

Eat More Soluble Fibre

Fibre is a type of carbohydrate we do not digest. It comes from plant foods like vegetables, fruits, grains, legumes, nuts, and seeds. There are also fibre supplements. Fibre can be in two forms: insoluble and soluble.

If you are looking for ways to increase your soluble fibre, this handout can help you.

Health benefits of soluble fibre

Soluble fibre may improve your health in many ways:

- Helps to manage your blood sugar.
- Lowers cholesterol to improve heart health.
- Softens stool if you have constipation.
- Creates formed stool if you have diarrhea or loose stools.
- Helps you feel full longer.
- Helps to increase healthy bacteria in your gut, and improves the health of your colon.
- Reduces symptoms of inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS).

Main actions of soluble fibre

The health benefits of soluble fibre are linked to how it acts in your gut. All soluble fibres dissolve in water. There are three main actions:

Gel-forming fibre

Forms a thick gel. Also called viscous fibre.

Fermenting fibre

Makes gas in your gut.

Prebiotic fibre

Provides food for healthy gut bacteria.

The next section describes 3 types of soluble fibre based on these main actions.

Types of soluble fibres:

1. Gel-forming



These fibres form a gel, help with nutrient absorption, and do not ferment (cause gas).

Health benefits: Improve blood sugars, lower cholesterol, normalize stool in people with diarrhea and constipation, and may reduce symptoms of IBS and IBD.

Sources:

- Psyllium husk and powder

Tips to eat more gel-forming fibre:

- You can buy psyllium in many forms: husk, powder, pills, flavoured drink powders, cookies, cereal, and bars.
- Add 1–2 Tbsp (15–30 mL) of psyllium husk or powder to water, juice, smoothies, or hot or cold cereals; drink or eat soon, before it thickens.
- Psyllium powder can be used to thicken sauces, soups, stews, and dressings. Add small amounts at a time, and wait a few minutes for it to thicken.
- Sprinkle 1–2 tsp (5–10 mL) of psyllium husk or powder on yogurt topped with frozen berries. As the berries thaw, the psyllium soaks up the berry juices and thickens to make a berry jam.
- Add psyllium husk or powder to baking (bread, buns, pizza dough, and muffins). Try any one of the methods below:
 - Replace each egg in your recipe with 1 tsp (5 mL) psyllium and ¼ cup (60 mL) of water.
 - Replace the xanthan gum in your gluten-free recipe with psyllium.
 - For every 1 cup (250 mL) of flour in your recipe, add 1 Tbsp (15 mL) of psyllium.



Psyllium husk and powder

2. Gel-forming and fermenting

These fibres form a gel, help with nutrient absorption, and form gases.



Health benefits: Can improve blood sugars, lower cholesterol, and increase the feeling of fullness.

Sources:

- barley
- chia seed
- flax seed, ground
- konjac mannan noodles, rice, or pasta
- oats
- pectin in fruits: apple, gooseberry, guava, orange, pear
- guar gum

Tips to eat more gel-forming, fermenting fibre:

• Oats and barley

- Choose oats or oatmeal in place of other hot or cold cereals.
- Add oat bran or oats to muffins and cookie recipes.
- Make oat flour by blending whole oats in a blender or food processor.
- Replace all or half of the white or whole wheat flour with oat flour or barley flour when baking.
- Add oats or barley to congee.
- Make mantou and roti with oat or barley flour.
- Replace all or half your rice or pasta with barley.

• Seeds

- Add ground flax seeds or chia seeds to baking, cold and hot cereals, yogurt, home-made breads, and smoothies.



• Glucomannan (konjac mannan)

- Try konjac noodles, rice, or pastas.
- Also called shirataki noodles.



• Fruit

- Add apricots, pears, or oranges to a fruit salad.
- Eat apples, gooseberries, and other fruits as snacks.

3. Prebiotic and fermenting

These fibres form gases and do not form a gel.



Health benefits: These prebiotic fibres feed the healthy bacteria in your gut. Healthy bacteria improve digestion, help absorb nutrients, boost immunity, and help prevent disease.

Sources:

- Inulin is found in wheat, onions, bananas, garlic, asparagus, and sunchoke. Powdered supplements may list chicory root as an ingredient.
- Inulin, wheat dextrin, and partially hydrolyzed guar gum are gluten-free supplements.
- Resistant starch is found in bananas, plantains, legumes, peas, and soybeans.

