

Eating well is important to help you feel well. A good diet will help you improve and maintain your strength and energy, and may help you to manage the side effects of your treatment.

The nutritionist(s) in our program are specialized in the specific dietary needs of a cancer care patient. The nutritionist can advise you on the type and amount of food you should eat during your treatment. An information session on nutrition will be scheduled at the same time as your orientation session. However, your oncologist or nurse may schedule you an individual meeting with a nutritionist if you are losing weight, you have difficulties with bowel movements or you have a particular problem related to nutrition.

Nutrition during Treatment

- Eat Healthfully including protein at each meal:
 - Egg, cheese, greek yogurt (high protein), fish, meat, legumes
- Increasing Calories and Protein
 - Add cooked meat, beans, chicken or fish to salads, casseroles, soups, omelets & quiches
 - Add 30-60 ml skim milk powder or 3 scoops of whey protein to 250 ml whole milk. Use in all recipes calling for milk, and in milkshakes
 - Add grated cheese to sauces, salads, soups, vegetables, omelets
 - Drizzle olive oil on soups, mashed potatoes, rice and vegetables
 - Nuts and seeds:
 - Eat them as snacks or add to breads, muffins, cookies, pancakes and waffles
 - Sprinkle on fruit, cereal, ice cream, yogurt, salads. Toast as a crunchy topping for fish and chicken instead of bread crumbs
 - Use peanut butter or nut butters on bread, apples, bananas, pancakes, waffles, muffins, milkshakes or swirl through ice cream or oatmeal
- Include healthy fats:
 - Avocado
 - Olive oil
 - Nuts and seeds
 - Nut butters (peanut, almond)
 - Coconut & coconut oil
- Sugars:
 - Limit or avoid:
 - Soft drinks
 - White refined sugar
 - Slushies
- Dairy Products:
 - No hormones in Canadian dairy products
 - Provide us with calcium, protein, energy Vitamin D...
 - Excellent contribution to a healthy diet



Starting Treatment, *possible* side effects of cancer treatment:

Weight Changes (↑ ou ↓)

Nutritional needs increase & appetite can decrease.

- Eat small frequent meals
- Eat high calorie, high protein foods
- Increase the nutritional content of foods. See your nutritionist for help with this.

Fatigue

- At the start of treatments, stock pantry & freezer with favorite frozen, canned or ready to use, easy preparation foods.
- Eat small, frequent meals

Anemia (low iron)

- Symptoms: fatigue, shortness of breath, headache, difficulty sleeping or concentrating, decreased appetite.
- Consider taking a multivitamin (Smokers should look for a multivitamin that does not contain Beta-Carotene)
- Meat Aversion occasionally occurs
- Non-Heme iron is better absorbed if eaten with foods rich in vitamin C
 - Cream of wheat (+ orange juice)
 - Spinach (+ mandarin slices)
 - Lentils (+ tomato sauce)
 - Pumpkin seeds (+ raisins)



Neutropenia

- Preventing food borne illnesses:
- Keep hands clean: Wash well with soap & water
- Thaw food in refrigerator or in microwave, NOT at room temperature
- Refrigerate leftovers within 2 hrs of cooking, eat them within 24 hrs
- Check Expiry dates
- Use different cutting boards for meats, fish, poultry than for fruit or vegetables (raw foods)

- Buy nothing in bulk: Nuts, seeds, herbs, flour, sugar, cereal, cookies etc. Always buy these foods pre-packaged
- Avoid Salad bars, buffets and potlucks
- Use only Pasteurized milk products, juices, and honey.
- Avoid Raw milk and raw milk cheeses



- Read labels

FRUITS & VEGETABLES

- If raw, wash well under running water. If it cannot be well washed, avoid or blanch
- Scrub rough surfaces (melons, pineapples) prior to cutting
- Cut away bruised areas before peeling or cutting
- Avoid home made jams or fruit preserves

MEAT, FISH, POULTRY, EGGS.

- Well cooked. No sushi, steak tartar, smoked salmon or sunny side up or soft boiled eggs
- Avoid Deli-meats
- Avoid fresh salad dressing containing raw eggs or aged cheese

Nausea

- Treatment: Antiemetic medication
- Managing symptoms with food:
 - Following a semi dry diet of crackers, toast, tea biscuits for 1-2 days will help ↓ nausea
 - Eat cool foods with less odor
 - Eat small meals every 2-3 hrs – Not eating can make nausea worse, so eat before you get hungry.
 - Avoid spicy, fatty foods such as fried foods, pastries, rich sauces or dessert
 - Sip fluids frequently to avoid dehydration (flat gingerale, sports drinks, herbal or ginger tea)
 - Limit your favourite foods when nauseous. It may cause a long lasting aversion to these foods

