

Your Guide to Well-Being: Managing Celiac Disease and Diabetes

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Disclaimer:

Due to the nature of information available online, it is a challenge to continue to evaluate each resource (e.g. blogs, websites) with their ongoing updates. We reserve the right to make changes to this toolbox at any time without notice. These resources are not meant to replace the information or care given by your health care team/practitioner. We are therefore not responsible for their content. If you have any questions about the material presented or wish to make changes in your diabetic or celiac disease diet, please refer to your health care team/practitioner for ongoing care and most updated evidence-based advice for you.

Moving Forward with a Diagnosis of Celiac Disease

If you have type 1 diabetes (T1D) and have recently been diagnosed with celiac disease (CD), then this toolkit is for you! It will help you to better understand CD and its treatment with a gluten-free diet and how to incorporate it effectively into your diabetes management. This book may be a guide and resource to answer your questions and direct you to additional supportive resources to thrive living with both conditions.

Coping with a diagnosis of celiac disease

If you have recently been diagnosed with CD, you may experience a number of emotions: grief, discouragement, denial, frustration, overwhelmed, confused and upset. You may wonder how you will cope with both T1D and CD. These feelings are completely normal. About half of people diagnosed with T1D and CD have no symptoms when they are diagnosed, so you may not feel like anything is wrong.

The good news is that we know what triggers CD, and that the damage it causes to the small intestine is reversible. If you make simple changes to your diet and lifestyle, you can avoid taking medications, having surgery or undergoing other treatments. These days, gluten-free foods are widely available at major grocery stores, restaurants, and many fast-food chains.

We hope that this book will be a useful guide and resource for you. Use it to answer your questions, make changes to your diet and to help you handle new situations.

Where can I turn for support?

There are many organizations outside the hospital that can help make your transition as easy as possible. This book is a great place to start. It will help you learn how to follow a gluten-free diet while continuing your diabetes management. Friends and family can also be a great source of support as you adjust to your new diet. And there are many resources you can refer to for advice (see **Appendix 3: Resources**). Don't forget that your health care team is also always ready to answer questions and help you make this transition.

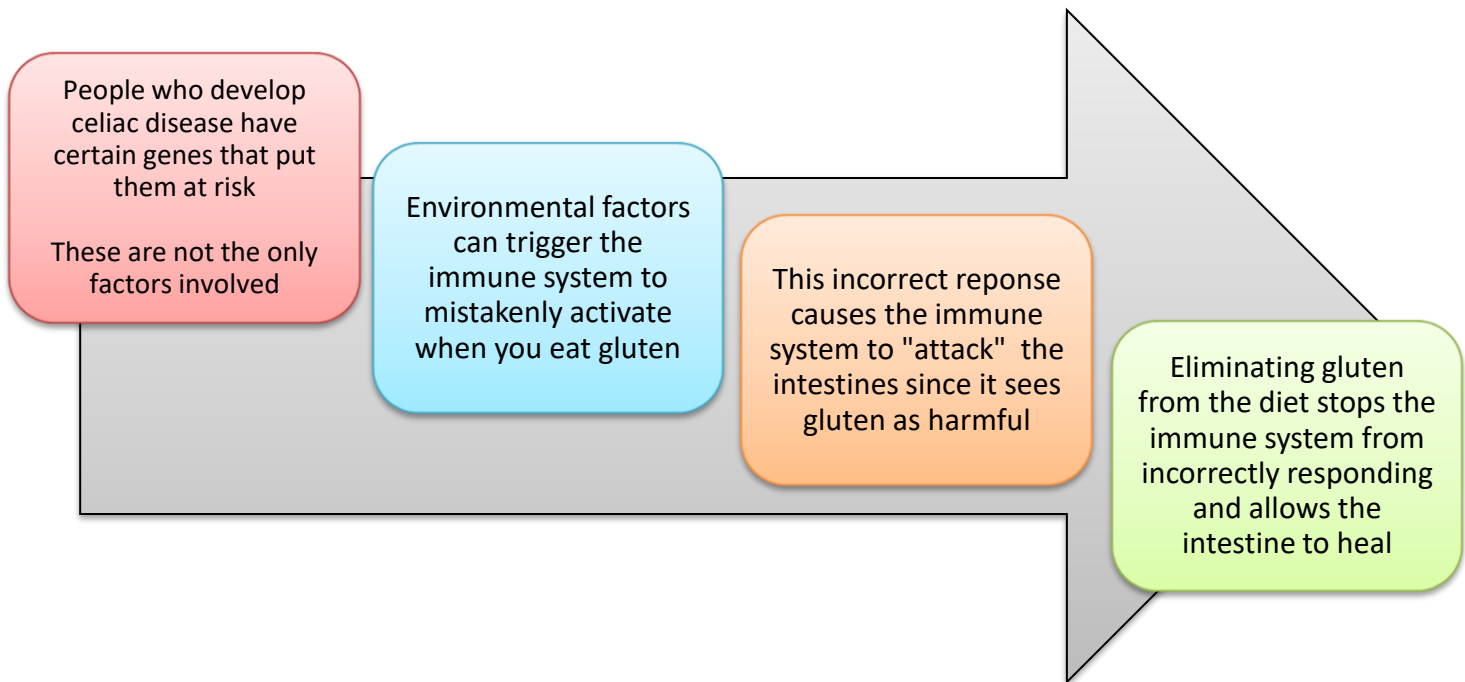
What is celiac disease?

Like T1D, CD is a genetic autoimmune condition that can develop at any age. This means that it is a condition that is passed down in families and causes the immune system to attack a healthy part of the body by mistake. When people with CD eat gluten (a storage protein found in wheat, rye, and barley) their immune system is activated, causing damage to the small intestine. A healthy small intestine is lined with villi which are finger-like projections that stick up from the intestine's surface and absorb nutrients. If you have CD and you eat gluten, the villi become flattened, making it very difficult to absorb nutrients and can affect growth, health and wellbeing.

Celiac disease can affect other parts of the body, although it mostly affects the gut. As a result, it is related to many different symptoms which can make it difficult to diagnose. Although we know that CD is caused by environmental and genetic factors, it is still not entirely clear why people develop the disease. A great deal of research is being done to find out more about its causes.

The following is what we do know about celiac disease:

Figure 1: What we know about about celiac disease.



Celiac disease affects about 1 in 100 Canadians. There are 129,000 Canadians living with CD and 5 700 are diagnosed every year. It occurs in people all over the world and can occur at any age. People develop CD because of a combination of genetic and environmental causes.

There is no cure or medicines for celiac disease at this point

The only treatment is a strict gluten-free diet for life

What is gluten?

Gluten is the common name for the proteins in grains and cereals that cause the intestinal damage in CD. It is found in all forms of wheat (including durum, semolina, spelt, kamut, einkorn, emmer, bulgur, couscous, and faro), rye, barley (including barley malt, barley malt extract, barley malt flavor, and malt vinegar), and triticale (hybrid between wheat and rye). These grains and the products made from them, must be eliminated from your diet when you have CD.

The connection between celiac disease and type 1 diabetes

The link between celiac disease and type 1 diabetes (T1D) is well known. About 3-6% of people with T1D also have celiac disease. This is compared to only 1% of the general Canadian population. Therefore, you are more likely to develop celiac disease if you also have T1D. For this reason, people with T1D will be tested or “screened” with a blood test to see if they also have celiac disease.

It is important to remember that celiac disease can occur at any age. This means that even if you/your child’s test for celiac disease is negative you/your child should be re-screened regularly. This is true even if you/your child has no common symptoms of celiac disease. Currently, the only management of CD is to follow a strict gluten-free diet.

How do we diagnose celiac disease?

Doctors can do blood tests to screen for CD. These blood tests look for immune proteins that the body has made in response to gluten in people with CD.

Blood tests include:

- Tissue transglutaminase (tTG)
- Delaminated gliadin
- Anti-endomysial antibody (EMA)

Depending on the results of the blood tests, your doctor or health care provider will talk to you about further testing to confirm CD.

An upper endoscopy, where a biopsy (a small tissue sample) of the small intestine will be taken, is usually advised to confirm CD. The biopsy will show changes to villi sampled from the small intestine.

It is very important NOT to begin a gluten-free diet unless celiac disease has been diagnosed.

If a biopsy is done after the gluten-free diet has been started, the result may be falsely negative (which means the result is negative, but the patient does have celiac disease). Talk to your doctor for more information about screening for celiac disease. If tests for celiac disease are initially negative, it is important to remember that celiac disease can be diagnosed at any time after being diagnosed with T1D. Because celiac disease can develop at any time throughout life, it is therefore very important to be re-screened regularly, even if individuals don't feel any different or feel any of the classic symptoms of celiac disease.

Common signs and symptoms of celiac disease

Classic symptoms of celiac disease include gastrointestinal symptoms, such as gas, diarrhea, constipation, cramps, and nausea; vitamin and mineral deficiencies (including anemia); osteoporosis (bone loss, low bone density), osteopenia (weaker bones), dental enamel breakdown; behavioral changes; fatigue; depression; joint pain; skin rash (dermatitis herpetiformis); headaches and infertility. In children, poor growth can also be a sign of celiac disease since the damaged intestine cannot properly absorb nutrients the body needs.

Symptoms related to celiac disease and diabetes

While symptoms of celiac disease may include weight loss, stomach pain, diarrhea, and bloating, having diabetes and celiac disease can cause unexplained blood sugar variability and unexplained low blood sugars. Lower hemoglobin A1c (HbA1c) levels may also be experienced.

Why don't I have any symptoms? Why don't I feel sick?

- Celiac disease presents differently in different people: some suffer classic symptoms and others have no symptoms at all.
- Approximately half (50%) of individuals with T1D and celiac disease do not have any symptoms and do not feel ill.
- The reasons at this point are not clear.

A dual diagnosis: celiac disease and type 1 diabetes

Having both celiac disease and diabetes means that you must face an added challenge:

- ✓ **Keeping gluten out of your diet and**
- ✓ **Properly maintaining your blood sugars**

As you begin your new diet, your blood sugars may change because of the improved absorption of nutrients and the higher carbohydrate (carb) content of gluten-free foods. Because of this, your HbA1c may change to reflect your healing gut and your new diet. Carbohydrate counting is therefore very important since you may need to change your insulin requirements. Careful logging of carbohydrate and food intake, with more frequent blood sugar testing will help you predict the amount of insulin you need.

If you wear a continuous glucose monitor (CGM) during this time, then you have a valuable opportunity to assess how different gluten-free foods have an impact on your blood glucose over short and longer periods of time. As a result, your insulin dosing may be better matched to improve your blood glucose during this period.

What is the treatment for celiac disease?

If you or your child has been diagnosed with celiac disease, the only treatment available is to adopt a gluten-free diet, which eliminates all forms of wheat, rye, and barley from your diet. Gluten is found in grains (wheat, rye, and barley) often used to make foods like breads, pasta, and cereals. A gluten-free diet means **not eating any foods that have gluten in them or that have come into contact with gluten**. Learning about and following this diet requires the help of a dietitian, the support and continuous update of an association such as the Canadian celiac Association (CCA), and the support of family and friends.



What happens if I don't follow a gluten-free diet?

It is unclear what will happen if people with no symptoms of celiac disease do not follow a gluten-free diet for a short period of time. If you have symptoms or not, you should not consume any gluten and eliminate any possible gluten contamination at home or in social situations.

If left untreated over the long term, celiac disease can:

- Negatively impact your diabetes management
- Cause inflammation and damage to the small intestine
- Cause low bone density (can lead to osteoporosis)
- Cause vitamin and mineral deficiencies
- Affect growth
- Cause symptoms of celiac disease to reoccur
- Trigger other autoimmune diseases (e.g. thyroid)
- Increase your risk for certain small bowel cancers
- In pregnancy, cause premature delivery

Following a strict gluten-free diet means that your chances of getting these conditions are the same as people without celiac disease.

Taking it one step at a time

Adopting a gluten-free diet means important changes to your eating habits and lifestyle. It is easiest to take one step at a time so that you do not feel overwhelmed or discouraged. And while it is important to follow a strict gluten-free diet, you may make mistakes while you are learning what foods you can-and can't-eat. So **go easy on yourself: Treat mistakes as learning experiences and bring your focus back to remaining as gluten-free as you can.**

Good news about following a gluten-free diet

These days, gluten-free foods are widely available and recognized at major grocery stores, in fine dining restaurants and fast-food chains. Many

restaurants now offer a gluten-free menu and options. Plus, as you will learn, there are lots of great foods that are naturally gluten-free to begin with.

All about the Gluten-Free Diet and How to incorporate it into your Lifestyle

A gluten-free diet is the only treatment currently available for Celiac Disease. To follow a strict gluten free diet, all foods containing wheat (including durum, semolina, spelt, kamut, einkorn, emmer, bulgur, couscous, and faro), rye, barley (including barley malt, barley malt extract, barley malt flavor, and malt vinegar), and triticale must be eliminated from your diet. It is crucial to ensure all consumed foods and medications contain no traces of gluten so that your autoimmune response is not activated. This resource will help you in identifying products that contain gluten so that you may continue to have a healthy, balanced diet.

Many foods are naturally gluten free, so begin by basing your diet around these foods. The following sections list foods to focus on consuming, as well as substitutes for gluten containing products. It is also important to keep track of your diet to ensure you are meeting nutritional recommendations. Refer to the **Appendix 3: Resources** for a list of food tracking apps and other resources.

