Tecaya Health
Larrea Naturopathic Medicine

PATIENT EDUCATION

PROTECTING YOUR GUT LINING

Emulsifiers, heartburn & gastritis, and how to help your lining repair

The big idea: Your esophagus, stomach, and intestines are protected by a thin coat of mucus. Common food additives called emulsifiers may wear down that coat. Removing them, and giving your body the right building blocks, gives the lining a chance to heal.

YOUR GUT'S PROTECTIVE COAT

From top to bottom, your digestive tract is lined with a protective barrier:

Esophagus

A mucus film from saliva and glands helps the tissue tolerate occasional acid.

Stomach

A thick mucus-and-bicarbonate gel keeps the stomach from digesting itself.

Intestines

A mucus layer keeps bacteria at a safe distance, and "tight junctions" seal the gaps between cells.

When this barrier thins, the tissue underneath becomes irritated. You may feel burning, reflux, bloating, nausea, or new food sensitivities. Doctors call this **gastritis** (stomach inflammation), **gastropathy** (stomach lining injury), or **esophagitis** (esophagus inflammation).

HOW EMULSIFIERS MAY DAMAGE THE LINING

Emulsifiers keep oil and water from separating. They make processed foods smooth, creamy, and shelf-stable. They work a bit like a mild detergent, and your gut's mucus layer is a gel that detergents can disrupt.

Animal Studies

Two common emulsifiers (CMC and polysorbate 80) thinned the gut's mucus layer, let bacteria move closer to the gut wall, and caused low-grade inflammation.

Human Study

Healthy adults eating CMC had changes in their gut bacteria and fewer protective short-chain fatty acids.

Population Studies

People eating more emulsifiers had higher rates of heart disease and diabetes. This shows a link, not proof of cause.

Honest note: Most emulsifier research looks at the intestines, not the esophagus or stomach. The connection to heartburn and gastritis is a reasonable, clinically observed link, but it hasn't yet been proven in human trials. Removing emulsifiers is low-risk and often helps.

TOP 6 ADDITIVES TO AVOID

Check ingredient labels for these, listed from strongest to weakest evidence.

#	Ingredient	Also listed as	Where it hides
1	**Carboxymethylcellulose**	Cellulose gum, CMC, E466	Ice cream, sauces, dressings, gluten-free baked goods
2	**Polysorbate 80 (and other polysorbates)**	E433, polysorbate 60	Ice cream, pickles, sauces, some vitamins and supplements
3	**Carrageenan**	E407	Non-dairy milks, creamers, deli meats, some yogurts
4	**Mono- and diglycerides**	E471	Packaged bread, margarine, peanut butter, baked goods

#	Ingredient	Also listed as	Where it hides
5	**Maltodextrin***	Corn/wheat maltodextrin	Chips, sports drinks, protein powders, supplements
6	**Xanthan gum and added gums**	E415, guar, gellan	Gluten-free and "keto" products, dressings

Maltodextrin is technically a thickener, not an emulsifier; animal studies suggest it weakens the mucus barrier.* ***Evidence of harm in adults is limited; avoid as a precaution.*

OTHER THINGS THAT DAMAGE THE LINING

Healing is much harder if the lining keeps getting injured. Avoid or cut back on:

Alcohol

Directly irritates the stomach lining, relaxes the valve that keeps acid down, and makes the gut more "leaky." **Avoid it completely while healing.**

NSAIDs

Ibuprofen, naproxen, and aspirin are a leading cause of stomach irritation. Ask us about alternatives, and don't stop a prescribed aspirin without talking to your doctor.

Ultra-Processed Foods

Artificial sweeteners, refined seed oils, added sugars, and artificial dyes usually travel with emulsifiers.

Glyphosate (Roundup)

May harm gut bacteria and the gut barrier (mostly animal and lab evidence). Buy organic oats, wheat, beans, and especially almonds and almond flour.

Late Eating & Smoking

Eating late at night and smoking both make reflux and lining irritation worse.

Chronic Stress

Stress weakens the gut's defenses. Vagus nerve exercises like slow breathing, humming, and gargling can help.

