

Cooking

to Reduce
Your Risk of
Developing
Colorectal
Cancer

eat • nourish • prevent



According to the latest Canadian data

1 IN 2 PEOPLE
will develop cancer
during their lifetime.

But there is hope!

Research has shown that about 50% of cancers are preventable and influenced by lifestyle factors that can be modified, such as avoiding tobacco, being physically active, having healthy eating and drinking habits and maintaining a healthy weight.

Colorectal cancer is the cancer most influenced by what we eat and drink. You have the power to take action and significantly reduce your risk of developing this serious disease. Change the odds and turn the tide in your favour by taking advantage of the arsenal of anticancer properties naturally found in certain everyday foods.



Colorectal Cancer in Canada

Colorectal cancer is the second

leading cause of cancer related deaths in Canada

About **26,800**  **Canadians**

will be diagnosed with colorectal cancer this year

RISK FACTORS

While this disease can affect anyone, certain people have a higher risk of developing colorectal cancer.

1. Family history of colorectal cancer



2. Obesity



3. Smoking



4. Excessive alcohol consumption



5. Poor diet



6. Sedentary lifestyle



7. Age (50 and over)
**But it can occur at any age*



8. Personal history of polyps, cancer or inflammatory bowel disease (IBD)



9. Inherited genetic syndroms such as Lynch Syndrome or Familial Adenomatous Polyposis (FAP)



10. High temperature cooking (charring food)



Foods That Fight Cancer Program

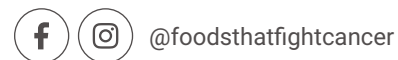
The Foods that Fight Cancer Program is overseen by a registered dietitian from Colorectal Cancer Canada, in partnership with Richard Béliveau, PhD in biochemistry and world-renowned researcher. By combining their expertise, they hope to **motivate people to adopt healthy eating habits today to reduce the incidence of cancer in the future.**



OUR ACTIONS:

- Nutrition Workshops
- Conferences
- Information booths
- Website containing healthy recipes

FOLLOW US:

