

# **The Long Mile: Managing Chronic Pain**

## **Session 2**

### **GROUP HANDOUTS**

# Learning objectives

## Session 2: Nourishing the Body...and the brain

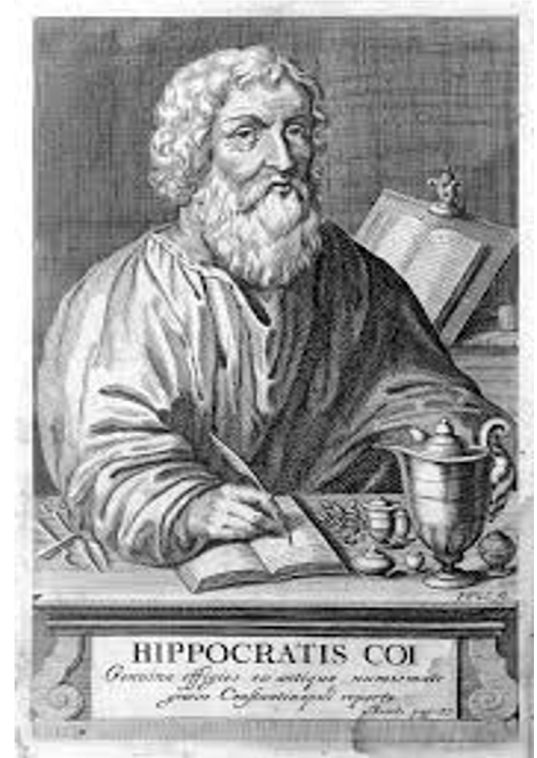
- Overview of Canada Food Guide
- Benefits of an anti-inflammatory diet for chronic pain
- Highlights of an anti-inflammatory healthy diet
- Understanding macronutrients and micronutrients and factors that deplete nutrients
- Foods to eat more, eat less or avoid
- Importance of social factors and food intake

# Ancient wisdom

*Let food be thy medicine  
and medicine be thy food.*

*Hippocrates 460-370 BC & (age 90)*

Greek Father of Western Medicine



# Let's start with the Canada food guide - new and improved

- Eat plenty of vegetables and fruits
- Choose whole grain foods and protein foods that come from plants more often.
- Choose foods with healthy fats instead of saturated fat
- Limit highly processed foods.
- Make water your drink of choice
- Read food labels
- Be aware that food marketing can influence your choices



Food guide snapshot

Now available in many languages

French: Français, 繁體中文  
Italian: Italiano  
Hebrew: עִבְרִית  
Spanish: Español  
Portuguese: Português  
Ojibwe: Ojibwe  
Arabic: العربية  
Polish: Polski  
Persian: فارسی  
Tagalog: Tagalog  
Paskwāwinīmowin: Paskwāwinīmowin  
Hindi: हिंदी  
Simplified Chinese: 简体中文  
Inuinnaqtun: Inuinnaqtun  
Michif: Michif  
Punjabi: ਪੰਜਾਬੀ  
Urdu: اردو  
Korean: 한국어  
German: Deutsch  
Russian: русский

<https://food-guide.canada.ca>



# Eat an anti-inflammatory diet

- At least 5-7 servings of vegetables and 2-3 servings of fruit daily is essential for an anti-inflammatory diet
- Eat a whole foods, plant-based diet
- Include fermented vegetables or probiotic containing foods
- Reduce or avoid added sugars, salt, processed carbohydrates
- Include omega-3 rich foods: salmon, walnuts, flaxseed
- Minimize processed foods, red meat and alcohol
- Examples: Mediterranean diet, DASH diet

Field, R et al. Dietary Interventions are Beneficial for Patients with Chronic Pain: A Systematic Review with Meta-Analysis, *Pain Medicine*, Volume 22, Issue 3, March 2021, Pages 694-714

<https://doi.org/10.1093/pm/pnaa378>

# Highlights of study

Bjørklund, Geir, et al. "Does diet play a role in reducing nociception related to inflammation and chronic pain?." *Nutrition* 66 (2019): 153-165.

- Healthy dietary habits and lifestyle can prevent inflammation-induced nociception.
- Many plant polyphenols are suitable compounds for the reduction of nociception and pain.
- Some flavonoids can modulate neurogenic pain and opioid receptors

# Reducing inflammation reaps multiple benefits

- An anti-inflammatory diet may reduce pain levels and/or lessen the frequency of flare-ups
- An anti-inflammatory diet is also good for general health and can help lower the chances of other illnesses such as cancer, diabetes, NAFLD, cardiovascular disease.



