



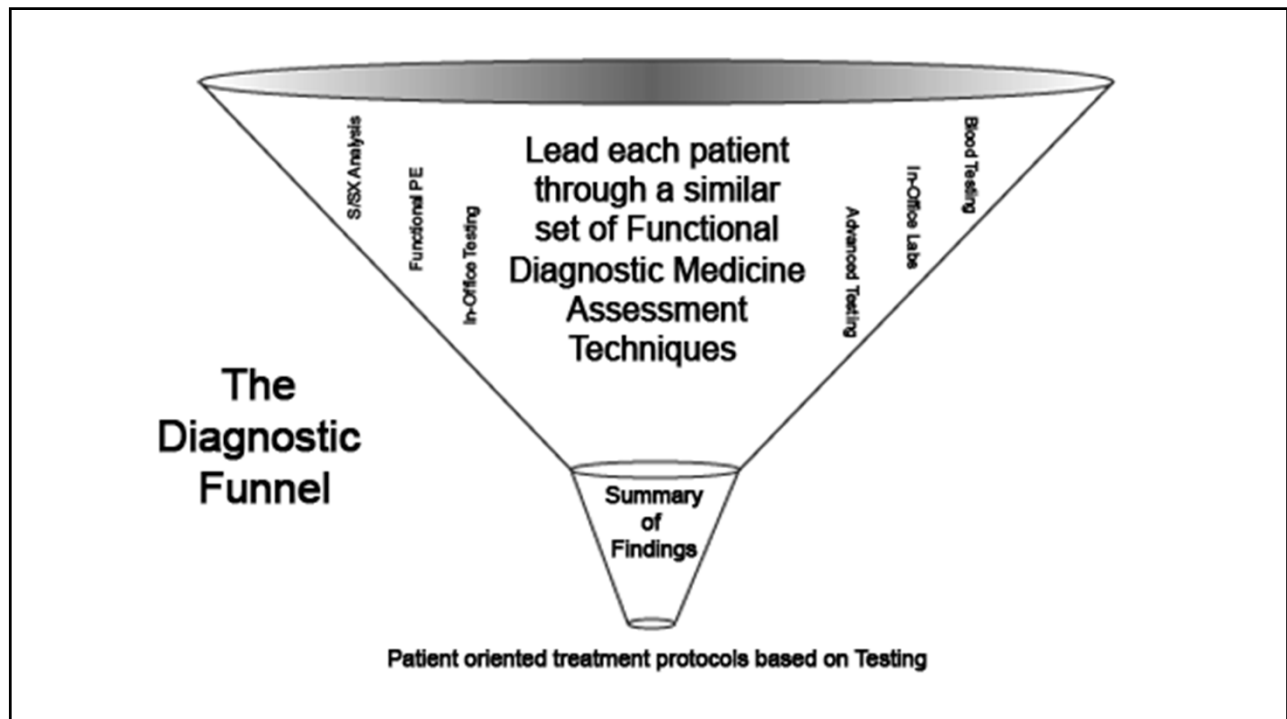
Functional Physiology, Dysfunctions, and Assessments of the G.I. and Gallbladder – a 3-part Webinar Series

The Functional Diagnosis Webinars With
DR. DICKEN WEATHERBY
Creator of the Blood Chemistry Software

The Primary Functional Diagnosis of the G.I. & Biliary System Webinar Part 3

The Diagnostic Funnel

- The challenges of FDM
- Forget the name of the disease
- The goal of patient-centered diagnosis/ assessment
 - ❑ Have an organized system of assessment
 - ❑ Develop individualized treatment plans



The Steps Through The Funnel

Step #1 – Listen to your patients

- Tools for getting your patient's story:
 - The Patient Intake Form
 - Medical Records
 - Nutritional Assessment Questionnaire
 - Diet Diary
- Patient interview at the initial consultation

Step #2 – Take-Home Testing

The Steps Through The Funnel

- **Step #3 – Physical Examination: standard, functional and nutritional**
- **Step #4 – In-Office Testing**
- **Step #5 – In-Office Labs**
- **Step #6 – Functional Blood Chemistry Analysis**

Step #7 – Advanced FDM Tests

- Stool Analysis
- Food Allergy and Environmental Testing
- Hormonal Assays: Adrenals, Female and Male
- Toxic Metabolite Testing: Hair and Urine
- Nutrient Testing (Amino Acids, EFAs, Vitamins, Minerals)
- Organic Acid Testing
- DUTCH Urine Testing
- Nutrigenomic Testing