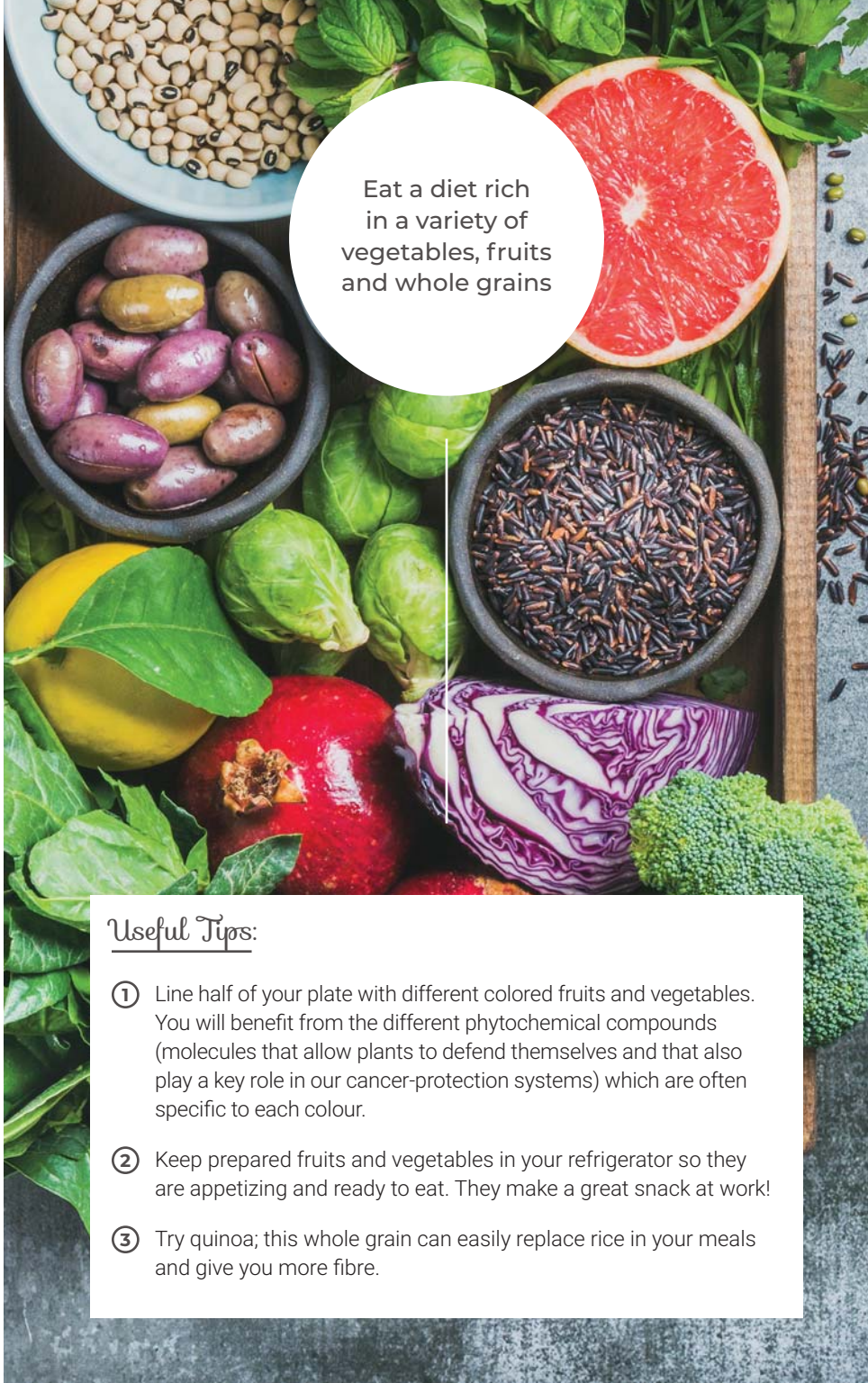


FOODSTHATFIGHTCANCER.CA



Dietary recommendations to help prevent cancer


The World Cancer Research Fund has put forward clear recommendations indicating that a healthy diet can help lower your risk of developing cancer, particularly cancers of the digestive system:



Eat a diet rich in a variety of vegetables, fruits and whole grains

Useful Tips:

