

# Eating more fibre on a gluten free diet

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## What is dietary fibre?

Dietary fibre is part of all plant foods. It is the part of the plant that our bodies cannot digest.

## Why is a high-fibre diet important when you have Celiac Disease?

A gluten free diet can often be low in fibre. The reason for this is that many whole grains contain gluten. When these high fibre foods are removed from the diet, it can be difficult to get enough fibre from other foods. A low fibre diet can lead to constipation. This means you may have fewer bowel movements than usual. Other signs of constipation include having a small, dry and hard stool that may be painful to pass. If you had diarrhea before being diagnosed with Celiac Disease, you may develop constipation once your digestive tract has healed.

Fibre provides many health benefits including:



- promotes regular bowel movements
  - helps you feel full
  - helps maintain a healthy weight
  - lowers cholesterol
  - lowers the risk of heart disease, colon and rectal cancer
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## How much fibre do I need?

Age Group (years)	Intake Goal (grams a day)
1 to 3	19
4 to 8	25
9 to 13	Male: 31 Female: 26
14 to 18	Male: 38 Female: 26
19 to 50	Male: 38 Female: 25
over 50	Male: 30 Female: 21
Pregnancy	28
Breastfeeding	29

## What is the best way to increase my fibre intake?

### Grains/flour

- Read labels and try to choose foods with more than 4 grams of fibre per serving.
- Consider gluten free popcorn for a snack.
- Add gluten free oatmeal if your dietitian agrees
- Add 1 to 2 tbsp rice bran, corn bran, hemp seeds, chia seeds, nuts, seeds, dried fruit to, gluten free cereals, muffins, cookies, breads and yogurt. You will need to add some more water to adjust for this.
- Use brown rice, buckwheat, quinoa, millet, teff or wild rice in salads or pilafs.
- Choose higher fibre pastas made with bean flour, quinoa and brown rice.



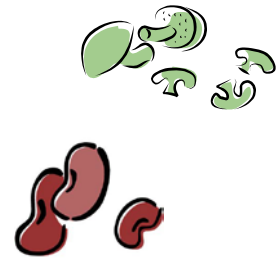
## Vegetables and fruits

- Add your favourite berries to cereal, yogurt or cottage cheese.
- Eat fresh fruit and vegetables more often than juice. You could try some fruit for dessert or make a fresh fruit smoothie. You can even add vegetables like spinach or kale into your smoothie.
- Eat the skin on your fruits and vegetables more often.
- Snack on dried fruits or raw fruits and vegetables. Add dried fruit to cereals or your favourite baked goods.
- Eat at least 5 servings of vegetables and fruits each day.



## Legumes

- Legumes, such as chick peas, kidney beans and lentils can replace meat in many recipes. Add some beans, peas and lentils to your next salad, soup, stew and casserole recipe. You can even add black beans or lentils to your spaghetti sauce. Try blending 1 cup of cooked black beans or lentils with 1 ½ cups of spaghetti sauce.
- Use legume-based dips like hummus instead of sour cream-based dips. Try dipping some raw vegetables.



## Nuts and seeds

- Have a handful of almonds as a snack or sprinkle some nuts and seeds onto a salad, stir fry, cereals or yogurt.
- Add chia seeds to yogurt and cereals.
- Add flaxseeds to your foods often. Flaxseeds are very high in fibre and great for your general health.



**How to use flaxseeds:**

- Add whole or ground flaxseeds to recipes when baking:
  - Use in muffins, breads, pancakes, waffles, cookies, casseroles, meat loaf, stew, spaghetti sauce, rice dishes and hot cereals.
  - Add more water to adjust – add 1 tbsp water for every 3 tbsp ground flaxseeds you add.
  - You may also need to use a lower cooking temperature.
- Ground flax seeds can be used to replace eggs in a recipe. It is best used in cookie recipes by soaking 1 tsp of ground flax seeds in boiling water for 5 minutes. The mixture must be cooled before using.
- Always store ground flax seeds or flax oil in a sealed, opaque container in the refrigerator.

**Meat and milk products**

- Do not naturally contain fibre. Try yogurt with fruit added.

**Fibre rich, gluten free foods**

Choose high or medium fibre foods most often.

