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Your digestive tract is at work every moment of every day. That miraculous tube that runs from gum to bum fuels our minds, bodies and lives. When it is not working properly, we suffer. There are many ways to protect and enhance your digestive health. One of the best ways is to consume appropriate amounts and types of fibre. The Canadian Digestive Health Foundation (CDHF) created Fibre Fusion to help you do this. Let's get started.



Aim for 30g of Fibre – EVERY day

Fibre is an important part of a healthy, balanced diet, and yet Canadians don't consume enough of it. We should be aiming for 30 grams of fibre a day but the majority of us consume less than half this amount. Not meeting this goal causes digestive ailments, which can impact your overall health. We can see evidence of this today with increased rates of obesity, cardiovascular disease, digestive cancers, fatigue, IBS (irritable bowel syndrome) and diabetes.

The Facts on Fibre

Fibre is a delicious and nutritious component of food created and conveniently packaged for us by Mother Nature. Famously known for improving regularity, fibre offers many other health benefits. However, fibre-rich foods, that were once part of most traditional diets, have slowly been replaced by processed foods that offer few nutritional benefits.

What is fibre?

Also known as roughage or bulk, fibre is found in fruits, vegetables, grain products, legumes, nuts and seeds. Our bodies cannot digest fibre. It travels through the gastrointestinal tract intact. There are many different types of fibre. Let's take a look at three of them.

Soluble fibres

- dissolve in water
- absorb water in the stomach and intestine
- create a gel-like substance
- slow digestion and
- absorb certain fats and sugars
- nourish the bowel
- help maintain the immune system
- help keep blood sugar levels steady
- can lower bad cholesterol in the blood.

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Insoluble fibres

- are neither broken down nor absorbed
- remain intact and provide bulk to all that travels through the digestive tract
- help regulate blood sugar levels, fat, cholesterol and food absorption, bowel function and metabolism

Novel fibres

- are either extracted from natural sources or are made in a lab
- include inulin, polydextrose polyols, psyllium, wheat dextrin & others
- boost the fibre content of food products when added to supplements, foods and drinks.
- health professionals recommend getting fibre from whole foods, but every little bit counts to get you closer to that important 30g a day.





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Test Your Fibre Fitness

Take the CDHF's Test for Fibre Fitness quiz and find out how your fibre intake measures up. Circle either A, B or C for each question. When you have finished answering all the questions, total how many As, Bs, and Cs you circled and record these numbers in the area under Results and Recommendations. Then, read on to learn what your score reveals about your Fibre Fitness.

- 1. Are you following a specific type of diet: low carb, wheat-free, or gluten free?
- 2. How often do you eat whole grains (whole grain bread or pasta, brown rice)?

 A. Rarely

 B. 2-4 times per week

 C. 2 or more serves per day
- 3. How often do you eat high fibre cereals (muesli, bran flakes etc.)?
 - A. Rarely B. 2-4 times per week
- C. 2 or more serves per day
- 4. Do you have at lease 2 servings of fresh fruit a day?
 - A. Rarely B. 2-4 times per week
 - C. 2 or more serves per day
- 5. Do you have 5 servings (2 ½ cups) of vegetables a day?
 - A. Rarely
- B. 2-4 times per week
- C. 2 or more serves per day
- 6. How often do you eat legumes (beans, lentils) barley, rye bread or potatoes?
 - A. Rarely
- B. 2-4 times per week
- C. 2 or more serves per day
- 7. Do you eat fruits and vegetables with skins on (unpeeled)?
 - A. Rarely
- B. 2-4 times per week
- C. 2 or more serves per day

Results & Recommendations

Your Total Number of:

A =

B = C =

Mostly A's?

Your total intake and mix of fibre is likely to be low. Aim to increase your fibre intake from a variety of fruits, vegetables, whole grains, lentils and legumes, seeds, nuts and other sources of fibre.

Mostly B's?

You're on the right track to eating enough total and types of fibre. Aim to include a good variety of high fibre foods in your diet.

Mostly C's?

You're a "fibre SUPER star"! You should be getting enough total fibre and mix of fibre in your diet.



