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# **BEYOND THE PLATE: HIDDEN B12 DEFICIENCY**

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# **THINK YOU'RE SAFE FROM B12 DEFICIENCY BECAUSE YOU EAT MEAT? THINK AGAIN.**

If you eat meat, you probably think you're getting enough B12.

After all, it's in steak, eggs, fish, and dairy, right?

But here's the problem: B12 deficiency isn't just a "vegan thing." More and more meat-eaters are coming up short, and many have no idea until symptoms hit. Fatigue, brain fog, tingling hands, mood swings.

This short guide busts the myth wide open. You'll find out why even meat-lovers can run low, what warning signs to watch for, and how to protect yourself without guessing or going overboard.

# WHAT IS VITAMIN B12?

Vitamin B12 (cobalamin) is a water-soluble vitamin that the body cannot produce on its own. It must be obtained through dietary sources or supplementation. It's naturally present in animal-based foods such as meat, fish, dairy, and eggs, and it's also available in fortified plant-based products or as a supplement in oral or injectable form.

## **B12 is involved in:**

- Red blood cell production. It enables the proper formation of red blood cells.
- Neurological health. B12 is critical to myelin synthesis and the maintenance of nerve function.
- DNA synthesis. It plays a direct role in cellular replication and repair.

## **Benefits include:**

- Supports red blood cell formation and prevents anemia.
- Crucial for healthy pregnancy and fetal development
- Contributes to bone health and density.
- May support vision and reduce risk of age-related macular degeneration.
- Influences mood and mental health
- Associated with cognitive function and memory
- Essential for normal energy metabolism
- Plays a role in healthy skin, hair, and nails.



# THE MYTH: IF YOU EAT MEAT, YOU DON'T NEED TO WORRY ABOUT B12.

It sounds logical. B12 is found in animal products, so if you're eating meat, dairy, or eggs, you're covered, right? Not exactly.

The real issue isn't intake. It's absorption. And that's where things break down for millions of people.

According to the National Institutes of Health (NIH), B12 from food must be released by stomach acid, bound to intrinsic factor, and absorbed in the small intestine. It's a multi-step process that can be easily disrupted.





# WHY MEAT-EATERS STILL FALL SHORT

B12 absorption is a complex, multi-step process that relies on stomach acid, enzymes, a protein called intrinsic factor, and a healthy small intestine. Even under ideal conditions, your body only absorbs about 50-60% of the B12 from food.\* So even if you're healthy, B12 absorption can be inefficient, and any disruption to the process (even a small one) makes it worse.

That process is fragile.

- Aging reduces stomach acid, making it harder to access the B12 in food
- Medications like metformin and antacids block B12 absorption
- Gut issues like Crohn's or celiac interfere with B12 uptake
- Genetics can reduce your ability to transport or convert B12 into usable forms
- An imbalanced gut microbiome can compete for B12
- Diets high in ultra-processed foods often lack B12 and harm gut health, making absorption even harder
- Alcohol use can damage the stomach lining, impair liver storage, and reduce absorption

Bottom line: Eating meat isn't enough if your body can't process it properly.

*\*While 50-60% is a reasonable general range for B12 absorption from food under ideal conditions, it's important to remember that this can fluctuate significantly based on the food source and individual factors. It's not a universal fixed percentage across all foods and all individuals.*

# SIGNS YOU MIGHT BE LOW

Symptoms like:

- Low energy or fatigue
- Brain fog or memory issues
- Tingling or numbness in hands and feet
- Mood swings or low mood
- Pale skin or an inflamed tongue

According to clinical data published by StatPearls, symptoms often appear before lab values like anemia show up. You can feel depleted long before the standard bloodwork flags a problem.



# WHO'S MOST AT RISK

You're more likely to have B12 absorption problems if:

- Over age 60
- Take acid blockers, PPIs, or metformin
- Had bariatric or GI surgery
- Live with inflammatory gut conditions
- Eat a mostly plant-based diet without supplementation
- Feel run down despite "eating clean"

A 2022 review published in StatPearls found that up to 20% of adults over 60 may have low or borderline B12 status, regardless of diet.





# WHAT TO DO NEXT

- Pay attention to symptoms. Many people feel off even when their numbers look "normal" on paper.
- Try sublingual or spray forms. These skip the digestive system and may work better for people with absorption issues.
- Read labels. Fortified cereals, plant-based milks, and nutritional yeast often contain added B12.
- Supplement smart. According to the NIH and Oregon State University's Linus Pauling Institute, doses of 500 to 1000 mcg of methylcobalamin daily are safe and effective for most adults.

This guide doesn't replace medical advice. But it gives you the clarity and confidence to ask the right questions.

## **SOURCES & STUDIES**

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