Carefully log carbohydrates and frequently test your blood sugar to help predict the amount of insulin you will need, as your gut heals and nutrient absorption improves.

Celiac disease in the media

Celiac disease is very popular in the media. Although the media can alert you to new and popular information, it can also be inaccurate. Speak with your dietitian, physician, celiac association or someone you trust to ensure you get the information you need to understand your condition. It is very important that you are comfortable and understand what celiac disease means and how to follow a gluten-free diet. You will also help friends and family understand this condition so that they can help you in return live a gluten-free life.



Getting Started with a Gluten-Free Diet

Many foods contain gluten. Some are obvious sources, and some are hidden. Gluten provides structure and elasticity to dough, acting as a binding and leavening agent. Obvious sources include:

- Breads
- Pasta
- Baked goods.

Yet many foods also have gluten hidden in their ingredients, including:

- Sauces
- Deli meats
- Salad dressings
- Soup bases
- Supplements and more

Before worrying about what you must eliminate, keep in mind that there are many foods you can have that are naturally gluten-free. **Begin by building your diet around the following naturally gluten-free foods:**

- ✓ Vegetables and fruits
- ✓ Milk, cheese, some yogurt varieties
- ✓ Eggs
- ✓ Plain chicken, turkey, meat
- ✓ Plain seafood
- ✓ Legumes (beans, peas, lentils, and chickpeas)
- ✓ Nuts and seeds

Allow yourself time to get familiar with new foods and start with the ones you know and are comfortable with. Read the list of ingredients on food labels regularly. With time and practice, you will be able to identify with more confidence which foods are safe for you to eat.

**Wheat, barley, rye, malt, regular oats, and Brewers' yeast
and their derivatives are
UNSAFE and should be avoided.**

Label Reading

Check the label: Gluten-Free in Canada

There are clear regulations and guidelines set by health Canada, the FDA, and European Commission, as to what defines gluten-free in packaged foods. The regulations require that Gluten and its sources must be identified in a uniform way using plain language on all food labels. This means that gluten and gluten sources must be identified in the ingredient list or in a warning section under a 'Contain' or 'May Contain' statement which appears immediately after the ingredient list.

If a label states that the product:

- **May contain** wheat, barley, rye or triticale or
- is made in a **facility** that also **processes** wheat, barley, rye or triticale

Then the product **should not be consumed.**

Also, products labeled “wheat-free” are **not necessarily gluten-free.**

It is very important to check the ingredients of **all** the packaged foods that you purchase. Ingredients may unexpectedly change with gluten sources appearing. Please [click here](#) for additional information on food labels.

When you read labels to check for gluten, you may need to check **two** places:

1. The WARNINGS section – CONTAINS, MAY CONTAIN.
2. The INGREDIENT list (refer to the label below as an example)

Step 1

- Start with the WARNINGS. You are looking for wheat, rye, barley, oats or gluten.
- If you see **wheat, rye, barley, oats or gluten**, in either the CONTAINS or MAY CONTAIN list, the product is **NOT OK** for consumption.
- If there is a CONTAINS statement, and it does not include wheat or a gluten grain, the ingredients are acceptable for a gluten-free diet.
- If the ingredient list just says oats, assume they are contaminated with gluten, unless they are specifically identified as pure uncontaminated oats/ gluten-free labeled oats.

Step 2

- If there is no CONTAINS statement, check the INGREDIENT list. You are looking for wheat, rye, barley or oats.
- If you see **wheat, rye, barley, or oats**, the product is **NOT OK**.
- If you do not see any gluten source listed, the ingredients are acceptable for a gluten-free diet.

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The following is an example of a food label that includes ingredients which are not ALLOWED (in **bolded red**) on the gluten-free diet:

Ingredients: **UNBLEACHED ENRICHED FLOUR (WHEAT FLOUR,** NIACIN, REDUCED IRON, THIAMINE MONONITRATE {VITAMIN B1}, RIBOFLAVIN {VITAMIN B2}, FOLIC ACID), SOYBEAN OIL, SUGAR, PARTIALLY HYDROGENATED COTTONSEED OIL, SALT, LEAVENING (BAKING SODA AND/OR CALCIUM PHOSPHATE), HIGH FRUCTOSE CORN SYRUP, SOY LECITHIN, **MALTED BARLEY FLOUR, NATURAL FLAVOR. CONTAINS WHEAT, SOY.**

When reading ingredient lists on food items, the following ingredients are listed as allowed or not allowed on the gluten-free diet.

Table 1: Ingredients that are Allowed and not Allowed*

Allowed	Not Allowed
(Active) bacterial cultures Agar Alfalfa sprouts Amaranth Arrowroot Ascorbic acid Aspartame Baking soda Bean flours Buckwheat Cassava (manioc flour) Chia/salva Corn flour/cornstarch Cornmeal Corn grits (hominy grits) Cream of tartar Gums/ vegetable gums Flavor (natural and artificial) Dal/dahl Flax Invert sugar Kudzu Kelp Millet Mustard flour Nut flours (almond, hazelnut, pecan) Potato flour/potato starch/yam Quinoa Rice (black, brown, glutinous/sweet, white, wild) Rice bran/rice flour Sorghum/sorghum flour Soy (soya starch, flour) Spices Sweet potato Teff Tofu White vinegar Yeast (baking)	Atta Barleys (including: grass, malt, malt flavoring, malt syrup, malt vinegar) Beer (ale, lager) Breeding/bread stuffing Brewer's yeast Bulgur Communion wafers Couscous Tabbouleh/tabouli Croutons Durum Emmer Faro/faro flour Gluten Oats *(see next paragraph) Wheat (bran, germ, starch, flour) Rye Flavouring Graham flour Hydrolyzed wheat protein Kamut Matzo/ matzo meal Malt (malt extract, malt syrup) Triticale

*The following table has been adapted from **Acceptability of Foods & Food Ingredients for the Gluten-Free Diet - 2012 edition** from the Canadian Celiac Association. For a more comprehensive list please click [here](#), or find this gluten-free dictionary app under [GlutenFree247](#)

What about oats?!

Pure, uncontaminated oats may be safe for most people with celiac disease as per Health Canada. The Canadian Celiac Association's (CCA) Professional Advisory Council recommends the introduction of pure uncontaminated oats when CD is stable- a process that can take 6-18 months. Start with a small amount of oats per day: adults 25-70 grams (1/4-3/4 cup dry rolled oats) and children 10-25 grams (1/8-1/4 cup) and gradually increase as tolerated. The advisory council states that Individuals with celiac disease should be aware of a possible relapse from the consumption of pure, uncontaminated oats. If symptoms occur and/or persist, discontinue consuming oats and let your health care team know. Click [here](#) for the full position statement.

- The CCA has a compilation of resources on the gluten-free diet. You can find more information [here](#).
- You can also visit [the acceptability of grains and other foods](#) which offers more detail.
- For a detailed list of foods to consume by food group or category please see Beth Israel Deaconess Medical Center (Nutrition Services spring 2012) [13-page guide to the gluten-free diet by Food Category](#).
- You may also visit the CCA page on gluten-free food groups [here](#).

This will help you manage your celiac disease at home and guide you when you are grocery shopping. You can more efficiently decide which foods are safe to eat, and you can mentally keep a record of the variety of your intake.

Many gluten-free oats, like Only Oats (Avena) for example, are now available in most grocery stores or health food stores.

If the food company cannot confirm gluten-free, then do NOT eat that product

Calling Food Companies

- Remember that ingredient lists change you may need to update this information later
- Some companies offer a list of foods/non-food products that are considered “gluten-free” that can be sent to you at your request
- Some companies list gluten-free information on the website. Make sure that the information has been recently updated (within the last year)

When figuring out whether a product is gluten-free or not, use the following order to make your decision:

1. “Contain” statement
2. “May contain” statement
3. Ingredient list
4. CCA App glutenfree24/7 or CCA pocket book
5. Call the food company
6. **If unsure, do not consume**

Non-Food Sources of Gluten

You should check non-food products for gluten too, including over-the-counter **medications, supplements** such as vitamins and minerals, **makeup**, and **toothpaste**.

As a rule, if a product is not ingested (creams and makeup), it is safe. Most toothpaste is gluten-free, but it's still worth checking.

Be sure to check:

- Hand creams
- Lipstick/lip gloss/Chapstick
- Cosmetics (for example shampoo, etc.)
- Medications (both prescribed and over the counter)
 - Inform the Pharmacist about the diagnosis of celiac disease
- Vitamins, minerals or other supplements
- Play dough

For lists of gluten-free cosmetics, please check out [Very Well](#) and [Urban Taste](#).

You may also want to subscribe to ***The Gluten Free Watchdog***. The people behind this website independently test gluten-free labeled foods and products for gluten contamination. For more information, please check out the website [here](#).

Financial Considerations

Financial considerations & Budgeting on the gluten-free diet

Gluten-free food such as bread, cereal, and pasta tend to be more expensive than gluten-based products. The good news is that as awareness about celiac disease continues to grow, gluten-free food is becoming more widely available and the price of products is decreasing.

Here are some ways you can cut your gluten-free grocery bill:

1. Buy foods and build your diet around naturally gluten-free foods. **Many of the foods you already eat are gluten-free** e.g., fruits and vegetables, legumes, nuts, some dairy products, plain meats, rice, corn, etc. Just make sure you keep them safe from cross-contamination.

2. Buy fruits and vegetables that are in season and found locally.
3. Buy dried beans, peas and legumes instead of canned: they are cheaper and take less space. For some healthy recipe ideas visit [Pulse Canada](#).
4. **Cooking from scratch** is the best way to save money. For example, try making gluten-free bread in a bread maker, baking your own cookies and granola bars. Use beans, lentils and split peas to replace meat and chicken for meatless meals.
5. Freeze the food that you make in batches. Don't forget to label and date your items. Take a day out of your week and cook items in bulk or run the slow cooker during the night.
6. Don't forget leftovers! Making a bigger meal today can help you plan for tomorrow's lunch
7. **Shop around:** Compare prices at different stores or online to see where you can find the best deals.
8. Buy items on sale in larger amounts. Sometimes stores offer discounts if you purchase a larger quantity of a product. Gluten-free grains and flour can be stored in the freezer to extend their shelf life.
9. Talk to others with celiac disease and **learn from others' experiences**. Find out where they shop and what products they like best. Join a local support group where you can get in touch with other individuals and families living with celiac disease. Check out the following CCA link for more information on [local CCA chapters](#).
10. **Claim** gluten-free food as a **medical expense** when filing your taxes. People with celiac disease can claim the additional costs of gluten-free food (the cost of gluten-free food minus the cost of gluten-containing food) as a medical expense. For more details on what is required to claim this expense on your taxes. See below for details.

Tax credits

In Canada and the United States

The excess cost of gluten-free foods for a person with celiac disease is considered a medical expense when you file your taxes. Eligible foods include those made and marketed for gluten-free diets (such as gluten-free bread) as well as products you use to make gluten-free foods (such as rice flour). In the United States you may also claim the expense for travelling to obtain gluten free foods.



To claim the credit, you will need the following documentation:

1. A letter from a medical practitioner certifying that you require gluten-free products because of celiac disease;
2. A summary of each item purchased during the 12-month period for which the expenses are being claimed; and
3. A receipt to support the cost of each gluten-free product claimed.

CeliTax can also be downloaded on your smartphone and provides you with a simplified tax tool. Check out the following website for details www.celitax.ca.

For more information on claiming gluten-free expenses, visit the [CRA website](#) or the [IRS Website](#).

Note: In the United States, total medical expenses must exceed 10% of your adjusted gross income to be claimed.

Around the World

Coverage for gluten free products varies around the world. Many countries in Europe provide necessary gluten free products as part of the drug prescription plan. This prescription may be either fully or partially covered, depending on your location. Some countries authorize a monthly allowance for the purchase of gluten free foods after diagnosis. For more information about gluten free food coverage in your region, visit your national health website.

Grocery Store Shopping

The grocery store can provoke some anxiety and make you feel isolated, when shopping gluten-free. Where do you start? What can you eat? How long is this going to take? **Stay positive** → many foods are naturally gluten-free!

Over time, shopping for food will be easier, more efficient, and yes, more enjoyable. Give yourself extra time until you are comfortable with the change. Remember, you already have experience reading food labels as part of your diabetes management. This is merely another step in a familiar process.

Keep these helpful tips in mind at the grocery store:

1. The perimeter of the store is where fresh and unprocessed produce is available, including naturally gluten-free foods such as fruits, vegetables, fresh meat/fish/poultry, milk and eggs. Processed meats may contain gluten so read the labels carefully.
2. Within the inner aisles of the grocery store, where packaged, prepared and processed foods are found, you will need to read all food labels.
3. Look for the health food section in most large grocery stores. Here you will find gluten-free cereals, crackers, breads, waffles, pasta, snacks, mixes and packaged whole grains such as rice, buckwheat, sorghum and quinoa. Choose products with ingredients high in fiber, such as rice bran, corn bran, chia and flax.
4. Read ingredient lists carefully and refer to the Canadian Celiac Association Pocket Dictionary or smart phone app if necessary. If you are unsure of an ingredient, call the food company or find an alternative you are comfortable with. As a rule, if you are unsure, don't buy it.
5. Avoid purchasing food from bulk bins where the potential for cross-contamination is high - the same scoop may be used in different bins. Look for pre-packaged gluten-free products instead. You may also find packaged condiments and treats.
6. Inhaling gluten-containing flours may lead to gluten consumption. A dusting of flour is more likely to occur in bulk food stores where flour bins are open. This can also happen at home when you are preparing a gluten-containing meal or when your child is helping to cook, or if your child is involved in a social cooking activity, such as a birthday party with a cooking theme.
7. Ask deli counter staff to wash the knife used to slice meat to ensure that gluten-free meat does not come into contact with gluten. And because gluten-free and gluten-containing meats can touch each other on the deli counter, ask staff to put plastic or foil on the counter to ensure their separation. This request along with a brief explanation goes a long way to ensuring safe and pleasant service.

