

Getting Your Gut What It Needs: A Post-Cancer Treatment Guide

Presented by Alison Ellis, MSc., RD

InspireHealth Supportive Cancer Care

Overview

- Introduction to InspireHealth
- Overview of our digestive system and digestive process
- Importance of our gut
- Gut microbiome
- How treatment can impact our gut health
- Nutrition strategies to support our gut health and promote a healthy microbiome

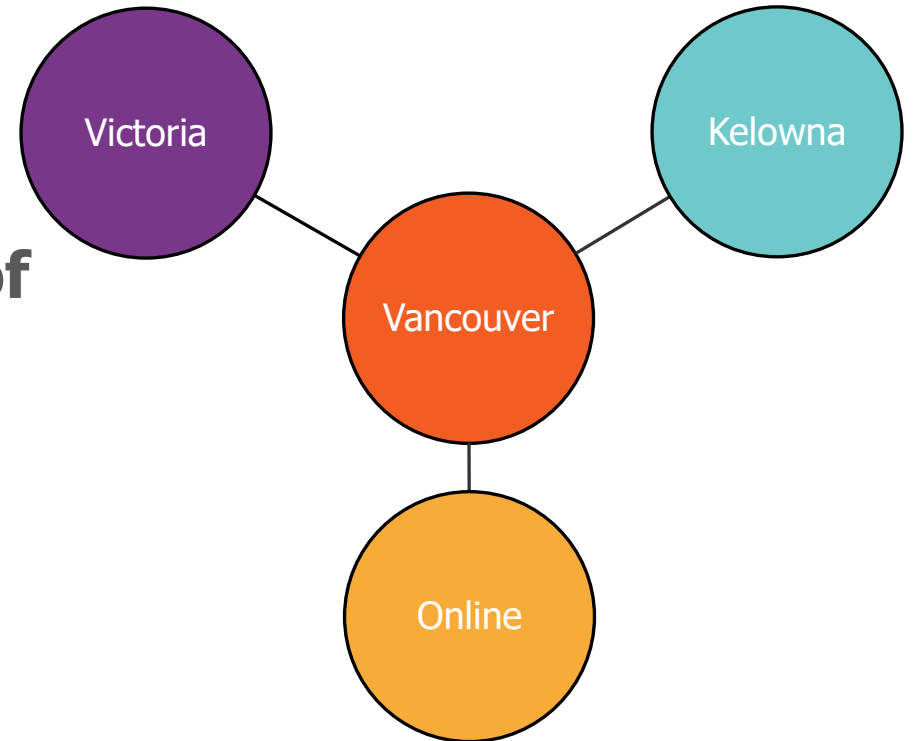
InspireHealth Supportive Cancer Care

- We offer guidance and support for **people with cancer** – or those at high genetic risk – and their **support people**.
- Our programs and services emphasize evidence-based lifestyle approaches that **enhance the quality of life** of adults with cancer.

