

Physiology First: Practical Applications Course Outline

Interpreting Basic Lab Tests

April 7, 2019

- Functional vs. Standard Lab Ranges
 - What is meaningful, what is just noise.
 - Tests reviewed to include:
 - Rationale for 8 Predictive Biomarker tests – overview
 - Functional vs conventional approach to management of: Hypertension & Hyperlipidemia
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Evaluating Metabolic Function

May 5, 2019

Review of useful tests of metabolic function and the clinical management indicated.

- **Thyroid/Parathyroid**
 - **MALE/FEMALE HORMONES**
 - **ADRENAL HORMONE/HYPOTHALAMIC PITUITARY AXIS DYSFUNCTION**
 - **GLUCOSE REGULATION**
 - **Protocols for management of: Hypothyroidism, Hyperthyroidism, Insulin resistance, Sex Hormone Insufficiency/Imbalance, PCOS, Menopause/Perimenopause, Diabetes, Fatigue**
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Targeted Vitamin Supplementation

June 2, 2019

Methods of assessing need and plotting a course to repletion. A review of clinical understanding and the use of nutritional supplements.

- **VITAMIN A/RETINOL**
 - **VITAMIN B1/THIAMINE**
 - **VITAMIN B2/RIBOFLAVIN**
 - **VITAMIN B3/NIACIN**
 - **VITAMIN B5/PANTOTHENIC ACID**
 - **VITAMIN B6/PYRIDOXINE**
 - **VITAMIN B7/BIOTIN**
 - **B12**
 - **FOLATE**
 - **VITAMIN C**
 - **VITAMIN D**
 - **VITAMIN K**
 - **VITAMIN E**
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Targeted Mineral Supplementation

July 7, 2019

Methods of assessing need and plotting a course to repletion. A review of clinical understanding and the use of nutritional supplements.

- Copper
 - Zinc
 - Selenium
 - Iodine
 - Calcium
 - Magnesium
 - Manganese
 - Phosphorous
 - Carnitine
 - Choline
 - CoQ10
 - Inositol
 - Taurine
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Interpreting Specialty Lab Tests

Aug 4, 2019

- Essential fatty acids
 - Oxidative Stress/Lipid Peroxidation/Glutathione
 - Autoimmune Markers
 - Allergy
 - GI Testing
 - Toxicology/Heavy Metals/Mold – Blood & Urine
 - Yeast/fungal markers
 - Infections (Lyme, Epstein-Barr, CMV, HHV 6)
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Genomics

Sep 8, 2019

- Review of most common tests
 - Actionable results vs myths and marketing spin
 - Focus on markers of epigenetic risk factors
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Urine Tests

Oct 6, 2019

- 1st morning pH
 - Standard urinalysis
 - Amino acids vs plasma amino acids: when should urine be ordered and when plasma
 - Inflammatory Markers of Repair Deficit
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Wrap Up/Review

Nov 3, 2019