Nutrition and the gluten-free diet

Compared to gluten-containing foods, most commercially available processed or pre-packaged gluten-free foods are:

- ↑ Higher in calories
- ↑ Higher in carbohydrate and sugar
- ↑ Higher in fat
- ↓ Lower in fiber
- ↓ Less fortified

These differences may impact your blood sugar control

Here are some **suggestions to improve the nutritional value of your gluten-free diet** and incorporate it into your current diabetes meal plan:

- 1. Try to eat a variety of vegetables and fruits.** Fruits and vegetables are a good source of vitamins, minerals and fibre. Try eating at least one dark green and one orange vegetable each day. Examples of dark green vegetables include broccoli and spinach; orange vegetables include carrots, red peppers and sweet potatoes. Most fruits and vegetables also have a low glycemic index. (For more information on the glycemic index, [click here](#))
- 2. Choose whole-grain, gluten-free products.** Gluten-free whole grains include amaranth, buckwheat, corn, millet, quinoa, brown rice, wild rice, sorghum and teff. Whole grains have higher amounts of fibre, vitamins and minerals than refined grains and typically have a lower glycemic index. Aim for at least half of your daily grain products come from whole grains.

- 3. Eat more legumes (pulses).** Have legumes often as an alternative to meat. Pulses include: lentils, dry peas, chickpeas and dry beans. They provide a good source of protein, vitamins, minerals and fibre and contain both soluble and insoluble fibre. Soluble fibre helps lower cholesterol in the blood and insoluble fibre helps digestion and promotes good bowel health. Pulses are also filling and have a low glycemic index, which is reason why pulses are great for people with diabetes. Legumes contain carbohydrates, so you will need to pay attention to portion sizes and their carbohydrate content when incorporating pulses into your meal plan or into your insulin-to-carbohydrate ratio. To control gas and bloating, add pulses slowly to your diet. And be sure to check the label for possible gluten if you are using canned varieties. You may want to check out [Pulses and the Gluten Free Diet](#) for great recipe ideas.
- 4. Eat more nuts and seeds.** Nuts and seeds provide protein, vitamins, minerals and fibre. Nuts are high in dietary fat, mainly unsaturated fat, which make them a healthy gluten-free snack. Nuts include almonds, cashews, flaxseed (ground), peanuts, pumpkin seeds, sesame seeds, sunflower seeds and walnuts. Flax and walnuts contain omega-3 fats, which may be beneficial for heart health. Nuts have small amounts of carbohydrates, which should be accounted for in your meal plan. Peanuts and cashews are the only nuts with an available glycemic index ranking, and both rank low. All other nuts have not been tested for glycemic index because they have lower carbohydrate content.
- 5. Choose lower-fat meats, poultry and dairy products.** Drink skim, 1% or 2% milk every day. Select lower-fat milk alternatives such as yogurt and cheese products. Compare the nutrition facts tables on these items to help you make lower-fat choices.

- 6. Choose your meat wisely.** Trim the visible fat from meats and remove the skin from poultry. Use cooking methods such as roasting, baking or poaching that require little or no added fat. If you eat luncheon meats (cold-cuts), sausages or pre-packaged meats, choose those lower in salt and fat. Remember to check the ingredients on pre-packaged meats for gluten.
- 7. Eat fish at least twice a week.** Choose char, herring, mackerel, salmon, sardines and trout.
- 8. Replace butter with healthy fats.** Try olive or canola oil as a healthy replacement for butter or margarine. Lightly drizzle it over vegetables. Try tahini and avocado as novel additions to your diet.
- 9. Use herbs and spices** to add flavour to food and try to reduce your salt intake.
- 10. Stay active.** Regular physical activity is an important part of a healthy lifestyle for both kids and adults. And exercise, just like diet, is an acquired habit that gets easier as you go along. Canada's physical activity guide recommends at least 60 minutes of activity per day. This may sound like a lot, but it's easy to achieve. Break down your activity in to smaller, more manageable chunks of time throughout your day. Small changes like taking the stairs instead of the elevator, parking your car further away from the mall entrance, or getting off the bus one stop earlier, are small changes that can make a huge difference in the long term and **on your blood sugars.**

A diet rich in fruits and vegetables, whole grains legumes and nuts, lower in fat and sodium, combined with physical activity is part of a healthy lifestyle whether you have celiac disease and diabetes or not.

Managing a Gluten-Free Home

The first step in managing celiac disease at home is to ensure that your kitchen is well organized. In an efficient and effective kitchen, everyone knows where to place dirty and clean dishes, where to find dish soap and-in your case-where gluten-free food is prepared and stored. For example, you might have a cabinet reserved for gluten-free food and for a handy supply of carbohydrate-containing snacks. An organized and clean kitchen is very important in preventing **cross-contamination**.

What is cross-contamination?

Cross-contamination occurs when gluten-containing crumbs or grains, or any kitchen item that is in contact with gluten such as cutlery, dishes, pots, pans, and surfaces, touch gluten-free foods. A gluten-free product will lose its gluten-free status if it comes into contact with something that is not gluten-free.

As a family you need to decide what works best for you. Are you prepared to adopt a gluten-free kitchen? Or is an integrated, mixed, blended kitchen better? Either decision is fine, as long as cross-contamination is prevented. In a completely gluten-free kitchen you may make fewer mistakes, it will be easier to manage, and

the risk of cross-contamination is considerably reduced. But it will also be more expensive. A mixed kitchen has an increased risk of cross-contamination but is more affordable and is the usual choice of families who live with both diabetes and celiac disease.

Tips on preventing cross-contamination in your kitchen

1. Wash your hands between handling gluten-containing and gluten-free foods.
2. Wash the counters carefully before preparing a gluten-free meal.
3. Use a separate toaster, grill, colander, and cutting board for all gluten-free products. If the grill is used for foods containing gluten, wrap the gluten-free item in foil before cooking. If there is only one toaster in the household, you can purchase a separate toaster or toaster bag for gluten-free bread. Toaster bags do not burn and can be washed and reused. They can be found at specialty food stores. Toaster bags are available at Canadian Tire, Whole Foods, Real Canadian Superstore, or you can order them online [here](#) where you may find them at various prices.
4. Store all gluten-free food in a separate place in the cupboard or refrigerator. If possible, allocate a counter area for gluten-free foods and their preparation.
5. If you don't have a separate place for gluten-free containers, store all gluten-free flours, pastas, rice etc. **above** all gluten-containing products. If anything should spill, it won't contaminate the gluten-free products.
6. Have separate margarine, butter, jam, jelly, mayonnaise, and peanut butter containers. It may be helpful to mark or label these containers "gluten-free" or

"GF" so that everyone is immediately aware and is able to avoid cross-contamination. Use a squeeze bottle to prevent double dipping with a knife.

7. Clean all pots, pans, utensils, and countertops with soap after use. There is no need to purchase new ones-you don't need a separate set of pots and pans for the person with celiac disease.
8. Use plastic or metal baking utensils instead of wooden ones-particles of gluten stick to wood.
9. If possible, prepare gluten-free meals/snacks before you prepare gluten-containing ones.
10. Cooking gluten-free foods can sometimes be labour-intensive and costly, so cook in large batches and freeze the leftovers. Use labels and markers for your frozen gluten-free foods.
11. Do not eat gluten-free foods that are on the same plate as gluten-containing foods (e.g., trays with fruits, cheese, and gluten-containing crackers)

Remember: There are 3 important steps for following a gluten-free diet while having Type 1 Diabetes:

STEP 1: Ensure the food is gluten-free and safe to eat

STEP 2: Always remember to check the serving size and compare this to what you are going to eat

STEP 3: Determine the amount of carbohydrates in a food for the portion you are going to eat

Managing a Gluten-Free Diet Away from Home

One of the most challenging aspects of living with celiac disease is learning how to manage your/ your child's diet when you're not at home and not with supportive friends and family. At home, you develop a certain level of comfort: you have control over how food is stored and prepared, you know the rules, and you watch for cross- contamination.

But the away-from-home experience can be overwhelming:

- How do you make sure that your child can safely participate in birthday parties?
- Attend camp?
- How does your teenager manage a school cafeteria lunch counts his carbs meet his/her target carbs or apply their insulin to carb ratio?
- As a young adult, how do you manage dates, eating out at restaurants, and work engagements?
- What about eating with family and friends?



Managing diabetes has been hard enough- celiac disease takes things to a new level.

You may feel isolated. You will certainly feel less spontaneous and more cautious. These emotions are natural. Think back to your initial diagnosis of diabetes: you were probably frightened at the prospect of being limited, isolated, and restricted because of your condition. But as time passed, and you learned more about diabetes, you realized that you could lead a normal life. And that is still true now: although it is undoubtedly harder to manage diabetes and celiac disease - with education, the support of established associations (e.g., the Canadian Celiac Association), friends, and family, plus your own hands-on experience, you will

become comfortable, empowered, and confident managing both conditions.

This section will help you learn to handle social situations. If you develop your own strategies, please let us know! Your ideas may help someone else.

School and birthday parties

If your child is diagnosed with celiac disease, make an appointment with the child's teacher and the school principal and explain the situation to them. (You may have already spoken with them when he/she was diagnosed with diabetes.)

Ask the school to advise you of any approaching parties so that you may bring a gluten-free treat for your child. In fact, having pre-packaged gluten-free snacks available at the school may be helpful for non-planned events. Talk to your child about his/her diet, acknowledge the challenges, remain positive, and explain how much better he/she will feel by eating his/her own food. Swapping lunches or trying someone else's food can be very tempting, but it is not healthy.

Cafeteria lunches

Eating at a cafeteria can be a real challenge, as there is a high likelihood of cross-contamination. The best choice is to take a lunch to school as often as possible. In any event, try to pack gluten-free snacks in case there aren't enough options in the cafeteria.

If your teenager decides to go out to lunch with friends, some places cater to a gluten-free diet. For example, gluten-free French fries and pizza (with no chance of cross-contamination) are typically safe to consume.

Make sure your teenager calculates the carbohydrate content of his/her meal and logs the number into the insulin pump for an insulin-to-carbohydrate ratio for an MDI (multiple daily injections) routine, or to the target carbohydrate meal plan.

Testing blood sugars or observing CGM before a meal and two to 3 hours post-meal will help her/him better estimate and evaluate the carbohydrate and meal type to insulin requirements while adjusting to a gluten-free lifestyle.

At College or university

If you opt for residence life, consider a dorm with a kitchenette. If you are sharing your lodging, try to find someone with similar intolerances or sensitivities, or someone who is sympathetic. Learning to shop for groceries and prepare food while you're living at home will certainly prepare you for living on your own. And get as much support as you can: let your parents, family, and friends help.

You can find out which restaurants or fast-food outlets offer gluten-free foods near your new home. Use a phone application to locate restaurants offering gluten-free menus/foods. (See the **Apps** section for more information)

Eating with family and friends

Eating with family and friends is an important and enjoyable part of life for many people. But when you have celiac disease, what was once a fun experience can become challenging, because the gluten-free diet is very specific. Not only must you think about the types of foods that are safe, but you must also be aware of how they are prepared. And when a friend or family member prepares your food, they must understand what you or your child can safely eat.



Consider having your family and friends over for a cooking adventure. Through hands-on experience you can all learn a lot.

- ✓ **Review gluten-free foods**

- ✓ **Make a few sauces, soup stocks or gluten-free grains**
- ✓ **Read some labels**

When reading labels, show your guests that not only do you have to consider the ingredient list but also the carbohydrate content of the foods. Doing all this together will heighten their awareness of how to keep you healthy.

You should also have a conversation about **cross-contamination**.

- ✓ Show them how to make sure that the counters, surfaces, utensils, and dishes are well washed with soap and water between uses, and that it's best to prepare gluten-free foods before gluten-containing foods.
- ✓ In the oven, wrap gluten-free food in tinfoil.
- ✓ Point out the various containers and jars that may be naturally gluten-free but are labeled as gluten containing because others may dip knives and other utensils into them.

Preparing for get-togethers with family and friends

Before you/your child visits, talk to your family and friends about their planned menu. If the menu is packed with gluten (e.g., pasta and garlic bread) consider bringing your own gluten-free pasta and bread. Ask about sauce mixes and seasonings. You need to be confident that the food is safe and that there is enough for you and/or your child to eat.

Cooking plain meat, chicken, and fish with a safe grain and vegetables is ideal. If the oven is used, ask for your food to be wrapped in tinfoil.

If you are invited to a barbeque, consider bringing your own meat, chicken, or fish wrapped in tinfoil to avoid cross-contamination. Or review the marinade with your hosts and have them wrap the items for you.

Remind your hosts that it is important that gluten-free food does not come in contact with gluten containing food or that gluten-free food is not handled on the same surfaces as gluten-containing foods.

Remember that adjusting to a gluten-free diet can be difficult and that it may take some time for your friends and family to get the hang of it. Don't forget to thank them for their efforts.