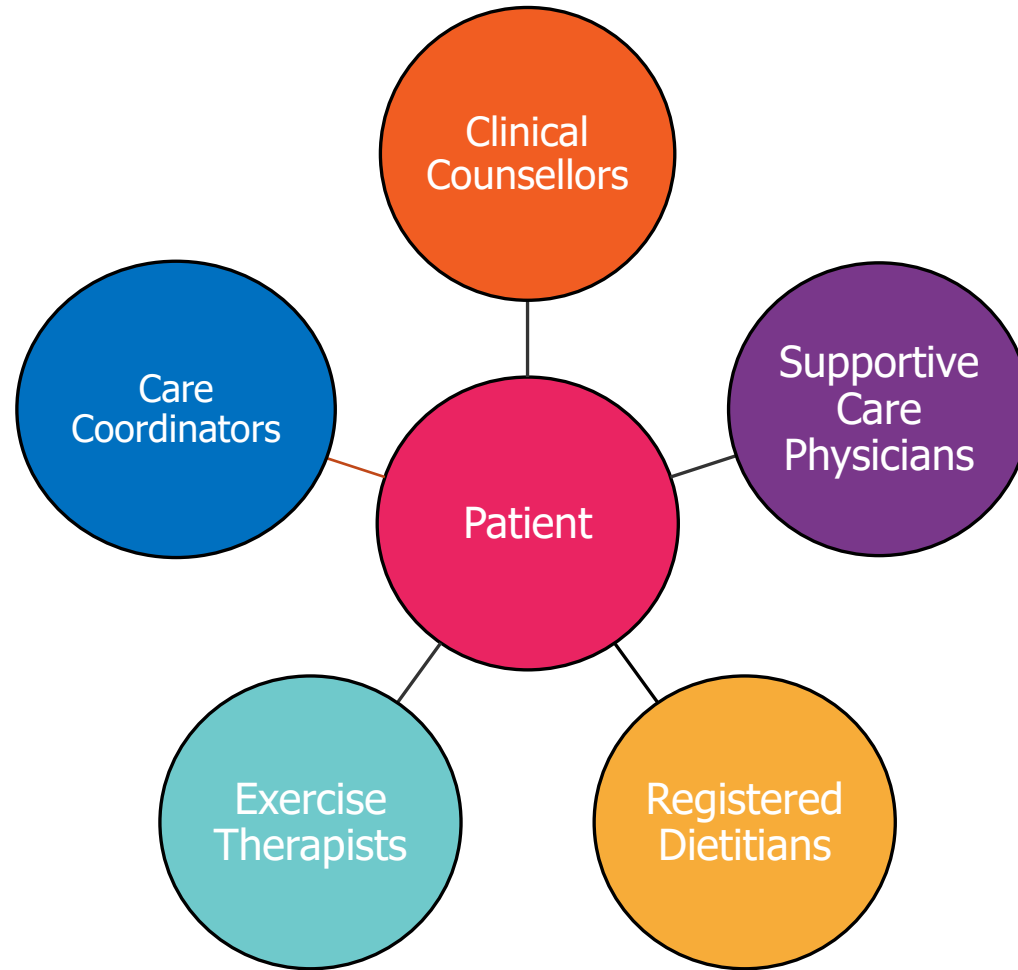


InspireHealth

- Not-for-profit charity founded in 1997.
- Partially funded by BC Ministry of Health.
- All classes and programs are completely **free of charge**.
- We rely on donations from the community to provide our classes & programs.
- No referral required.
- Our services are offered online with some in-person options available.