Tips to eat more prebiotic fibres:

• Inulin

- Dissolve 1-2 tsp (5-10 mL) of inulin in liquid or soft food such as water, coffee, or oatmeal. Follow the directions on the package.
- Inulin fibre supplements do not change the taste, colour, or texture of food or drink (hot or cold).

• Legumes, soybeans, and vegetables

- Snack on soy nuts or edamame or add to salads.
- Add chickpeas, black, navy, or kidney beans to salads, soups, stews, pasta sauce, and meatloaf.
- Try recipes using cooked pureed lentils in cookies, squares, and pasta sauce.
- Try recipes using flours made from soy, chickpea, or beans in your baking, burgers, and fish cakes.
- Bake, steam, or roast asparagus or beets.
- Add onion to soup, stew, meatballs, and stir-fry.
- Try pastas made from lentils and legumes.
- Cook, cool, then reheat rice, pasta, and potatoes to increase resistant starch.



How much soluble fibre do I need?

Aim for 5–10 grams of soluble fibre each day. To help get enough fibre, use the tips in this handout. The amounts of soluble fibre in common foods is on pages 4 and 5.

Talk to your dietitian if you have questions about how much soluble fibre is right for you.

How can I increase fibre safely?

Slowly increase fibre:

When you start eating more fibre, you may have mild gas, bloating, or discomfort. It helps to increase your fibre slowly over a few weeks. This helps you get used to the added bulk without discomfort.

Fluids:

With more fibre, extra fluid is needed to make soft stools. Drink plenty of fluids, like water. Aim for 9–12 cups (2.25–3 litres) each day.



Fibre supplements

Foods high in fibre contain vitamins and minerals. Getting fibre from foods is best. If you can't get enough fibre-rich food, a fibre supplement can help you meet your suggested daily amount.

Carefully read the fibre supplement label for warnings and instructions. It's important to drink the amount of fluid suggested on the package. Fibre supplements can cause gas, cramps, and bloating if you do not drink enough fluids to make them work properly.

Take the fibre supplement at least 2 hours before or after your other medications.

Goal setting

This handout includes many choices to help you eat more soluble fibre. Change can be hard, especially if making too many changes at once.

When you're ready to make a change, it can help to set a goal. Break your goal into smaller steps. You're more likely to reach smaller goals.

More support

Use this space to write your goals to eat more soluble fibre. Talk to your dietitian if you would like more support.

Health Link has dietitians to answer nutrition questions. Call 811 and ask to talk to a dietitian.

Food sources of fibre

The table below provides a list of common foods higher in soluble fibre. Aim for 5–10 g of soluble fibre a day, or the amount your dietitian suggests.

Fibre-rich foods	Serving size	Amount of fibre	
		Total	Soluble
Vegetables (cooked)			
Winter squash	½ cup (125 mL)	3.4 g	1.9 g
Brussel sprouts	½ cup (125 mL)	3.2 g	1.9 g
Parsnip	½ cup (125 mL)	3.1 g	1.8 g
Turnip greens	½ cup (125 mL)	2.5 g	1.7 g
Sweet potatoes and yams	½ cup (125 mL)	3.8 g	1.4 g
Green peas	½ cup (125 mL)	4.4 g	1.3 g
Broccoli	½ cup (125 mL)	2.4 g	1.2 g
Carrots	½ cup (125 mL)	2.6 g	1.1 g
Okra	½ cup (125 mL)	2.6 g	1.0 g
Beets	½ cup (125 mL)	1.7 g	1.0 g
Onion	½ cup (125 mL)	1.5 g	1.0 g
Asparagus	½ cup (125 mL)	1.4 g	0.7 g
Fruit			
Pear	1 medium	4.0 g	2.2 g
Fig, dried	¼ cup (60 mL)	6.0 g	2.0 g
Orange	1 medium	3.1 g	1.8 g
Avocado	½ fruit	4.3 g	1.6 g
Prune, dried	¼ cup (60 mL)	3.0 g	1.6 g
Guava	1 cup (250 mL)	8.9 g	1.5 g
Blackberry	1 cup (250 mL)	7.6 g	1.4 g
Fig, raw	½ cup (125 mL)	2.9 g	1.4 g
Gooseberry	1 cup (250 mL)	6.5 g	1.4 g
Grapefruit	½ medium	1.4 g	1.2 g
Apricot, dried	¼ cup (60 mL)	3.0 g	1.1 g
Apple, raw	1 medium	3.7 g	1.0 g
Applesauce	1 cup (250 mL)	2.9 g	0.9 g
Strawberry	1 cup (250 mL)	3.3 g	0.9 g
Mango	½ medium	1.6 g	0.8 g
Banana	1 medium	2.8 g	0.7 g
Legumes and soy beans (cooked)			
Lima beans	½ cup (125 mL)	6.6 g	3.5 g
Soybeans, roasted nuts	¼ cup (60 mL)	7.6 g	3.4 g
Kidney beans	½ cup (125 mL)	5.7 g	2.8 g
Navy beans	½ cup (125 mL)	5.9 g	2.2 g
Refried beans	½ cup (125 mL)	6.7 g	2.1 g
Pinto beans	½ cup (125 mL)	7.4 g	1.9 g
Edamame (green soybean)	½ cup (125 mL)	3.8 g	1.7 g
Garbanzo beans/chickpeas	½ cup (125 mL)	6.2 g	1.3 g
Split peas, yellow or green	½ cup (125 mL)	8.1 g	1.1 g
Black beans	½ cup (125 mL)	2.7 g	0.7 g