Eating out

These days, more and more restaurants offer gluten-free meals, and many chain restaurants offer a gluten-free menu, ask about their options as soon as you sit down at your table. Many restaurants also have websites, where you can browse the menu. Most also offer nutritional information on the foods available, making it easier for you to assess the carbohydrate content and allowing you to arrive at the restaurant more confident and better prepared.

Keep the following in mind when eating out:

1. Call the restaurant before you leave, so you can let them know about your dietary restrictions. Select a restaurant where language will not be a barrier.
2. If you don't have time to call ahead, tell your server and the chef about your special diet when you arrive. Try to eat out during non-peak dining times.

3. Avoid all sauces, croutons, soups and gravies unless you know the ingredients are gluten-free.
4. Ask how the food is prepared. Meats may be marinated in sauces containing gluten. Both gluten-free and gluten-containing foods may be fried in the same fryer: e.g., French fries, tofu, nachos and wings may be cooked in the same oil as nuggets or onion rings. Hamburgers and buns may be grilled on the same surface.
5. Ask for allergy/nutrition information lists and always remember to ask about cross-contamination! Inquire about how the food is prepared, if any other foods are prepared or cooked at the same time and whether surfaces are cleaned between uses. Some safe options to start with include: cooked, grilled or broiled foods without any sauces, particularly with seafood. Salads with oil and vinegar (not malt) dressing. Bring your own gluten-free condiments (e.g., salad dressing) to the restaurant if you feel that the selection is not adequate for you.
6. Remember that although gluten-free diets are becoming more popular, they are still not well understood. Be patient with the server/chef to ensure that your needs are met.
7. If you are happy with the service and planning to come back, compliment the staff and the chef and leave an appropriate tip. The staff and the chef will remember you and happily accommodate your needs the next time.
8. Some websites and smartphone applications may prove useful; for example, [Urbanspoon](#) or [Gluten Free Ontario](#). For a list of helpful apps and more, please see the **Apps** section of this book.

9. **Be sure to test your blood sugars before and after your meal or look at your CGM**, particularly if you are unsure of the carbohydrate content or if this is your first time eating this type of food. Checking your blood sugars will help you better assess whether you have correctly estimated your carbohydrate content and whether you have taken enough insulin.

10. Try to avoid Buffets (cross-contamination is almost impossible to avoid here!)

11. If you are travelling abroad, you may carry dining cards in that country's language. Visit [Gluten Free Passport](#) for more information.

12. Sometimes choosing a restaurant based on its ethnicity is helpful because the foods and ingredients may be gluten-free and prepared in a gluten-free environment-for example, Thai or Indian restaurants.

13. Visualize your portions, to estimate the carbohydrate content of the food.

14. Ask politely for food to be prepared on clean surfaces with clean utensils and gloves. Explain to the staff that any contact with a bread or food with gluten crumbs will make you unwell. Well-informed staff members are more likely to comply with your requests.

Travelling

Gaining a comfort level at home with family and friends leads to the next natural social endeavor: travelling. You can stay gluten-free and have a great trip. The following suggestions for travelling, both within Canada and abroad, are helpful. Always travel with food as a precautionary measure in case of delays or meal errors so that you do not go hungry.

In the air

Careful advanced planning is the key to an enjoyable flight:

1. Find out if the carrier offers gluten-free meals. If so, does it have nutritional information on those meals so that you can determine the carbohydrate content?
2. Typically, airlines require 24 to 96-hour advance notification to ensure that gluten-free food is available.
3. Always confirm your meal request.
4. For a list of airline carriers offering gluten-free foods, as well as the time frame required for meal notifications, go to [the Gluten Free Passport](#).
5. Make sure you have a travel letter from your diabetes team.
6. Take extra supplies, including insulin and snacks. You need to consider the possibility of low blood sugars. Good snacks/mini meals include juice, glucose tabs, candies, fruit roll-ups, fruit, dried fruits, gluten-free granola bars/energy bars, corn chips, dry cereal in a bag, dried soups, gluten-free pretzel, gluten-free crackers, rice cakes, peanut butter, and mixed nuts.
7. Don't forget the gluten-free dining card in the language of your destination.

8. Download a gluten-free restaurant cards app at [Celiac Travel](#). They offer free dining cards in 51 languages.

Out of the country

1. If you are travelling abroad, look for gluten-free restaurants and health food stores carrying gluten-free products. Don't forget to look at product labels for the carbohydrate content.
2. The ethnic food of many Asian countries is naturally gluten free. Still be aware of cross contamination.
3. Many countries and resorts around the world are providing gluten free choices, prepare a list of gluten-free restaurants in the country you are travelling to before you leave.
4. If no nutrition information is available, make sure you are familiar with visualizing portions and their corresponding carbohydrate content.
5. Use travel dining cards in the corresponding language when dining out.
6. Learning to say "please" and "thank you" in the country's language is always helpful for better service.
7. When booking a hotel, ask for a room with a kitchenette so you can prepare your own food.
8. Gluten-free dining cards in 54 different languages are available free of charge at [Celiac Travel](#).

Within Canada

1. All the tips listed above also apply to travel within Canada. As well: Try to contact your hotel or resort ahead of time and explain your needs. Ask if you can have gluten-free meals prepared in a gluten-free environment, or if you can book a room with a kitchenette.
2. Some resorts are very accommodating if they have advanced notice. Ask if the chef can prepare gluten-free meals for you.
3. If you are happy with the service you receive, tell your friends, write about it on your blog, and share information online, with your celiac associations and health care team. Let us know, so that we can pass on helpful information to others.

Effects on day to day life

Adapting to a new diet requires patience, knowledge support, planning and flexibility. It may not be easy at first as with any major life change. At times you may resent the changes that you have to make and miss familial food. Try to stay positive and be patient. Use all the resources at your disposal and explore new options; you may even find some new favourites. With time you will adapt to this 'new normal' and eating a gluten-free diet will be much easier.

Staying social

As you may have found when you began living with diabetes, following a gluten-free diet will probably affect how you spend time with friends and family in social situations outside your home. However, just as with diabetes, this should not stop you from living your life and enjoying friends and family. Keep referring to **Managing a Gluten-Free Diet Away from Home** for ideas and with time you will also come up with your own strategies to handle these situations.

You may also want to consider connecting with other individuals who have celiac disease. This gives you the chance to share the challenges you are facing with others who understand what you're going through and learn from their experiences. It is also a great way to meet people in the community and learn more about celiac disease. Some support groups hold regular meetings. These can give you the opportunity to have fun while being supported by a community of people who share your condition. The Canadian Celiac Association (www.celiac.ca), for example, has chapters in and around Ontario that put on interesting events and information sessions. The CCA also holds an annual meeting that is attended by many celiac researchers.

Vendors showcase new gluten-free foods and provide information about their

products. It's a great place to meet other people with celiac disease and learn more about the latest research.

Effect on relationships

Sharing your diagnosis with your family

Your family's involvement in your management of celiac disease will vary depending on your age and stage of life. You may want or need a lot of family support or you may choose to manage it on your own.

Once you're on a gluten-free diet, family members may try to keep track of what you're eating and have their own opinions on how you should manage your dual diagnosis. Keep in mind that they want what is best for you, let them know that initially you may make some mistakes and that it is important that you learn how to adapt and manage your diet for yourself.

Sharing the news with friends

As you learn how to follow a gluten-free diet at home and away from home, it's important to let friends know about your diagnosis. Living with celiac disease will affect how you eat at their homes and where you can eat when you head out to a restaurant together (refer to [Managing a Gluten-Free Diet Away from Home](#)). It is very likely that they don't know a lot of details about celiac disease especially with Type 1 diabetes and may ask a lot of questions. Try to be patient as you explain your diagnosis. Friends can be a great source of support.

Educating family and friends

Sharing knowledge is the key to worry-free and enjoyable visits with family and friends. Take the opportunity to let them know what foods you enjoy and can safely eat and how they should be prepared to avoid cross-contamination.

At first, it may be a good idea for you to be the host! It's a great opportunity to enjoy each other's company and inform them about the gluten-free lifestyle coupled with managing your diabetes in your own environment.

Your family and friends will have many questions about celiac disease and its connection with diabetes. You can help them understand your diagnosis by answering the following questions:

- What is celiac disease?
- What happens if you eat gluten?
- Is diet the only treatment for the disease?
- What can you eat?
- What can you not eat?
- What is cross-contamination?
- What may happen to my blood sugars on this new diet?

Celiac and Diabetes: Special Considerations

Remember: when you have both celiac disease and diabetes, you face a double-edged challenge:

- ✓ **Keeping gluten out of your diet and**
- ✓ **Balancing your blood sugars**

Removing gluten from your diet results in a healthier gut and leads to better absorption of nutrients (such as iron, calcium, and vitamin D), including carbohydrates. Gluten-free foods usually have higher carbohydrate content than similar gluten-containing foods. The combined effects of a higher carbohydrate intake and better carbohydrate (nutrients) absorption can cause your blood sugars to fluctuate and potentially increase. This suggests that your HbA1C may increase, along with your insulin requirements. Try to see the **increase in your HbA1C as part of your healing not part of a new problem**. Careful logging of your food and carbohydrate intake with more frequent blood sugar monitoring via checks or CGM will help you better predict the amount of insulin you need.

Nutritional implications

You may feel overwhelmed, unhappy, and resentful about having to manage two conditions. This shows good insight, as you are aware of the implications and effort involved in having both celiac and diabetes.

Try to stay positive, think back to when you were diagnosed with T1D- the learning curve, the period of adjustment, and then gaining control of your life again. Adding celiac disease to the health mix brings a whole new level of complexity to your planning, but it is manageable. Be patient with yourself and your supporters while

you figure things out (and ask your supporters to be patient with you).

At the beginning, keep in mind the following points. There is no one ideal diet that suits all individuals with T1D and celiac disease. The foundation of a healthy diet starts with a well-balanced diet tailored to individual requirements and preferences.

Nutrient imbalances and/or deficiencies are common with individuals that are newly diagnosed with celiac disease. The reasons may be from:

- Damage to the small intestine
- Inflammation and poor absorption of nutrients
- Elimination of enriched gluten-containing products (wheat, rye and barley) which provide additional vitamin and minerals
- A poor diet low in nutrients

The small part of the intestine where most damage occurs in celiac disease is called the duodenum. Deficiencies and imbalances will vary with the severity.

Common deficiencies and imbalances with a new diagnosis of CD may include:

- Low iron
- B vitamins (B12, folate)
- Vitamin D
- Calcium
- Zinc
- Fibre

Strict adherence to a gluten-free diet will enable the damaged intestine to heal. Once healed, the body begins to properly absorb vitamins, minerals and carbohydrates.

Carbohydrate Counting and the Gluten-Free Diet

Carb counting is an important tool in tracking the amount of food and carbohydrate that you eat. Gluten-free foods have different carb counts than their gluten containing counter parts and will need careful attention for blood sugar management and insulin dosing.

Special Considerations for Carbohydrate Counting

Fiber

Fiber is a type of carbohydrate found in vegetables, fruit, whole grains and legumes. **It is not absorbed** by the body and therefore does not contribute to sugar levels in the blood. When carbohydrate counting, subtract fiber from the total amount of carbohydrates listed.

Sugar Alcohols

Sugar alcohols are a type of sweetener and can be found in chewing gum, candy, medications and “sugar-free” labeled foods. They have a lower glycemic index (see next paragraph) than regular table sugar and do not contribute to dental caries. When carbohydrate counting, subtract the amount of sugar alcohols from the total amount of carbohydrates.

For example:

38 g carbohydrates, 6g fiber, 2 g sugar alcohols

Carb count = $38 - 6 - 2 = 30$ g carbs.

Once you have determined how many carbs are in the food you are going to eat, and know your blood sugar, you can adjust your insulin dose accordingly

Glycemic Index (GI) and the Gluten-Free Diet

The glycemic index tells you by how much a carbohydrate containing food will affect your blood sugar. High glycemic index foods will cause a larger increase in blood sugar as compared to foods with a lower glycemic index. Grain based gluten-free foods such as pasta bread and pastries tend to have higher GIs than their gluten containing counterparts. When checking your blood sugars and dosing for your carbs this may impact on how much insulin you need and how you take your insulin if you wear an insulin pump.

