

# CHECK UP & TUNE IN

## DIGESTIVE HEALTH AND CHRONIC DISEASE

Dysfunction in the digestive system plays a critical role in chronic disease, sometimes in ways that we don't yet understand. It is multifaceted and complex. What we do know is that there is an intricate relationship between chronic disease and gut bacteria. Studies show that an imbalance of gut flora, specifically an overgrowth of harmful bad bacteria, is related to inflammatory bowel diseases, obesity, diabetes, liver disease, heart disease, cancer, and more. Nourishing the digestive system and creating an environment for good bacteria to flourish is a great starting point to care for overall health.

Here is a glimpse of how digestive health influences some common chronic diseases.

### Inflammatory Skin Disease & Psoriasis

- The way that gut bacteria interact with specific immune cells is related to psoriatic lesions.
- Gut inflammation affects the health of the epidermal barrier.
- Alterations in gut flora are linked to seborrheic dermatitis, acne, and eczema.

### Arthritis & Osteoarthritis

- Specific gut microbes, normally rare in a healthy adult, are found expanded in those with rheumatoid arthritis.
- Harmful pro-inflammatory bacteria in the gut contribute to joint inflammation.

### Liver Disease

- Non-alcoholic fatty liver disease and liver cirrhosis may be caused by alcohol-producing gut bacteria.

### Colon Cancer

- Toxins produced by bad bacteria in the colon damage DNA increasing the risk of colon cancer.
- Bacteria *F. nucleatum* was found in tumours in the colon and rectum.

### Cognition & Mental Illness

- 95% of the neurotransmitter serotonin is produced in the gut.
- Vagus nerve serves as a communication pathway from the gut to the brain.
- Imbalanced gut bacteria is linked to several mental health issues, including anxiety, depression, and mood disorders.

### Heart Disease

- Bad bacteria found in the gut convert common dietary fats to a byproduct that increases the risk of heart disease.
- The measure of arterial plaque is higher in those with a lower diversity of gut bacteria.

### Gastrointestinal Disease

- Common digestive disorders are linked to an imbalance of good bacteria and compromised digestion: IBS, Colitis, Crohn's Disease, acid reflux, stomach ulcers, chronic constipation, diarrhea.

### Diabetes & Insulin Resistance

- A high fibre diet feeds healthy gut bacteria, which helps to control blood sugar and body weight.
- Pathogens in the gut can contribute to autoimmunity and pancreatic cell function. A poor balance of good bacteria may contribute to diabetes.

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