Minihane, Anne M et al. “Low-grade inflammation, diet composition and health: current research evidence and its translation.” *The British journal of nutrition* vol. 114,7 (2015): 999-1012.  
doi:10.1017/S0007114515002093

# Eat a rainbow of colours

Vegetables and fruits have bioflavonoids which reduce inflammation



Lim H, et al. Flavonoids Interfere with NLRP3 Inflammasome Activation. *Toxicol Appl Pharmacol.* 2018;355:93

# Avoid foods that promote inflammation

- Processed foods and snacks with high sugar, salt, fat and chemical additives
- Unhealthy oils: poly-unsaturated vegetable oils, trans fats, shortening, margarine
- Foods deep fried in vegetable oils used repeatedly in restaurant deep fryers
- Processed carbs such as in white bread, white pasta, and many baked goods
- Commercially made cookies, pastries, baked desserts, and ice cream
- All pop including diet varieties
- Processed meats
- Meat from grain fed animals



# Eat less

- Sweet desserts
- Meat and dairy
- Refined white flour
- Sugar and high fructose corn syrup
- Salt

“Sometime” foods may be part of occasional happy celebrations





# Eat more

- Fresh foods
- Fruits, vegetables and legumes
- Organic if possible
- Whole grains such as brown rice and whole wheat (if not wheat or gluten sensitive)
- Deep sea fish such as salmon, mackerel and sardines
- Grass fed meat instead of standard meat (if not vegetarian)



# Environmental Working Group (ewg.org) 2021 recommendations

## “Dirty Dozen”

1. Strawberries
2. Spinach
3. Kale
4. Nectarines
5. Apples
6. Grapes
7. Cherries
8. Peaches
9. Pears
10. Bell peppers
11. Celery
12. Tomatoes



## “Clean Fifteen”

1. Avocados
2. Sweet corn
3. Pineapple
4. Onions
5. Papaya
6. Sweet peas (frozen)
7. Eggplant
8. Asparagus
9. Broccoli
10. Cabbage
11. Kiwi
12. Cauliflower
13. Mushrooms
14. Honeydew melon
15. Cantaloupe



# Organic foods reduce inflammation

- 3623 Americans over 50 (mean age 64.3)
- Dietary data collected from a Food Frequency Questionnaire including organic food consumption in the past year
- Blood tests were done for inflammatory biomarkers such as c-reactive protein (CRP)
- Greater organic food consumption correlated with lower levels of CRP

## Conclusion:

**“findings support the hypothesis that organic food consumption is inversely associated with biomarkers of inflammation”**

Ludwig-Borycz, E, et al., Organic Food Consumption is Associated with Inflammatory Biomarkers among Older Adults in the USA, *Current Developments in Nutrition*, Vol.4, Issue Supplement\_2, June 2020, pg 1529, [https://doi.org/10.1093/cdn/nzaa068\\_014](https://doi.org/10.1093/cdn/nzaa068_014)

# Macronutrients and micronutrients

## Macronutrients:

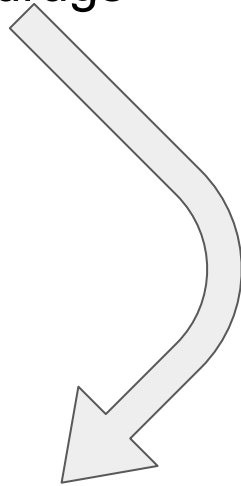
- Protein - choose more plant sources (limit intake in kidney disease)
- Fats - choose extra virgin olive oil or flaxseed oil for salads; cook with coconut oil, grapeseed oil, avocado oil or grass fed butter
- Carbohydrates - reduce sugar and choose low glycemic options

## Micronutrients:

- Vitamins - may need augmenting if diet is insufficient or nutrients are depleted by illness or other factors
- Minerals - may also be depleted by multiple factors. Soil depletion contributes to reduced intake.

# Some factors that deplete nutrients

- Smoking
- Alcohol
- Prescription drugs
- Stress
- Pregnancy
- Surgery
- Illness
- Infection
- Toxins



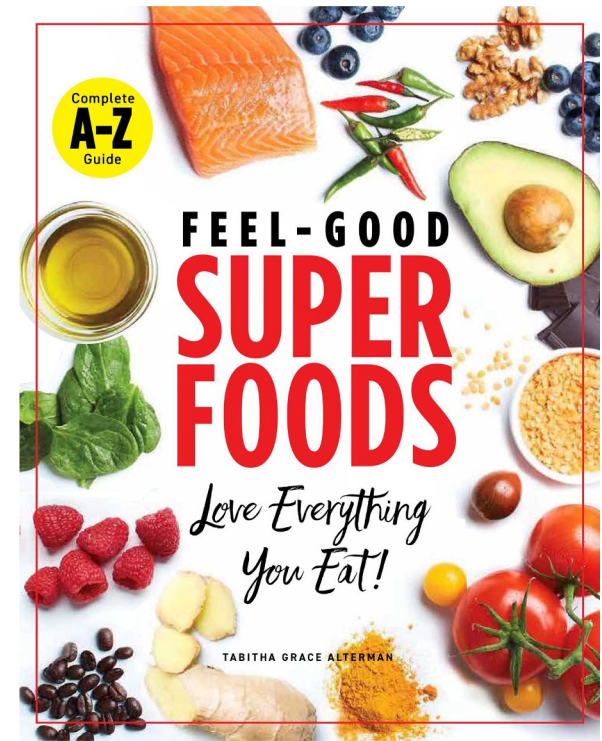
Chronic health problems require above average nutrition to support repair and healing