- Aim for one low GI food per meal -

Here is a table listing low, medium and high glycemic index foods:

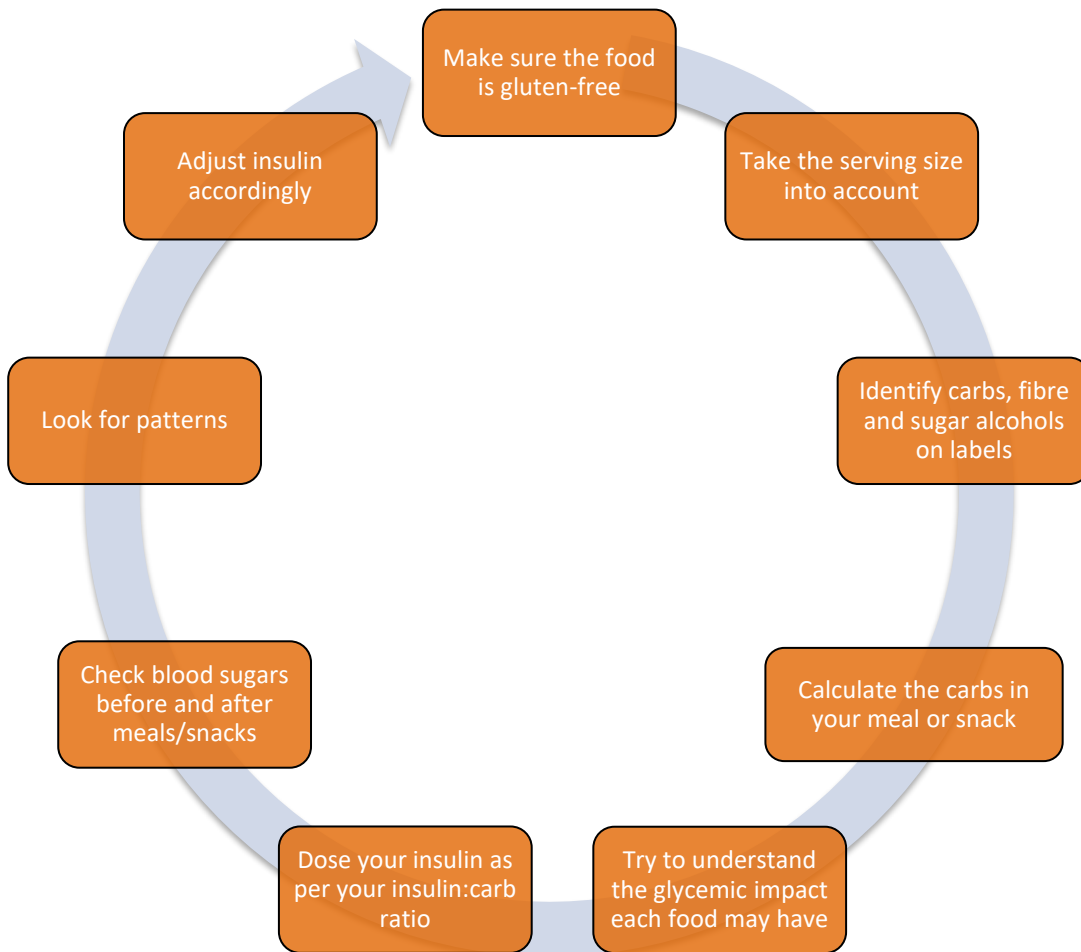
Low glycemic index (Choose most often)	Medium glycemic index	High glycemic index (Choose least often)
Beans Milk Yogurt Apples Chickpeas Lentils Corn Quinoa Parboiled, long grain (white) rice Sweet potato/ yams	Popcorn Millet Long grain rice (White or brown) Basmati rice Cornmeal New potatoes (with skin) Cantaloupe Raisins Ice cream	Potato (when boiled, baked or mashed without skin) French fries Short grain rice (white) Tapioca Millet flour Sorghum flour Dried dates

The benefits of eating foods with a low glycemic index are that they help to:

- ✓ Control **blood sugar** levels
- ✓ Control **appetite** and keep you/your child fuller for longer
- ✓ Help **prevent chronic diseases** like heart disease

Keep in mind that your blood sugars are also affected by the amount of carbohydrate that you eat!

Here are the important points to remember with carb counting on the gluten-free diet:



Common imbalances and deficiencies on the gluten-Free Diet

1. **Lower intake of calcium and vitamin D:** Lower bone density is common for those with celiac or diabetes, therefore it is important to get the recommended intake of calcium and vitamin D through milk and milk alternatives to support bone health. Dairy products, including milk, cheese and yogurt, which are the best sources of calcium. Non-dairy sources include fortified beverages, kale, Almonds, legumes, oranges, broccoli, eggs, sardines and canned salmon. If it is too challenging to do this through diet alone, consider incorporating gluten-free supplements. Vitamin D is important for bone and immune health. Vitamin D levels should be checked at diagnosis, to determine if supplementation is necessary. People with autoimmune diseases, like celiac disease, benefit from supplemental vitamin D.

For people with celiac disease living in Canada it is recommended that they take:

- **Child less than 6 years: 400-600 IU vitamin D₃ (cholecalciferol) every day**
 - **Child older than 6 years: 800-1000 IU vitamin D₃ (cholecalciferol) every day**
2. **Folate:** It is important to be conscious of adequate folate intake, particularly in Women of childbearing age must be mindful of adequate folate levels due to the importance of folate to the development of the fetus. Spinach, dark green leafy vegetables are excellent sources. Folate levels are often checked at diagnosis and annual follow-up visits.
 3. **Zinc:** Chronic diarrhea can lead to low zinc levels. If zinc deficiency is found, typically one month of supplementation, followed by a repeat lab test to ensure levels have normalized. Oysters, beef and crab are excellent sources of zinc.

4. **Vitamin B12** plays an important role in the production of red blood cells. In newly diagnosed celiac disease, the rate of B12 deficiency varies. It correlates with the extent of disease, as most absorption takes place in the ileum (the third portion of the small intestine). A multivitamin is often sufficient, although supplementation may be necessary. Dietary sources of vitamin B12 include shellfish, liver, dairy, beef and eggs. Due to avoidance of all animal products, vegans are at risk of developing a vitamin B12 deficiency.

5. **Iron stores:** Iron helps transport oxygen for energy. If you don't get enough iron, you may become very tired and irritable (this can also be a symptom of low blood sugar). Lower stores of iron may result from the decreased absorption of nutrients associated with celiac or because of low dietary intake. The iron found in red meat, fish, and poultry is that which the body uses best, but other sources include legumes, dried fruits (e.g., raisins, prunes), and gluten-free grains and starches, such as black rice and quinoa. Go to the Dietitians of Canada website and download the [Increase your Iron Intake](#) handout for more information.

6. **Lower intake of fiber:** Typically, ~~processed~~ gluten-free foods contain small amounts fiber. Lower fiber intake often causes constipation and discomfort. Increasing your dietary fiber will help you manage bowel health, make you feel full, help control your weight, and normalize your blood lipids (levels of fat in blood such as cholesterol). The basic high-fiber foods are ones you are already consuming: vegetables, fruits, nuts, seeds, and legumes. Try to add a few others, such as flaxseed, rice bran, salba, and gluten-free whole grains. (See the fiber handout for more information.)

Gluten-free whole grain (per 1 cup serving)	Amount of fibre (grams)
Amaranth	18
Millet	17
Buckwheat	17
Oats (pure, uncontaminated)	16
Sorghum	12
Quinoa	10
Teff	11
Wild rice	10
Brown rice	6

http://www.eatrightontario.ca/en/Articles/Food-allergies/intolerances/Fibre-and-the-gluten-free-diet.aspx#.V78OB_krLcs

7. **Weight gain:** Consuming potentially higher-calorie, higher-carbohydrate, and/or higher-fat and lower-fiber gluten-free foods coupled with better nutrient absorption, over an extended period may contribute to weight gain even if you are maintaining good blood sugar control. Make sure you include gluten-free whole grains, legumes, fruits, vegetables, nuts, seeds, lower-fat dairy products, lean meat, poultry, and fish in your diet.

8. **Low blood sugars:** You may experience low blood sugars because of the inflammation and lower absorption of carbohydrates. During this transitional period, be sure to have gluten-free carbohydrates on-hand for both treatment of hypoglycemia or for instances where gluten-free food is scarce. For example: glucose tabs, juice, pop, or gel packs, packaged dried fruit, gluten-free granola bars and crackers. Some gluten-free meals and foods may be made with free foods, during those times please make sure that your insulin doses are matching the carb intake. If the meal is high in protein and /or fat you may require corrections 3-5 hours post meals.

Keeping Bones Strong and Healthy

Keeping your bones strong and healthy is important. Prevent weak bones with good nutrition and exercise!

Calcium, Vitamin D and Exercise: The Bone-Building Team

→ Calcium and vitamin D are nutrients that help build strong and healthy bones.

Why Calcium?

Almost all the calcium found in your body is in your bones and teeth. But calcium is also found in your blood, where it plays an important role.

Your bones are like a bank. The calcium that you eat is put into the bone bank. The bone bank donates calcium to your blood to make sure blood levels always stay normal. If you do not eat enough calcium, the bone bank will become empty. It is very important to eat lots of calcium-rich foods to keep blood levels up while keeping your bone bank full and strong!

Why Vitamin D?

Like calcium, vitamin D is very important for growing bones. It helps your body to absorb the calcium in your food.

Vitamin D is also known as the "sunshine vitamin." Your body can make vitamin D with the help of the sun. Ten to 15 minutes of daily sun exposure without sunscreen during summer will provide you with all the vitamin D you need. But getting enough vitamin D from food and supplements is important in the winter when you stay indoors, and in the summer when you wear sunscreen, as sunscreen blocks the vitamin D made from the sun.

New research suggests that the current recommendations for vitamin D intake are far below what your body needs. And because very few foods contain adequate amounts of vitamin D (See the following), you may need a vitamin D supplement.

To best determine how much vitamin D you need, talk to your doctor, nurse, pharmacist or dietitian.

How much Calcium and Vitamin D do I need each day?

	Calcium (elemental)	Vitamin D
1-3 years	700mg	600 IU
4-8 years	1000mg	600 IU
9-18 years	1300mg	600 IU
19-70 years	1000mg	600 IU

Refer to the [Appendix 1: Tables](#) for lists of foods that are high in Calcium and Vitamin D.

Calcium Supplements

While it is best to get calcium from food, sometimes you need a supplement. Be sure to talk to your doctor, dietitian or pharmacist before beginning any supplementation and let them know about any other medication you are taking.

For the best effects:

1. Make sure calcium supplements are not taken at the same time as other medication. The calcium may decrease the absorption of other medications (for example, iron and antibiotics).
2. For the best absorption, take no more than 500 mg of elemental calcium at one time.

What else can you do?

1. Limit pop intake to once a week or less (as a treat). Replace pop with milk, a milk fruit smoothie or calcium fortified orange juice.
2. Like muscles, bones get stronger when you use them. ***Any kind of a weight-bearing activity is great!*** This is any exercise in which your feet and legs carry your weight. Walking, jogging, dancing, stair climbing, and skating are some ways to build your bones, make your body more sensitive to insulin and maintain good blood sugar control.
3. Talk to your doctor about activities that suit you!
4. Your family can help you build strong bones by building strong bones too!

You and your family can:

- ✓ Share calcium-rich foods at family meals
- ✓ Drink milk/Non-dairy fortified beverages with every meal
- ✓ Eat calcium-rich snacks
- ✓ Get plenty of exercise

Great High Calcium Ideas

1. Use milk instead of water to make soup or hot cereal.
2. Make smoothies using yogurt, fruit and milk.
3. Try chocolate or strawberry flavoured milk.
4. Try calcium-fortified orange juice.
5. Dip fresh fruit into yogurt or veggies into cheese dip.
6. Offer yogurt or pudding as a dessert or snack.
7. Stock up on calcium-rich snacks, such as cheese cubes, yogurt, tortillas (gluten-free), cereal with milk and almonds.
8. Try cooked soybeans (lightly salted).
9. Add shredded cheese to tortillas (gluten-free), soup and stew.

Increase Your Iron Intake

Why This Diet Is Important

Iron is a mineral that you need to carry oxygen through the body. Without enough iron, you can become tired, pale and irritable.

The guidelines are designed to help you choose foods that are both high in iron and will help your body use iron. Young children, pregnant and pre-menopausal women, some athletes, vegetarians and many older adults who may not be getting enough iron in their diet will find them especially helpful.

Heme and Non-Heme Iron

Food contains iron in two forms: "heme" and "non-heme." Heme iron is found in meat, fish and poultry. Non-heme iron is found in dried beans (such as kidney beans), enriched and whole grains, nuts and some fruits and vegetables.

Heme iron is better used by your body than non-heme iron, but the body's use of non-heme iron is improved if you eat also foods that contain heme iron. It is important to consume foods rich in vitamin C, such as citrus fruits and juices, cantaloupe, strawberries, broccoli, peppers and tomatoes, because vitamin C also helps your body use non-heme iron.

Steps You Can Take

- ✓ Include **at least one iron-rich food** and **one food rich in vitamin C** at each meal.
- ✓ Add cooked dried **beans** or **lentils** to soups, stews or casseroles.
- ✓ Choose gluten-free breakfast cereals and flour that are **fortified/enriched with iron**. Read the Nutrition Facts box on packaged foods and choose those foods that are high in iron.

- ✓ Choose **dark green** and **orange vegetables** and **fruits** more often. For example, choose spinach instead of lettuce for your salad.
- ✓ Have spaghetti with tomato and meat sauce rather than cream sauce.
- ✓ Choose **dried fruit** as a snack more often.
- ✓ Add raisins or other dried fruit to cereal or use them in your favourite cookie/muffin recipe.
- ✓ **Coffee or tea with meals may decrease iron absorption** so have these beverages after meals.

Reading Food Labels for Iron

You will find a Nutrition Facts box on most packaged food products. Look for the Percent Daily Value (%DV) that tells you whether a food has a little or a lot of a given nutrient. To learn more, see [Health Canada Label Reading](#)

Remember: Gluten-free products are not uniformly fortified with vitamins or minerals like gluten-containing foods. There may be gaps in the common gluten-free diet of children or adults in North America. In anticipation of the growing market for GF foods more companies will uniformly fortify gluten-free foods.

In conclusion: Not all individuals with T1D and celiac disease have nutrient deficiencies. A less processed gluten-free diet, with known carbohydrate content should provide adequate nutrition as a starting point. Regular follow-up with nutritional and medical supervision/support is recommended.