InspireHealth Supportive Care Team



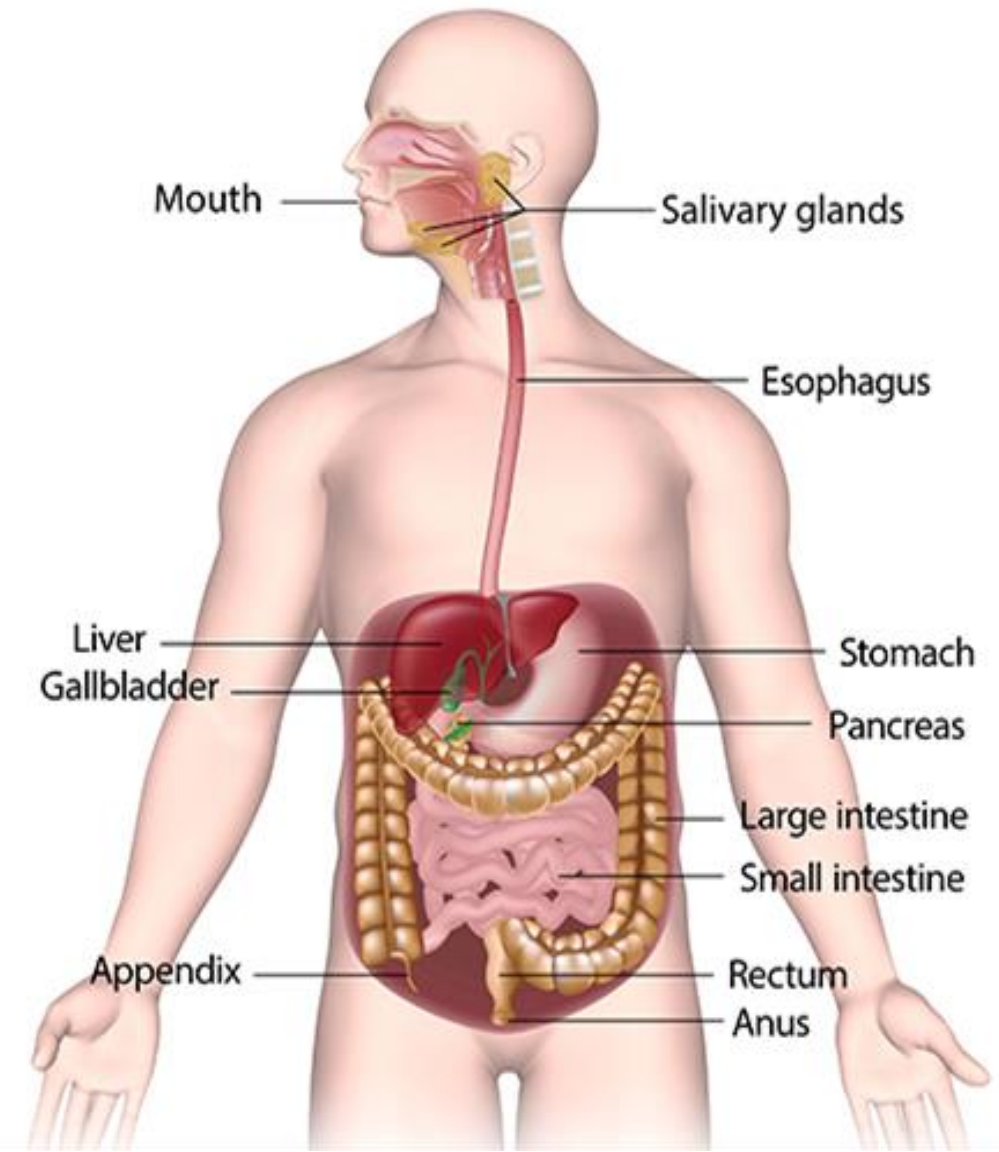
Nutrition

- **A complex science!**
- Everyone is different and many people have different circumstances that can affect their nutrition recommendations
- Working 1 on 1 with a dietitian can be supportive to help tailor information to meet your needs



Digestive System

- Consists of the gastrointestinal tract (GI tract), liver, pancreas, and gallbladder
- **GI tract** is a long tube connecting hollow organs including the mouth, esophagus, stomach, small intestine, large intestine and anus
- 25-30 ft in length!
- Bacteria in GI tract known as gut microbiota



Digestive Process

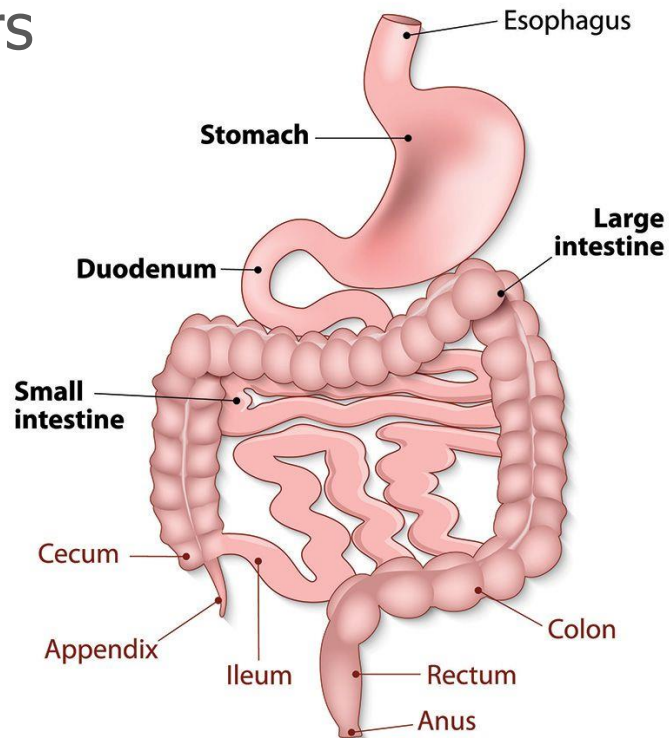
- Digestion starts when we see and smell food
- Chemical and mechanical
- Saliva contains enzymes, chewing sends a signal to stomach to secrete acid and digestive enzymes
- Peristalsis helps move food along
- Once foods are broken down enough, body can absorb nutrients



Digestive Process

Stomach

- Acidic and muscular
- Storing & mixing 2-5 hours



Small Intestine

- 90% of nutrients are absorbed
- Size of a tennis court (~22 feet long)
- Digestive enzymes, bile, bicarbonate

Large Intestine

- Absorbs water and electrolytes
- Fecal matter stored 16-72 hours before elimination
- 5-6 feet long
- Many species of bacteria