Diarrhea

- Decreases the absorption of vitamins minerals and nutrients
- Increases the loss of water and minerals and may cause dehydration. When dehydrated, the body does not work as well.
- Recommendations: Increase fluid intake:
 - Drink plenty of fluids (1.5-2.5L or 6-10 cups)
 - Fluids should be cool or warm
 - Drink slowly, small sips at a time
 - Limit caffeine (ex: colas, strong tea or coffee) or alcohol containing drinks

FLUIDS TO CHOOSE:

- Diluted juices (½ water + ½ juice)
- Liquid food supplements (lactose free) to replace loss of sodium, potassium, Zinc, Magnesium) (Ensure, Boost, Resource)
- Sports drinks (Gatorade G2/ PowerAde)
- Clear soups, broth, herbal teas, water

FOOD INTAKE:

- Eat small amounts every 2-3 hours instead of 3 large meals
- Eat slowly in a relaxed atmosphere
- Avoid deep fried and greasy foods
- If you have severe diarrhea, avoid dairy products temporarily unless using lactose free milk or Soya beverages

FIBER

In a normal diet there are 2 types of fiber:

- **Insoluble fiber:** Increases transit time through the intestine. It is not recommended, because it can be hard on the gastro-intestinal tract. Sources:
 - skin, seeds, membranes and kernels of fruits and vegetables
 - whole grain breads and cereals containing bran, nuts and seeds
 - corn, broccoli, legumes, leafy vegetables, prunes, berries, dried fruits

- **Soluble fiber:** Affects the consistency of stools. It is recommended because it decreases intestinal transit time and helps absorb water in the intestine. Sources:

- Oats, pectin, psyllium, oat bran, white rice, barley
- Potatoes without peel, cooked carrots
- Applesauce, ripe banana, peeled pears, peaches, apricots.



RECIPE 1

- Mix 30ml (2 Tbs) of pectin (Certo®) in 125 mL/4oz of diluted or regular fruit juices, every 4 hours.
- If necessary, may be increased to 60 mL (4Tbs)

RECIPE 2

- Mix 15 mL (1 Tbs) Metamucil with 30 mL (2 Tbs) apple sauce and 30 mL (2 Tbs) water
- Mix together and eat immediately



Constipation

- Possible Causes:
 - Low activity
 - Inadequate fluids
 - Medications
- Preventing constipation
 - Increase physical activity if possible
 - Increase Fiber
 - whole grain and bran cereals (all-bran, bran flakes, raisin bran, shredded wheat)
 - whole wheat flour, whole grain breads
 - whole wheat pasta, brown or wild rice
 - 5-7 serving of fruits and vegetables daily (whole foods preferable to juice)
 - Increase Fluids
 - Drink 6 – 8 glasses (1.5 – 2.0 L) of fluid each day
 - Natural laxatives such as stewed prunes, prune juice or SD's tea may be helpful



NATURALAX RECIPE

- 250 - 450 g (½ – 1 Lb) dates
 - 375 mL (1½ cups) Prune Juice
 - 454 g (1Lb) dried raisins
 - 225 g (½ Lb) pitted prunes
1. Cook dates in prune juice until soft
 2. Add raisins and prunes
 3. Blend. Lasts 2 weeks in refrigerator (Take 1 - 2 Tbsp each morning)

Sore Mouth or throat

- Prevention:
 - Keep mouth moist and regularly check that thrush is not present.
 - Rinse mouth before & after meals with baking soda and salt water (1 L water, 5 mL salt & 5 mL baking soda) See recipe on page 20.
- Treatment:
 - Antibiotics
 - If pain: medication to control the pain
 - Special mouthwash : magic mouthwash made with antibiotics and analgesic and no alcohol
- Should you develop a sore mouth or throat:
 - Eat high protein, soft or pureed foods: yogurt, rich puddings, smoothies



Avoid Tart, acidic, salty or spicy foods: Dry coarse foods (nuts, granola, granola bars)

- Use a soft bristle toothbrush
- Avoid dental floss, instead use a soft interdental brush
- Call us for additional help

Taste Changes

Many people experience taste changes during cancer treatment. This may vary depending on the treatment you are receiving and can differ with each person. Foods may taste bitter, metallic, salty, sweet, bland or just different

- Experiment with food flavors
- Foods that require less chewing may be better tolerated