What About Probiotics?

Probiotics are live bacteria and yeasts called microorganisms that may be good for your health, especially for your digestive system by protecting you from harmful bacteria.

Probiotics are mainly found in dairy products like yogurt, cheese, milk-based beverages, supplements and some skin products.

Not all probiotics are equal. Different probiotics have different types (strains) and concentrations of bacteria. This means that different probiotics have different properties. Health benefits are strain-specific, and not all strains are necessarily good for your health.

How probiotics may help your health:

- Help your body be stronger against infections
- Help boost your immune system
- Improve the production of B vitamins in the intestines
- Reduce harmful bacteria in the intestines
- Help thicken and strengthen mucus that lines the intestines

Some common conditions probiotics can help treat:

- Antibiotic-related diarrhea
- Infectious diarrhea (caused by viruses, bacteria, or parasites)
- Irritable bowel syndrome (IBS)
- Inflammatory bowel disease (IBD)

The FDA and Health Canada regulate probiotics like foods and not like medications. This means unlike drug companies, makers of probiotic supplements don't have to prove that their products are safe or that they work at all. Therefore, you may run the risk of buying

a probiotic product without any guarantee that it contains the probiotic strains listed on the bottle.

For this reason, it may be best to choose brand-name foods that contain probiotics and probiotic supplements that have research proving they are effective and safe.

The following are gluten-free foods with added probiotics:

Brand name	Carbohydrates	Comments
DanActive®	14 g of carb in 93 ml	
iOGO Probio™	12 g carb in 100 g	
Yoptimal®	14 g carb in 100 g	(Gelatin free) These are gluten free except for the ones with granola or fruit topping
Activia®	15 g carb in 100 g	Certified as gluten free except for Activia Fiber and Activia Breakfast Blend

The following are some examples of gluten-free probiotic supplement:

Brand name	Details
Align®	Capsules based on a specific probiotic, which is mostly for adults with irritable bowel syndrome (IBS)
BioGaia®	Chewable tabs or drops for infants and colicky babies
Culturelle®	Lozenges or capsules or powder has been found to be effective in treating diarrheal diseases
Florastor®	Capsules or sachet that contains a yeast effective in treating and preventing antibiotic associated diarrhea. Children who get antibiotics often develop diarrhea, and in many cases that can be prevented by the use of Florastor
VSL#3® and Visbiome™	Sachets made of 8 different strains of probiotics. Used to treat a number of conditions including ulcerative colitis, both in adults and children, and with irritable bowel syndrome

Some important notes:

Probiotics are live organisms. Be sure to use your purchased probiotics before their expiration date and to store them according to package instructions. Some require refrigeration while others may be okay in a cool, dry place.

In general, probiotic foods and supplements are thought to be safe for most people, although they may not be safe for individuals with a compromised or weak immune system or other serious health conditions.

As with any supplement, it is important that you consult with your health practitioner that is familiar with probiotics to discuss all of your options

Hypoglycemia and Gluten-Free Snack Kits

For children, set up an area within their reach with two kits: one for low-blood-sugar treatments labeled "*hypoglycemia kit*" and the other containing gluten-free snacks, labeled "*gluten-free kit*". This is a simple and effective way to teach children about celiac and diabetes. For example, if your child has low blood sugar, telling them, "You are low" and reaching together for a juice box from the hypoglycemia kit will create a pattern that helps her recognize and address low blood sugars.

Because these lows are often around snack time, the gluten-free snack from the gluten-free kit may include fresh fruits, nuts, and dried fruits. This is also an easy way to teach your child healthy eating habits in the context of diabetes and celiac.

Remember:

*Always keep these kits on hand and with your children.
And don't forget to take the kits with you when you travel.*

Summary Tips for Living with Celiac Disease and Diabetes

1. **Count your carbohydrates:** It is important to determine the amount of carbohydrates in foods, whether you are on a target meal plan or an insulin-to-carbohydrate ratio. Your palate and your body will need to readjust to some of the new gluten-free grains and foods in your diet. You'll need to measure and weigh your food to get an accurate count. Visualizing your portions will make you more consistent, confident and better at carbohydrate counting over the long run. This will help you better estimate your insulin requirements.
2. **Be aware of the nutritional value of gluten-free foods:** gluten-free foods can be higher in calories, fat, and carbohydrates and lower in fiber and protein than gluten-containing foods. This is especially true for breads, bagels, cereals, pasta, cookies, pretzels, waffles, pancakes, and other prepared or processed items. Gluten-free foods may have a higher calories and carbohydrate content because they are made from flours that are lower in fiber and protein and from additional ingredients that are added to replace the gluten.
3. **Choose your foods wisely:** Look more often for whole-grain, and nut- and seed-based foods, such as whole-grain brown rice bread, whole-grain, gluten-free cereals, black rice noodles, buckwheat pasta, quinoa spirals, and flaxseed.
4. **Read labels:** You may already be comfortable reading and understanding labels, but now you will need to look for a few more things. You should first make sure the product is safe to eat, therefore gluten-free, by reading the ingredient list. You should then pay close attention to the portion size, as the carbohydrate content is based on a specific portion size and all products will vary in their portion sizes. Finally, when comparing two similar products, choose the one that is higher in fiber, protein, iron, and/or calcium and lower in fat. This will help you choose a product that has a lower glycemic index as well.

5. **Glycemic index:** In addition to carbohydrate counting, try to be mindful of the glycemic index (GI). Choosing lower GI foods, together with carbohydrate counting, in a balanced meal approach (vegetables, whole grains and protein) can help with your blood sugar management, especially upon starting the gluten-free diet. Foods with a higher GI ranking are digested and absorbed faster than foods with a lower GI, and similar amounts of carbohydrates from foods with different ingredients will also affect your blood sugars differently. This is where checking your BG more often and reviewing your CGM becomes important in balancing your blood sugars and possibly making insulin adjustments.

6. **Check your blood sugars and adjust your insulin:** It will be important to readjust and account for the gluten-free diet with more frequent blood sugar testing or review of your CGM. The following are very important for overall diabetes management:
 - Check blood glucose/ CGM before eating
 - Log your blood glucose
 - Log the amount of carbohydrate and insulin taken (Actual log or pump or CGM events)
 - Check two hours after a meal, possibly 3-5 depending on your meal
 - Write down/or highlight the event in your CGM of your blood glucose, if the level seems low or high after eating a gluten-free food/meal for the first time
 - Correct if necessary
 - Look for patterns
 - Make your insulin adjustment

7. **Keep a food journal:** It would be useful to keep track of the foods you are eating to ensure you are receiving the proper amounts of nutrients but also to assess and reflect how different foods affect you BGs.

Appendix

Appendix 1: Tables

Table 1: Protein, fat, carbohydrate, fiber, iron, calcium, and of gluten-free grains, starches, pulses, flours, nuts, and seeds

(Note: Low GI ranking ≤ 55 , Medium GI ranking = 56-6, High GI ranking: ≥ 70)

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Amaranth									
Uncooked	206	250 ml	28	14	134	14	16	328	N/A
Cooked	260	250 ml	10	4	49	6	6	122	
Flakes	40	250 ml	6	3	29	4	0.7	7	
Beans (all types)									
Raw	194	250 ml	46	2	117	48	16	278	Low
Cooked	187	250 ml	16	9	43	12	14.1	65	
Canned	270	250 ml	14	0.74	39	10	3	92	
Red kidney beans									
Raw	194	250 ml	44	2	119	28	13	161	Low
Cooked	187	250 ml	16	0.9	43	12	5.5	52	
Canned	270	250 ml	14	1	42	15	3.4	68	
Black beans									
Raw	205	250 ml	44.3	3	128	28	10.3	252	Low
Cooked	182	250 ml	16	1	43	13	3.8	49	
Lima beans									
Raw	165	250 ml	11	1.4	33	8	5.2	56	Low
Cooked	180	250 ml	12	0.6	42.4	9.5	3.3	57	
Canned	264	250 ml	11	0.8	35	9.5	43	74	
Pinto beans									
Raw	204	250 ml	44	2.5	128	32	103	230	Low
Cooked/boiled	181	250 ml	16	1.2	47	16	4	83	
Canned	254	250 ml	12.3	2	39	12	3.8	109	
White beans									
Raw	213	250 ml	50	2	129	32	22	512	Low
Cooked/boiled	189	250 ml	18	1.2	47	13	7	170	
Canned	277	250 ml	20	0.8	59	13	8.3	202	

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Mung beans									
Raw	219	250 ml	52	2.5	137	36	14.8	289	Low
Cooked	213	250 ml	15	0.8	41	16	3	58	
Buckwheat (grain)	180	250 ml	24	6	128	6	4	32	Low
Buckwheat grouts									
Roasted, dry	173	250 ml	20	5	130	18	4.2	29	Low when boiled
Roasted, cooked (kasha)	178	250 ml	6	1	35	5	1.4	12	Low
Cassava (raw)	217	250 ml	3	0.6	82	4	0.6	35	Low when boiled
Chickpeas									
Raw	211	250 ml	41	13	128	21	13	222	Low
Cooked	173	250 ml	15	4.5	47.5	8	5	85	
Canned	254	250 ml	12.5	3	57	11	3.4	11	
Corn bran (crude)	80	250 ml	7	0.7	69	63	2.2	34	N/A
Corn grits hot cereal (yellow)									
Dry	165	250 ml	14.5	2	131	8	1.65	3	Low
Cooked	256	250 ml	3.6	0.5	33	0.5	0.5	0	
Corn (sweet yellow on or off cob, boiled/drained)									
Off cob	123	250 ml	6	3	36	4	0.8	5	Low
Small	89	14-16.5 cm	3	1.9	19	2	0.4	3	
Medium	103	17-19 cm	3.5	1.5	22	2.5	0.5	3	Low
Large	118	20-23 cm	4	2	25	3	0.53	4	
Lentils									
Raw	203	250 ml	52	2.2	122	22	15	114	Low
Cooked/boiled	209	250 ml	19	0.8	42	9	7	40	
Millet									
Dry	211	250 ml	23	9	154	18	6.4	17	High when boiled
Cooked	184	250 ml	6.4	2	43.5	5	1.2	6	Medium as a porridge
Puffed	22	250 ml	3	1	18	1	0.6	2	

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Potato									
Raw, with skin	158	250 ml	3	0.1	28	3	3	19	N/A
Boiled, no skin	165	250 ml	3	0.2	33	2.3			High when boiled, baked no skin/ mashed Medium for new potatoes
Potato (sweet)									
Raw	141	250 ml	2.2	0.1	28	4	0.9	42	Medium to high (lower than white potato)
Cooked	347	250 ml	5	5	41	7	2.5	94	
Potato flakes (mashed, dry)	63	250 ml	5	3	51	4	0.8	17	High for instant mashed
Quinoa									
Raw	180	250 ml	25	11	11.5	12	8.2	84	Low
Cooked	146	250 ml	6.4	3	31	4	2.2	25	
Rice									
Rice (white, long grain, parboiled, dry)	195	250 ml	16	2	157	4	1.45	108	Low
Rice (white, long grain, parboiled, cooked)	185	250 ml	5	0.7	48	2	0.4	35	Low
Rice (white, long grain, dry)	195	250 ml	1.4	1.3	156	2	1.6	55	N/A
Rice (white, long grain, cooked)	167	250 ml	45	5	47	0.7	0.3	17	Medium
Rice (white, medium grain, dry)	206	250 ml	14	1.2	163	3	1.7	19	N/A
Rice (white, medium grain, cooked)	197	250 ml	5	0.4	56	0	0.4	6	Medium
Rice, (white, short grain, dry)	211	250 ml	14	1	167	6	1.7	6	N/A
Rice (white, short grain, cooked)	217	250 ml	5	0.4	62	0	0.4	2	High

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Rice (long grain, enriched, precooked or instant dry)	100	250 ml	8	1	83	2	1.6	22	N/A
Rice (long grain, enriched, precooked or instant cooked)	174	250 ml	4	1	44	1	0.8	14	Low when parboiled
Rice (brown, long grain, dry)	195	250 ml	16	6	151	7	3	45	N/A
Rice (brown, long grain, cooked)	206	250 ml	5	2	47	3	0.9	21	Medium
Rice (brown, medium grain, dry)	201	250 ml	15	5.4	153	7	3.6	66	N/A
Rice (brown, medium grain, cooked)	206	250 ml	5	2	48	4	1.1	21	Medium
Rice (white, glutinous, dry)	195	250 ml	13	1	160	5.5	3.1	22	N/A
Rice (white, glutinous, cooked)	184	250 ml	4	0.4	39	2	0.3	4	High
Black rice (dry)	180	250 ml	13.5	6	137	6	3.2	59	Low when made into a porridge
Sorghum	203	250 ml	23	7	151	13	8.9	57	N/A
Split peas									
Raw	208	250 ml	51	2.4	126	14	9.2	114	N/A
Cooked/boiled	207	250 ml	17	0.8	44	6	2.7	29	Low
Soy beans									
Dry	197	250 ml	2	39	59	30	31	544	N/A
Boiled	182	250 ml	30	16	18	11	9.3	185	Low
Tapioca (pearl, dry)	161	250 ml	0.3	0.03	142	1.4	2.54	32	N/A
Tapioca (cooked)	263	250 ml	0.9	0.01	43	0.4	0.8	10	High
Taro									
Raw	110	250 ml	1.7	0.2	29	4.5	0.6	47	N/A
Cooked	139	250 ml	0.7	0.2	48	7	1	25	Low

