



PEIRSON CENTER FOR CHILDREN

SYMPTOM-BASED LAB GUIDE FOR CHILDREN WITH DOWN SYNDROME

Recommended Tests for Targeted Health Support

Symptom or Concern	Recommended Lab Tests	Possible Deficiencies or Imbalances	Notes/ Considerations
Fatigue / Low Energy	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/ diff• Ferritin• serum B12• vitamin D• CoQ10	<ul style="list-style-type: none">• Iron deficiency• B12 deficiency• Thyroid dysfunction• Mitochondrial dysfunction	Consider an Organic Acids Test if persistent fatigue
Frequent Infections	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/differential• Immunoglobulin Panel (IgG, IgA, IgM, IgE),• Vitamin D• Serum Zinc and Copper• Serum B12• Histamine	<ul style="list-style-type: none">• Immune dysfunction• Zinc deficiency• Vitamin D deficiency• Histamine Intolerance	Check gut health with a comprehensive stool analysis if recurrent infections are present
Poor Growth or Weight Gain	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/differential• Ferritin• Serum Zinc and Copper• IGF-1• Celiac Panel• Comprehensive Metabolic Panel	<ul style="list-style-type: none">• Malabsorption• Thyroid dysfunction• Growth hormone deficiency• Zinc deficiency	Consider organic acid test for malabsorption markers



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Speech Delay	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/differential• Homocysteine• Serum B12• Lactic Acid• Folate Receptor Antibody Test (FRAT)	<ul style="list-style-type: none">• Methylation issues• Thyroid dysfunction• Thiamine Deficiency• Folate Receptor Antibodies	Consider organic acid test for thiamine deficiency and other metabolic imbalances
Constipation	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/differential• Magnesium, RBC• Celiac Panel• Serum B12• Carnitine, free and total• CoQ10	<ul style="list-style-type: none">• Low magnesium• Thyroid dysfunction• Gut dysbiosis• Mitochondrial dysfunction	Consider organic acid test to check for mitochondrial dysfunction and comprehensive stool test to check for dysbiosis
Sleep Issues	<ul style="list-style-type: none">• TSH, Free T3, Free T4, Reverse T3• CBC w/differential• Ferritin• Serum Zinc and Copper• Vitamin D• Histamine	<ul style="list-style-type: none">• Thyroid dysfunction• Zinc deficiency• Iron deficiency• Vitamin D deficiency• Histamine Intolerance	Consider urine neurotransmitter test to check for excitatory and inhibitory imbalance