<b>Food and serving size</b>	<b>High fibre (more than 4 grams)</b>	<b>Medium fibre (2 to 4 grams)</b>	<b>Low fibre (2 grams or less)</b>
<b>Grains</b>  1/2 cup unless otherwise shown	almond flour amaranth and amaranth flour buckwheat flour/groats chickpea flour cornmeal corn bran, flour mequite flour millet and millet flour pea flour pure uncontaminated oat groats quinoa rice bran flour sorghum and sorghum flour soy flour teff and teff flour	brown rice rice flour (brown) wild rice	white rice

**Fibre rich, gluten free foods (continued)**

<b>Food and serving size</b>	<b>High fibre (more than 4 grams)</b>	<b>Medium fibre (2 to 4 grams)</b>	<b>Low fibre (2 grams or less)</b>
<b>Fruit</b>  ½ cup unless otherwise shown	apricots, dried dates, dried figs, 2, dried pear, 1, with skin prunes, dried raspberries	apple, 1, with skin banana, 1 blackberries blueberries, ¾ cup kiwi, 1 orange, 1 strawberries, ¾ cup raisins	applesauce cantaloupe cherries grapes mango peach or nectarine, 1 pineapple rhubarb watermelon
<b>Vegetables</b>  ½ cup unless otherwise shown	acorn squash, baked baked potato, with skin, 1 medium green peas	broccoli Brussels sprouts carrots corn green beans parsnips snow peas spinach	asparagus cabbage cauliflower celery lettuce (iceberg or romaine) peppers tomato turnip zucchini
<b>Legumes</b>  ½ cup unless otherwise shown	black beans chickpeas edamame kidney beans lentils navy beans pinto beans romano beans soy beans split peas white beans		
<b>Nuts and seeds</b>  ¼ cup unless otherwise shown	almonds flax seeds, 2 tbsp sesame seeds	hazelnuts peanuts pecans pistachios sunflower seeds	cashews peanut butter, 2 tbsp walnuts
<b>Gluten free products</b>  Portion size varies	Vega Vibrancy bar, 1 Simply Bar, 1 Beanitos chips, 18 such as black bean Neal Brothers Foods Tortilla chips, 18 such as blue corn with flax	oatmeal, dry, gluten free, ½ cup Nature's Path cereal, ¾ cup Bakery on Main granola, ¾ cup such as apple- raisin-walnut	Kettle Brand Potato Chips, 18 to 20

## Increasing your fibre intake to help manage constipation

### Tips:

1. Increase fibre gradually.
2. Start with a small amount at a time to prevent abdominal cramps and gas.
3. As you increase fibre, also drink more fluids each day. Aim for 8 glasses a day (8 cups or 2 litres).
4. Talk to your healthcare team if you continue to have problems with constipation. They can recommend a gluten free fibre supplement or stool softener or laxative that is right for you.



## Recipes to try at home

### Green smoothie (3 servings)

1 ½ cups	milk or vanilla soy beverage
1 cup	spinach, lightly packed
1	banana, ripe
½ cup	raspberries, fresh or frozen
½ cup	blueberries, fresh or frozen
2	ice cubes

### Directions:

1. Blend together milk or soy beverage, spinach, banana, raspberries, blueberries and ice cubes. Cover with lid and blend until smooth.
2. Pour into glasses and serve.

### Nutrition Information:

162 calories, 6 g protein, 3 g fat, 30 g carbohydrate,  
3 g fibre, 95 mg sodium



**Chili (8 servings)**

4 ¼ cups canned tomato sauce (no added salt)	1 large red bell pepper, chopped
1 cup canned diced tomatoes (no added salt)	1 large green bell pepper, chopped
1 can (15 oz) canned black beans, drained and rinsed	1 ¾ cups chopped carrots
1 can (15 oz) red kidney beans, drained and rinsed	1 ½ cups chopped mushrooms
1 cup sweet corn kernels, frozen	1 ½ tbsp chilli powder
1 ½ cups chopped onions	2 tsp crushed garlic
	1 tsp Worcestershire sauce
	1 tsp cumin

**Directions:**

1. Place the tomato sauce, tomatoes, chili powder and cumin in a large pot. Stir over low heat. Once mixture is heated, stir in the garlic and continue to cook for about 5 minutes. Add carrots and continue to cook over low heat.
2. Over medium heat, cook onions, peppers and mushrooms for 3 to 5 minutes in a large pan. Add the onions, peppers and mushrooms to the large pot.
3. Add beans, corn and Worcestershire sauce to the pot. Mix well.
4. Cook over low heat for about 2 hours, stirring every 20 minutes. Cook until the carrots are soft.

**Nutrition Information:**

175 calories, 8.3 g protein, 1.1 g fat, 36.5 g carbohydrate, 9.4 g fibre, 230 mg sodium

**Banana-berry shake (2 servings)**

- 1 banana
- 1 cup berries, fresh or frozen (any combination)
- 1 cup milk or vanilla-flavored soy beverage
- ¾ cup yogurt (plain or flavour that compliments berries)

**Directions:**

Blend together the bananas and berries with a small amount of the milk. Add remaining milk and yogurt; blend until smooth. If the shake is too thick, add extra milk or soy beverage.

**Nutrition Information:**

231 calories, 9 g protein, 4.6 g fat, 41 g carbohydrate, 4 g fibre, 104 mg sodium



**Notes:**

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