Five Fabulous Fibre Benefits

In addition to keeping your digestive tract in tip-top shape, fibre offers a long list of health benefits including:



Weight Management: High-fibre foods require more time to chew. This gives your brain time to process hunger (satiety). They also tend to be less "dense" which means they have fewer calories but offer the same volume of food and tend to make you feel fuller longer. These two factors help reduce the likelihood of overeating and gaining weight.



Regularity: High-fibre foods can help with both constipation and diarrhea. Adequate amounts of fibre will help soften and increase the weight and size of your stool. Softer stools decrease your chance of suffering from the pain and discomfort of constipation. If you have loose, watery stools, fibre can solidify the stool as one of its benefits is to absorb water and make stools bulky.



Bowel Health: A diet rich in fibre may lower your risk of developing hemorrhoids and diverticular disease (small sacs-like pockets in the lining of the colon). It also helps absorb sugars and fats in the small intestine. Fibre provides fuel for the "good" bacteria in the large intestine.



Controlling Blood Sugar: In people with diabetes soluble fibre may slow sugar absorption and help improve blood sugar levels.



Lowering cholesterol: Soluble fibre may help lower "bad" cholesterol levels by attaching to cholesterol particles in the digestive system and moving them out of the body before being absorbed.





Feeding Your Fibre-Famished Gut

Meeting your fibre needs is critical to your health. If you are not ingesting enough fibre, you are likely living with a fibre-famished gut and suffering the consequences. Don't despair. Making a few small changes to your repertoire of food can have a profound effect on your health. All types of fibre support digestive and overall health. It is important to eat a variety of foods to get enough of both soluble and insoluble fibre. As you add more fibre to your diet, be sure to start slow and gradually add more. If you want to increase your intake, consider choosing the following:



Fruits

Eat at least 2 cups of fruits a day. Choose fresh fruit over fruit juice, as the skin and pulp found in fresh fruit is packed with fibre. Apples, apricots, grapefruit, mangoes and oranges all offer high sources of soluble fibre. Dried fruits, including dates and prunes are well known for their role in relieving constipation. These foods are high in insoluble fibre and keep your bowels moving.



Vegetables

Vegetables are rich in fibre, vitamins and minerals and they make great snacks! Aim to eat at least 2 1/2 cups vegetables every day. Carrots, celery or cucumbers are delicious on their own or dipped in hummus and are loaded with fibre. Potatoes (with the skin on), Brussels sprouts, turnips, sweet potatoes and asparagus are all great sources of fibre. The outer skin of vegetables (and fruits!) that takes longer for you to chew is high in insoluble fibre.



Whole Grains and Cereals

Whole grains contain the entire grain, comprised of three parts: the germ, endosperm and bran. Choose whole grains whenever possible. Refined grains have all or part of the germ and bran removed, removing valuable fibre, vitamins and minerals whereas whole-wheat flour, whole grains and wheat bran are chocked-full of insoluble fibre. Whole grains can appear under a variety of names including, buckwheat, bulgur, millet, wild rice, quinoa, whole wheat or rye. Replacing refined white bread with whole-grain breads and cereals and trading white rice for brown rice will boost your fibre intake.

Buyers beware: read the nutrition facts label on your favorite type of bread or cereal. The term "whole grain" or "whole wheat" should be listed in the first few ingredients. This way you can be assured that the food you purchase is a good source of insoluble fibre.

Beans, Peas and Legumes

Beans are good for our hearts. They also keep our digestive systems running efficiently as they eliminate waste products found in the colon. Black beans, kidney beans and navy beans are especially high in soluble fibre. Legumes, such as lentils, peas, carob, soybeans, clover, peanuts, alfalfa, and tamarinds are all considered stellar sources of fibre. Add cooked beans or lentils to meat dishes such as stews, chili's, lasagnas or pies. This is an easy way to increase the fibre content and lower the amount of fat and calories in a dish. Throw some cooked chickpeas into salads, soups or try roasting them for a quick treat.



Seeds and Nuts

Seeds and nuts are powerhouses for nutrients and fibre. Adding them to your diet is simple and delicious. Consider mixing seeds and nuts into your favourite muffin recipe, salads or stir-fries. Finely chop almonds and walnuts and add them to soup. Spread almond, cashew or pumpkin seed butter on toast and drizzle with honey or use these butters to spread on celery – it makes a great snack for lunches. Sprinkle flaxseed on your favourite breakfast cereal for a quick and easy boost of fibre.