The Application of FDM Testing

Identifying and Assessing for Dysfunctions in
the GI

Hypochlorhydria Signs and Symptoms

- Belching or gas within one hour after eating
- Bloating within one hour after eating
- Bad breath (halitosis)
- Stomach upset by taking vitamins
- Fingernails chip, peel or break easily
- Anemia unresponsive to iron
- Sense of fullness after meal

Physical Exam Findings

Nutritional Physical Findings

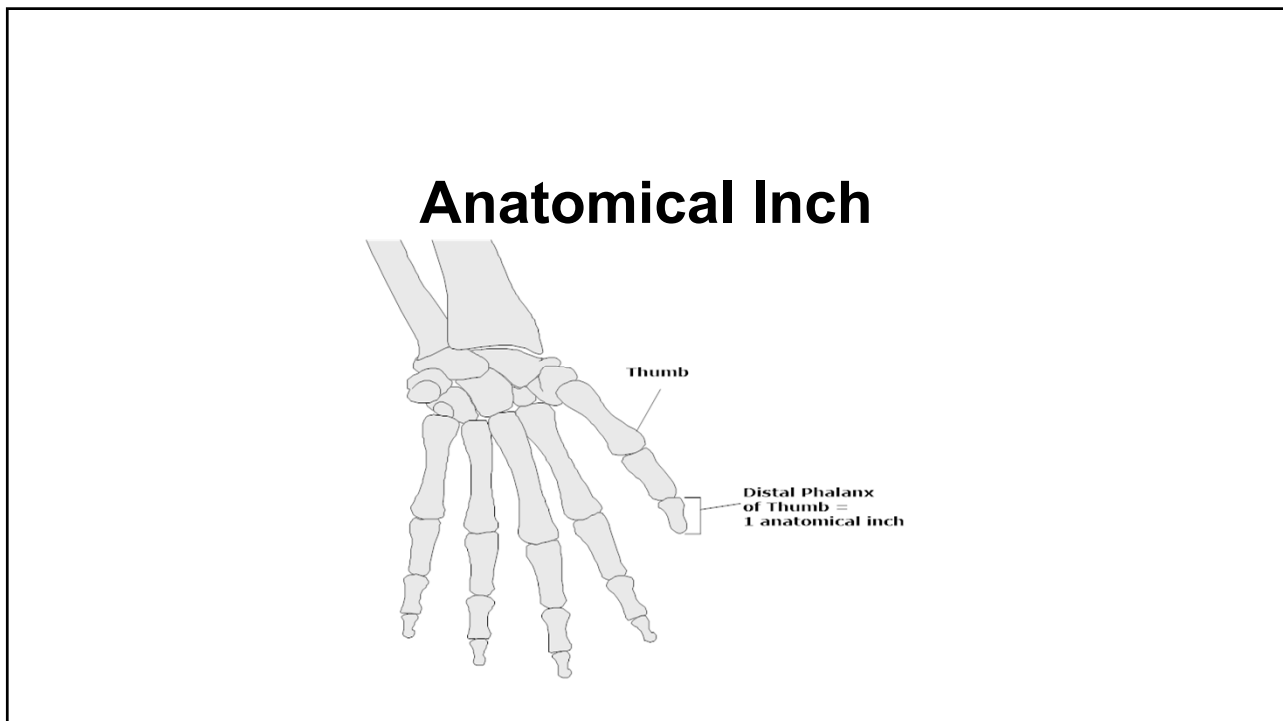
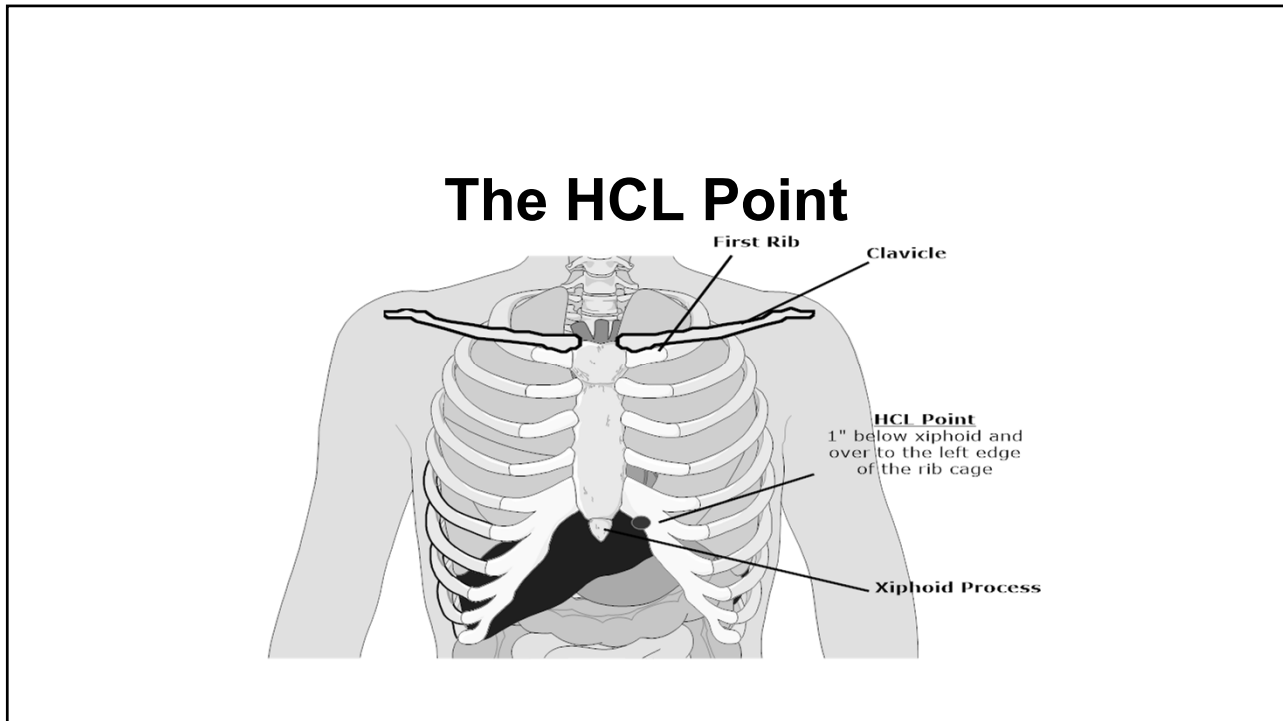
- Adult acne
- Dilated capillaries on nose and face
- Dandruff
- Soft, poor growth of fingernails
- Brittle and splitting nails
- White spots on the nails