Easy to find on google

Mohn, Emily S et al. "Evidence of Drug-Nutrient Interactions with Chronic Use of Commonly Prescribed Medications: An Update." *Pharmaceutics* vol. 10,1 36. 20 Mar. 2018, doi:10.3390/pharmaceutics10010036

# Superfoods - some examples

- Blueberries and other berries
- Dark leafy greens
- Cruciferous vegetables
- Beets
- Green tea
- Nuts and seeds
- Fermented foods such as kefir/yogurt
- Olive oil
- Legumes
- Spices/herbs: turmeric, ginger
- Salmon



# Choose wisely

Balance budget and value



Eat this and  
feel good for  
a second



Eat this and  
feel good all  
day



# Social factors nourish us too

- Be mindful and take time to eat
- Cook more often and plan what you eat
- Enjoy your food
- Honour your culture and food traditions which can be a part of healthy eating
- Eat meals with others



Harrison, Megan E et al. "Systematic review of the effects of family meal frequency on psychosocial outcomes in youth." *Canadian family physician Medecin de famille canadien* vol. 61,2 (2015): e96-106.

Helpful tool to track your progress

# 7 Day Record

<b>Sleep</b>	<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>	<b>Snack</b>	<b>Water</b>
Time in bed					
Up at					
Time in bed					
Up at					
Time in bed					
Up at					
Time in bed					
Up at					
Time in bed					
Up at					
Time in bed					
Up at					
Time in bed					
Up at					



# Time to kick back

## Relaxation exercise

1. Progressive muscle relaxation
2. Body scan





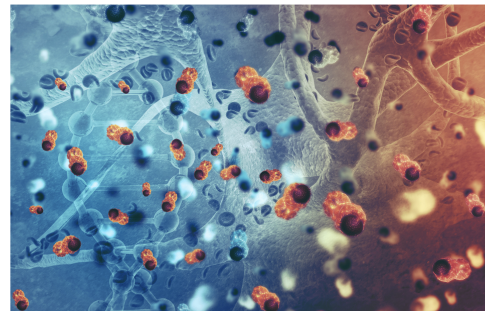
# Wellness Group Medical Visits



## The Long Mile: Managing Chronic Pain

Dr. Teresa Clarke

This 10-week series will help you on your chronic pain journey. You will learn how to promote healing through integrative approaches and optimize your physical and mental well-being.



## Immune Health & How to Optimize Your Immunity

Dr. Teresa Clarke

In this session, you will learn integrative health approaches to promoting immune health. These approaches can be added to public health recommendations to reduce your risk of serious viral illness.



## Acupressure for Chronic Illnesses

Dr. Teresa Clarke

In this series of three workshops, you will learn how Acupressure can be utilized in a self-treatment approach to improve wellbeing and symptom management in patients with chronic illnesses.



## Osteopathy & Chronic Conditions

Fabio Bocchetti

In this series of four workshops, you will learn how Osteopathy can explain and treat several types of headaches, low back pain, knees or hip pain as well as digestive issues.

[REGISTER NOW](#)

# Ask the Expert Cannabis Series

## 101: Cannabis Counselling & Treatment Plans

**By participating you will learn about:**

- The endocannabinoid system
- The differences between cannabinoids (THC & CBD)
- Routes of administration (oral oil & vaporization)
- Symptom management using cannabis
- Customized treatment plans
- How to dose your cannabis safely
- How to monitor for symptom improvements
- Potential side effects
- Drug interactions
- Supply options through a Health Canada licensed seller
- Cost of medication & discount programs available
- Extended health benefits & claiming as a medical expense
- Driving & travelling
- How to store your medication

## 201: Inhaled Cannabis; Dried Flower, Vape Pens & Extracts

**By participating you will learn about:**

- The difference between smoking & vaporization
- Is vaporization safe?
- When to consider using vaporized cannabis for symptom management
- Finding the right temperature for optimal benefit
- Types & cost of vaporizers
- Choosing the best strain to vaporize (sativa, indica, hybrids)
- How to determine your optimal dose & monitoring effects
- Taking proper care of your vaporizer
- Where am I allowed to vaporize my cannabis?
- Safe storage of vaporizer & cannabis
- Driving & travelling
- Inhaled extracts

## 301: Cannabis Edibles, Oral Preparations & Topicals

**By participating you will learn about:**

- The difference between medical & recreational cannabis
- Edibles (mints, baked goods, snacks, candy, chocolates, teas & other beverages)
- Tinctures & sprays
- Creams, salves & liniments
- Differences between onset of actions for various routes of administration
- Risks & side effects
- Choosing a product that is right for you
- Dosing of extracts and edibles; the basics
- Driving & travelling
- How to determine your optimal dose & monitoring effects

**REGISTER NOW**

# Post Group Resources



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