VITALS VAULT

FREE GUIDE

B12: Which Test Shows What

A guide to the main B12 tests, why one number can miss a problem, and questions to take to a clinician. It does not tell you whether to take anything.

WHAT EACH MARKER SHOWS

Marker	What it tells you
Serum B12	The usual first test. It does not show whether cells have enough B12.
MMA and homocysteine	These start to rise as B12 falls, so they can show what serum B12 misses.
holoTC	A second B12 marker; one study used under 45 pmol/L as a cut-off for early shortage.
MCV and RDW	Cell-size numbers on the blood count that can change when B12 or folate is low.

REFERENCE POINTS FOR SERUM B12 (PG/ML)

Point	Value	Note
US deficiency cut-off	203 (150 pmol/L)	Institute of Medicine cut-off.
Markers start to rise below	542 (400 pmol/L)	So "normal" is not risk-free.
Insufficiency in one source	Under 407 (300 pmol/L)	Said to occur in up to 60% of people; not the same as deficiency.
Worth looking into when high	Above 1,355 (1,000 pmol/L)	Many causes; ask why.

TWO MARKERS BEAT ONE

Most people with B12 deficiency do not have anemia, and serum B12 alone does not show whether cells have enough. At least two markers are recommended to find an early shortage.

QUESTIONS TO ASK

- [ ] Which B12 markers are being checked, and is more than one included?
- [ ] Should homocysteine or MMA be checked alongside serum B12?
- [ ] Could my diet, gut health or medicines affect my result?
- [ ] If my B12 is high, what else should be checked?

Sources: Hannibal 2016; Fedosov 2015. Cut-offs come from single sources and differ by lab. Not treatment advice.

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