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Teff									
Raw	193	250 ml	25.7	4.6	141	15	14.8	347	N/A
Cooked	252	250 ml	9.8	1.6	50	7	5.2	123	N/A
Wild rice									
Dry	169	250 ml	25	2	127	105	33	36	N/A
Cooked	173	250 ml	7	0.6	37	3	1	5	Low
Yam									
Raw	158	250 ml	2.4	0.3	44	6.5	0.9	27	N/A
Cooked boiled/baked	144	250 ml	2	0.2	39	6	0.8	20	Low
Flours*									
Almond meal flour	112/28	250 ml/ 60 ml	24/6	56/14	24/6	12/3	4.1/1.1	24/60	N/A
Amaranth flour	120	250 ml/ 60 ml	16	8	80	12	8.6	40	N/A
Arrowroot flour/starch	128/32	250 ml/ 60 ml	0	0	112/28	4/1	0	0	N/A
Buckwheat flour, whole grain	120/30	250 ml/ 60 ml	16/4	4/1	84/21	9/4	4.4/1 .1	20/1	Low for bread made of this flour
Black bean flour	140/35	250 ml	32/8	0	88/22	20/5	7.2/1 .8	160/40	N/A
Carob flour	109	250 ml	5	0.7	97	43	3.2	379	N/A
Chickpea flour (besan)	92	250 ml	21	6.2	53	10	4.5	41	Low to medium for bread made of this flour
Chestnut flour	100	250 ml	6.6	3.7	78	9	3	35	N/A
Cornstarch	8	15 ml	0	0	7	0	0	0	N/A
Corn flour (whole grain, yellow)	124	250 ml	8.6	4.8	95	9	9	3	Medium when prepared into chapatti
Corn bran (crude)	80	250 ml	7	0.74	69	63	2 .2	34	N/A
Cornmeal(whole grain, yellow)	1 29	250 ml	10.5	5	99	9	9.4	4.5	Medium
Flax seed meal	13	30 ml	3	4.5	4	6	0.72	20	N/A

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Garfava™ (garbanzo and fava flour)	156/39	250 ml/60 ml	36/9	10/2.5	92/23	12/3	7.2/1.8	80/20	N/A
Guargum	7	15 ml	0	0	6	6	0.2	0	N/A
Hazel nut flour/meal	112/28	250 ml/60 ml	16/4	68/17	20/5	12/3	5.8/1.44	160/40	N/A
Montina flour (pure baking supplement)	150	250 ml	25.5	45	105	36	10.8	120	N/A
Mesquite™	15/120	30 ml/250 ml	1.9/15	0.3/2.4	15/105	6/48	5/4.3	23/184	N/A
Millet flour	120/30	250 ml/60 ml	12/3	4/1	88/22	16/4	3.6/0.9	0	High as flour porridge
Pea flour (green)	15	22 ml	4	0	9	4	L1	12	N/A
Peanut flour defatted	63	250 ml	33	0.35	22	10	1.3	89	N/A
Peanut flour (low fat)	63	250 ml	21	14	20	10	3	82	N/A
Potato flour	34	45 ml	3	0.5	27	2	6.3	0	N/A
Potato starch	12	15 ml	0	0	10	0	0	0	N/A
Quinoa flour	112/28	250 ml/60 ml	16/4	6/15	72/18	8/2	5/1.3	40/10	N/A
Rice flour									
Brown	167	250 ml	12	5	128	8	3.3	18	N/A
White	167	250 ml	10	2.4	134	4	0.6	17	N/A
Sweet	204/51	250 ml/60 ml	12/3	2/0.5	160/40	4/1	0	0	N/A
Rice bran, crude	125	250 ml	17	26	62	26	23	71	N/A
Soy flour									
Defatted	106	250 ml	50	1.3	40.5	18	9.8	255	N/A
Full fat, raw	90	250 ml	31	19	32	9	5.7	185	N/A
Full fat, roasted	90	250 ml	31	20	30	9	5.2	169	N/A
Sorghum flour	134/34	250 ml/60 ml	16/4	4/1	100/25	12/3	5.7/1.4	0	N/A
Tapioca starch/flour	120/30	250 ml/60 ml	0	0	104/26	0	1.4/0.4	0	N/A
Teff	120/30	250 ml/60 ml	16/4	4/1	88/22	16/4	9.4/2.3	200/50	N/A
Xanthan gum	9	15 ml	0	0	7	7	0	0	N/A
Nuts and seeds**									
Almonds	143	250 ml	31	71	28	17	5.3	378	N/A
Brazil nuts	133	250 ml	19	88	16	10	3.2	213	N/A
Cashews	140	250 ml	20	64	44	4	8.4	64	Low

Item	Weight (grams)	Serving Size	Protein (grams)	Fat (grams)	Carbs (grams)	Fibre (grams)	Iron (milligrams)	Calcium (milligrams)	GI ranking
Flaxseed	20	30 ml	4	8	7	6	1.8	60	N/A
Hazelnuts (dried)	135	250 ml	20	82	23	13	6.3	154	N/A
Macadamia	134	250 ml	11	102	19	12	5	114	N/A
Peanuts	146	250 ml	38	72	24	12	6.7	134	Low
Pecans (dried, halves)	99	250 ml	9	71	14	10	2.5	69	N/A
Pine nuts (dried)	135	250 ml	18	92	18	5	7.5	22	N/A
Pistachios (shelled)	123	250 ml	25	55	34	13	5.1	132	N/A
Salba	12	30 ml	3	4	4	4	0.95	92	N/A
Sesame seeds (dry, whole)	144	250 ml	26	72	34	17	21	1404	N/A
Soy beans (roasted, soy nuts)	172	250 ml	68	37	56	14	7	241	N/A
Walnuts (dried)	117	250 ml	18	76	16	8	3.4	115	N/A

*There are no GI values for types of flour because of the testing method used to determine a product's GI. Typically, for any one product, test volunteers need to consume 50 g of the product three times. Not surprisingly, it is difficult to test raw flour using this method. The GI rankings of breads and pasta made from legume-based flours (e.g., chickpea) and buckwheat flour have moderate to low GI rankings, though. As well, pasta made from buckwheat, split pea, and soy flours have lower GI rankings than gluten-free pasta made from rice and corn, and rice porridge made from rice bran or black rice has a lower GI ranking than porridge made from sticky (glutinous) rice.

**Nuts contain small amounts of carbohydrate, so the majority do not have GI values. Two exceptions are cashews and peanuts, which have a very low GI. Because nuts are generally high in unsaturated fat, they are a healthier choice than snacks containing refined carbohydrates, low fiber, and high saturated and/or trans-fat, such as chocolate bars, granola bars, muffins, and cookies. Enjoy nuts and seeds in moderation. A portion size of 60 ml (1/4 cup) has an average of 170 -230 calories depending on the type of nut.

Table 2: Gluten-Free Grains and Pulses and their Glycemic Index (GI) Rankings

Food Item	GI Ranking
Amaranth	High
Breads	
Multigrain	High
Low-GI-white	Low
White	High
Buckwheat	Medium
Buckwheat meal and rice flour	High
Rice (low amylose)	High
Rice (high amylose)	Medium
Chickpea flour	Medium
Chapatti maize	Medium
Canned lentil soup	Low
Cookies	
Chocolate-covered	Low
Digestive (maize starch)	Medium
Hummus	Low
Popcorn	Medium
Pancakes (gluten-free mix)	Low to Medium
Potatoes (new)	Medium
Muesli (gluten-free with psyllium)	Low
Pasta (corn)	Medium to High
Maize starch	Low
Split pea and soy	Low
Rice	Low
Rice and maize	High
Spaghetti	
High maize (high-amylose) flour	Low
Rice and high maize flour	Low
Rice and split pea, in tomato sauce	Medium
Noodles	
Mung beans	Low
Buckwheat	Medium
Buckwheat (Instant)	Low
Rice	
Basmati white	Medium
Brown	Medium-high
Brown Steamed	Low
Doongara white	Low
Instant puffed rice	High
Japanese-style sushi	High
Jasmine	High
Rice porridge	High
Rice porridge (with rice bran)	Low
Rice porridge (from black rice)	Low
Rice porridge (from sticky rice)	Medium
Sticky rice	High
Sushi rice (salmon)	Low
Roasted algae	Medium

Table 3: Food Sources of Calcium

Good Sources of Calcium

The table below provides a list of foods containing calcium, along with the suggested serving size and the amount of calcium per serving. Try to eat a variety of those foods each day.

Helpful hint: Be sure to look at the serving sizes listed to know how much calcium you are eating.

Challenge of the day: Place a check mark next to the foods you tried and liked!

200-300mg Calcium

Excellent choices

Food	Serving	Calcium (mg)
Milk (whole, 2%, 1%, skim) Chocolate Milk or Lactose-Free Milk	1 cup (250ml)	300
Calcium-fortified soy milk <i>e.g. Silk, So Good (calcium and vitamin D fortified soy milk)</i>	1 cup (250ml)	300 - 500
Orange juice fortified with calcium <i>e.g. Tropicana with Calcium or President's Choice with Calcium</i>	1 cup (250ml)	300
Soybeans , cooked (<i>sometimes called Edamame</i>) Soybeans , roasted	2 cups (500ml) 1 cup (250ml)	370 240
Yogurt e.g. Danone's Fruit on the bottom	170g (1 container)	200

100-200mg Calcium

Very good choices

Food	Serving	Calcium (mg)
Cheddar cheese	1 oz (size of thumb)	200
Mozzarella, Colby or marble cheese	1 oz	150
Cheese String	¾ oz (21g) stick	150
Cheddar, processed spread (Cheez Whiz)	4 tbsp	180
Salmon , pink canned in water with bones- drained	½ cup	220
Sardines , Atlantic canned in oil solids with bone drained	½ cup	280
Processed cheese slices	2 slices	150 - 200
Pancakes/Waffles made with milk (e.g. Glutino Mix)	1 large or 2 small (2.5 tbsp dry mix)	110
Yoplait Yop yogurt drink	200 ml	200
Minigo or Petite Danone	1 container (60g)	150
Yoptimal Stirred Yogurt	1 container (100g)	110
Yoplait Yogurts- Source 0/Superfruit/stirred/Exotik selection/Dessert Selection	1 container (100 g)	110
Tofu (firm made with calcium)	¼ cup (3 ½ oz)	125
Almonds	¼ cup	100
Almond butter (100% crushed almonds)	2 ½ tbsp	80
Hazelnuts	1 cup	150
Hot Cereal with calcium and prepared with milk (e.g. Go Go quinoa flakes)	¾ cup	210
Molasses (blackstrap)	1 tbsp	180

Less than 100mg Calcium

Good choices

Food	Serving	Calcium (mg)
Macaroni and Cheese (e.g. Pastariso brand)	½ cup (56 g dry)	65
Ice Cream (e.g. some selections from Breyers, Chapmans)	½ cup	45
Frozen Yogurt (e.g. Chapmans)	½ cup	65
Figs, raw	3 figs	80
Orange	1 medium	55
Parmesan Cheese	1 tbsp	55
Yoplait Tubes	1 tube (60g)	60
Dan Active- Drink	1 container (93 ml)	90
Waffles, frozen (e.g. Elpeto Belgian waffles)	1 ¼	20
Tahini (sesame seed butter)	1 tbsp	60

Broccoli , cooked	½ cup	35
Kale , cooked	½ cup	50
Tortilla chips e.g. Tostitos	40 small chips (50g)	45
Flaxseed Tortilla Chips (<i>PC brand</i>)	17 chips (50 g)	65
Molasses , regular	1 tbsp	40
Cream Cheese	1 tbsp	20

Table 4: Food Sources of Vitamin D

Sources of Vitamin D

The following table provides a list of foods that provide good sources of vitamin D. There are others, but this represents a start. Consider adding a supplement as well.