YOUR HEALING SUPPORT

These products provide ingredients that soothe the lining, supply repair building blocks, and rebuild a healthy microbiome.

Codeage Sea Moss Wildcrafted

Typical dose: 2 capsules daily with water, or as directed.

Also contains spirulina and black pepper extract (to improve absorption).

Sea Moss (Irish moss)

How it helps: Rich in gel-forming fibers that coat and soothe irritated tissue, plus trace minerals.

Caution: Sea moss naturally contains some carrageenan (see the note below).

Bladderwrack

How it helps: Contains fucoidan, which protected the stomach lining and blocked H. pylori from attaching in lab and animal studies. Brown seaweeds also contain alginate, which can form a protective "raft" over stomach contents.

Caution: High in iodine. Tell us if you have a thyroid condition or take thyroid medication.

Burdock Root

How it helps: Provides inulin, a prebiotic fiber your good bacteria turn into butyrate (fuel for gut cells). Also has anti-inflammatory plant compounds.

Caution: Inulin can worsen bloating if you have SIBO. Avoid if allergic to ragweed or daisies.

Wait, doesn't sea moss contain carrageenan?

Yes. Carrageenan is taken from sea moss. The main concern is the refined, purified additive, which is added to many processed foods and can be eaten several times a day. The most harmful form, called "degraded" carrageenan, is made with acid and heat and is not allowed in food. Some researchers believe the food-grade additive may still irritate the gut.

Whole sea moss has carrageenan in its natural form, bound together with fiber, minerals, and plant compounds, and a capsule provides a much smaller amount. We believe this is likely gentler on the gut, but it hasn't been tested head-to-head in studies. Bladderwrack is a different (brown) seaweed and contains no carrageenan.

If you have Crohn's disease or colitis, or your symptoms get worse, sea moss may be a culprit. Let us know; we have other soothing options.

Researched Nutritionals RenewGut Thrive

Typical dose: 5 capsules first thing in the morning with food, or as directed.
Also contains collagen, DGL licorice, luteolin, and Akkermansia (a beneficial mucus-layer bacterium).

Zinc Carnosine

How it helps: Sticks to damaged spots in the stomach lining, stimulates repair, protects cells, and has activity against H. pylori. Approved as an ulcer medication in Japan; human studies support its use.

N-Acetyl Glucosamine (NAG)

How it helps: A building block for mucin, the protein that gives your gut's mucus layer its protective gel.

Black Cumin (Nigella sativa)

How it helps: Its compound thymoquinone calms inflammation, increases protective mucus, helps settle overactive mast cells, and is active against H. pylori.

Tributyrin

How it helps: A stable form of butyrate. Butyrate feeds the cells lining your colon, strengthens tight junctions, and helps build the mucus layer. Strong evidence for lower-gut healing; benefit for the stomach and esophagus is likely indirect.

Caution: Not for use if you are pregnant or may become pregnant.

YOUR 5-STEP PLAN

1	**Remove**	Emulsifiers, ultra-processed foods, glyphosate-heavy crops, alcohol, and unnecessary NSAIDs.
2	**Soothe & Repair**	Take your gut-lining supplements as directed.
3	**Rebuild**	Aim for about 30 grams of fiber daily from vegetables and raw nuts and seeds, as tolerated.
4	**Nourish**	Grass-fed meat, organic poultry, and organic cultured dairy (skip dairy if you have SIBO).
5	**Don't Stress**	Do the best you can. Progress, not perfection.

WHEN TO CALL US

Call us or seek care promptly if you have:

- Trouble or pain with swallowing
- Vomiting blood, or material that looks like coffee grounds
- Black or tarry stools, or unexplained anemia
- Unintended weight loss
- Heartburn lasting more than a few weeks, or new symptoms after age 50

Long-term reflux can change the lining of the esophagus. Testing for H. pylori is often a good idea.

This handout is for educational purposes and is not a substitute for individualized medical advice. Please tell us about all medications, supplements, and health conditions before starting.

Tecaya Health | Larrea Naturopathic Medicine · 1601 N. Tucson Blvd., Suite 8, Tucson, AZ 85716 · 520-222-6208 · tecayahealth.com