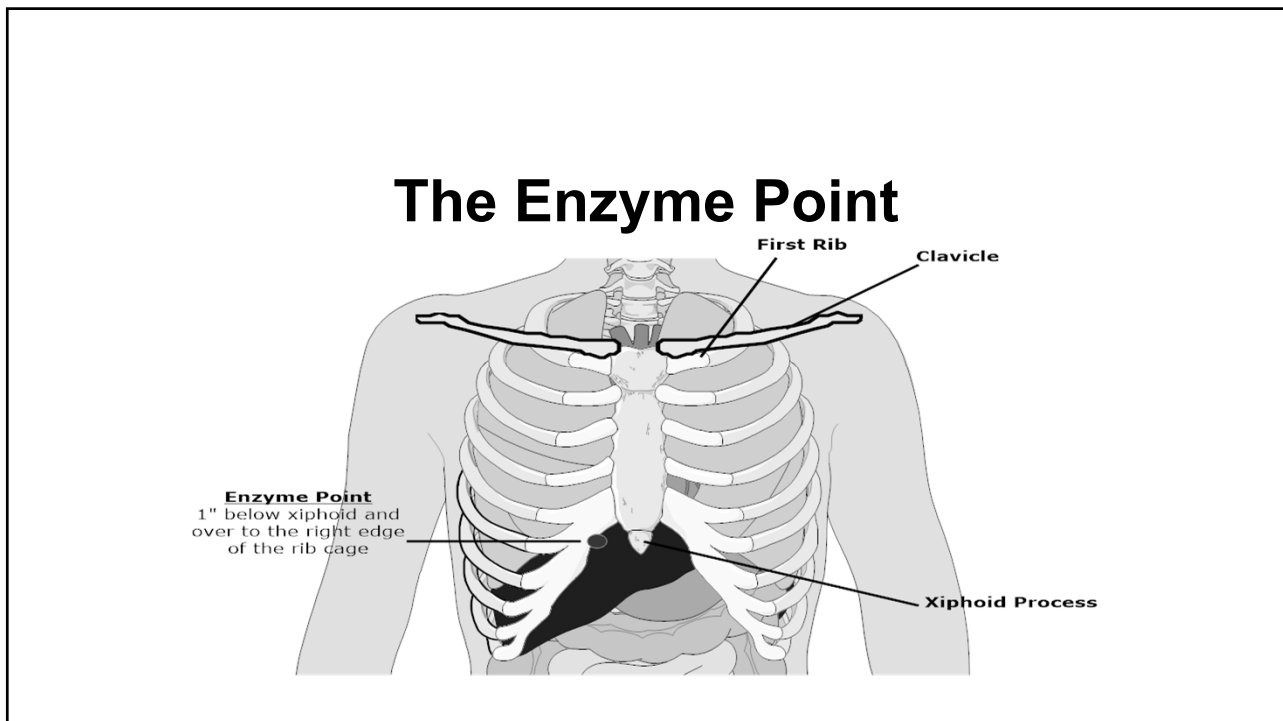
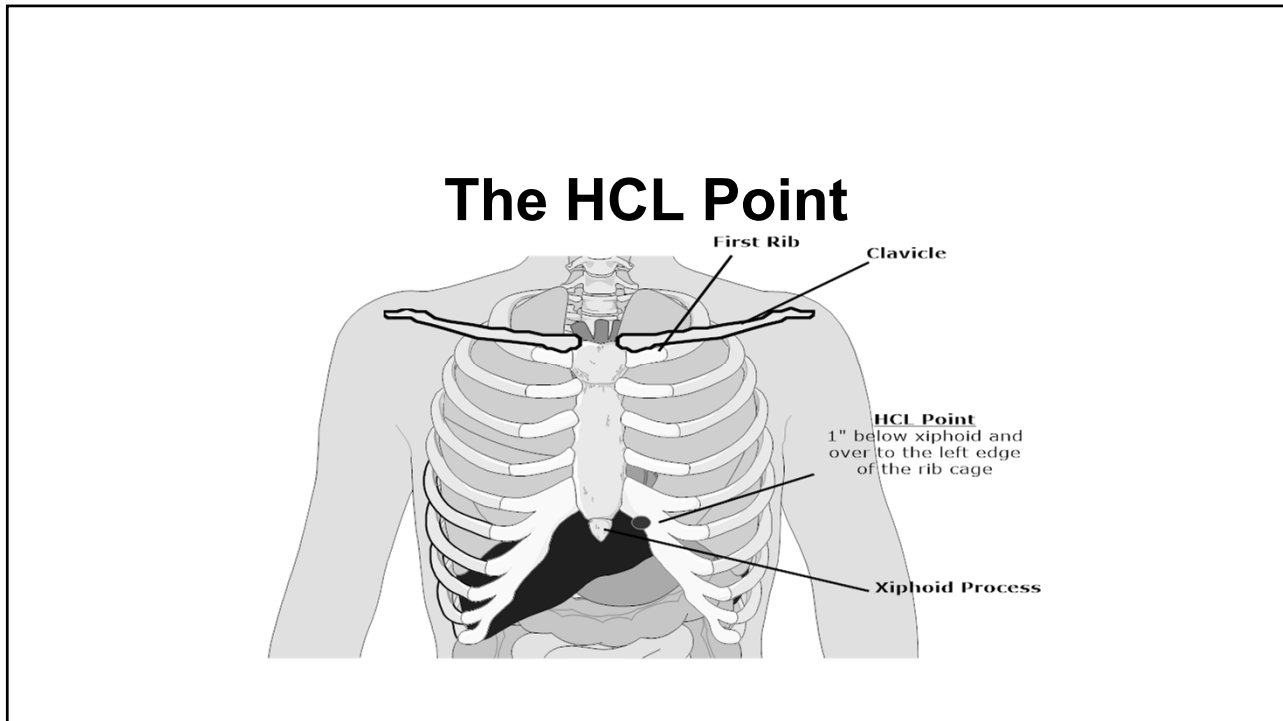
The Functional PE

