



# Crohn's Disease and Diet

## What is Crohn's Disease?

Crohn's disease is a condition that causes inflammation in the intestine. The symptoms of Crohn's disease depend on the severity of the disease and what part of the intestine is affected. The most common symptoms are abdominal pain/cramping, diarrhea and fever.

## Can Diet Help?

The following diet recommendations can help you to:

- Manage symptoms of Crohn's disease
- Maintain normal bowel function
- Keep well nourished

## Diet Recommendations for Crohn's Disease

*People living with Crohn's disease often have periods of remission (mild or no symptoms) in addition to periods of flare-up (moderate or severe symptoms). The diet recommendations for Crohn's disease depend on whether you are in a remission period or a flare-up period. Follow the diet recommendations that are appropriate for the period that you are in (see **Flare-up Period** or **Remission Period** below).*

### Flare-up Period

- When the small intestine is inflamed during a flare-up, the inside of the small bowel can become narrow. This can make it more difficult for high residue foods (i.e. bulky food or food with coarse

### Flare-up Period (continued)

particles) to pass through. High residue foods can therefore cause cramping or abdominal pain during a flare-up. It may help to follow a low-residue diet during this time. See **Appendix 1 - Low Residue Diet** for foods that are recommended. When your symptoms improve (i.e. you enter the remission period), you can start to add high residue foods back into your diet as tolerated.

- You may find it helpful to eat smaller and more frequent meals if regular or large size meals cause you to feel “too full” or are making your symptoms worse
- If you are having problems with gas or diarrhea, see **Appendix 2 - Tips to Reduce Gas and Bloating** and **Tips to Reduce Diarrhea**
- If you are losing weight or not eating well because of your symptoms, you may want to try strategies to improve your calorie or protein intake to help keep you nourished. See **Appendix 3 - Tips to Increase Calorie and/or Protein Intake**. Meal replacement supplements (i.e. Ensure, Boost, Carnation Breakfast Anytime) can also help you meet your nutrition needs during a flare-up. These can be purchased from pharmacies and some grocery stores. If you have any questions about these supplements, your dietitian can help you.
- If you experience cramps, bloating or diarrhea when you consume milk, you may have lactose intolerance. If you have lactose intolerance you should follow a lactose-reduced diet to manage your symptoms (ask your dietitian for information on the lactose-reduced diet).
- Avoid other foods that you think are causing you problems
- Drink 9-13 cups of fluid every day
- Try to limit alcohol (may interact with medication or trigger diarrhea and indigestion)

- If you are having issues of prolonged diarrhea or poor intake, your dietitian or physician may recommend a vitamin/mineral supplement to ensure your nutrition needs are being met.
- Note: if your symptoms are severe (i.e. you are admitted to hospital) you may temporarily be on complete bowel rest, a fluid diet, or in some cases a feeding tube may be used.

### **Remission Period**

- If you are having no symptoms, then there are no specific foods to avoid. You can generally consume foods as tolerated.
- If you do notice there are certain foods that bother you, you may want to avoid these foods. It may help keep a food journal to track these foods.
- If you experience cramps, bloating or diarrhea when you consume milk, you may have lactose intolerance. Lactose intolerance appears to be more common in people with Crohn's disease. If you have lactose intolerance you should follow a lactose-reduced diet to manage your symptoms (ask your dietitian for information on the lactose-reduced diet)
- To help you have regular bowel movements:
  - Drink 9-13 cups of fluid every day
  - Consume 25 - 30g fibre per day. To increase your fibre intake:
    - Eat 5-10 servings of fruits and vegetable every day
    - Choose whole grain breads, brown rice, whole-wheat pasta, high fibre cereals (i.e. oatmeal, bran flakes, All-bran, etc.)
    - See **Appendix 4 - Fibre Content of Some Common Foods** to help you make high fibre food choices
- If you are having problems with gas or diarrhea, see **Appendix 2 - Tips to Reduce Gas and Bloating** and **Tips to Reduce Diarrhea**
- Try to limit alcohol (may interact with medication or trigger diarrhea and indigestion)