Importance of our Digestive System

- Enables body to absorb necessary nutrients from food and drink
- **Proteins** → broken down into amino acids
- **Fats** → broken down into fatty acids and glycerol
- **Carbohydrates** → broken down into simple sugars
- **Vitamins, minerals and water** are also nutrients the body needs

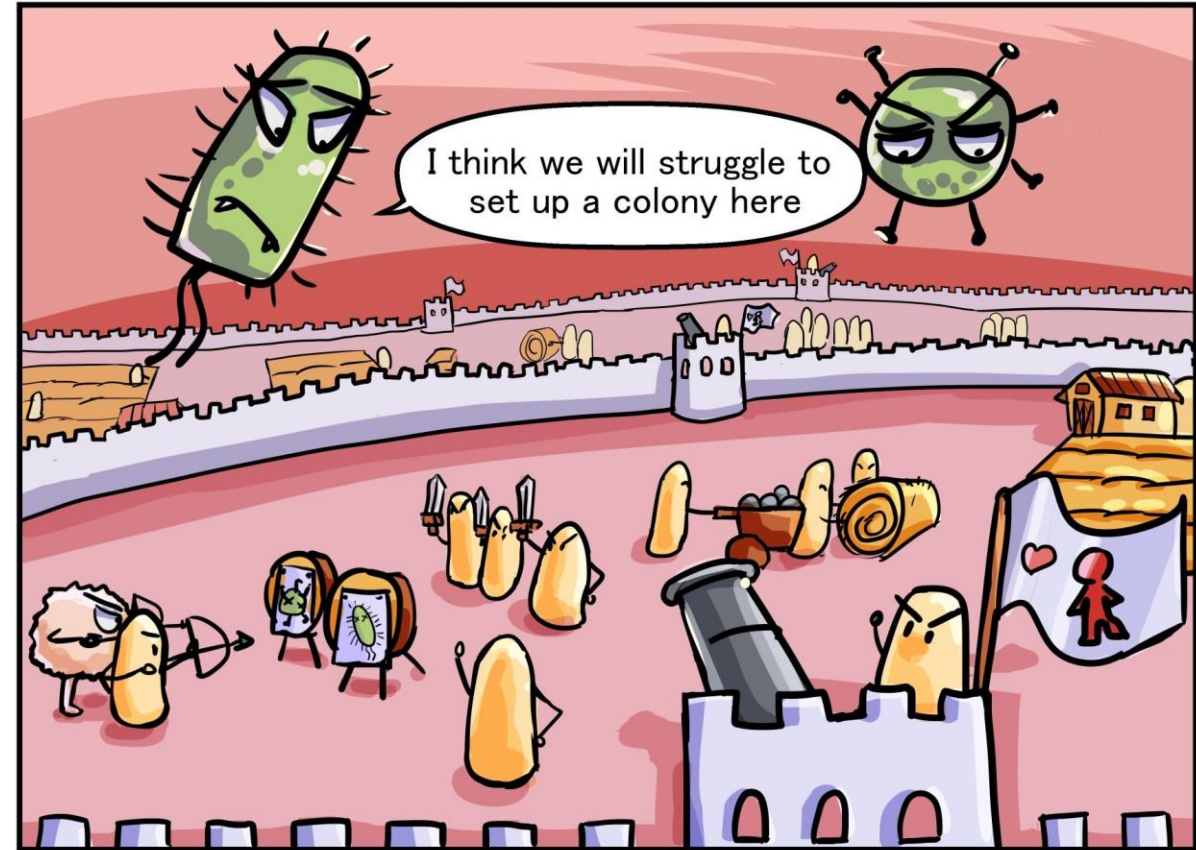
Gut Microbiome

- **Microbiome:** Entire habitat of bacteria, viruses, fungi (organisms) & surrounding conditions, and genome
- Your microbiome profile: As unique as your fingerprint!
- Factors that **influence** your microbiome:
 - Exercise
 - Diet
 - Lifestyle
 - Stress
 - Disease
 - Geography
 - Age
 - Medications
 - Treatment
 - Pets!



Functions of the Gut Microbiome

- Digestion – fermenting fiber
- Synthesizing vitamins and amino acids
- Gut barrier health
- Immune system
- Metabolic function
- Mood – 90-95% of serotonin is produced in the gut!