Abdominal Examination

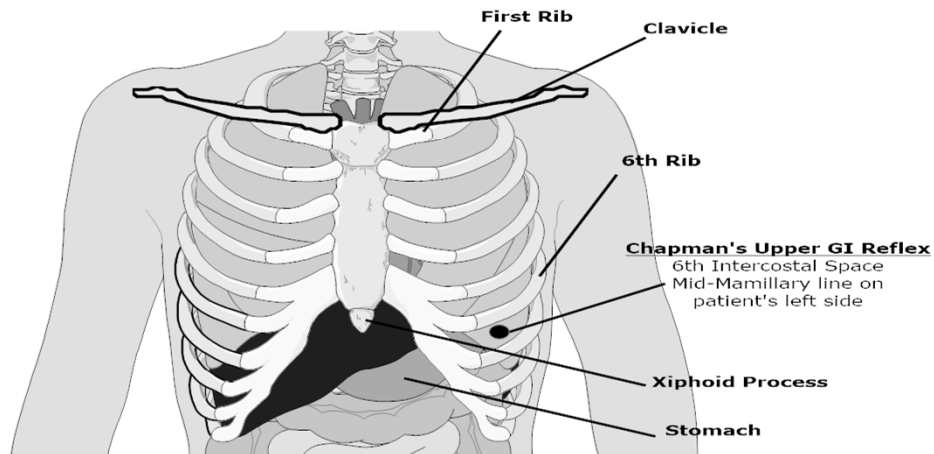
The Functional PE

- Equipment needed
- Patient presentation
- Initial Approach
- Sequence
 - Upper G.I. Reflexes
 - Hepato-Biliary (Liver Gallbladder) Reflexes
 - Large Intestine Reflexes