- If foods taste metallic
 - Use plastic utensils or chopsticks instead of stainless steel utensils
 - Use glass cookware instead of metal pots or pans
 - Use fresh/frozen vegetables instead of canned
 - Try dry soup mixes instead of canned soups
 - To help mask the metallic taste, try marinating meat, chicken, fish in:
 - orange or lemon juice,
 - sweet & sour sauce,
 - wine, Italian dressing,
 - teriyaki or soy sauce,
 - vinegar or barbecue sauce



Avoid during treatment

- High doses of antioxidants
ex: Vitamin C supplements, Vitamins E supplements, Selenium supplements, Acai berries, pomegranate juice, pure blueberry juice
- Rich sources of pro-biotics
ex: Bio K+, Probiac, Danactive
- Omega 3 supplements, add chia seeds
- Non-pasteurized cheeses, raw meats/fish, runny eggs

If you really can't eat regular foods consider:

- Commercial products
 - Use instant breakfast powder in milk drinks and desserts.
 - Make high calorie, high protein milkshakes, puddings and desserts using nutritional supplements.
 - See your nutritionist for high calorie other suggestions.

Your nutritionist

Should you have difficulty with any of these side effects, please ask to see your nutritionist.

Once you've completed your treatment I'd be happy to discuss disease prevention through healthy living with you.

If you need additional support or would like to meet with a nutritionist on a more regular basis, we can also refer you to a nutritionist outside the hospital.

Centre Belle et Bien dans sa Peau offers cooking lessons on a monthly basis
4635 Côte-des-Neiges
Montreal
Tel.: 514 340-3616

Food suggestions during your chemotherapy treatment

Refrigerator Staples

- Refrigerated biscuits dough (Pillsbury type)
- Butter or margarine
- Eggs
- Cheese
- Parmesan (grated or in a chunk)
- Fresh fruits and vegetables (peppers, onions, shallots, parsley, garlic, mixed greens, lemon, lime) etc.
- Milk
- Sour cream
- Greek style yogurt

Freezer staples

- Chicken breasts
- Fish
- Frozen veggies
- Shrimps
- Yogurt or ice cream
- Frozen fruit

Pantry Staples

- Dry cereals : Barley, bulgur, couscous, corn, rice (quick cooking)
- Beans (canned)
- Bread
- Bread crumbs
- Broth, soups and creamed soups
- Evaporated skimmed milk
- Pasta (assorted shapes)
- Pizza crusts
- Sauces, marinades
- Tomatoes (canned)
- Tomato sauce, paste
- Tuna, salmon (canned)
- Oils (canola, olive)
- Vinegar (balsamic, rice, white)



Baking Staples

- Baking powder
- Baking soda
- Cake mixes
- Semi-sweet chocolate chips
- Cocoa powder
- Cornstarch
- Dried Fruits
- Flour (all purpose)
- Instant pudding
- Nuts
- Oatmeal
- Sugar
- Extracts (vanilla, almond...)

Condiment Staples

- Capers
- Hot sauce
- Honey
- Ketchup
- Mayonnaise
- Mustard (Dijon or baseball)
- Roasted red peppers (jarred)
- Salad dressing
- Worcestershire sauce

Spice Pantry Staples

- Basil leaves
- Bay leaves
- Chili powder
- Cilantro
- Cinnamon (ground)
- Cumin (ground)
- Curry
- Garlic Powder
- Ginger (ground)
- Nutmeg
- Oregano leaves
- Paprika
- Parsley
- Pepper
- Rosemary
- Tarragon
- Thyme



Suggested meals and recipes for the day of your chemotherapy treatment and the day after

On the day of your chemotherapy treatment

Breakfast

- Eggs
- Cereal
- Juice
- Oatmeal
- Fruit
- Smoothie
- Tea / Coffee
- Sports drink

Afternoon/Evening

- Soup
- Toast & cheese
- Pudding
- Noodles with cheese
- Peanut butter and Jelly sandwich
- Ham and cheese sandwich
- Water
- Sports drink
- Remember 8 cups of fluid/day

Suggested meals on the day following your chemotherapy treatment

Breakfast

- Toast
- Fresh fruits
- Greek style yogurt
- Instant breakfast
- Tea
- Smoothie

Lunch (24 hours post Chemotherapy)

- Chicken
- Barley and Bow-Tie soup (see recipe on next page)
- Tuna salad
- Water

Dinner (24 hrs post Chemotherapy)

- Perfect Lemon Pasta
- Cheese Macaroni
- Simply delicious Chicken
- Yam Biscuits
- Water

Cinnamon Rolls

Makes 10 rolls

- 1 (10 biscuit) can refrigerated biscuits or whole wheat biscuits
- 4 Tbs margarine, softened
- 2 Tbs sugar
- 1 Tsp ground cinnamon
- 1/4 cup raisins
- 1/4 cup chopped pecans



Preheat oven to 425 °F. Flatten each biscuit with your hand or a rolling pin. Spread each biscuit with margarine. In a small bowl, combine sugar and cinnamon. Sprinkle cinnamon mixture on top of margarine. Sprinkle with raisins and pecans. Roll up each biscuit from one side to the other. On an ungreased 15x10x1 inch baking sheet, arrange each biscuit roll to form a circle touching one end of the roll to the other. Bake for 8 to 10 minutes.