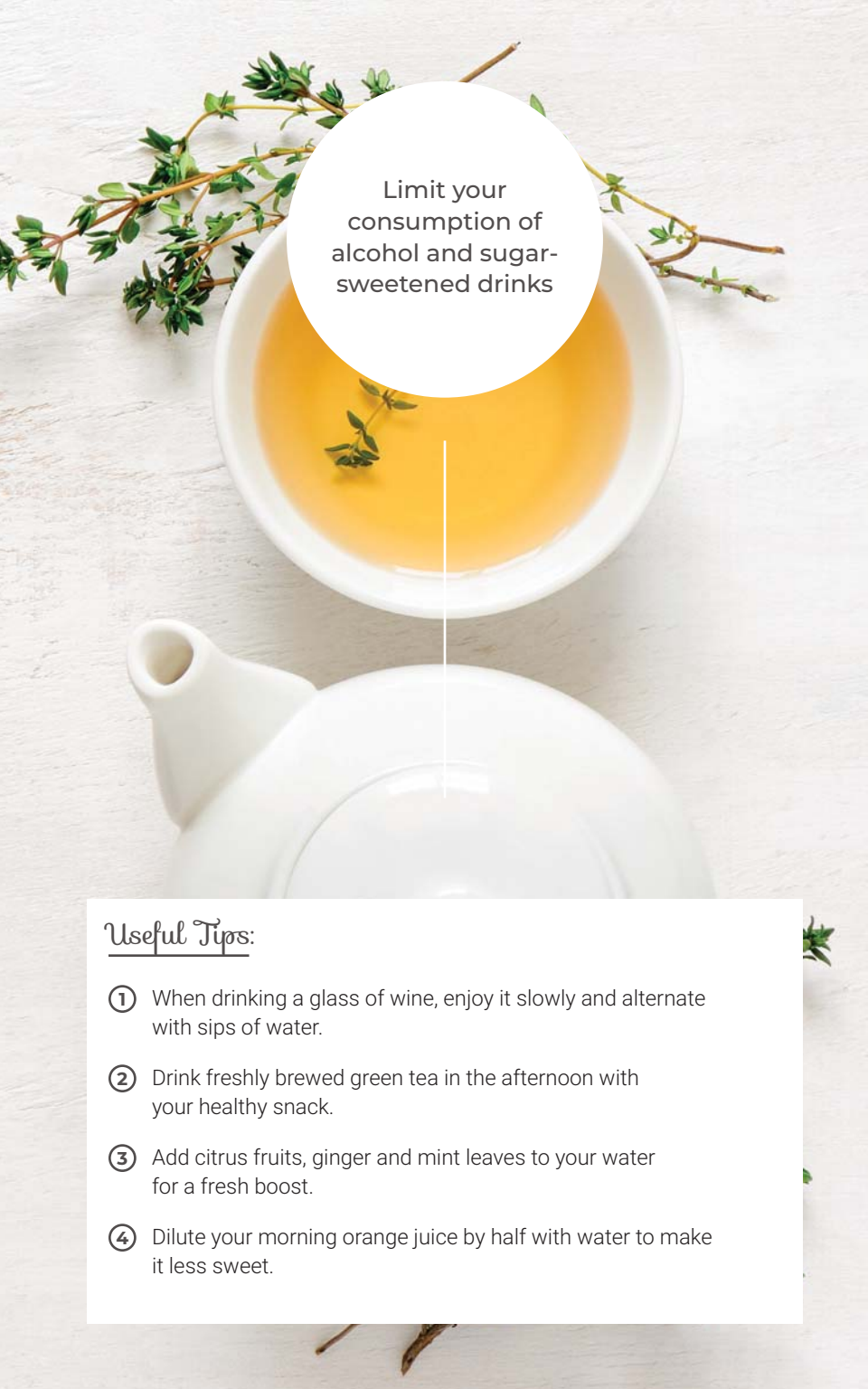
- ① Line half of your plate with different colored fruits and vegetables. You will benefit from the different phytochemical compounds (molecules that allow plants to defend themselves and that also play a key role in our cancer-protection systems) which are often specific to each colour.
- ② Keep prepared fruits and vegetables in your refrigerator so they are appetizing and ready to eat. They make a great snack at work!
- ③ Try quinoa; this whole grain can easily replace rice in your meals and give you more fibre.



Reduce your consumption of red meat and processed meat

Useful Tips:


- ① Instead of using processed meat, in your sandwich, use cold pieces of chicken from last night's dinner or a delicious vegetarian spread (see recipe on page 29).
- ② Add fish that are sources of omega-3 fatty acids, like salmon and trout, to your weekly menu, and incorporate vegetarian recipes into your diet as well (see recipes on pages 17, 21, 25 and 29).
- ③ To reduce carcinogens when you grill meat on the BBQ, marinate meat using antioxidant ingredients such as lemon, olive oil, garlic and fresh herbs and avoid overcooking or charring your food.



Limit your consumption of alcohol and sugar-sweetened drinks

Useful Tips:

- ① When drinking a glass of wine, enjoy it slowly and alternate with sips of water.
- ② Drink freshly brewed green tea in the afternoon with your healthy snack.
- ③ Add citrus fruits, ginger and mint leaves to your water for a fresh boost.
- ④ Dilute your morning orange juice by half with water to make it less sweet.



Eat fewer
highly processed
food products

Useful Tips:

- ① If the list of ingredients on the food packaging is long and difficult to understand, it is probably not the best food choice.
- ② Take pleasure in cooking. This will encourage you to put fewer highly processed foods in your shopping cart.
- ③ Double the size of your recipes for healthy and delicious leftover lunches.

Recipes

The following recipes were developed in partnership with the Food Innovation and Research Studio (FIRSt) at George Brown College in Toronto. We hope these delicious recipes will encourage you to include more foods that fight cancer in your cooking! You will also find information on key ingredients that contain powerful compounds that could play an important role in the prevention of colorectal cancer.

