



Flu Season 101

Part 2

- Handouts -

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Exposure Risk

Follow BCCDC guidelines to reduce exposure risk at www.bccdc.ca

- Hand washing
- Physical distancing
- Masks
- Food safety (grocery shopping, restaurants)
- Cleaning and disinfecting
- Quit smoking and vaping (www.quitnow.ca)
- Testing + contact tracing
- Self-isolation
- BC COVID 19 Self-Assessment Tool - BC Thrive Health or call 811

Anti-inflammatory Diet → Immunity

5-7 servings of vegetables and 2-3 servings of fruit daily → **variety** is key

Plant predominant or plant-based diet → goal is **whole foods**

Adequate **protein** consumption

Include **fermented** vegetables or **probiotic** containing foods/drinks

Reduce or avoid: added sugars, salt, processed carbohydrates

VITAMINS

Important for
Immune Function

Vitamin A (beta carotene)

Sweet potato
Carrots
Peppers
Broccoli
Butternut
Squash

Folate

Green leafy veg
Fortified cereal
Liver
Black-eyed
peas
Asparagus

Vitamin C

Citrus fruits
Potatoes
Broccoli
Strawberries
Kiwi

Thiamin

Trout
Eggs
Pork
Legumes
Peas
Fortified cereal

Vitamin B12

animal foods
Nutritional yeast

Vitamin D

Salmon
Trout
Milk
Fortified cereal
Mushrooms

Vitamin B6

Chickpeas
Tuna
Salmon
Potatoes

VITAMIN C + IMMUNITY

- 🍊 Supports epithelial barrier function against pathogens and promotes the oxidant scavenging activity of the skin
- 🍊 Needed for the development of immune cells
- 🍊 Found in high concentrations in white blood cells
- 🍊 Levels fall significantly during a common cold
- 🍊 Saturating tissues requires 100-200 mg per day
- 🍊 During an active infection, ~1g/d may be needed with some indication for higher doses



VITAMIN D + IMMUNITY

- ☀️ Vitamin D deficiency can have a negative impact on immune health
- ☀️ Moderate to strong evidence that adequate levels of vitamin D supports immune health
- ☀️ Decreased inflammatory cytokines, preserved epithelial function, increased antimicrobial peptides
- ☀️ Food is generally a poor source → sunlight is best...supplement if needed



MINERALS

Important for
Immune Function

Iron

Beef
Lamb
Pork
Goat
Oysters
White Beans
Fortified cereal

Copper

Organ meat
Oysters
Dark chocolate
Mushrooms
Fortified cereal

Zinc

Oysters
Baked beans
Beef
Chickpeas
Fortified cereal

Selenium

Brazil nuts
Yellowfin tuna
Fortified cereal

APPLES

High in **Quercetin**

A polyphenol - flavonoid with two main functions:

- Anti-oxidant activity
- Zinc ionophore (aka transport)

The average person consumes 10 –100 mg daily through various food sources as it is so abundant

Food sources include:

apples, onions, red grapes, berries, broccoli, citrus fruits, cherries, green tea, coffee, red wine, and capers

Fall time happens to be...apple picking season!





RECIPIES FOR IMMUNITY

5 Recipes to Support Your Immune Health



Foods that influence immunity

Our team has created these tasty recipes based on seasonal eating
Each one provides nutrients known to help improve the key biomarkers associated
with immunity

- **Citrus punch green smoothie**
- **Antioxidant bowl**
- **Honey glazed ginger salmon**
- **Earthy mushroom and barley**
- **ImmuniTEA**

◀ Citrus Punch Green Smoothie

Prep: 5 mins **Cook:** 1 min **Makes:** 1

Per serving: 265 calories; 5 g fat; 40 g carbohydrates; 7 g protein

INGREDIENTS

- ½ frozen banana
- ½ orange, peeled
- 1 tbsp chia seeds
- 1 ½ cups spinach
- ¼ cucumber, peeled
- 1 cup strawberries, halved
- 1 cup water (or coconut water)

DIRECTIONS

- Add all ingredients to blender and pulse until smooth.
- Refreshing
- Enjoy!

Antioxidant Bowl

Prep: 5 mins **Cook:** 1 min **Makes:** 1

Per serving: 420 calories; 12 g fat; 70 g carbohydrates; 12 g protein

INGREDIENTS

- 1 frozen banana
- ½ cup blueberries
- ½ cup raspberries
- 2 tbsp chia seeds
- 2 tbsp hemp seeds
- 2 strawberries, sliced
- 1 cup oat milk *or any plant milk

DIRECTIONS

- Blend oat milk, banana, and mixed whole berries in blender until smooth.
- Pour smoothie into a bowl and top with hemp seeds, strawberry and chia seeds.

Honey Glazed Ginger Salmon

Prep: 5 mins **Cook:** 30 mins **Makes:** 2

Per serving: 113 calories; 3.6 g fat; 19 g carbohydrates; 2 g protein

INGREDIENTS

- 2 salmon fillets
- 1 tbsp soy sauce (or coconut aminos)
- 2 tsp honey
- 1 ½ tbsp balsamic vinegar
- ½ tsp ginger root
- 1 garlic clove, minced
- 2 tbsp avocado oil

DIRECTIONS

- In a small bowl, mix honey, soy sauce, balsamic vinegar, ginger root, garlic, and half of the avocado oil.
- Season the salmon with salt and pepper and place it in a shallow baking dish, skin side down. Pour the mixture from the small bowl over the salmon.
- Place the salmon in the refrigerator for 10 minutes.
- In a medium-sized frying pan, heat the remaining avocado oil.
- Remove the salmon from the refrigerator and place it skin side down in the frying pan. Sauté the salmon for 4 minutes on each side or until thoroughly cooked.
- Remove the salmon from the pan and place on a serving dish.
- Pour the marinade into the pan and reduce on high heat until it becomes a glaze-like consistency.
- Glaze the salmon with the reduction and serve.