Berry French Toast

Makes 8 servings

- 5 cups mixed berries
- ¼ cup sugar plus 1 Tbs sugar divided
- 1 Tsp ground cinnamon
- 1 large egg
- 4 large egg whites, beaten
- 1 Cup milk
- 1 Tsp pure vanilla extract
- 1 (16 oz) loaf French bread sliced in 1 inch slices



Preheat oven to 350 °F. In an oblong, 2 quart casserole, put berries, 1/4 cup sugar and cinnamon. In a large bowl, combine egg, egg whites, milk and vanilla. Add bread and soak for 5 minutes turning half way through. Arrange bread in one layer over berries. Sprinkle with remaining sugar. Bake for 25 to 30 minutes or until bread is golden. Serve with berry juice and berries.

Dietitian's Note: Breakfast foods can be eaten any time of day. The berries provide a good source of vitamin C, while the egg, egg whites and milk pump up the protein.

Chicken, Barley and Bow-Tie Soup

Makes 10 to 12 servings



- 2 1/2 lbs skinless, boneless chicken breasts cut into 1 inch pieces
- 1 cup chopped celery
- 1 1/2 cups chopped onion
- 2 cups thinly sliced carrots
- 1 bay leaf
- 12 cups water
- 1/2 cup pearl barley
- Salt & pepper to taste
- 1/2 Tsp dried basil leaves
- 3 chicken bouillon cubes
- 1 (16 oz.) package bow-tie pasta

Place the chicken, celery, onion, carrots, bay leaf and 12 cups of water in a large pot. Bring to a boil and add the barley. Reduce the heat, cover and cook until the chicken and barley are done, about 30 mins. Season with salt and pepper and add the basil and bouillon cubes. Meanwhile, cook the pasta according to package directions, omitting oil and salt. Drain and set aside. Remove bay leaf and add pasta.

Tuna Salad

Makes 8 servings

- 2 (6 oz) cans, white tuna packed in water and drained
- 1 (11 oz) can mandarin oranges, drained
- ¼ lb fresh mushrooms, sliced
- 1 (14 oz) can artichoke hearts, drained and cut in half
- 1 (8 oz) can sliced water chestnuts, drained
- Carefully combine all ingredients in a large bowl. Toss with Dressing and serve immediately.



- Dressing
- ¼ cup mayonnaise
 - ¼ cup plain yogurt
 - 1 Tbs Lemon juice
 - 1 tsp sugar
 - 1 bunch green scallions, chopped

Perfect Lemon Pasta

Makes 6 to 8 servings
1 (12 oz) package angel hair pasta
3 Tbs olive oil
2 cloves garlic, minced
1 Tbs finely chopped parsley
Juice of 1 lemon (or to taste)
Grated parmesan to taste

Cook pasta according to directions on package, omitting salt and oil. Drain and set aside. In a small pan, combine olive oil, garlic and parsley. Sauté for a few minutes. Remove from pan and combine with lemon juice. Pour over cooked pasta, sprinkle with parmesan and toss. Serve immediately.



Cheesy Macaroni

Makes 8 servings



1 (16 oz) package elbow macaroni
2 Tbs cornstarch
2 cups milk
1 (8oz) package sharp Cheddar cheese, cut into chunks
1 (16 oz) container cottage cheese
Salt and pepper to taste

Cook pasta according to package directions, drain. In a large pot, mix together cornstarch and milk over medium heat, stirring until thickened. Add Cheddar cheese, stirring until melted. Add pasta, tossing until well combined and heated. In a food processor, blend cottage cheese until smooth. Add to pasta mixture. Season with salt and pepper.
Makes a great light main dish.

Simply Delicious Chicken

Makes 8 servings

2 lbs boneless, skinless, chicken breasts
1/3 cup all-purpose flour
Salt and pepper to taste
2 Tbs canola oil
1 cup canned fat-free chicken broth
1 Tbs cornstarch
Juice of 1/2 lemon
2 Tbs chopped parsley

Dust the chicken breasts with flour and salt and pepper. In a large skillet, sauté the chicken in oil until brown and almost done. Mix together the chicken broth and cornstarch; add to the skillet. Stir in the lemon juice, sprinkle with parsley and enjoy.

