GASTROINTESTINAL HEALTH

Glutathione
- Counteracts oxidative stress in the intestinal mucosa (gut wall);
- Recycles antioxidants such as vitamins C & E.1,2,3

Selenium
- Cofactor to glutathione peroxidase (GPx), which protects intestinal wall from inflammatory damage;
- Lower GPx activity due to selenium deficiency is very common in people with gut inflammation.3,4,5

Glutamine
- Preferred fuel for enterocytes (small intestine cells), which use the most glutamine in the entire body;
- Keeps the junctions between intestinal epithelial cells tight so foreign proteins cannot enter bloodstream.6,7,8

Zinc
- Decreases intestinal permeability;
- Maintains integrity of intestinal wall, especially when inflammatory chemicals (TNFα) compromise epithelial lining;
- Works with vitamin A in regenerating cells that line the gut.9,10,11

Vitamin A
- Regulates growth of epithelial cells, including those that line the gastrointestinal (GI) tract;
- Reduces inflammatory proteins in the gut.12,13

Vitamin C
- An inflamed gut uses up the antioxidant vitamin C faster than a healthy gut;
- Promotes tissue healing in GI tract;
- Reduces gastrointestinal inflammation.14,15

Vitamin D
- Keeps gut flora healthy by protecting good bacteria;
- Activates adaptive immunity that originates in GI tract;
- Promotes gut barrier integrity;
- Deficiency linked to inflammatory bowel disease flare-ups.16,17,18

Vitamin K
- Synthesized by intestinal bacteria;
- Deficiency common in chronic GI disorders;
- Bone demineralization that occurs with inflammatory bowel diseases (Crohn’s, etc) is caused by vitamin K deficiency since it is a required cofactor for bone formation.19,20

Vitamin B12
- Improves gastrointestinal complaints in some patients with dyspepsia (indigestion);
- Antacids deplete B12.21,22

Additional nutrients affect gastrointestinal health. This list is non-exhaustive.
REFERENCES


15. 29. Mackay J, Bladon P. Hypomagnesaemia due to proton-pump inhibitor therapy: a clinical case series. QJM. 2010;103:87-95.