

The Harmony of Digestive Function: Digestion Naturally

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Claude Bernard, a failed French music composer, vivisectionist and 19th century scientist, described the harmony of the human body. In the 20th century, medicine moved to take a focused approach on disease management, at the expense of considering the complex cascades of body function that are not readily amenable to simple interventions such as cutting, burning or drug poisoning. The gastrointestinal tract is one of the most complex orchestrations of synchronized events that occur from the lips of the mouth to the anus. From the harsh acid rains of the stomach to the warm fertile soup of the colon, the gut has amazing topography and different climatic zones. Just thinking about the functions of the stomach, in isolation of those of the liver and intestines, results in naïve treatments and major misconceptions about the management of gut disease.

Until recently, natural medicine did relatively little to make a major impact on gastrointestinal disorders, even though the commonest cause of digestive complaints are “functional” in origin. The concept of functional digestive disease involves the presence of significant gut symptoms in the absence of identifiable tissue changes, such as inflammation, ulcers or cancer. Peer review medical literature indicates that the two most common types of digestive upset, namely “functional dyspepsia” and “irritable bowel syndrome” (IBS), are better managed by natural means than by drugs or other allopathic interventions.

Functional gastrointestinal upsets are disorders of the “bodymind” or “mindbody” which are most responsive to self-realization by education and simple hypnotherapy or induction of relaxation responses. These days, we have mounting evidence that several nutrients, herbs or botanicals can go beyond soothing the gut to play a significant role in disease prevention and management. This emerging science is not consistent with regulatory opinions that dietary supplements cannot be used to prevent or treat any disease. That said, I am compelled to remind myself of this disclaimer.

In this short article, I shall review some novel and new approaches to the promotion of digestive well-being, without focusing upon the traditional and common natural approaches such as pooping for health or clinging to carminatives. Some of these innovative approaches to digestive health are reviewed in more detail in my book, “Digestion Naturally”, Wellness Publishing, Little Falls, NJ, 2006.

The Mouth and Esophagus

Oral health is mandatory for general health. Poor dental hygiene is associated with many diseases including but not limited to, cardiovascular disease, poor general nutrition and functional dyspepsia. Arguments prevail about the dirty mouth as a source of toxins and mercury amalgams are best avoided. The use of sugar substitutes, such as xylitol or erythritol, etc. can diminish tooth decay. A novel approach to oral bio-cleansing is the use of papaya enzymes, placed in a sticky matrix of gel, with or without antioxidants (green tea and vitamin C) to digest plaque. Intermittent use of these novel cleansing techniques can complement other approaches to dental hygiene.

The esophagus provides a conduit from the mouth to the stomach and it is the seat of heartburn which is most often related to the reflux of acid from the stomach GER into the lower gullet. Some practitioners of natural medicine are misguided in their belief that acidic substances, such as apple cider vinegar, are valuable in the management of common GER. Alkaline reflux is uncommon. Further, the idea that licorice, in any form is effective for dealing with reflux or esophagitis, does not have scientific support. Reflux (backwash of acid, from stomach into esophagus) causes intermittent heartburn and many millions of people and this symptom is highly responsive to acid neutralization (antacids) or reduction in acid secretion (antiacids, eg. Prilosec® or other proton pump inhibitors or H-2 receptor antagonists, eg. Tagamet®, Zantac®, Pepcid®). Practitioners or natural medicine argue strongly about the negative consequences of the long term, potent, suppression of acid secretion, with variable support for their notions.

Nutrients and botanicals exist with actions similar to over the counter antacids, eg. fava bean flour and there are botanical extracts that have acid suppressing properties by a mechanism of proton pump inhibition, eg. ellagic acid. One patent pending supplement has a bi-modal effect on stomach acid by providing immediate acid neutralization with USP standardized fava bean flour and delayed inhibition of acid secretion with the proton pump inhibiting actions of substantial amounts of ellagic acid. This nutraceutical approach reproduces the pharmaceutical approach of combining a mineral antacid with an H-2 receptor antagonist (cf Pepcid Complete®). This innovative approach requires validation and direct comparison with drug approaches in humans, but the cost of this research may be prohibitive.