Chicken Curry with Cauliflower Couscous

 **PREP TIME**
10 min

 **COOK TIME**
30 min

 **SERVINGS**
4

INGREDIENTS

1 lb (454 g) Skinless, boneless chicken breast, diced into 1-inch cubes

1 tbsp. (15 ml) Lemon juice

½ cup (125 ml) 2% Plain Greek yogurt

1 small Cauliflower

2 tbsp. (30 ml) Olive oil, divided

½ cup (125 ml) Onion, small diced

2 cloves Garlic, peeled and finely minced

1 tbsp. (15 ml) Ginger, peeled and grated

2 tasses (500 ml) Okra, sliced into 1-inch pieces

3 tbsp. (45 ml) Garam masala seasoning 

2 tsp. (10 ml) Turmeric

14 oz (400 ml) Canned diced tomatoes

1 tsp. (2 ml) Salt, divided

1 tsp. (2 ml) Pepper, divided

¼ cup (60 ml) Cilantro, roughly chopped



KEY INGREDIENTS

Cauliflower

Like all cruciferous vegetables (cabbage, broccoli, rutabaga...), cauliflower contains large quantities of glucosinolates, phytochemical compounds that are activated by chewing. Recent studies have shown that regular consumption of vegetables from this family helps reduce the risk of colorectal cancer.

Turmeric

Used in traditional Asian medicine for centuries, this spice is noted for its digestive, anti-inflammatory and anti-infectious properties. Because of its high level of polyphenols, turmeric also shows very significant antioxidant properties, which could explain its influence on the prevention of certain cancers. It appears to be important to combine this spice with pepper to improve absorption of curcumin, the active ingredient in turmeric.



DIRECTIONS

1. Place the chicken, lemon juice, $\frac{1}{3}$ cup yogurt, half of the garlic, half of the ginger, 1 tbsp. Garam masala, and 1 tsp. turmeric in a bowl and stir to combine. Set aside.
2. Preheat oven to 400 °F (200 °C) and line a baking tray with parchment paper.
3. Cut the cauliflower head into bite-sized pieces and pulse in food processor until you get a grain-like texture. Spread out the crumbled cauliflower onto the baking tray and drizzle with 1 tablespoon of olive oil and half of the salt and pepper. Bake for 10 minutes or until tender, stirring once during baking. **(B)**
4. Heat a large skillet over medium heat. Once hot, add the remaining olive oil and onions. Cook for 5 minutes, until translucent, then add the remaining garlic and ginger. Continue to cook for 1 minute.
5. Add the okra and chicken and cook until chicken is no longer pink, about 5 minutes, stirring continuously.
6. Add remaining 2 tbsp. Garam masala, 1 tsp. turmeric, salt and pepper. Stir to coat the chicken and okra. Cook for 1 minute, then add the tomatoes.
7. Simmer for 10-15 minutes until chicken is cooked through. Add a splash of water if the pan gets too dry.
8. Remove the pan from the heat and stir in the remaining yogurt.
9. Serve immediately with cauliflower couscous.

CHEF'S TIP

- (A)** Look for Garam masala in the spice aisle of your local grocery store.
- (B)** If you want to spice it up, add a finely diced chili pepper in step 3.

Pecan Chia Seed Jam Crusted Salmon with Wilted Swiss Chard

 **PREP TIME**
10 min

 **COOK TIME**
25 min

 **SERVINGS**
4

INGREDIENTS

1 cup (250 mL) Frozen mixed berries **(A)**

1 tbsp. (15 mL) Maple syrup

2 tbsp. (30 mL) Whole chia seeds

2 tbsp. (30 mL) Lemon juice, divided

2 tsp. (10 mL) Lemon zest

16 oz. (450 g) Salmon fillet **(B)**

½ cup (125 mL) Pecans, chopped

1 ½ tsp. (7 mL) Salt, divided

1 tsp. (5 mL) Black pepper, divided

1 tbsp. (15 mL) Olive oil

4 cups (1L) Swiss chard, finely sliced

2 cloves Garlic, finely minced



KEY INGREDIENTS

Chia seeds

Omega-3 fatty acids can play a role in the prevention of multiple chronic diseases because of their anti-inflammatory effects. They are found in fatty fish (trout and salmon), as well as in certain plant foods, such as chia and flax seeds.