Upper GI Chapman's Reflex



In-Office Testing

In-Office Test

- Zinc Taste test

In-Office Lab Testing

- Check urine indican levels
- Check urine sediment levels

Blood Test Findings

- Suspect a hypochlorhydria when globulins start to climb above 2.8 or 28 g/L
- May also see a decreased total protein <6.9 or 69 g/L and/or a decreased albumin <4 or 40 g/L
- Likelihood increases with these findings:
 - Increased BUN (>16 or 5.71 mmol/L)
 - Decreased serum phosphorous (<3.0 or <0.97 mmol/L)
 - Decreased serum calcium (<9.2 or 2.3 mmol/L)
 - Increased MCV >90

Helicobacter pylori

H. Pylori - Symptoms

- Discomfort in the upper GI especially upper left quadrant discomfort
- Bloating
- Nausea
- Maybe even vomiting
- May have symptoms suggestive of an ulcer

H. Pylori Pattern

- An increased or decreased total globulin (>2.8 or < 2.4)
- Increased or decreased total protein (<6.9 or > 7.4)
- Increased or Decreased BUN (< 10 or >16)
- decreased serum phosphorous (<3.0)
- Increased WBC count (>7.5)
- Increased Neutrophils (>60)
- Decreased Lymphocytes (<24)
- Normal or Increased Monocytes (N or >7)

H. Pylori - Advanced FDM Testing

- Blood test to measure H. pylori antibodies
- Breath test
- The H. pylori stool antigen test
- CDSA
- **Allopathic Testing**
 - Endoscopy with tissue biopsy

Gastric Inflammation

Gastritis – S/Sxs

- (Very) frequent stools or normal stool frequency
- Weak appetite
- Epigastric pain
- Unexplained nausea
- Unexplained vomiting
- Fever: High/moderate/or slight
- Blood in the stool (end stage)
- Vomiting blood (end stage)

Gastritis – Blood Testing

- Decreased total globulin (<2.4 or 24 g/L)
- Decreased serum phosphorous (<3.0 or <0.97 mmol/L)
- Increased BUN (>16 or 5.71 mmol/L)
- Increased basophils (> 1)
- Increased ESR

Pancreatic Insufficiency – S/SX

- Loose watery stool
- Maldigestion
- Post prandial abdominal pain
- Stools with undigested food
- Acne
- Food allergies
- Hypoglycemic symptoms
- Abnormal weight gain, or more commonly, weight loss
- Gastroesophageal reflux
- Bloating
- Food intolerance

Pancreatic Insufficiency

- **Functional Physical Exam Findings**
 - Positive Ridel Pancreatic Enzyme
 - Positive Ridel HCL reflex
- **In-Office Lab Testing**
 - Elevated urine indicant
 - Elevated urine sediment

Pancreatic Insufficiency – Blood Findings

- Decreased Amylase - <28
- Decreased Lipase <22
- Decreased WBC count <5.5
- Decreased Albumin <4.0
- Increased Globulin >2.8
- Increased GGT >30

Pancreatic Insufficiency – Lab Findings

- **Advanced Lab Findings – Stool Analysis**
 - Decreased Pancreatic elastase
 - High fat in stool (steatorrhea)
 - Decreased Chymotrypsin

Dysbiosis

Dysbiosis/Bacterial Overgrowth – S/SX

- Unexplained abdominal symptoms
- Frequent stools
- Intolerance to sugar, starchy foods, fiber, or friendly flora supplements.
- General flatulence (usually odiferous)
- Bloating associated with eating
- Constant fatigue

Dysbiosis - Primary FDM Testing

- **PE Findings**
 - Generalized abdominal tenderness
 - Fungal/yeast infections on skin
 - White matter on TM