FIBRE-RICH FOODS

LEGUMES

Pinto beans, boiled 8 g per ½ cup Navy beans, boiled 7 g per ½ cup Kidney beans, boiled 6 g per ½ cup Baked beans, canned 6 g per ½ cup Black beans, boiled 6 g per ½ cup Lentils, boiled 5 g per ½ cup Lima beans, boiled 5 g per ½ cup Chickpeas, boiled 4 g per ½ cup Split peas, boiled 3 g per ½ cup

FRUITS

5 g each Pear Mango 4 g each 3 g each **Apple** 8 g per 1 cup Raspberries Blackberries 8 g per 1 cup Raisins, seedless 6 g per 1 cup Strawberries 3 g per 1 cup

CANNED FOOD

Tomato paste	6 g per ½ cup
Bean and ham soup	5 g per ½ cup
Pumpkin	4 g per ½ cup

This list is for informational purposes only and is not meant to be a substitute for medical advice,

BREADS

Wheat 5 g per 2 slices Rve 4 g per 2 slices Bran 3 g per 2 slices

NUTS & SEEDS

Almonds	6 g per ¼ cup
Pistachios	3 g per ¼ cup
Peanuts	3 g per ¼ cup
Walnuts	2 g per ¼ cup
Pecans	2 g per ¼ cup
Quinoa	4 g per 1 cup

Fibre through the Ages

Fibre is an important dietary component at any age.

Fibre in Childhood

Young children do not need a full 30g of fibre, but it is still an important component of their overall health. Stools that float can indicate there's a good amount of fibre in one's diet. Whereas stools that sinks can indicate a lack of fibre.

Fibre for kids

Here are some quick tips to help improve your child's fibre intake, try:

- leaving the skins on fruits and vegetables,
- cut vegetables into fun shapes,
- add berries or sprinkle flax on cereals.

Fibre for those over Fiftv

As the body ages, changes occur in the digestive tract. It becomes less effective in absorbing fibre. This may be caused by illness,

medications and inactivity. A high-fibre diet helps stimulate movement of the digestive system and can prevent related illnesses such as constipation and diverticulosis.



How to achieve 30g fibre per day:

1 English muffin, whole wheat	5 g
1 apple, with skin	3 g
2 slices of whole wheat bread	4 g
½ cup of baked beans	5 g
1 pear	5 g
1/4 cup of almonds	4 g
½ cup of peas, raw	4 g

TOTAL





Prebiotics, Probiotics, Fibre and You

There are trillions of microorganisms living in your gut. This community of superheroes makes up an environment known as your gut microbiota. These little guys have a huge impact on your health. They support digestion, affect your mood



and energy, and can help you stay strong, healthy and resilient to disease. Because the greatest concentration of these superheroes lives in your gut, what you ingest can have a profound effect on them. Pre and probiotics can help strengthen your digestive health, relieve symptoms and make you resilient to invasions by bad microbes that can affect your microbiota and make you sick.



Probiotics are live

microorganisms, like bacteria and yeast, which you ingest. These good guys help digest food, maintain health and fight disease. You can find these helpers in supplements and probiotic-fortified foods.

Prebiotics are food for probiotics. Fibre happens to be an excellent source of prebiotics. These little helpers can be found in vegetables, grains, roots, bananas, honey, prebiotic supplements and the soluble fibre called inulin. Inulin is found in many plants and vegetables, such as asparagus, garlic, leeks, onions, tomatoes, and artichokes.







Understanding Nutrition Labels

"Nutrition Facts" are the tables found on the side of packaged food products. They are there to help you make quick, informed food choices. When you look at the fibre content of packaged foods, look at the serving size and the number of servings in the package. Be sure to count only the amount of fibre you are ingesting for the serving size you are ingesting.

