

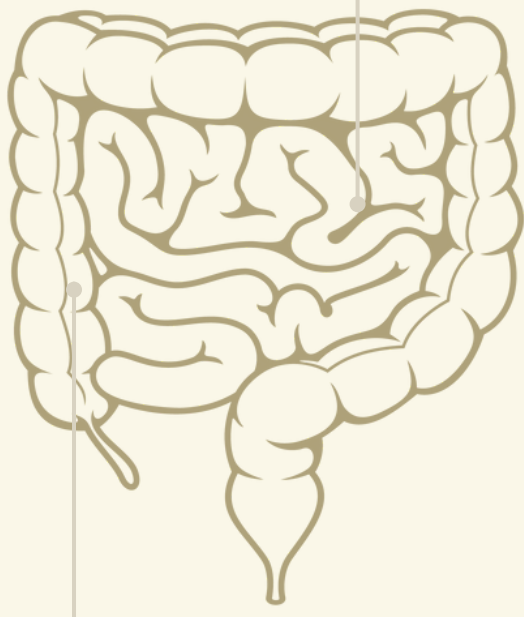


LINDGREN
functional medicine

THE GUT MICROBIOME

the ecosystem of microbes in your gut

microbial overgrowth in the small intestine (SIBO) can cause bloating & other IBS symptoms



most colonize in the large intestine, where they influence your digestion, immune system, & brain

ROLES OF GUT MICROBES

- influence gut permeability & motility
- break down macromolecules
- produce vitamins & short chain fatty acids
- regulate immune function
- compete with pathogens
- influence mood & mental health
- synthesize neurotransmitters
- regulate appetite
- influence adiposity & insulin sensitivity
- regulate energy metabolism
- interplay with hormones
- modulate inflammation

there is a wealth of research supporting probiotic supplementation, just understand that the benefits are strain-specific & transient

HOW TO NURTURE

- SEED** happens in infancy, probiotics you consume as an adult do not colonize
- FEED** with prebiotics from 30 different fruits & vegetables each week
- WEED** unwanted species by limiting sugar & junk food

think of it like a garden: you want a balance of beneficial species (and no weeds)

FERMENTED FOODS

- sauerkraut
- kimchi
- lacto-fermented veggies/pickles
- yogurt/kefir
- kombucha/water kefir

PREBIOTIC FRUITS & VEGETABLES

- leafy greens
- crucifers (broccoli, cabbage, etc)
- garlic/onions
- bananas/plantains
- mushrooms

HEALTHY FATS

- avocados (and oil)
- olives (and oil)