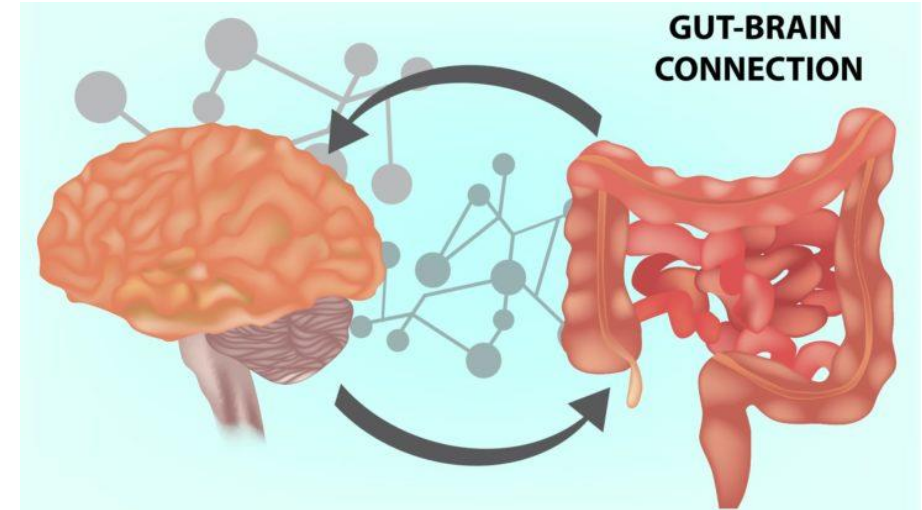


RunawayLabBook.com

Gut Brain Connection

- Two-way connection
- Process of digestion can begin at the sight of food, even just imagining food
- Psychological factors can affect contractions within the GI tract
- Research to support the role of stress reduction and improvement with digestive symptoms

(Cherpak, 2019)



Impact of Treatment on our Gut Health

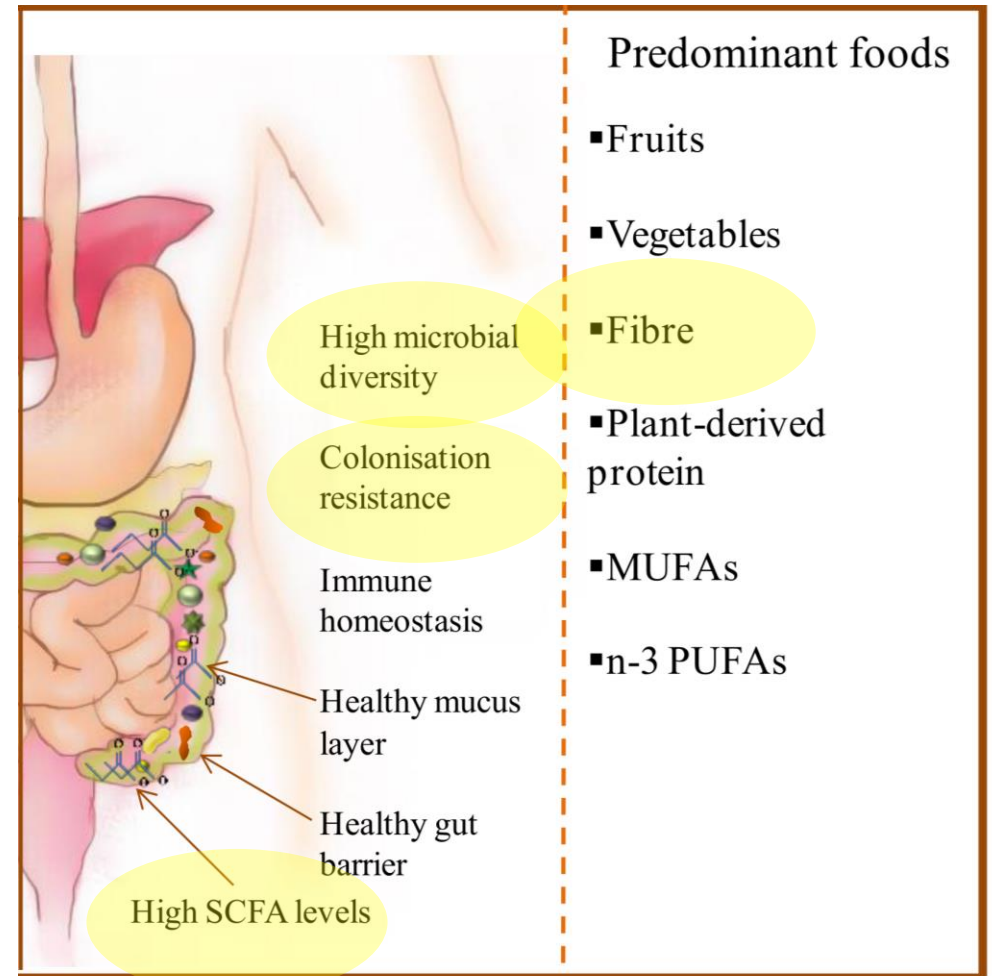
- Chemotherapy
- Decreases in supportive gut microbes
- Impact on gut dysbiosis
- Impacts on intestinal lining
- Radiation
- Surgery