Esophageal cancer originates often in the lower esophagus as a consequence of change of lining cells (metaplasia, Barret's Esophagus). I believe that this cellular change may be influenced favorably by antioxidants. How clever is nature when it provides antioxidants that suppress acid secretion?

Stomach

The stomach is a storage organ that is not the seat of absorption of nutrients. It delivers predigested food to the small bowel in a controlled manner. The hostile climate of the stomach can destroy probiotics and digestive enzymes. In addition, it may render some nutrients inert, eg. Omega-3 Fatty acids in fish oil. Therefore, the fish oil preparations of choice are enteric coated in order to avoid damage by stomach acid and result in delivery to the small bowel where maximum absorption occurs. This novel formulation may result in up to three times greater absorption of essential omega-3 fatty acids, eg. EPA and DHA.

The terminal portions of the stomach are the common site for Helicobacter pylori infection. This bug causes duodenal and gastric ulcer. The oral administration of colloidal silver that is augmented with essential oils and natural substances that break the mucus barrier may result in eradication of this organism, but more research is required and drug claims are to be avoided. Removal of H. pylori cures most common peptic ulcers.

One of the biggest enemies of the stomach (and the remainder of the lining of the entire digestive tract), are non-steroidal anti-inflammatory drugs (NSAID), including aspirin. The use of natural products to support bone and joint health and topical rubs for

joint pain may reduce the need for NSAID. This is a major advantage of dietary supplements because NSAID are the commonest cause of all adverse drug reactions and these drugs cause peptic ulcer, upper and lower digestive bleeding (sometimes life threatening), liver and kidney problems and some of them carry the newly found legacy of stroke and heart attack risk. The use of natural substances to support the regeneration of the digestive lining (eg. glutamine and omega-3 fatty acids) is under applied in medical practice.

Intestines and Colon

Digestive enzymes and probiotics are important dietary supplements with far reaching health consequences. The modern gastroenterologist will not acknowledge the benefit of digestive enzyme supplementation in the absence of known deficiency of these enzymes (eg. chronic pancreatitis). Digestive enzymes do facilitate the assimilation of nutrients by the body and their deficiency is much more common than hitherto recognized. Probiotics should be accompanied by prebiotics so that implantation of friendly bacteria in the lower bowel can exercise far reaching, beneficial consequences (eg. promotion of immune function, prevention of colon cancer or colonic infections and assistance with digestive upset in individuals with AIDS, etc.). Very complex mixtures of probiotics may not be any more beneficial than good old standards (eg. *Lactobacillus acidophilus*).

Peer review medical literature defines the clear anti-inflammatory benefits of omega-3 fatty acids in fish oil. Controlled clinical trials show benefits of enteric coated fish oil capsules in the management of inflammatory bowel disease (eg. ulcerative colitis and Crohn's disease). These benefits are described only with the use of enteric coated fish oil. The same cannot be said of regular fish oil capsules or liquids and the dietary supplement industry should understand, once and for all, that botanical sources of precursor omega-3 fatty acids (eg. flax) are not reliable sources of active omega-3 fatty acids, because of common impairment of their conversion.

The colon can be damaged by strong purgative laxatives and single supplement products such as Senna or Cascara should be discarded or used infrequently. Complex herbal formulations with gentle colon cleansing actions and detoxifying benefits are to be preferred, especially when they use simple osmotic laxative effects of magnesium. I believe that colon cleansing is a healthy practice and it deserves the description as "a Royal pathway to health", even though the French aristocracy have been accused of colonic perversion.

Conclusion

The acts of swallowing and colonic evacuation are "prime pleasures of life" (Winston Churchill). Claude Bernard has great reason to have a posthumous smile. The harmony of the digestive tract is part of a greater biosphere of activity (Gaia Guts) and its functions will not respond to simple interventions. The reader must reflect on the disincentive that a consumer has to purchase separate probiotics, prebiotics, enzymes, regenerative nutrients and detoxifiers. Modern cost effective nutraceuticals combine

multiple modalities of action. The medical wheel has turned and natural medicine emerges with new found strength in the promotion of gastrointestinal health.

References:

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