Chia seeds are also high in dietary fibre. According to the World Cancer Research Fund, consuming enough fibre (25 g/day for women, 38 g/day for men) can help reduce the risk of developing colorectal cancer.

Pecans

The pecan is one of the nuts with the highest antioxidant activity, particularly because of its high concentration of phenolic compounds. Furthermore, several studies show a positive association between regular consumption of tree nuts (more than 3, 30-gram servings per week) and a decreased risk of cardiovascular disease, type 2 diabetes and colorectal cancer.

DIRECTIONS

1. In a saucepan, combine the berries, and maple syrup. Bring to a simmer over medium heat and cook for 5-6 minutes, or until the berries are soft.
2. Let the mixture cool for 5 minutes, then transfer the berries into a blender and puree until smooth.
3. Pour the berry puree into a bowl and stir in the chia, lemon zest, and 1 tablespoon of lemon juice. Set aside, and wait for the chia seeds to plump up, about 10 minutes.
4. Preheat oven to 350 °F and line a baking sheet with parchment paper. Place the salmon on top and season with ½ tsp. each of salt and pepper.
5. Carefully pour the chia jam on top of the salmon and using the back of a spoon, spread the jam to cover the entire fillet. Sprinkle the pecans on top and press gently into the top of the salmon.
6. Bake for 18-20 minutes, or until the fish just flakes.
7. Meanwhile, heat a large skillet over medium heat. Once the skillet is hot, add the olive oil, garlic and swiss chard. Season with the remaining salt and pepper and cook for 3-5 minutes, or until the leaves are wilted. Remove from heat and stir in the remaining lemon juice. Transfer the cooked swiss chard onto a plate and plate the salmon on top.



CHEF'S TIP

- (A) Look for berry blends with sweet cherries in it for an extra flavour boost!
- (B) Feel free to substitute the salmon with arctic char or rainbow trout.



Frittata with Artichokes, Tomatoes, Feta Cheese, and Rosemary

 **PREP TIME**
10 min

 **COOK TIME**
15 min

 **SERVINGS**
2

INGREDIENTS

1 ⅔ cup (420 mL) Artichoke heart, drained and diced into 1 cm cubes

5 Large eggs

2 Plum tomatoes, diced and seeds removed

½ Orange bell pepper, small dice

½ cup (125 mL) Feta cheese, crumbled

2 tbsp. (30 mL) Olive oil

½ tsp. (2.5 mL) Rosemary, finely chopped

1 tbsp. (15 mL) Parsley, finely chopped

½ tsp. (2.5 mL) Salt

½ tsp. (2.5 mL) Pepper

KEY INGREDIENTS

Eggs

Eggs are an excellent source of protein and vitamin B12 and can be a good substitute for red meat, which should be consumed in moderation. The vitamin D and carotenoids (lutein, zeaxanthin) found in eggs are also of benefit to your body cells, in part, due to their antioxidant properties. According to the World Cancer Research Fund, reducing consumption of red meat (500 g/week) and limiting consumption of processed meats as much as possible, can help reduce the risk of developing colorectal cancer.

Olive oil

Olive oil contains oleocanthal, an anti-inflammatory molecule that plays a role in the prevention of certain chronic diseases. Moreover, hydroxytyrosol and taxifolin help inhibit the formation of new blood vessels, which could help slow the growth of certain cancers. Choose virgin or extra virgin oils, which contain more polyphenols, including oleocanthal, which is easy to recognize as it produces a slight tickle in the throat.



DIRECTIONS

1. In a mixing bowl, beat the eggs with a whisk. Add rosemary, salt and pepper.
2. Heat the skillet over medium heat. Add 1 tbsp. oil, $\frac{3}{4}$ of the diced tomatoes, and the artichokes. Stir-fry for 1-2 minutes to drain out the excess moisture. **(A)**
3. Once the tomatoes and artichokes are lightly fried, remove them from the pan.
4. Return the pan over medium heat, add remaining 1 tbsp. oil and the egg mixture to the pan and mix with a spatula. Keep on mixing, moving spatula from the side to the middle of the pan for about 1 minute. Then add $\frac{2}{3}$ of feta cheese, chopped pepper and the fried veggies into the pan. Cover the pan with a lid and cook on low for 3 minutes. **(B)**
5. Meanwhile, preheat the oven to broil setting.
6. Remove the lid, and sprinkle on top the rest of the tomatoes and feta cheese, then place the pan into the oven and broil on high for 4-5 minutes or until golden.