(Deleemans, et al., 2019; Huang et al., 2012)

Nutrition Strategies to Support our Gut Health

- High fibre diets
- Variety of plant based foods
- Plant-derived protein
- Prebiotic and probiotic foods
- Supportive fats
- The gut microbiome can begin to change in as little as 24 hours in response to a major dietary shift!

(Singh et al., 2017)



Fibre

- Indigestible parts of plant based foods
- Many forms!
- Soluble fiber
- Insoluble fiber
- Resistant starch



Soluble Fibre

- *Slows* digestion
- Satiety
- Softens & binds fluid - "gel"
- Reducing diarrhea

Food Sources

- Flax & Chia
- Oats & barley
- Beans & lentils
- Apple (flesh), citrus, bananas
- Psyllium



Insoluble Fiber

- Adds bulk
- Reducing constipation
- *Gas, bloating*

Food Sources

- Whole grains (bran)
- Nuts
- Beans & lentils
- Most vegetables (skins)
- Most of fruits (skin)



Resistant Starch

- Resist digestion
- Slow digestion
- Fermented in colon
- Produce short chain fatty acids
- Help maintain health of cells in colon

Food sources:

- Legumes, beans, slightly green bananas, cooled potatoes

Low-fiber Considerations

- Some people may require a low fiber diet (temporarily or long term) as directed by their doctor, dietitian
- Go slow with fiber
- Soluble fiber foods (oats, bananas, apple sauce)
- Cooking fruits and vegetables
- Removing peels/skins
- One-on-one support



Prebiotics & Probiotics

- Prebiotics
 - Non-digestible carbohydrates
 - Provide food for gut bacteria
- Probiotics
 - Live, supportive bacteria
 - Beneficial types



Prebiotic Fibre Sources

- Non-digestible carbohydrates that act as “food” for the probiotics
- Prebiotics found in foods such as:
 - Asparagus, garlic, Jerusalem artichokes, leeks, onions
 - Barley, rye, whole grains
 - Apples, bananas
 - Beans legumes, chickpeas, lentils



Probiotic & Fermented Foods

- Sauerkraut
- Kimchi
- Lacto-fermented vegetables
- Kefir
- Yogurt
- Buttermilk
- Miso
- Kombucha
- Water kefir
- Apple cider vinegar

—

**raw vs. cooked*



Carbohydrates – Fruits and Vegetables

- Rainbow- **red**, **orange**, **yellow**, **green**, **purple**, **blue**, brown, white
- **Minimum** 5 servings/day
- Fresh vs. frozen
- Seasonal, **local when possible**
- Raw vs. cooked vs. fermented
- Whole vs. smoothies vs. juicing



Protein

- Maintains muscle, tissue repair, immune function
- Protein needs can be increased during and after treatment
- Whole foods sources: Beans, nuts, legumes, meat, poultry, eggs, fish, dairy, tofu



Fats

Cell **membranes**, main component of **brain** cells, **energy** source, absorption, hormones, **satiety**, insulation

Whole Foods Sources: Nuts, seeds, avocados, fatty fish, olives, olive oil, butter, and coconut.