- **In-Office Testing**
 - Positive urine indican

Dysbiosis - Advanced FDM Testing

- Order Comprehensive Digestive Stool Analysis

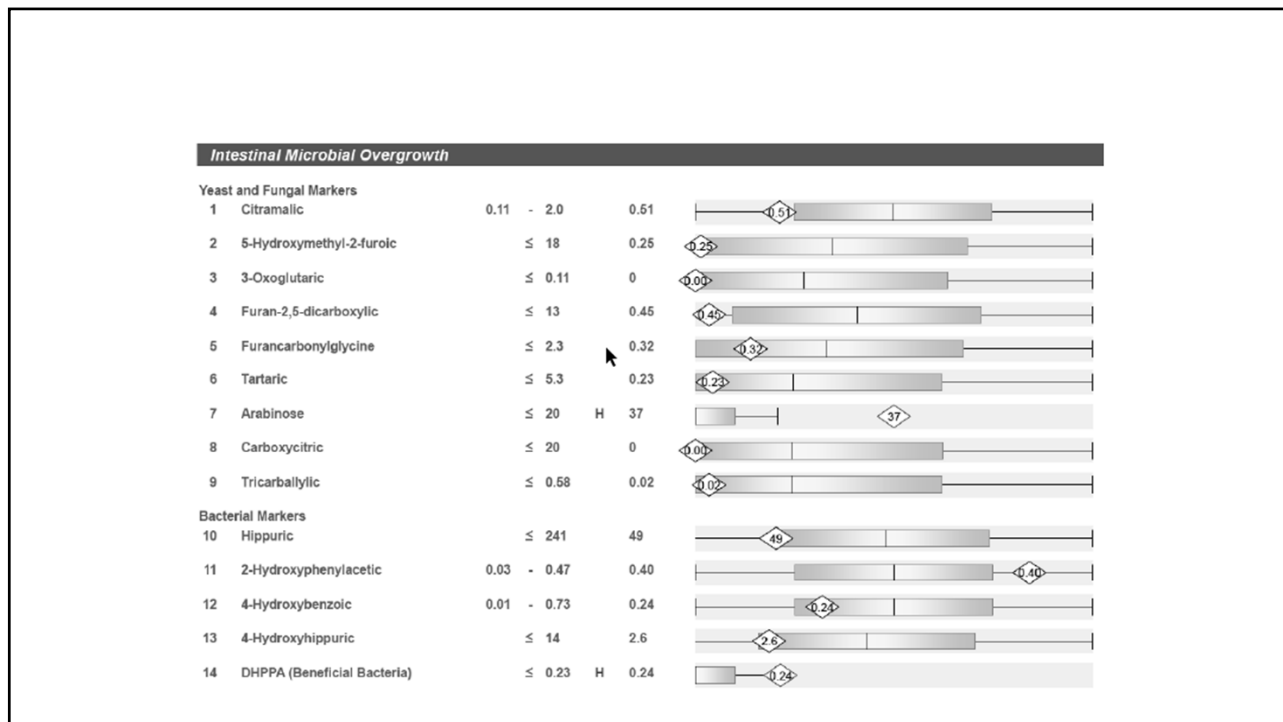
- SIBO Testing

- Organic Acid Testing
 - Yeast and Fungal Markers

 - Bacterial Markers

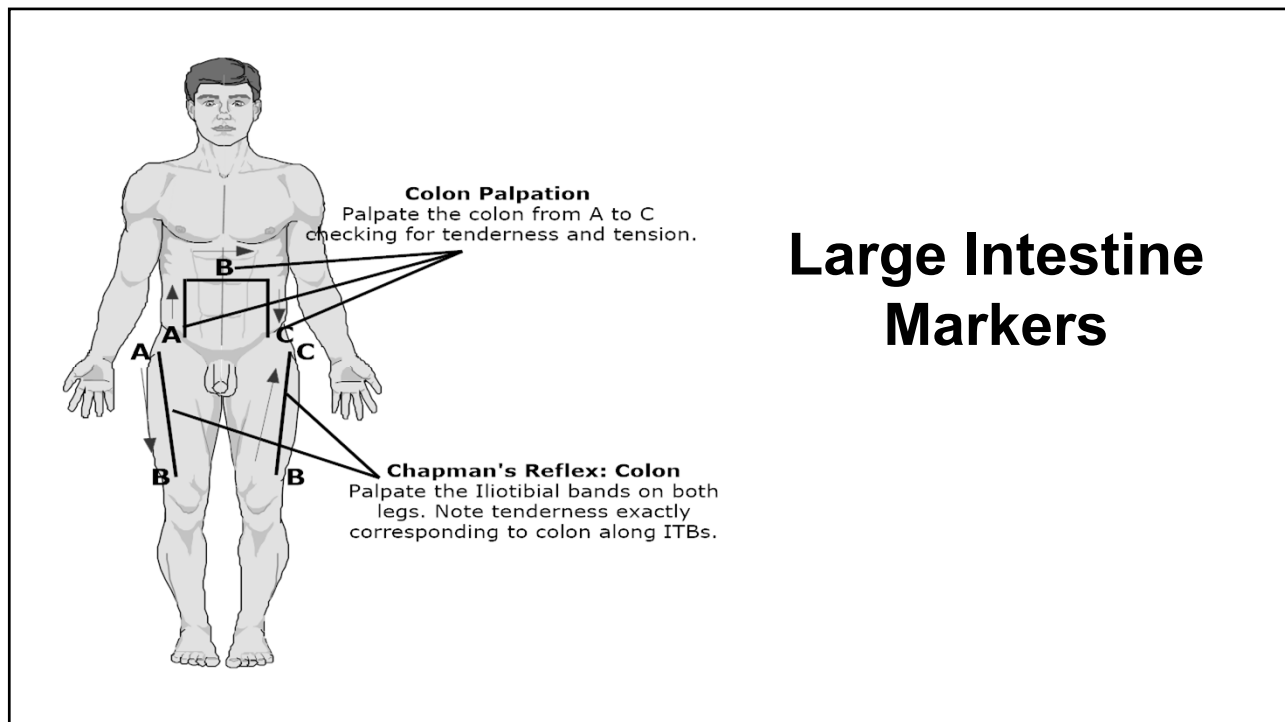
Functional Diagnosis of the GI

Dicken Weatherby, N.D.



Malabsorption & Intestinal Hyperpermeability – Signs and Symptoms

- Diarrhea
- Cramping
- Bloating
- Flatulence
- Weight loss
- Fat in the stool
- Allergies