CHEF'S TIP

- (A)** Add 1 tbsp. of dry basil to the tomatoes to highlight the tomato flavour.
- (B)** Instead of frying the frittatas, pour the mixture into the muffin cups and bake at 375 °F in the oven for 10 minutes.



Lentil Buckwheat Pilaf with Pumpkin Seeds, Carrots and Goji Berries

 **PREP TIME**
10 min

 **COOK TIME**
30 min

 **SERVINGS**
4

INGREDIENTS

5 tbsp. (75 mL) Olive Oil
½ cup (125 mL) Onion, small diced
1 tbsp. (15 mL) Lemon juice
1 cup (250 mL) Carrots, grated
and water squeezed out
1 clove Garlic, finely minced
2 tsp. (10 mL) Smoked paprika **(A)**
5 Saffron threads
½ tsp. (2.5 mL) Salt

1 ½ cups (375 mL) Buckwheat
groats, rinsed
1 can (400 mL) Coconut milk **(B)**
1 ½ cups (375 mL) No salt added
vegetable stock
2 cups (500 mL) Canned lentils,
drained and rinsed
1 cup (250 mL) Pumpkin Seeds,
dry roasted and unsalted
½ cup (125 mL) Goji Berries **(C)**

KEY INGREDIENTS

Goji berries (wolfberries)

Goji berries are rich in antioxidants such as vitamins C and A, which help protect cells in your body from damage caused by free radicals, molecules produced when your body breaks down food or is exposed to cigarette smoke or radiation. These berries contain huge amounts of carotenoids (beta carotene, lycopene, zeaxanthin), and, like other fruit in this family (blueberries, raspberries...), they also contain polyphenols that can target certain processes associated with the development of cancer.

Buckwheat

Whole grains are rich in fibre and in particular play a key role in intestinal health by allowing for optimal elimination of food residues and toxins. Moreover, according to the World Cancer Research Fund, a diet rich in fibre, including one high in whole grains, legumes and fruits and vegetables, may help reduce the risk of developing cancer.

DIRECTIONS

1. Heat a large saute pan over medium heat. Once the pan is hot, add 2 tbsp. olive oil, onions, and cook for 5 minutes until translucent.
2. Add lemon juice, and cook for another 5 minutes.
3. Add carrots and 3 tbsp. olive oil. Cook for 5-7 minutes, stirring continuously.
4. Add garlic, paprika, saffron and salt, and cook for another 5 minutes, stirring continuously.
5. Stir in the buckwheat, and sauté for 2 minutes. Add the coconut milk, the vegetable stock and the lentils and bring the mixture to a simmer. Reduce heat to medium low. Cook for 15 minutes, then stir in the pumpkin seeds and goji berries. Cook for an additional 2 minutes then remove from heat and serve. **D**



CHEF'S TIP

- A If smoked paprika is not available, use sweet paprika.*
- B Look for canned coconut milks that only contain coconut cream and water, and no additional fillers.*
- C Goji berries can be substituted with dried cranberries or mulberries.*
- D This dish is fantastic served hot or cold.*

Smashed Chickpea Avocado Sandwich

 **PREP TIME**
10 min

 **SERVINGS**
4

INGREDIENTS

1 can (540 mL) No salt added canned chickpeas, drained and rinsed

1 Avocado, peeled and diced

2 tbsp. (30 mL) Lemon juice

4 tsp. (20 mL) Grainy Dijon mustard

½ tsp. (2.5 mL) Salt

½ tsp. (2.5 mL) Black pepper

¼ cup (60 mL) Dill pickles, minced

¼ cup (60 mL) Celery, finely diced

¼ cup (60 mL) Green onions, finely minced

8 slices Whole Grain or Rye bread

1 cup (250 mL) Carrots, grated

½ cup (125 mL) Watercress, not packed



KEY INGREDIENTS

Chickpeas

Chickpeas, which are part of the legume family, are an excellent source of fibre, folic acid, zinc and antioxidants (anthocyanins), as well as a good source of iron (if eaten with a source of vitamin C). Incorporating legumes into your diet allows you to reduce consumption of red meat and processed meat and increase your intake of fibre and antioxidants. These are key elements in helping to reduce the risk of developing certain types of cancers, such as breast and colorectal cancers.

