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Activation Code: 05-16-5056130
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VITAMIN B12 TEST

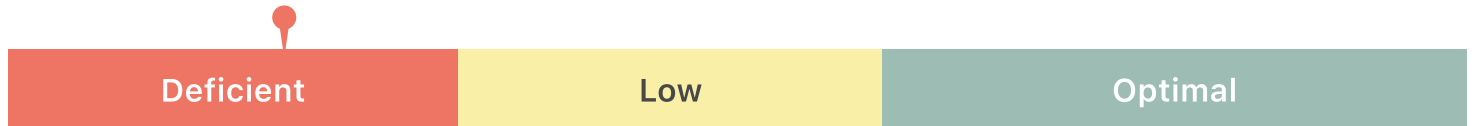
Hello, David,

Congratulations on taking this important step to improving your health!

Information is power after all. Understanding your current nutritional status allows you to direct your focus to achieve optimal results and a better health outcome.

Results at-a-glance

Let's look at your current vitamin B₁₂ levels:



Join our mission
& spread nutritional
deficiency awareness

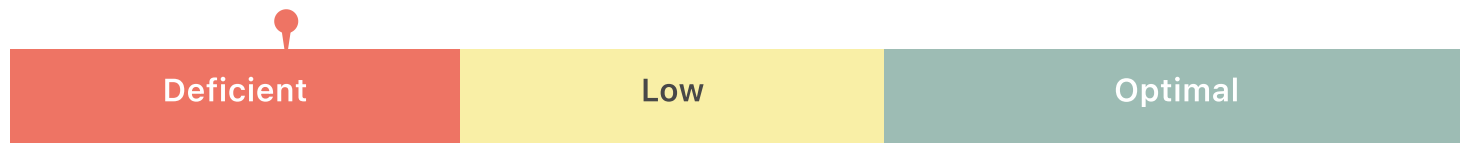
Share your results



Your results

B₁₂ Result

Methylmalonic acid (MMA) has been measured to provide an accurate reading of your Vitamin B₁₂ levels in the body. Your MMA result is **6.782 mmol/mol**. The higher your MMA result, the lower your B₁₂ levels.



Your Recommendations

Your Vitamin B₁₂ levels are **deficient**, this means it is likely that you have a deficiency of vitamin B₁₂.

Vitamin B₁₂ is found predominantly in animal sources and as you have marked that you are vegetarian/vegan, this is likely to be a significant factor in your low B₁₂ levels.

Your low levels of B₁₂ are likely to be contributing to the symptoms you are currently facing. Optimising your B₁₂ levels will likely address the root cause and alleviate your symptoms.

Information is power. Now you know your levels, let's optimise them! We recommend that you:

1. Take 1000 µg of vitamin B₁₂ by injection or a high dose vitamin B₁₂ supplement for 2 weeks.
2. After 2 weeks, take a vitamin B₁₂ supplement dose in line with our recommended dosages below for 3 months. Higher doses may be required to address low levels or inefficient absorption of B₁₂. As you are taking B₁₂ supplements and your B₁₂ levels are still low you may need to take the supplement for longer to see the effects, increase your dose of B₁₂, or try a different form of B₁₂ as the absorption of B₁₂ is highly individual. As B₁₂, B₉ and B₆ work closely together, we also recommend you take a vitamin B complex
3. Retest your levels after 3 months.

Important Note! You have stated that you have pernicious anaemia, therefore absorbing adequate amounts of vitamin B₁₂ from your diet alone is not possible. Please bear in mind that your results will be relative to the amount of vitamin B₁₂ your liver is storing. Individuals with pernicious anaemia are usually prescribed injections of vitamin B₁₂ to guarantee they are getting enough. Alternatively taking 'megadoses' of vitamin B₁₂ at 1000 µg daily or taking liposomal vitamin B₁₂ may also help. However, we highly recommend talking to a health professional about your condition, prior to taking any supplements.

Important Note! You have stated that you have a medical condition that has the potential to affect how well your liver stores vitamin B₁₂. Ensure you are getting regular dosages of vitamin B₁₂. However, we highly recommend talking to a health professional about your condition, prior to taking any supplements.

Important Note! You have stated that you have methylmalonic acidaemia. Therefore, your results cannot be considered representative of vitamin B₁₂ status but may be useful in monitoring your condition.

Important Note! You have stated that you have previously had gastric surgery, therefore you may find that absorbing adequate amounts of vitamin B₁₂ from your diet alone is difficult or not possible. Please bear in mind that your results will be relative to the amount of vitamin B₁₂ your liver is storing. Alternative methods of absorbing vitamin B₁₂ include, vitamin B₁₂ injections, taking 'megadoses' of vitamin B₁₂ at 1000 µg up to daily or taking liposomal vitamin B₁₂ may also help. However, we highly recommend talking to a health professional about your condition, prior to taking any supplements.

Important Note! You are taking medication/supplements that have been known to lower vitamin B₁₂ levels by reducing your body's ability to absorb it. However, we highly recommend talking to a health professional about your medication, prior to taking any supplements.

Important Note! You are taking medication/supplements that can potentially lower the levels of methylmalonic acid (MMA) and therefore have an effect on your results.

