

## what is heartburn/GERD

pain!

### pain with *causes*

joe on the street will tell you that the cause is "too much acid", but there's not a scientist who thinks that.

### pain with *complications*

Recent studies also show that the damage from poor stomach function and GERD not only extends upward to the sensitive esophageal lining, but also downward through the digestive tract, contributing to Irritable Bowel Syndrome (IBS) and other gastrointestinal problems. IBS is now the second-leading cause of missed work, behind only the common cold.

## what's the story on acid?

*Americans spent $13billion on acid blocking meds in 2006.*
*(that's 8 hubble telescopes with $625M leftover.)*

### stomach acid is essential for:

### digestion and absorption of nutrients

### stimulates pepsin (digestive enzyme)

Decreased acid levels can also cause digestive problems further on down the line. Pancreatic enzymes, bicarbonate and bile are all released in the small intestine in response to the acidic load that normally leaves the stomach.

### kills germs/pathogens

### low levels of stomach acid can lead to almost any ailment because of the resulting *malnutrition*

Without acid and enzymes, digestion continues to degenerate, resulting in a far less than optimal nutritional gain from your food and potentially damaging byproducts. The pH, now off in the entire digestive tract, damages the environment for billions of normal/good bacteria, critical to proper digestion and good health.

## what's really happening?

In a recent editorial published in the journal Gastroenterology, the author remarked:

*Treating gastroesophageal reflux disease with profound acid inhibition will never be ideal because acid secretion is not the primary underlying defect.*

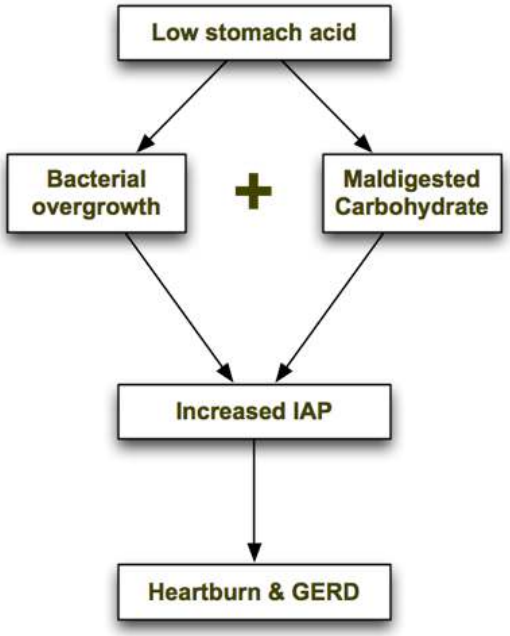
http://www.natap.org/2009/HIV/070409_02.htm

## it's not too much acid: it's too little!

too little acid allows bacterial overgrowth and poor nutrition, concentrates acid production at the top of the stomach.

PLUS excessive carbohydrates in the diet ferment, causing pressure, and is unnourishing, which cycles back into too little acid.

LEADS TO sphincter malfunction due to pressure caused by fermentation





## how do we fix it?

digestive anatomy – mouth (salivary enzymes), stomach (HCl, pepsin), liver (1000 jobs!), gall bladder (bile), pancreas (enzymes), small intestine (folds & villi), large intestine / biota

## reducing the acid

this is the standard pharmaceutical/medical approach, however, this is only ever going to make the situation worse. reducing the acid may make the esophagus feel better in the short term (or it may not!), but in the long term it is causing the problem to actually WORSEN, which means that with these medications, we are CREATING the complications of GERD.

## garbage in, garbage out

no, really, you are what you eat. there's nothing else that makes up your body. well, you are what you *assimilate*. Hippocrates said "all disease begins in the gut." it reaches all the way up to mood/mental disorders.

### food is the cause of almost all digestive disorders

### fix the diet, fix the problem

modern diet meets taste requirements, not nutrition requirements.
"but, my diet is normal!" normal compared to what?

### traditional nutrition

### food allergies/intolerances

your gut a part of immune system; barrier. IgA immune cells = gut intolerance. (IgE = hives/anaphylaxis. IgG = blood evidence.) gluten, casein, soy, corn, egg, yeast. food journaling, elimination/re-challenge.



## probiotics

gut flora: digest carbs & fats, synthesize B / K, immune function

## enzymes & supplements

bromelain, quercetin, HCl, etc.

## eating habits

mastication (70% digestion in mouth), sit at a table, focus on food when you eat.
eat mindfully. food journaling.
in the modern food environment, cravings need to be interpreted: wanting salty :: wanting minerals, not wanting doritos. our trust of sweet turned against us; bitter deficiency syndrome. etc.

## herbal remedies

if you use herbs but don't fix the other stuff, you're not actually fixing the problem.



## materia medica

ginger (zingiber off.) – fresh: diffusive, limbs; dried: warming, core. candied for nausea. cf. fennel.

turmeric (curcuma longa) – anti-inflammatory, digestive, cholagogue, stomachic / hepatic.

catnip (nepeta cataria) – nervine, stomachic. for anxiety in stomach (butterflies) rising into chest. playfulness via relaxation.

st john's wort (hypericum perforatum) – sedative, anti-inflammatory, astringent, hepatic. tea is best. works like an SSRI (remember the receptors in the stomach).

calamus (acorus calamus) – a warming bitter! chew the roots. bitter, carminative, amphoteric for stomach acid levels, stimulates appetite, anti-anxiety; good for "nervous stomach" and motion sickness. and more—see Jim McDonald's article: herbcraft.org/calamus.html

centaury (centaurium erythraea) – bitter, alterative, stomachic – strengthens stomach function, digestive fluids all the way through. stimulates the appetite.

slippery elm (ulmus rubra) – powder, draw moisture (diarrhea); tea, add moisture (constipation).

marshmallow root (althaea off.) – demulcent to entire digestive tract, end to end.

maitake (grifola frondosa) / shiitake (lentinula edodes) – demulcent, nutritive. settling and grounding.

Iceland moss (cetraria islandica) – a lichen. demulcent, bitter, antimicrobial. make jelly gruel for convalescents.

yellow dock (rumex crispus) – hepatic, bitter, cholagogue, laxative.

## recommended reading

http://chriskresser.com/heartburn
*Why Stomach Acid Is Good For You*, Jonathan Wright, MD and Lane Lenard PhD

## herb sourcing

www.mountainroseherbs.com