Green onions

Vegetables in the onion family (green onions, garlic, leeks...) contain different phytochemical compounds, including flavonoids, antioxidants which help neutralize free radicals that can damage the cells in our bodies. They also contain sulphur compounds, which have a protective effect against certain cancers, mainly those of the digestive system.

DIRECTIONS

1. Place chickpeas, avocado, lemon juice, mustard, salt, and pepper in a bowl. Using a fork, mash the ingredients together. **(A)**
2. Stir in the pickles, celery, and green onions.
3. Divide the chickpea mixture between 4 slices of bread, layer with carrots and watercress then place another slice of bread on top! **(B)**



CHEF'S TIP

- (A)** Feel free to add a sprinkle of freshly chopped cilantro or parsley to the chickpea mixture.
- (B)** Toast the bread for an extra crunch.



Lemon Blueberry Muffins



PREP TIME
10 min



COOK TIME
25 min



SERVINGS
12

INGREDIENTS

2 cups (500 mL) Plain non-fat Greek yogurt

5 Large eggs

2 tbsp. (30 mL) Lemon zest

1 tbsp. (15 mL) Lemon juice

½ cup (125 mL) Maple syrup

1 tbsp. (15 mL) Pure vanilla extract

1 ¾ cups (437 mL) Blanched almond flour

1 ½ cups (375 mL) All purpose flour

1 tbsp. (15 mL) Baking powder

¼ cup (62.5 mL) Whole chia seeds

1 cup (250 mL) Blueberries

KEY INGREDIENTS

Blueberries

Berries are an excellent source of polyphenols (anthocyanins and ellagic acid), which have huge anti-cancer potential. Studies have shown that these phytochemical compounds contain properties that interfere with various processes involved in cancer cell growth.

Yogurt

Yogurt contains several nutrients essential for proper body function, including protein, calcium and vitamin B12. It also contains valuable lactic acid bacteria, which contribute positively to the intestinal microbiota (the community of microorganisms found in our digestive system). Multiple studies have demonstrated the importance of a healthy intestinal microbiota in reducing the pro-inflammatory state that predisposes people to different chronic ailments, including type-2 diabetes, obesity, and colorectal cancer.

DIRECTIONS

1. Preheat oven to 350 °F and line a 12-cup muffin tray with silicone or paper liners.
2. Coat blueberries with 1 tbsp. of the all purpose flour, set aside.
3. In a bowl, whisk together the yogurt, eggs, lemon zest, lemon juice, maple syrup, and vanilla. **(A)**
4. In a separate bowl, sieve together both flours and baking powder, mix together with a whisk.
5. Add the flour mixture into the bowl with the wet ingredients and mix gently with a spatula. Make sure not to overmix the batter to ensure a fluffy muffin. The batter should look lumpy.
6. Gently stir in the chia seeds and blueberries into the muffin batter. Again, be careful not to overmix.
7. Divide the the muffin batter among the 12-cups and bake for 30 minutes or until a toothpick inserted into the middles comes out clean. Transfer the muffins onto a cooling rack. **(B) (C)**



CHEF'S TIP

- (A)** Add a dash of cinnamon or nutmeg for an extra zing!
- (B)** If you want a nice golden top, try broiling for 1 minute at the end.
- (C)** Each oven is different, so you should check the muffins after 25 minutes.

To discover more recipes, visit [foodthatfightcancer.ca](https://www.foodthatfightcancer.ca)

**POWERED BY
COLORECTAL CANCER CANADA**

Colorectal Cancer Canada is a non-profit organization dedicated to raising awareness and education about colorectal cancer, supporting patients and their caregivers and advocating on their behalf.



Preventable, Treatable and Beatable!

This material was developed with the generous financial support of Helderleigh Foundation.



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