- **Omega 6s:** corn/safflower/grapeseed/sunflower oils, animal sources
- **Omega 3s:** cold-water fish, walnuts, flax, chia, hemp seeds



Balanced Meal Ideas

- Baked oatmeal (eggs or seeds, ground flax, apple, cinnamon)
- Adding fats and seeds to a smoothie – Green Smoothie (veggies, avocado, flax, hemp, chia, fruit)
- Whole grain toast with egg or tofu, tomatoes, spinach
- Soups, stews, grains & legume salads



Balanced Snack Ideas

- Homemade muffins with buckwheat or almond flour, zucchini, walnuts
- Fruit paired with nut butter and hemp hearts
- Chia pudding with berries, cinnamon, nuts
- Whole grain toast with nut butter & pear



Practical Tips

- **Breakfast:** Add ground flax, chia seeds or hemp hearts into a smoothie or on top of oatmeal
- **Lunch:** Try incorporating a plant based protein sandwich such as chickpea salad sandwich on a whole grain bread
- **Snacks:** Fibre filled snacks paired with hummus or bean dip
- **Dinner:** Boost plant based proteins by blending in lentils into a pasta sauce or adding roasted chickpeas on top of a salad. Try making half your plate vegetables from a variety of families



Recipe Ideas

- Many recipe ideas at www.inspirehealth.ca
- Chickpea sunflower sandwich
- Black bean stuffed sweet potatoes
- Chipotle black bean tortilla soup



Summary – Nutrition to Support our Gut Health

- Variety of different fruits and vegetables per day
- Variety of fiber foods such as whole grains, beans, lentils, seeds
- Prebiotic and probiotic foods to support gut bacteria and diversity
- Balanced snacks and meals



Additional Strategies

- Chew food slowly and thoroughly
- Breathing before eating
- Mindful eating
- Hydration
- Stress reduction
- Sleep
- Movement

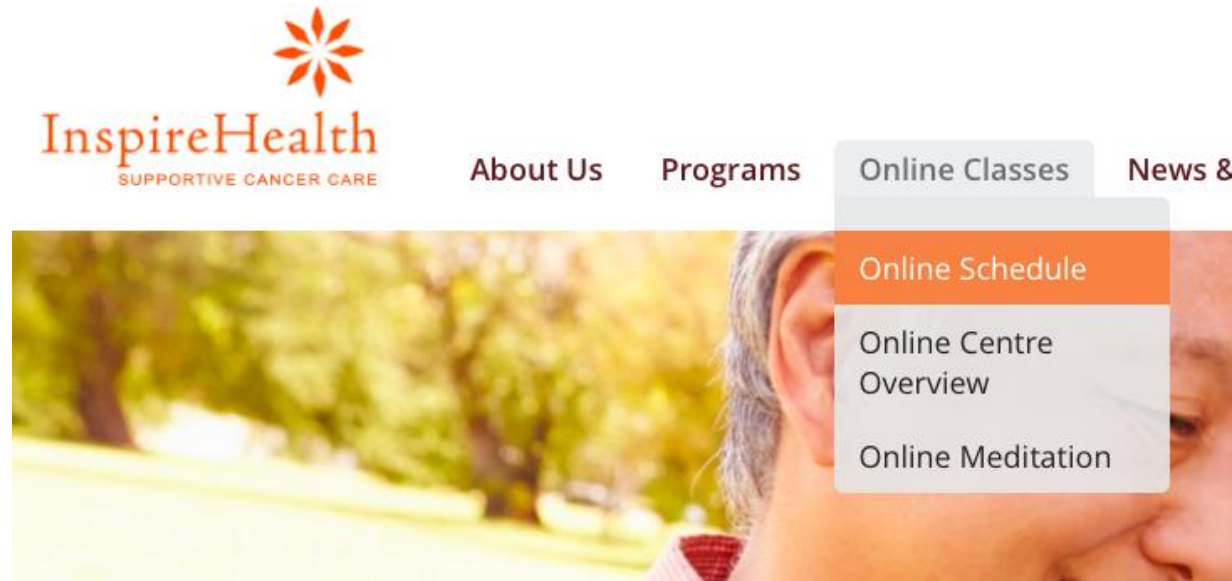


Nutrition Support at InspireHealth

- Everybody is welcome at InspireHealth!
- Individual Session with a Dietitian with follow-ups as needed
- Nutrition Learning Workshops
 - **Nutrition and Cancer 101**
 - **Blood sugar balance**
 - **Mindful Eating**
 - **How Stress and Nutrition Connect**
- Cooking Classes
- Inspiring Recipes



Connecting with InspireHealth



Online: www.inspirehealth.ca

Call: 1-888-734-7125

Email info@inspirehealth.ca



Thank you!

Questions?

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