


INE | INSTITUTE OF
NUTRITIONAL
ENDOCRINOLOGY

**Blood Chemistry:
Vitamins**

Dr. Ritamarie Loscalzo

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Medical Disclaimer: The information in this presentation is not intended to replace a one-on-one relationship with a qualified health care professional and is not intended as medical advice. It is intended as a sharing of knowledge and information from the research and experience of Dr. Ritamarie Loscalzo, drritamarie.com, and the experts who have contributed. We encourage you to make your own health care decisions based upon your research and in partnership with a qualified health care professional.



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**Vitamin D: Important in Prevention
and Treatment of:**

- ✓ Autoimmune disease: T regulatory cells
- ✓ Muscle pain (fibromyalgia)
- ✓ Diabetes
- ✓ Osteoporosis
- ✓ Cancer
- ✓ Neurodegenerative disease
- ✓ Depression
- ✓ Fatigue



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Vitamin D Testing

91	VITAMINS					
92	Vitamin D, 25-Hydroxy	ng/mL	32.0	100.0	70.0	110.0
93	Vitamin B12	pg/mL	211.0	911.0	800.0	1500.0
94	Folate	ng/mL	5.4	-	5.4	-


Form Tested: Vitamin D, 25-Hydroxy ng/mL
 ❖ **Lab Range:** 32.0 - 100.0
 ❖ **Optimal Range:** 55.0 - 100.0

Deficiencies From: lack of sunlight, excess stress (cortisol)

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Conditions That Affect Vitamin D Requirement

- ✓ Body weight
- ✓ Skin color
- ✓ Age
- ✓ Where you live
- ✓ Sun exposure
- ✓ Do you use sunscreen
- ✓ Chronic illness
- ✓ Autoimmune disease



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Vitamin D Action Plan

Optimal Range: 60.0 - 100.0

Rough guidelines - if in doubt be sure to consult primary provider.

- ✓ **Vitamin D <20:** Take 20,000 IU every day for a week or up to a month, then 10,000 IU for 2 months, then retest
- ✓ **Vitamin D 20 - 30:** Take 10,000 IU for 3 months, then retest
- ✓ **Vitamin D 30 - 40:** Take 6,000 IU for 3 months, then retest
- ✓ **Vitamin D 40 - 60:** Take 2,000 - 4,000 IU per day for 3 months, then recheck
- ✓ **Vitamin D 60 or above:** If you live in a northern climate, take 1000 - 2000 until spring and on days that you don't get out in the sun for at least 30 minutes. Retest in 4 - 6 months. If you get regular sun exposure in a warm climate throughout the winter, continue what you're doing and retest in 3 months.



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Vitamin B12 / Folic Acid

- ✓ MCV +
- ✓ MCH +
- ✓ MCHC +
- ✓ Iron +
- ✓ RDW +
- ✓ WBC -
- ✓ RBC -
- ✓ Hematocrit -
- ✓ Hemoglobin -
- ✓ Homocysteine +
- ✓ Uric Acid -

Methylmalonic Acid

The best way to determine Vitamin B12 levels. If high, there is insufficient Vitamin B12 to break down this neurotoxin.



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Vitamin B6

- ✓ AST -
- ✓ Alt -
- ✓ GGT -
- ✓ Iron +
- ✓ MCV -
- ✓ MCH -
- ✓ MCHC -
- ✓ RDW +
- ✓ RBC -
- ✓ Hematocrit -
- ✓ Hemoglobin -
- ✓ Alkaline Phosphatase



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Vitamin C

- ✓ Hematocrit -
- ✓ Alkaline Phosphatase +
- ✓ RBC +
- ✓ Hemoglobin -
- ✓ Hematocrit -
- ✓ MCV +
- ✓ MCH +
- ✓ MCHC +



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