood cells are bigger than they should be and there are fewer of them, so they do not carry oxygen around the body as well as they should.

What is Vitamin B₁₂ deficiency?

Vitamin B₁₂ deficiency is when your vitamin B₁₂ levels are too low.

What are the symptoms of Vitamin B₁₂ deficiency?

Symptoms related to anaemia include - extreme tiredness (fatigue); lack of energy (lethargy); breathlessness; feeling faint; headaches; pale skin; noticeable heartbeats (palpitations); hearing sounds coming from inside the body, rather than from an outside source (tinnitus); loss of appetite and weight loss.

It is also possible to have vitamin B₁₂ deficiency without having anaemia. You may have B₁₂ deficiency if you have symptoms such as pins and needles; disturbed vision; a sore and red tongue; mouth ulcers; muscle weakness; psychological problems such as depression and confusion; problems with memory, understanding and judgement.

Because the body stores of vitamin B₁₂ can last for 2-4 years it can take a long time for symptoms to develop so they can happen very gradually and can go un-noticed until levels in the body are quite low.

Where do I get vitamin B₁₂?

Vitamin B₁₂ is only naturally found in animal products including fish, meat, poultry, eggs, milk, and milk products. Vitamin B₁₂ is not generally present in plant foods, but many foods are fortified with B₁₂ including breakfast cereals, soya drinks, and yeast extracts such as marmite.

Who is at risk of vitamin B₁₂ deficiency?

Older adults are more at risk of low vitamin B₁₂ levels. Around 5% of 65 to 74 year-olds, and more

than 10% of people over 75 have low vitamin B₁₂ levels.

Causes of Vitamin B₁₂ deficiency

Some people are not able to absorb vitamin B₁₂ from food and some people have a dietary deficiency of vitamin B₁₂, especially if they do not eat meat. Some medications can also reduce absorption of vitamin B₁₂ from the stomach e.g. the antidiabetic medicine metformin, or medicines for stomach problems such as omeprazole or lansoprazole. Your doctor will explain what the cause of your vitamin B₁₂ deficiency is.

Treatment of Vitamin B₁₂ deficiency

To check whether B₁₂ deficiency is related to diet, we may ask you to take B₁₂ tablets called cyanocobalamin for a few weeks and then come back to have a blood test to check your B₁₂ levels. If your B₁₂ levels have improved, changing your diet can help treat the condition and prevent it coming back.

If you cannot absorb vitamin B₁₂ from food or cyanocobalamin tablets you may have a condition called pernicious anaemia. Your doctor will explain it to you and you will be given a course of vitamin B₁₂ injections to begin with. In the longer term, you will usually need lifelong treatment which involves an injection of vitamin B₁₂ every 3 months.

Where do I get more information about vitamin B₁₂ deficiency?

Speak to your GP if you have any concerns about the level of vitamin B₁₂ you get from your diet or you are concerned that you may have symptoms of B₁₂ deficiency.

The vegan society website www.vegansociety.com offers good advice on getting enough vitamin B₁₂ in your diet. They also offer inexpensive supplements that are suitable for vegans and vegetarians. Always get medical advice before taking supplements and remember that they are not a substitute for having a balanced diet.

For more information please visit www.nhsinform.co.uk or telephone NHS Inform on **0800 22 44 88**.