Nutrition Claims

Nutritional claims describe the relative amount of fibre in a food. An example of a nutrient claim would be: "a good source of fibre" or "high in fibre" which can be confusing. Nutrition claims are optional and are often used as marketing tools. Here's the low down on fibre claims:

Nutritional Claim	Product Fibre Content
VERY HIGH source of fibre	Minimum of 6 grams
HIGH source of fibre	Minimum of 4 grams
GOOD source of fibre	Minimum of 2 grams

Amount % Dail			illy Value
Calories 1	70		
Fat 2.7 g			4 %
Saturated 0.5 g + Trans 0 g		5 %	
Cholester	0 m	g	
Sodium 20	00 mg		8 %
Carbohydi	rate 36	3 g	13 %
Fibre 6 g			24 %
Sugars 3	g		
Protein 8 g	1		
Vitamin A.	1.%	Vitamin C	0 %
Calcium	2 %	Iron	16 %





Fibre is delicious, healthy, filling and easy to find. However, when foods are packaged for convenience, the full fibre benefits are often sacrificed. Take a look at how easy it is to boost your fibre intake by make a few simple food trades.

TRADE THIS g of fibre for THAT g of fibre						
white bread 2 slices	l.6g		-		4.8g	whole wheat bread 2 slices
white rice 1 cup	.8g				3.1g	brown rice 1 cup
grapes ½ cup	.5g	W. D.		A D	4.2g	raspberries ½ cup
saltine crackers 3 crackers	.3g				5g	rye crisp crackers 3 crackers
potato chips 100g plain	.2g	(1)			4.7g	yellow tortilla chips 100g plain
dip (sour cream based) ¼ cup	.2g			0	3.4g	hummus ¼ cup
chocolate chip cookies 2 cookie	.7g	ME		3000	4.6g	granola bar 1 bar
frosted flaked cereal 1 cup	.6g				5.6g	frosted wheat squares 1 cup
plain waffle 1 waffle	.8g			10000	1.3g	whole wheat waffle 1 waffle
chicken noodle soup 1 can	.9g				2.3g	chicken vegetable soup 1 can
TOTAL	6.69	j		3	39.0g	TOTAL







Supermarket Strategies

Don't let the grocery store scare you. Getting the fibre you need from foods you love can be fun and easy. With a little bit of know-how, a fast and successful trip to the grocery store will have you bringing home healthy choices. To help you discover all things fibre, the following supermarket strategies can help you eat right and feel fabulous!



Make a list, check it twice

A stress-free grocery shopping experience starts at home. Set aside a few minutes before you head to the grocery store to plan your shop. List your grocery items by category, grouping together: fruits, vegetables, grain products and other items. When you will only buy what you need, you maximize your time and save money.



Be an outlier

Cruise and peruse the perimeter of the grocery store, this is where you will find most whole foods like fruits, vegetables, dairy, and grains that are rich in fibre. Whenever possible, avoid the inside aisles because this is where many processed products high in sugar, fats and salt but low in nutritional elements and fibre are lurking.



Be colour conscious

Try to spend most of your time exploring the produce section, it's the largest section in the store. Try to buy in season and fill your cart with lots of colorful fruits and vegetables. The more colour you have, the more variety of vitamins, minerals and fibre you will be eating. If a certain fresh fruit or vegetable is unavailable, look for it in the frozen food aisle.



Be adventurous

We tend to eat the same foods over and over again. Be adventurous! Try at least one new fruit and vegetable each week. On-line recipes can help make feeding fibre famished friends and family fun!



Keep it simple

Avoid foods that contain more than five ingredients, list artificial ingredients, or ingredients you can't pronounce. These are telltale signs that the product won't offer much in the way of fibre or nutrients.



Take a tour

Many grocery stores now offer tours led by Registered Dietitians. On-site dietitians can teach you how to read labels, answer questions and suggest great recipes or simple ways you can fibre-up your favourite dish. Why not take a tour today.



Snacking on fibre

For many, about 1/3 of our daily energy intake comes from snacks – even more for people on the go. However, many of the snacks we reach for are processed foods that are high in sugar and fat and offer little fibre, vitamins or nutrients. When snacks account for more calories than breakfast and about the same number of calories as lunch, eating good quality snacks is critical to your health. Knowing which fibre-filled snacks to munch on can help you boost your daily intake and help get to your 30g a day goal.

Fibre Fusion was made possible by an unrestricted educational grant provided by Danone Canada.



What snacks are the best?

Try these quick and easy snacks:

- Fresh or dried fruit
- ✓ Raw vegetables with hummus dip
- Seeds, nuts, dates and figs
- ✓ Whole grain, fibre rich cereals on yogurt or yogurt with added fibre
- ✓ Peanut butter on: whole grain crackers, cut up apples, celery
- ✓ Popcorn