Fibre-rich foods	Serving size	Amount of fibre	
		Total	Soluble
Cereals			
Bran cereal with added psyllium	½ cup (125 mL)	18.0 g	3.8 g
Granola	½ cup (125 mL)	4.0 g	1.3 g
Oat bran	½ cup (125 mL)	2.8 g	1.3 g
Oatmeal, cooked	½ cup (125 mL)	2.0 g	0.9 g
Oat cereal, muesli	½ cup (125 mL)	3.9 g	0.7 g
Wheat germ	2 Tbsp (30 mL)	1.8 g	0.5 g
Wheat bran	2 Tbsp (30 mL)	3.4 g	0.3 g
Grain, rice, and pasta			
Konjac (glucomannan) noodles	½ cup (125 mL)	4.0 g	4.0 g
Amaranth, dry	¼ cup (60 mL)	7.4 g	2.4 g
Soy flour	¼ cup (60 mL)	4.4 g	2.0 g
Potato flour	¼ cup (60 mL)	2.4 g	1.3 g
Corn flour	¼ cup (60 mL)	2.7 g	1.2 g
Barley, cooked	½ cup (125 mL)	4.3 g	0.9 g
Barley flour	¼ cup (60 mL)	3.7 g	0.8 g
Quinoa, cooked	½ cup (125 mL)	4.7 g	0.6 g
Millet, cooked	½ cup (125 mL)	3.2 g	0.6 g
Pasta, whole wheat, cooked	½ cup (125 mL)	2.0 g	0.4 g
Popcorn, popped	3 cups (750 mL)	3.6 g	0.1 g
Rice, brown, cooked	½ cup (125 mL)	1.8 g	0.1 g
Nuts and seeds			
Flax seeds, ground	2 Tbsp (30 mL)	3.2 g	1.8 g
Chia seeds	2 Tbsp (30 mL)	7.5 g	1.0 g
Sunflower seeds	¼ cup (60 mL)	3.4 g	0.7 g
Peanuts	¼ cup (60 mL)	3.3 g	0.7 g
Macadamia nuts	¼ cup (60 mL)	3.1 g	0.6 g
Tahini (sesame seed butter)	2 Tbsp (30 mL)	2.8 g	0.6 g
Peanut butter	2 Tbsp (30 mL)	1.9 g	0.5 g
Almonds	¼ cup (60 mL)	4.0 g	0.4 g
Sesame seeds	2 Tbsp (30 mL)	1.5 g	0.4 g
Coconut, shredded	¼ cup (60 mL)	3.3 g	0.3 g
Baking			
Carob powder	1 Tbsp (15 mL)	2.8 g	2.0 g
Cocoa powder, unsweetened	1 Tbsp (15 mL)	1.8 g	0.4 g
Fibre supplements			
Partially hydrolyzed guar gum and guar gum	5 g	5.0 g	5.0 g
Inulin	1 Tbsp (15 mL)	4.5 g	4.5 g
Wheat dextrin	1 Tbsp (15 mL)	4.5 g	4.5 g
Psyllium husk or powder	1 Tbsp (15 mL)	4.0 g	3.0 g