THE TRUTH ABOUT ANTACIDS

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WHY DO WE EAT?

- Chinese Saying: “Death begins in the Gut”
- To produce energy
- To provide building blocks
A HEALTHY GUT:

- Produces 15 quarts of gastric digestive juices
- Has a stomach pH of 2--2.2
- Has an intestinal pH of 6--6.6
- Has more cells of good bacteria than there are cells in the entire body (they weigh as much as the liver)
- Has a 12-18 hour transit time
INTESTINAL EPITHELIAL CELL
PROBIOTICS

- Manufacture & absorption of B vitamins
- Secrete antibiotics and maintain acid pH
- Stimulate secretory IgA
- Metabolize hormones, carcinogens, toxins
- Inhibit pathogenic organisms
- Evolved with humans for millions of years.
- Spatial exclusion of pathogens
GOOD FLORA, BAD FLORA

- Surface area of intestinal tract
- Numbers of cells
- Production of antibiotics
- Spacial competition
- Placement of nutrients in receptor cites for absorption
- Digestion of food
- Production of 1/2 of our Vitamins B6 and B12
- Comprise 40% of the immune system
- Stimulation of re-epithelialization of intestinal lining
- Maintenance of intestinal lining feeds cells
WHERE HAVE ALL THE FLORA GONE?

- Killed off by antibiotics used in meats, dairy
- Killed off by Round up in foods
- Killed off by chlorine in water
- Killed off by prescription antibiotics
- Killed off by PPI’s, H₂ blockers, etc.
- 56 BILLION units per day to reinoculate
ETIOLOGIES OF GASTRIC AND INTESTINAL EROSION AND GERD

- dairy product consumption, food allergies
- aging smoking
- medications
- past systemic & intestinal infections
- antibiotics
- H-pylori
- toxins in food & water
MORE CAUSES OF GERD & ULCERS

- dysbiosis - and pathogens
- LOW PROBIOTIC CELL COUNT
- processed foods
- GMO’s
- What and how we eat
- LOW STOMACH ACID PRODUCTION
- smoking
- STRESS
MAMMALIAN FACTOIDS

- Milk composition vastly differs species to species
- Digestive enzymes system for milk are also species specific
- In general mammals lose the enzyme system at triple their birth weight. Humans nurse longer.
- The enzyme system of American children is lost at Age 3; the rest of the world at age 5
- Humans are the only species that suckle from another species and to continue through adulthood.
- No other source on the planet for whey, casein, & lactose
Human milk is 80% whey and 20% curd. Cow’s milk is opposite and composed of different proteins.

Cow’s milk is high in protein, while human milk has one of the lowest concentrations of protein in mammalian milk.

Human milk is richer in essential fatty acids.

Cow’s milk is extremely low in iron and poorly absorbed because of binding.

Cow’s milk contains 300 times more casein than human milk.

Human milk has ¼ of the calcium of cow milk, yet more calcium is absorbed.
THE WRONG SUGARS

- Lactose
  - The gut lining shredder
  - Estimated that in even the most tolerant people lose 5 ml of blood due to micro-GI Bleeding
  - 90% African Americans and Asians are Lactose intolerant
  - 75% of the Human Race cannot digest Lactose
  - After the age of 3, humans no longer have lactase to digest dairy products
- Indigestible disaccharides in intestinal tract
  - Encourages bacterial growth
  - Increases food allergies
  - Contributes to IBD, IBS, gas, bloating, diarrhea, constipation
  - Raises insulin and promotes chronic insulin elevation
  - Increases mucus formation
DAIRY PRODUCTS IN CHILDREN

- Formula Fed Babies have Already Developed IgG’s to Bovine Proteins as Early as 3 Months Old 50% of US Children are Allergic to Milk

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- 50-60% Experience Gastrointestinal symptoms

- Leading cause of iron deficiency in children under the age of 5 years micro-GI bleeding Mutates the development of immune system in the intestinal tract
DAIRY & THE GASTROINTESTINAL TRACT

- All ulcerative conditions are exacerbated by dairy including UC, Crohn’s, oral ulcers, gastric ulcers
- Whey, Lactose, and Casein are undigested and become extremely erosive
- Milk causes rebound hyperacidity in the gut
- Erodes ulcers due to lack of glucosamine sulfate, a major protector
- Undigested disaccharides create a breeding ground for pathogens
- Combining Antacids and Dairy increases Alkalosis – Milk Alkali Syndrome
- Primary Cause of Acid Reflux and GERD
- High Dairy Intake During Childhood Increases the Risk of Colorectal Cancer in Adulthood
DAIRY AND THE GI TRACT

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INSULIN LIKE GROWTH FACTOR

- Has a Mitogenic Effect on the Bowel
- It is Not Protein Bound and Strong Enough to Act on Intestinal Cells Because it is Concentrated in that Area
- Causes Intestinal Microbleeds
In 1895, a Crohn’s-like disease began to appear in cattle.
- The etiological agent is called *Micobacterium Paratuberculosis*.

