



INE | INSTITUTE OF  
NUTRITIONAL  
ENDOCRINOLOGY

# Blood Chemistry: Digestion

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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](http://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.



# Low Stomach Acid

- ✓ BUN (hi or lo)
- ✓ Chloride (lo)
- ✓ Carbon Dioxide (hi)
- ✓ Calcium (lo)
- ✓ Phosphorus (lo)
- ✓ Protein (lo)
- ✓ Albumin (lo)
- ✓ Globulin (hi)
- ✓ Iron (lo)
- ✓ Hemoglobin (lo)
- ✓ MCV (hi)
- ✓ MCH (hi)
- ✓ MCHC (hi)
- ✓ Uric Acid (lo)
- ✓ Ferritin (lo)



# Stomach

## Hypochlorhydria

- Total Protein +/-
- Globulin +/-
- BUN +/-
- Phosphorus -
- Creatinine -
- Iron -
- Calcium -

## Helicobacter Pylori

- WBC +/-
- Neutrophil +
- Monocytes normal to +
- Lymphocytes -
- Special testing for H. Pylori and Urea Breath Test

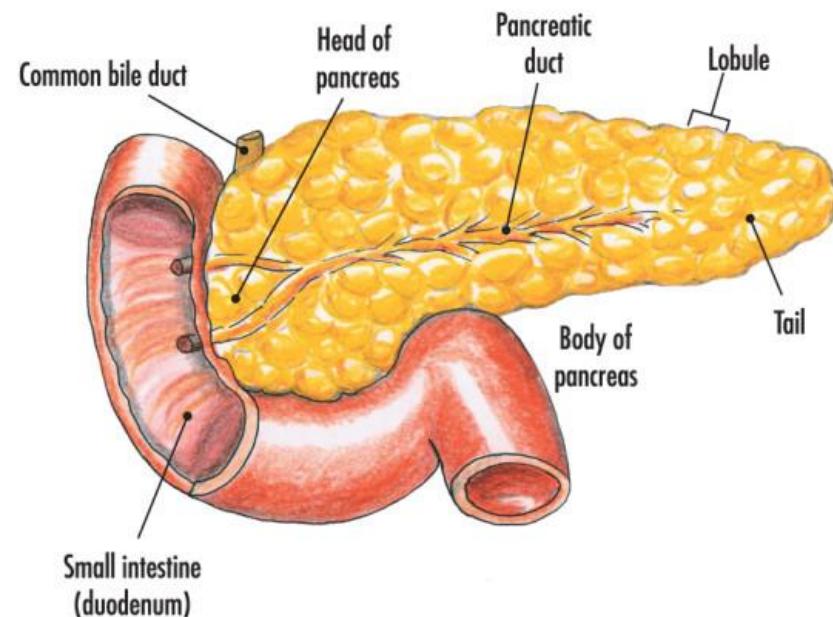
## PLUS

Markers	Units	PATHOLOGICAL RANGE	FUNCTIONAL RANGE	12/22/09
Total Protein	G/dl	6.2-8.3	6.9-7.4	7
Albumin	G/dl	3.8-5.0	4.0-5.0	4.1
Globulin	G/100 ml	2.0-3.8	2.4-2.8	2.9
BUN	mg/dL	8-28	13-18	7
Phosphorus	mg/dL	2.3-4.8	3.5-4.0	4.4
Creatinine	mg/dL	0.5-1.2	0.7-1.1	0.7
Iron	ug/dl	40-180	85-130	16



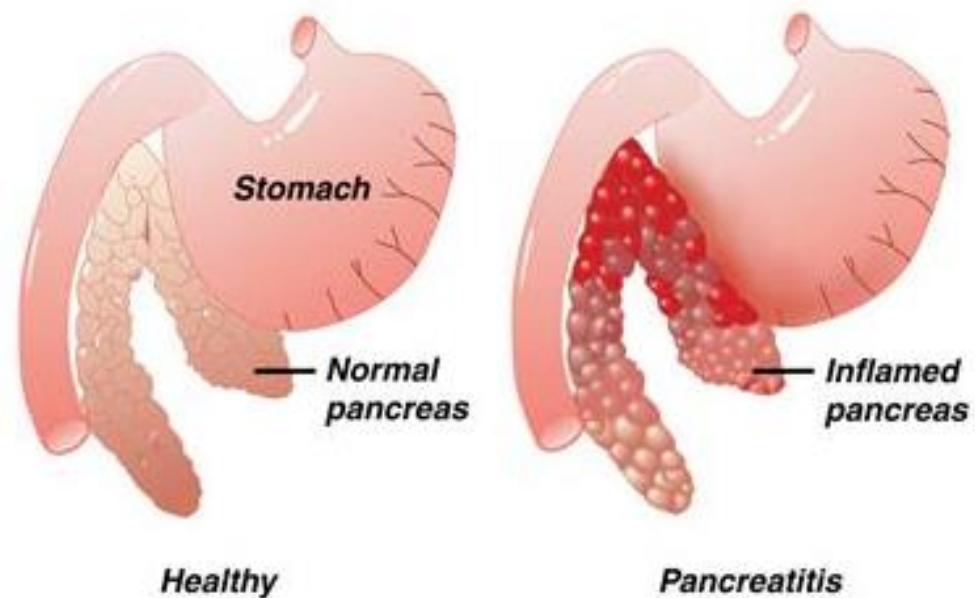
# Small Intestine and Pancreas

- ✓ Uric Acid (hi)
- ✓ BUN (lo)
- ✓ Creatinine (lo)
- ✓ Protein (lo)
- ✓ Globulin (lo): GI inflammation
- ✓ Alkaline phosphatase (lo)
- ✓ Alkaline Phosphatase (hi): leaky gut
- ✓ GGT (lo): malabsorption
- ✓ Hematocrit (lo): inflammation



# Pancreatitis

- ✓ Glucose +
- ✓ Triglycerides +
- ✓ Alkaline Phosphatase +
- ✓ Lipase +
- ✓ Amylase +
- ✓ GGTP +
- ✓ SGOT normal to +
- ✓ SGPT normal to +
- ✓ Albumin -



# Large Intestine

- ✓ Eosinophils + parasites
- ✓ Sodium low
  - possible laxative use

**For in-depth look, need to do:**

- ✓ Comprehensive stool and digestive analysis
- ✓ Parasitology
- ✓ Organic Acids Test (OAT) has markers for dysbiosis