Earthy Mushroom and Barley Risotto

Prep: 10 mins **Cook:** 30 mins **Makes:** 2

Per serving: 587 calories; 21 g fat; 81 g carbohydrates; 22 g protein

INGREDIENTS

- 4 cups vegetable broth
- 1 ½ tbsp olive oil
- 1 cup onion, diced
- 1 cup pearled barley
- 2 tsp fresh thyme
- 2 bay leaves
- 2 cups cremini mushrooms, sliced
- 1 cup shitake mushrooms, thick sliced
- 1 garlic clove, mined
- 2 tbsp fresh parsley

DIRECTIONS

- Heat the broth in a saucepan over low heat and add 1 tsp olive oil to another saucepan and add the onion. Sauté until translucent.
- Add the spices, barley, and 1/4 cup of the veggie stock and bring to a boil. Reduce the heat, and simmer until the stock is absorbed. Stir frequently.
- Add the rest of the stock 1/4 a cup at a time, again allowing the stock to be absorbed before adding the next 1/4 cup.
- As you wait for the stock to be absorbed, cook the mushrooms: Add 1 tsp olive oil to a sauté pan over med-high heat. Add the mushrooms and sauté until browned. Stir in the garlic and reduce the heat. Cover and cook for ~3 min.
- Once both barley and mushrooms are finished cooking, add the barley mixture to the mushrooms and stir to combine.

ImmuniTEA

- Add 1 knob of fresh **ginger** (rough chop into chunks) and 1 cup of **citrus peels** (dried or fresh) to a medium pot of filtered water.
- Bring to boil and then simmer for 20 mins.
- Add 2 springs of rosemary and simmer for additional 5-10 minutes.
- Pour into a cup.
- Add **honey** to taste, as needed.
- Sip and ENJOY!
- Optional: add **turmeric** root or powder (with a little dash of black pepper to increase turmeric absorption)

COLD OR FLU

KNOW THE DIFFERENCE

The flu and a cold can have similar symptoms. The difference is how intense they feel and how common they are. In general, symptoms of the flu appear quickly, while symptoms of a cold happen slowly.

COLD

You may feel chills but fever is rare

Cough, chest discomfort
(mild but may last a while)

Body aches & pains
(mild)

Tiredness
(you can still do your daily activities)

Headache
(mild)

Sore throat

Stuffy, runny nose, sneezing



COMPLICATIONS CAN INCLUDE...

- + Lung infections
- + Throat infections
- + Ear infections
- + Sinus infections

People experience symptoms differently. If your symptoms get worse or persist, see your healthcare provider.

FLU



Fever

Cough, chest discomfort
(dry cough can be severe)

Body aches & pains
(can be severe)

Bedridden
(you may feel extremely exhausted)

Headache
(can be severe)

Sore throat

Stuffy, runny nose

COMPLICATIONS CAN INCLUDE...

- + Pneumonia
- + Pre-existing health conditions getting worse (such as asthma)
- + Hospitalization
- + Death

TO LEARN MORE, VISIT [CANADA.CA/FLU](https://canada.ca/flu)



Public Health
Agency of Canada

Agence de la santé
publique du Canada





KNOW THE FLU FACTS

THE FLU CAN BE SERIOUS.

- + The flu is very contagious and can spread **quickly** and **easily**.
- + Before you even know you are sick, you can **pass the flu on to others**.
- + In Canada, an average of **12,200 hospitalizations** and **3,500 deaths** related to the flu occur each year*.

THE FLU CAN AFFECT ANYONE.

- + Even healthy people can get the flu, and it can be serious.
- + People at **higher risk of serious complications*** are:
 - > *adults aged 65 and over*
 - > *young children*
 - > *those living with one or more chronic health conditions*
 - > *pregnant women*
 - > *those residing in nursing homes or other facilities*
 - > *Indigenous peoples*

YOU NEED TO GET VACCINATED EVERY YEAR.

- + **Flu viruses** change each year. Experts create a **new vaccine** to protect you **each flu season**.

YOU CAN'T GET THE FLU FROM THE FLU SHOT.

- + The viruses in the **flu shot** are either killed or weakened and **cannot give you the flu**.

THE FLU SHOT IS SAFE.

- + **The flu shot** has **benefited millions** of Canadians since 1946.
- + Most people don't have reactions to the **flu shot**; those who do may have soreness, redness or swelling at the injection site.
- + **Severe reactions** to the vaccine are **extremely rare**.

EVERYBODY WINS WHEN YOU GET VACCINATED.

- + If you do get the flu, the **flu shot** may reduce the **severity of your symptoms**.
- + By getting the **flu shot**, you **protect yourself and others** because you are less likely to spread the flu.
- + It's a **simple action** that can **prevent complications** and **save lives**.

* National Advisory Committee on Immunization (NACI): Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine.

TO LEARN MORE, VISIT CANADA.CA/FLU



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If You Have Any Questions or Concerns, Please Contact us!



For immediate assistance
use the live chat support
on our website.

Orange box in the bottom right corner of: greenleafmc.ca

patients@greenleafmc.ca

toll free: 1-877-513-4769

Additional Groups:

- Ask the Expert Cannabis Series
- Flu Season 101 *NEW
- Emotional Health Through a Different Lens
- Mind & Body Approaches to Persistent Pain
- Acupressure for Chronic Illnesses
- Osteopathy & Chronic Conditions
- Nutrition: Supplements & Dietary Interventions *NEW

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