In Humans, Crohn’s causes the immune system attacks the lining of the gut to make deep ulcerations.

When humans are infected with the *Micobacterium Paratuberculosis*, it is in its cell wall deficient form so it cannot be stained.

4000% Increase in Crohn’s since the 1930s.

Milk stopped coming from single cows to giant pools of cows milk so the disease is spread.

Milk is believed to be main source of exposure to Tuberculosis.
CASEIN

- Casein Acts as an Enzyme Inhibitor
- Stimulate Intestinal Cell Growth...polyps and cancer
- From Early Lactation to Late lactation the ratio of whey to Casein changes
  - 90:10 → 60:40 → 50:50
- Whey : Casein Ratio Later in infant life would be 50:50, so compare that with 20:80 in cows!
- Casein glycoprotein from which waterproof industrial glue is made
- Casein sticks to inside of our guts surviving strong stomach acids and adheres to the upper end of the small intestine. Over time collects over the villi of the gut blocking absorption of nutrients
  - Undigested polysaccharides, cellulose, pathogens, dead cells, and debris glued into the diverticuli
SIDE EFFECTS OF PPI’S AND H₂ BLOCKERS

- Blocks the production of CoQ₁₀ in the liver
- Arthritis & Joint pain, muscle disease, skin rashes
- Malnutrition-decreased absorption of vital minerals, & B₁₂, & amino acids—osteoporosis, cardiac arrhythmias, mitochondria dysfunction syndrome, depression, MS, & MORE!
- Nausea, constipation, flatulence, diarrhea, bloating, abdominal pain, detrimental changes to stomach cells, Stomach and duodenal cancers
- HYPERGASTRINEMIA—10% of longterm PPI/H₂ blocker users
More side effects of these drugs

- Headache, drowsiness, confusion, fatigue, delirium, hallucinations, blurred speech
- Neuralgia
- Angina, MI’s,
- Gynecomastia in men, breast leakage in women
- Reduced sperm count, impotence in men
- Birth defects
- Kidney Disease
- Blood dyscrasias, neutropenia, thrombocytopenia
- Hepatic changes, elevated hepatic enzymes
CONSEQUENCES OF LONG TERM ANTACID USE

- Malnutrition--amino acids, Mg++, Ca++, K+, B12, FA--dysrhythmias, osteoporosis, neurological & brain dysfunction

- Compromised Digestive Enzyme Activity----gas, bloating, more malnutrition, poor carb metabolism, pancreatitis, thromboembolism,

- Susceptibility to Disease --increased infections-GI & systemic, increased damage from toxins, GI & systemic. Increased, not decreased allergic rxns, increased autoimmune diseases

- Increased risk of all cancer types
NUTRIENTS DEPLETED BY PPI’S

- Magnesium & calcium
- B12 & Folic acid
- Vit C & Vit E
- Zinc & potassium
- betacarotene
- Iron
- Chromium
DRUG INTERACTIONS OF PPI’S

- emtricitabine/rilpivi
WHAT HELPS?

- Sit up straight while eating & stay upright for one hour after
- Chew each bite 32, yes, 32 times
- Take digestive enzymes with or without Betaine HCl at the beginning of each meal
- Stress management and EXERCISE
- Eliminate Dairy products, nitrosamine/nitrite-containing foods, & carbonated beverages, sugar substitutes, SMOKING
- Avoid refined sugars & processed foods
- Food Combining
NUTRIENTS REQUIRED FOR INTESTINAL HEALTH

- High potency Multivitamin Mineral
- Anti-oxidants repair & protect gut lining, decrease inflammation, calms over active gut immune system
- Essential Fatty Acids reduces inflammation, necessary for repair of cell membranes
- Exercise-increases circulation to GI tract, peristalsis, production of enzymes & gastric juices, increases absorption of nutrients, enhances immune system
L-GLUTAMINE

- Amino Acid sugar
- Primary food for both nervous systems: Central & GI
- Impedes sugar and drug cravings
- Soothing to the whole intestinal tract
- 1,000 (1 scoop) to 4,000mg
Most people are deficient--Achieve Vit D3 levels of 50 to 75 ng/ml with Vit D drops 4,000-8,000 iu/day