Malabsorption & Intestinal Hyperpermeability

▪ In-Office Testing

- Increased urine indicant
- Elevated urine sediment

▪ Blood Testing

- Decreased BUN
- Iron Deficiency anemia
- B12/folate deficient anemia

Hepato-Biliary Dysfunction

Biliary Insufficiency and Stasis

Biliary Dysfunction: S/Sxs

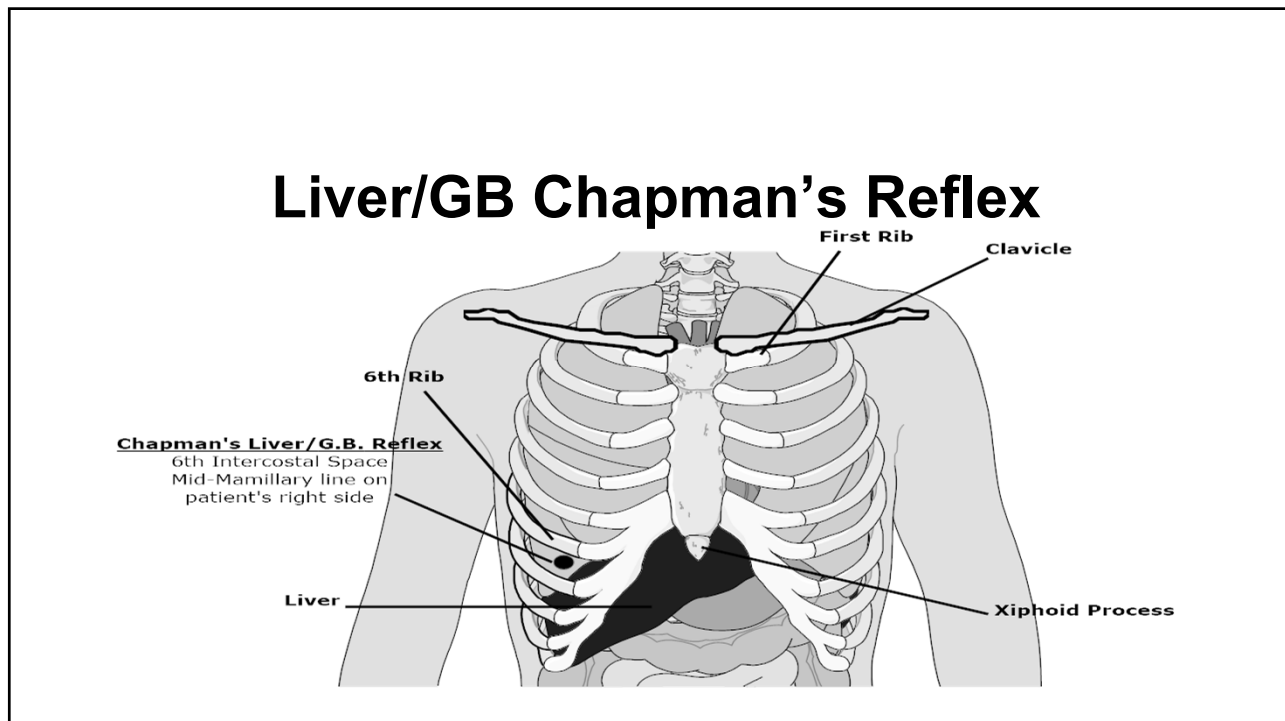
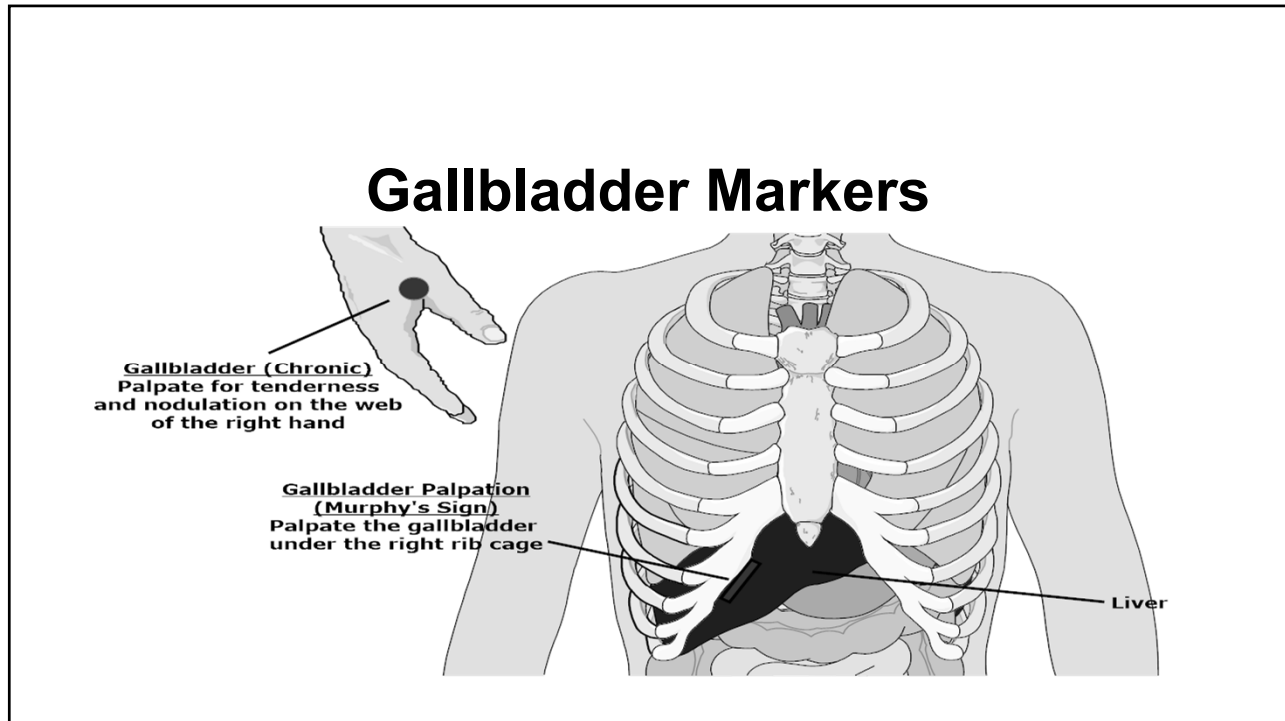
- Pain between shoulder blades
- Stomach upset by greasy foods
- Loose, bulky and offensive stools
- Greasy or shiny stools
- Nausea
- Sea, car, airplane or motion sickness
- History of morning sickness
- Light or clay colored stools
- Dry skin, itchy feet or skin peels on feet
- Headache over eyes
- History of gallbladder attacks
- Bitter taste in mouth, especially after meals
- Dark orange urine

Biliary Dysfunction: Nutritional PE

- Dry, scaly and hyperemic ear canal
- Dry skin and dry hair
- Red bumps on the elbow
- Follicular hyperkeratosis
- Clubbing of the fingers
- Steatthorea

Biliary Dysfunction: Functional PE

- Check for a positive Murphy's sign
- Check chronic gallbladder sign
- Check for tenderness in the Chapman reflex for the liver-gallbladder
- **Functional Urinalysis**
 - ☐ Increased urinary sediment levels



Biliary Dysfunction: Blood Test

▪ **Biliary insufficiency**

- Elevated total bilirubin (>1.2)
- Increased GGTP (>30),
- Increased SGPT/ALT (>30),
- Increased alkaline phosphatase (>100)
- Increased LDH (>200).

Biliary Dysfunction: Blood Test

▪ **Biliary stasis**

- GGTP levels will frequently be increased (>30) but not necessarily.
- Bilirubin levels will also be elevated (>1.2 or 20.5 $\mu\text{mol/dL}$)
- Increased alkaline phosphatase (>100)
- Increased total cholesterol (>220 or 5.69 mmol/L).
- SGOT/AST and SGPT/ALT may be normal or increased (>30).

Specific GI Conditions

- IBS
- GERD
- Crohn's Dz
- Diverticulitis/Diverticulosis
- Constipation/Diarrhea
- Ulcerative Colitis
- Inflammatory Bowel Disease

Summary