



PEIRSON CENTER FOR CHILDREN

# OPTIMAL FUNCTIONAL LAB RANGES: A GUIDE FOR KEY NUTRIENT AND METABOLIC MARKERS

Lab Test	Optimal Functional Range	Conventional Lab Reference Range	Notes/ Considerations
Serum B12	800-1,200 pg/mL	200-900 pg/mL	Levels below 550 pg/mL may indicate deficiency; consider MMA and homocysteine for better assessment.
Serum Zinc	90-135 µg/dL (optimal is ~80 µg/dL)	60-130 µg/dL	Optimal levels support immune and neurological function; low levels may indicate malabsorption.
Serum Copper	70-110 µg/dL (optimal is ~100 µg/dL)	70-140 µg/dL	Copper/Zinc ratio is important (ideal: 0.7-1.0); excess copper can impact neurological health.
Ferritin	50-100 ng/mL	10-150 ng/mL	Below 50 ng/mL may suggest deficiency; low levels linked to fatigue, behavioral issues, restless sleep.
Vitamin D (25-OH)	50-100 ng/mL	30-100 ng/mL	Levels below 50 ng/mL may be insufficient for immune and neurological function. Low levels linked to poor sleep.
Red Blood Cell Magnesium	>6 mg/dL	4.2-6.8 mg/dL	This must be ordered as a red blood cell level, not a serum level because only about 1% of total body magnesium is found in serum.