## APPENDIX 1. Low Residue Diet

Food Group	Foods Recommended	Foods to Avoid
Milk products	All	
Breads and cereals	<p>All made from white refined flours without nuts, seeds, or dried fruit</p> <p><b>Breads</b> - plain, white or rolls</p> <p><b>Crackers</b> – soda, melba toast, rusks or similar</p> <p><b>Cereals</b> – plain refined cereals, Rice Krispies®, Special K®, Corn Flakes®, puffed rice, cream of rice, cream of wheat, oatmeal</p> <p><b>Pasta &amp; Rice</b> – plain refined noodles, white rice</p>	<p>Whole grain flours and baked products with nuts, seeds, dried fruit</p> <p><b>Breads</b> - rolls, crackers or cookies containing nuts, seeds, dried fruit</p> <p><b>Cereals</b> – bran, whole grain cereals, granola cereals with nuts or dried fruit.</p> <p><b>Pasta &amp; Rice</b> - Whole grain pasta, brown or wild rice</p>
Meats and alternatives	All meat, fish, poultry, cheese and eggs	Legumes (lentils, dried beans, peas, soybeans), nuts and seeds
Fruits	Fruit juice (except prune), <u>canned</u> fruit, banana, <u>peeled</u> apple or pear, applesauce, cantaloupe, honey dew melon	Prune juice, prunes, dried fruit, fresh fruit with skins and seeds, rhubarb, berries
Vegetables	<u>Cooked vegetables</u> – carrots, potatoes, parsnip, squash, beets, green or wax beans, tomatoes (no skins or seeds), tomato sauce, tomato paste, vegetable juices	Raw vegetables, vegetable skins (potato), stringy vegetables (asparagus, celery), broccoli, brussels sprouts, cabbage, corn, cauliflower, cucumber, eggplant lettuce, green pepper, radishes, spinach, mushrooms, peas, turnip
Desserts	Desserts made <u>without nuts and seeds or dried fruits</u> ; plain cakes or cookies, Jell-O, ice cream, milk puddings, or mousse, sherbet	Desserts made with nuts or seeds, dried fruit
Other	<u>Smooth</u> peanut butter Plain candies, chocolate, jelly, honey, syrup	Crunchy peanut butter Coconut, olives, pickles, popcorn, candies made with nuts or dried fruits, jam, marmalade

## APPENDIX 2.

### Tips to Reduce Gas and Bloating

- Avoid swallowing excess air. For example, avoid:
  - carbonated beverages
  - gulping food
  - drinking through a straw
  - chewing gum
  - sucking on candy
- Try limiting gas-producing foods in your diet for a week or two to see if this helps (i.e. beans, legumes, broccoli, cauliflower, cabbage, brussels sprouts, onions, peppers)
- Eat slowly
- Avoid stress
- Reduce fatty foods if they cause bloating

### Tips to Reduce Diarrhea

- Try increasing the amount of soluble fibre in your diet. Soluble fibre dissolves in water and can absorb excess liquid in the colon, reducing diarrhea. Foods that are high in soluble fibre and that may help reduce diarrhea include: oatmeal, oat bran, legumes (avoid in flare-up period), rice, rice cereals, potatoes, psyllium, squash, turnips, bananas, applesauce, mangoes, turnips, yams, carrots, corn meal, barley, white breads, papayas.
- Try reducing the amount of insoluble fibre in your diet. Foods that are high in insoluble fibre include whole-grain breads and cereals, fruit and vegetable skins and seeds (foods high in insoluble fibre can be found in the “Foods to Avoid” section in **Appendix 1 - Low Residue Diet**). Note that if you don't have diarrhea and your symptoms from Crohn's disease are mild to absent (i.e. remission period), then foods high in insoluble fibre should not be avoided as they are an important part of your diet.
- Avoid large amounts of added sugar or high sugar foods
- Avoid foods containing sorbitol or mannitol (often found in artificially sweetened foods)
- Avoid lactose-containing foods if you have lactose intolerance
- Reduce fatty foods
- Avoid caffeine-containing beverages

### **APPENDIX 3. Tips to Increase Calories and/or Protein Intake**

These items are high in calories and/or protein and can be added to foods or sometimes beverages to increase your calorie/protein intake:

- Butter, margarine, oil
- Whole milk, cream, whipping cream
- Cheeses, cream cheese, cottage cheese
- Sauces, gravy
- Salad dressing, mayonnaise, sour cream
- Ice cream
- Jam, jelly, syrup, sugar, honey
- Skim milk powder
- Smooth peanut butter or other smooth nut/seed butters
- Smooth yogurt (no seeds or particles)

#### ***High calorie and/or protein recipes:***

(Try these recipes to increase your calorie/protein intake)

##### ***High Protein Milk***

1 cup                      whole or 2% milk  
4 tablespoons        skim milk powder

Add skim milk powder to milk. Mix until powder is dissolved. Refrigerate overnight. Try different flavourings: vanilla, chocolate, strawberry, and coffee. Makes 1 cup.