Vit A 25,000 - 50,000 iu/day

Both are necessary for normal function & immune system of gut lining

Primary antioxidants for skin & mucous membranes

Both stimulate repair of intestinal lining repair Gap & tight junctions
—Most people with ulcers have a zinc deficiency or a zinc transport deficit in the intestinal tract. Zinc is imperative for maintaining healthy mucous membranes and skin but zinc carnosine is the only zinc form that inhibits the growth of H. pilori, reduces inflammation and heals the intestinal lining. Dosage is 75mg twice a day with meals.
<table>
<thead>
<tr>
<th>ENZYME/BETAIN</th>
<th>DOSAGES PER CAPSULE</th>
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<tbody>
<tr>
<td>Lipase</td>
<td>1,500 units</td>
</tr>
<tr>
<td>Amylase</td>
<td>6,500 units</td>
</tr>
<tr>
<td>Protease</td>
<td>386,500 units</td>
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<tr>
<td>Betaine HCL</td>
<td>162.5mg</td>
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<tr>
<td>L-Glutamic Acid</td>
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<tr>
<td>Ox bile</td>
<td>20mg</td>
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<tr>
<td>Gentian root</td>
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<tr>
<td>Pepsin (1-10,000</td>
<td>25mg</td>
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<tr>
<td>Papain</td>
<td>65 mg</td>
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<tr>
<td>Pancreatin 8X</td>
<td>32.5mg</td>
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<tr>
<td>Calcium</td>
<td>50 mg</td>
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<tr>
<td>Phosphorus</td>
<td>39mg</td>
</tr>
<tr>
<td>Chloride</td>
<td>60mg</td>
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ALOE VERA

- Soothes and promotes healing of the Gut lining---I’ve heard a certain KU professor quoted as saying Aloe is sort of, well, magical

- Regulates bowels
EFFICACIOUS HERBS FOR GERD

- Cabbage Leaf
- Marshmallow Root
- Slippery Elm Bark
- Fennel Seed
- Licorice Root
- Okra
- Wild Cherry Bark
Manuka Honey comes from the flowers of New Zealand’s Manuka bush. This type of honey is not harvested from the honey comb; harvesting from the comb reduces the honey’s effectiveness. The special antibacterial properties in this honey inhibit the growth of H. Pylori. The recommended dosage is one teaspoon of UMF Manuka Honey three times in tea or straight; it doesn’t work as well if it’s cooked into food. Other honeys, including non-UMF Manukas, don’t have enough antibacterial hydrogen peroxide to stop H. Pylori. For more about the antibacterial properties of UMF Manuka, see the infectious disease chapters. For a UMF Manuka honey with excellent antibacterial properties, try Pure Synergy.
The intestinal tract produces a lot of melatonin, which has been shown to help maintain the integrity of the intestinal lining by protecting the integrity of the intestinal living by enhancing submucousal blood flow and protecting it from irritation. Studies show that swallowing melatonin protects the intestinal tract from irritation and lesions caused by NSAIDS, such as Aleve (Naproxen), Celebrex and Ibuprofin. Melatonin may also help people with dyspepsia and irritable bowel syndrome. (from Mayo, find the studies.)

The problem is that many drugs and foods, such as dairy products and processed foods, reduce melatonin production, making the GI tract more vulnerable. Melatonin may also help people with dyspepsia and irritable bowel syndrome. (from Mayo, find the studies.)

For support of the gastrointestinal tract, we swallow the melatonin, rather than taking it sublingually, taking three mg of melatonin at bedtime. If this nighttime dosage is not sufficient, also add a dose in the morning. PMID: 11472247 [PubMed - indexed for MEDLINE]
Mastic gum is a resin from the stem and leaves of the evergreen *Pistacia lentiscus*. According to an article in December 1998 *New England Journal of Medicine*, taking mastic gum over a period of two weeks can cure peptic ulcers. Mastic gum has a property that’s similar to Carafate in healing ulcers: it covers and protects the ulcer site, acting like a bandage on the lesion. Dosage ranges from 1000-2000 mg twice a day in-between meals.

Mastic Gum kills H-pylori
HOMEOPATHY

Basic Indigestion:

Arsenicum—6 c up to 30c
Anacardum—6 c to up 30

For belching and indigestion
Argentrum Nitrate—6 c

For heartburn and bloating after you eat
Lycopodium—6 c

For indigestion and overeating
Nux Vomica—6c


5. Food Plague: Could our daily bread be our most life threatening exposure? 2013 Arden Anderson, D.O., M.S.P.H., Ph.D
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