Important Note! You have stated that you have a medical condition that has the potential to affect how well your kidneys excrete compounds such as methylmalonic acid. This can have a significant impact on the accuracy of your results.

Other Factors

BMI

Your BMI: **34.38**



Body Mass Index (BMI) is a useful test which uses your height and weight to work out if you're a healthy weight, or whether you should increase or lose weight. A healthy BMI is between 18.5 and 25 but does not consider age, sex, pregnancy, fat content or muscular build.

Age

Your age: **30**



As you age, your ability to digest food and absorb vitamin B₁₂ declines putting you at greater risk of a deficiency or low levels.

Your Known Medical Conditions

1. Pernicious anaemia
2. Bacteria overgrowth
3. Liver diseases
4. Kidney diseases
5. Methylmalonic acidaemia

There are a wide range of diseases that can affect nutrient absorption. Please contact your doctor or health professional for advice.

Your Medication

1. Metformin
2. Colchicine
3. Sodium bicarbonate

Medication can have an increasing or decreasing effect on nutrient absorption. Please contact your doctor or health professional for advice.

Other Factors

1. Male
2. Vegan

Smoking

Cigarette smoke contains chemicals that lower the levels of vitamins in the blood. This means that a higher amount of vitamin B₁₂ is required in the blood to overcome this affect.

Your Rating

IDEAL

Alcohol

Alcohol is known to reduce the absorption of B vitamins including B₁₂. Even moderate drinking can result in lower vitamin B₁₂ levels.

IDEAL

What next?

Vitamin B₁₂ is an essential nutrient and by optimising your levels you may help ease or prevent:

- Osteoporosis, anaemia, macular degeneration, gut issues, erectile dysfunction and jaundice
- Heart disease and inflammation
- Fatigue, low energy, shortness of breath and headaches
- Mental health issues, brain fog, difficulty concentrating and other neurological issues

However, your body cannot make vitamin B₁₂ and it needs to be sourced from diet or supplementation.

Here are three ways to maintain or increase your B₁₂ levels:

1. Supplements

It can be difficult for some people to regularly consume adequate amounts of vitamin B₁₂ from diet alone. Fortunately, vitamin B₁₂ is readily available in the form of supplements. As the supplements are produced from bacteria, they are considered vegan.

2. Dietary intake

Vitamin B₁₂ levels can be maintained or increased through diet. As you have marked that you follow a vegetarian/vegan diet, it is much more difficult to get adequate vitamin B₁₂ on a regular basis.

Excess B₁₂ is flushed out of the body and a certain amount is retained for storage. Consistent low dietary intake of B₁₂ will lead to low levels and deficiency. The following foods are known to be high in B₁₂:

	Food	Vitamin B ₁₂ Per Portion (µg)	%NRV
S O U R C E	Kombucha (black tea)	0 - >240	0 - > 10,000
	Beef Liver	70.7	2,944
	Clams	17	708
	Nutritional yeast (fortified)	8.3 - 24	346 - 1,000
	Sardines (canned)	6.7	279
	Nori (seaweed)	3.1	129
	Sauerkraut/kimchi	0 - 3	0 - 125
	Salmon	2.6	108
	Tuna (canned)	2.5	104
	Beef (minced) 15% fat	2.4	100
	Shiitake mushroom (dried)	1.7	70
	Milk 2%	1.3	54
	Plain yoghurt	1.0	43
	Cheddar cheese	0.5	19
	Egg	0.5	19
Tempeh	0.1	3	

3. Injections

Intramuscular injections (directly into the muscle) are considered a safe and effective way to rapidly increase vitamin B₁₂ levels in those who are deficient. Injections are also used in people with absorption issues as this method bypasses the gut absorption process that occurs when consuming vitamin B₁₂.

Recommended maintenance dosages:

Below is our recommended daily AI (adequate intake) doses of vitamin B₁₂ along with the nutrient reference values. These are the amounts recommended for people to maintain adequate vitamin B₁₂ levels for healthy individuals with no known vitamin absorption/metabolism issues.

Our Recommendations		Nutrient Reference Value (NRV)	
0 - 6 months	0.4 µg	0 - 6 months	0.4 µg
7 months - 7 years	1.5 µg	7 - 12 months	0.5 µg
		1 - 3 years	0.9 µg
7 - 10 years	2.5 µg	4 - 8 years	1.2 µg
11 - 14 years	3.5 µg	9 - 13 years	1.8 µg
15+ years	4 µg	14+ years	2.4 µg
Pregnancy	4.5 µg	Pregnancy	2.6 µg
Lactation	5 µg	Lactation	2.8 µg

Age, BMI, sex, smoking, alcohol intake, diet, medical conditions, and medications may affect your levels and how much is required to maintain optimum levels. People with a vitamin B₁₂ deficiency are usually given doses of 1,000 µg by injection or supplement higher doses for a few weeks to treat the initial deficiency state. Please contact your health professional for further advice.

There is no upper intake level (UL) set for vitamin B₁₂. The UL is the maximum daily dose of a nutrient that is not likely to cause adverse side effects. High doses for the purpose of treating vitamin B₁₂ deficiency are considered safe.



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