Per serving: 211 calories, 14 grams protein using whole milk  
                  185 calories, 14 grams protein using 2% milk

##### ***Power Milkshake***

1 cup                      high protein milk (recipe above)  
½ cup                     ice cream  
½ teaspoon            vanilla extract  
2 tablespoons        butterscotch, chocolate or strawberry syrup

Mix ingredients together in a blender. Makes 1 serving. Try adding fresh or canned fruit, jam or instant coffee.

Per serving: 425 calories, 14.5 grams protein

### ***Sherbet Shake***

½ cup gingerale or lemon flavoured soft drink  
½ cup sherbet, any flavour  
2 tablespoons frozen juice concentrate, any flavour  
sugar to taste

Mix in a blender. Makes 1 serving. Try adding cream, fresh or canned fruit or jam.

Per serving: 195 calories, 1.5 grams protein

### ***Super Pudding***

2 cups 2% or whole milk  
2 tablespoons vegetable oil  
¾ cup skim milk powder  
1 package (4.5 oz) instant pudding mix

Mix liquid milk with oil. Blend in skim milk powder until smooth. Add pudding mix and mix well. Refrigerate. Serve topped with sliced fruit and whipped cream. Makes 4 servings.

Per serving: 293 calories, 9 grams protein

## **APPENDIX 4. Fibre Content of Common Foods**

<b>A Very High Source</b>	<b>Serving Size</b>
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<b>(more than 6 grams of fibre/serving)</b>	
<ul style="list-style-type: none"> <li>• High fibre bran cereal (All Bran®, Bran Buds®, 100% Bran®, check labels for other cereals)</li> <li>• Legumes (dried peas, beans, lentils), kidney beans, lima beans, baked beans, green peas</li> <li>• Dates, dried</li> </ul>	<ul style="list-style-type: none"> <li>• ¾ cup</li> <li>• 1 cup</li> <li>• 4 large</li> </ul>
<b>A High Source (4-6 grams of fibre/serving)</b>	<b>Serving Size</b>
<ul style="list-style-type: none"> <li>• Pear with skin</li> <li>• Sweet potato</li> <li>• Figs, dried</li> <li>• Prunes</li> <li>• Apricots, dried</li> <li>• Raspberries</li> <li>• Pasta, whole wheat</li> <li>• Barley, cooked</li> <li>• Blueberries</li> <li>• Brussels sprouts, cooked</li> <li>• Bran Flakes®, Corn Bran®, Raisin Bran®</li> </ul>	<ul style="list-style-type: none"> <li>• 1 medium</li> <li>• ½ cup</li> <li>• 5</li> <li>• 7</li> <li>• 8</li> <li>• ½ cup</li> <li>• 1 cup</li> <li>• 1 cup</li> <li>• ½ cup</li> <li>• ½ cup</li> <li>• ¾ cup</li> </ul>
<b>A source (2-4 grams of fibre/serving)</b>	<b>Serving Size</b>
<ul style="list-style-type: none"> <li>• Whole wheat, multigrain bread</li> <li>• Whole wheat pita bread</li> <li>• Brown rice, cooked</li> <li>• Baked potato with skin</li> <li>• Nuts (almonds, walnuts, peanuts)</li> <li>• Peanut butter</li> <li>• Sesame seeds</li> <li>• Orange, banana, kiwi, nectarine, peach, apple with skin</li> <li>• Strawberries</li> <li>• Most vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• 1 slice</li> <li>• ½ pita</li> <li>• 1 cup</li> <li>• 1 medium</li> <li>• ¼ cup</li> <li>• 2 tbsp</li> <li>• 2 tbsp</li> <li>• 1 medium</li> <li>• 1 cup</li> <li>• ½ cup</li> </ul>

**Produced by Dietitians of the Niagara Health System, 2006**