Food	Serving	Vitamin D (IU)
Salmon , canned in water, pink with bones, drained	½ cup	370 IU
Salmon , canned sockeye in water, red with bones, drained	½ cup	590 IU
Egg (yolk)	1	20 IU
Milk	1 cup	100 IU
Fortified Soy or Rice beverage e.g. Silk, So Good (Vitamin D fortified soy milk)	1 cup	100 IU
Tuna , canned, light, drained	½ cup	140 IU
Fortified Margarine	2 tsp	30 IU
Sardines , Atlantic canned in oil, with bones, drained	½ cup	200 IU

Written by: Esther Assor Mary A. Barron and Karen Eny, revised for gluten-free by Esther Assor, Department of Clinical Dietetics, The Hospital for Sick Children, March 2011

Table 5: Fibre Content of Some Foods

Excellent Source (6g or more)		Good Source (4-5g)		Source (2-3g)		Poor Source (Less than 2g)	
Grains/pulses							
Flaxseed Meal 2 1 Tbsp	6g	Yam 1 cup	5g	Sweet corn medium/large cob	2-3g	2 Rice cakes by Quaker Crispy minis	0g
Salba 2Tbsp		¼ cup Mighty Tasty Hot cereal (Bob's red Mill)	4g	½ Cup Brown, Long Grain Rice	2g	½ Cup White, Long Grain Rice	0.5g
½ Cup Cooked Legumes (dried peas, beans, lentils)	7g	1 Cup Quinoa	4g	Whole grain Millet Grits (Bob's Red Mill)	3g		
1 Large Potato (with skin)	7g	1 Cup Corn	5g	¾ cup Whole grain brown crispy rice, by Nature's path	2g		
		½ cup basmati rice	4g	Popcorn 3.5 cups Smart Pop	2.5g		
Fruits							
1 Cup Raspberries	8g	1 Cup Blueberries	4g	1 Cup Halved Strawberries	3g	1 Cup Grapes	1g
1 Medium Pear (with skin)	6g	1 Medium Apple (with skin)	4g	1 Medium Apple (without skin)	2g	1 Plum	1g
1 Cup Stewed Prunes	9g	1 Cup Cooked Plantain	5g	1 Medium Banana	3g	½ Cup Fruit Cocktail (in light syrup)	1g
				1 Orange	3g	1 Cup Orange Juice	0g
				1 Cup Pineapple	2g	1 Cup Cubed Cantaloupe	1g
				1/3 Cup Dried Apricots	3g	1 Apricot	1g
				1/3 Cup Raisins	2g		
				1 Cup Sliced Mango	3g		
				1 Large Peach	3g		
Vegetables							
½ Cup Avocado	8g	1 Cup Cooked Peas	4g	½ Cup Cooked Asparagus	2g	½ Cup Sliced Raw Cucumber	0g
		1 Cup Cooked Green Beans	4g	½ Cup Cooked Beets	2g	1 Leaf Romaine Lettuce	0g
		1 Cup broccoli chopped cooked	4g	1 Cup Chopped Cauliflower	2g	½ Cup Cooked Shredded Cabbage	1g
				1 Cup kale-cooked	3g	1 Medium Tomato	1g
				½ Cup Cooked Parsnips	3g	½ Cup Cooked Turnip	1.5g
Nuts							
½ Cup Almonds	8g	½ Cup Pecans	5g	½ Cup Cashews	2g		
½ Cup Pistachios	7.5g	½ Cup Hazelnuts	6.5g				
½ Cup Macadamia	6g	½ Cup Walnuts	4.5g				

Daily Fibre Recommendations

Age and Sex	Recommended Daily Amount
Girls and Boys, 1-3 years	19g
Girls and Boys, 4-8 years	25g
Girls, 9-13 years	26g
Boys, 9-13 years	31g
Girls, 14-18 years	26g
Boys, 14-18 years	38g
Women, 19-30 years	25g
Men, 19-30 years	38g

Appendix 2: Menu planning

- ✓ The following are some examples of meal ideas to help you get started with meal planning. Some of the foods you are currently eating may be naturally gluten-free, so you don't have to give up everything you like!

But you certainly need to be more careful

- ✓ Don't forget to count the amount of carbohydrates in your meals and snacks for the portions of foods you're eating.
- ✓ Remember, gluten-free products tend to have higher carbohydrate content than gluten-containing products.

Snacks

- Fresh/frozen/canned fruits of any kind. Try freezing grapes, strawberries, mango or other fruits to enjoy as a treat.
- Exotic fruits. These are tasty and add variety. Try cherimoya, dragon fruit, lychee and pomegranate.
- Fruit cups.
- Apple or banana slices with peanut butter.
- Marinated vegetables (broccoli, cauliflower, carrots, red/yellow/green peppers). Marinate overnight in vinaigrette (read the label to ensure it is gluten-free) or eat plain.
- Celery sticks with peanut butter or cream cheese.
- Red pepper with tzatziki.
- Lettuce wraps. Put hummus, tuna salad or egg salad into a lettuce leaf (ensure the spreads are gluten-free).
- Hardboiled eggs, or cheese with vegetables and/or gluten-free crackers.
- Yogurt or yogurt tubes.
- Cheese strings and gluten-free crackers.
- Pudding, jello or popsicles.
- Nuts.
- Dried fruit on its own or with nuts (e.g., apples and walnuts, apricots and almonds, raisins or mango slices).
- Rice cakes or rice crackers with peanut butter, cheese or cream cheese.

- A spread on top of your favourite vegetable. Try cream cheese or melted cream cheese on tomato, hummus on red peppers and/or cucumber.
- Dry gluten-free cereal in a Ziploc bag.
- Plain popcorn in a bag.
- Black bean and pinto bean chips.
- Corn tortillas, plain or with cheese or guacamole.
- Gluten-free granola bars and pretzels.
- Baked potato chips.
- Gluten-free muffins or cookies with low fat milk.

Breakfast foods

- Yogurt and fruit or a smoothie.
- Gluten-free toast with egg/ cheese/ jam/ peanut butter, milk, and fruit.
- Omelette with vegetables, cheese, and potato wedges.
- Yogurt with gluten-free granola, or dried fruits or nuts.
- Leftover rice mixed with milk, raisins, and cinnamon (try brown rice for a nutty flavour).
- Gluten-free English muffin with peanut butter and applesauce.
- Gluten-free waffles with fruit and/or light syrup and milk.
- Vegetable pancakes made with Zucchini or potato flour and your favourite spices.
- Gluten-free cereal with milk and fruit.
- Cream of white/brown rice cereal with milk and walnuts.
- Omelette wrap.
- Gluten-free muesli with milk and dried currants.
- Breakfast quiche muffins (can be made a head, frozen and reheated as needed).

Lunch ideas

- Gluten-free macaroni and cheese with cut-up vegetables and fruit.
- Gluten-free sandwich with luncheon meat and/or cheese, gluten-free chips, veggie sticks, and fruit.
- Gluten-free bagel with cream cheese, fruit, and cucumbers.
- Corn tortilla wraps with cheese and roasted vegetables, tuna or egg salad, and cut-up vegetables and fruit.
- Rice wraps with your favourite filling and fruit.
- Gluten-free pizza and vegetables.
- Falafel balls in a gluten-free pita.
- Quinoa mac & cheese.
- Tabouli salad (replace the couscous with quinoa or buckwheat).

Dinner ideas

- Salad with pine nuts or sunflower seeds, chickpeas, blueberries, a cup of milk, and fruit.
- Gluten-free pasta salad with tuna or chicken, walnuts, and fruit.
- Soup made with gluten-free bouillon, vegetables, leftover chicken or meat, rice crackers, and fruit.
- Baked or broiled chicken or fish with rice or sweet potato, salad, and fruit.
- Meat kabobs (chicken, lamb, or veal) with rice, quinoa, or millet, and a salad or vegetables.
- Stir-fry with vegetables and meat, poultry, fish, or seafood over brown or white rice.
- Stir-fry with quinoa or quinoa and rice.
- Chana (chickpeas) with rice.
- Sabji (vegetables) or curry and rice.
- Roti made from buckwheat or corn flour with saag.
- Injera (North African flatbread) made with gluten-free flour (teff, corn, rice, pea) with egg.
- Vegetable/meat chicken biryani and rice.
- Dahl with meat/vegetables and rice.
- Vegetarian or meat chilli, sour cream, guacamole, and toasted gluten-free bread.

Appendix 3: Resources

Disclaimer:

Due to the nature of information available online, it is a challenge to continue and evaluate each resource (e.g. blog) with their ongoing updates. These resources are not meant to replace the information or care given by your health care team/practitioner. We are therefore not responsible for their content. If you have any questions about the material presented, please refer to your health care team/practitioner for ongoing care and most updated evidence-based advice for you.

Apps

Depending on the type of device you have and your personal preferences, you can try some of the following apps to help manage you/your child's gluten-free diet. Some may need to be purchased.

Gluten-Free Dictionary

- GlutenFree 247 - Online version of the CCA pocket dictionary ([iTunes](#))

Grocery store & barcode scanners

- My Food Facts barcode scanner ([iTunes](#))
- The Gluten Free Scanner ([iTunes](#)) ([Google Play](#))
- Is That Gluten Free? ([iTunes](#))
- Gluten Free Restaurant Items ([iTunes](#))
- ShopWell ([iTunes](#)) ([Google Play](#))

Taxes

- Celitax ([iTunes](#)) ([Google Play - coming soon](#))

Travel & translation help

- Gluten Free Restaurant Cards app ([iTunes](#)) ([Google Play](#))
- Gluten Free Roads ([iTunes](#)) ([Google Play](#)) ([Microsoft](#))

Restaurant finder

- Find me Gluten Free ([iTunes](#)) ([Google Play](#))
- Urbanspoon/ zomato ([iTunes](#)) ([Google Play](#)) ([Microsoft](#))
- Yelp ([iTunes](#)) ([Google Play](#)) ([Microsoft](#))
- Allergy Eats ([iTunes](#)) ([Google Play](#))
- iEatOut Gluten Free ([iTunes](#))
- Dine Gluten Free ([iTunes](#)) ([Google Play](#))

Diabetes trackers and carbohydrate counting

- Calorie King Food Search ([iTunes](#)) ([Google Play - coming soon](#))
- Calorie Counter & Diet Tracker by My Fitness Pal ([iTunes](#)) ([Google Play](#))
- Daily Carb ([iTunes](#))
- Calorie Counter PRO by MyNetDiary ([iTunes](#)) ([Google Play](#))
- MyNetDiary Diabetes ([iTunes](#)) ([Google Play](#))
- BG Monitor Diabetes ([Google Play](#))
- Blue Loop ([iTunes](#)) ([Google Play](#))
- Carb Counting with Lenny ([iTunes](#)) ([Google Play](#))
- Diabetes Connect ([iTunes](#)) ([Google Play](#))
- Diabetic Connect ([iTunes](#))
- Glooko: [Click here](#) for more information
- Glucagon app (Lilly diabetes) ([iTunes](#)) ([Google play](#))
- Glucose Buddy : Diabetes Log ([Google Play](#)) ([iTunes](#))
- mySugr Logbook ([Google Play](#)) ([iTunes](#))

Miscellaneous & recipes

- Yummly ([iTunes](#)) ([Google Play](#)) ([Microsoft](#))
- Epicurious ([iTunes](#))
- Grain or No Grain ([iTunes](#))
- Cookspiration (Dietitians of Canada) ([iTunes](#)) ([Google Play](#))

Local Celiac Chapters/ Support groups

Please click [here](#) to bring you to a list of CCA chapters all across Canada.

[Gluten Free Ontario](#) is a site where you can search celiac-friendly restaurants and bakeries.

Clubs and Associations/Foundations and Councils/Health Information

[Academy of Nutrition and Dietetics \(formerly American Dietetic Association\)](#)

[American Diabetes Association](#)

[Food Allergy Canada](#)

[Diabetes Canada](#)

[Canadian Digestive Health Foundation](#)

[Celiac Disease Foundation](#)

[National Celiac Association](#)

[Dietitians of Canada](#)

[Food Allergy Research and Information](#)

[Gluten free Watchdog](#)

[Gluten Intolerance Group](#)

[Beyond Celiac](#)

[GI Kids \(North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition\)](#)

[North American Society for the Study of Celiac Disease](#)

[Pulse Canada](#)

[Whole Grains Council](#)

Research Treatment Centers

[Celiac Now - Beth Israel Deaconess Medical Center](#)

[MassGeneral Hospital for Children](#)

[The University of Chicago Celiac Disease Center](#)

Websites

Gluten-Free Blogs:

Try signing up for newsletters or adding the following celiac focused blogs to your social media:

[The Patient Celiac](#)

[Gluten Free mom](#)

[Art of Gluten-Free Baking](#)

[Yum Universe](#)

[Sondi Bruner](#)

[Gluten Free Goddess Recipes](#)

[Gluten Free Easily](#)

[Gluten is my B****](#)

[This Mess is Ours](#)

[Angela's Kitchen](#)

[Allergy Sensitive Kitchen](#)

[The Inspired RD](#)

[Be Well Gluten Free](#)

[My Gluten Facts](#)

Cosmetics and Pharmaceuticals

[100% Pure Canada](#)

[Gluten-Free Drugs](#)

[Joelle Cosmetics](#)

[Very Well - list of brands](#)

[Gluten Free Beauty on a Budget](#)

Information/Health Care Professionals

[About Celiac Disease](#)

[Gluten Free by Shelley Case, RD](#)

[Gluten-Free Dietitian - Tricia Thompson, MS, RD](#)

[Gluten Freedom Dr. Alessio Fasano](#)

[Gluten-Free MD](#)

[Gluten-Free \(For RDs and their clients\)](#)

Recipes

[Epicurious](#)
[Gluten Free snacks and mini meals](#)
[Yummly](#)
[Allergic Living Magazine](#)
[Gluten-Free Girl](#)
[Pulses and the Gluten Free Diet](#)
[Gluten Free & More](#)
[Kid-friendly recipes](#)

[Simply Gluten Free](#)
[Gluten Free Goddess](#)
[All Recipes](#)
[Kid friendly meals and snacks](#)
[Food Network Canada](#)
[Gluten Free Mom](#)
[Jamie Oliver](#)

Appendix 4: Dining and Shopping

Gluten-Free-Friendly National Restaurant Chains

These are just some of the restaurants and bakeries that list gluten-free items. However, you should speak with the chef or server to ensure your meal is as safe as possible.

[Boston Pizza](#)

[Burger King](#)

[Dairy Queen](#)

[East Side Mario's](#)

[Five Guys Burger and Fries](#)

[Hero Burger](#)

[New York Fries](#)

[Pickle Barrel](#)

[Pizza Nova](#)

[Pizza Pizza](#)

[Swiss Chalet](#)

[Wendy's](#)

[Jack Astor's](#)

[Magic Oven](#)

[McDonald's](#)

[Milestones](#)

[P.F. Chang's](#)

[Freshii](#)

Gluten-Free Restaurant Travel (Smart Phone Applications)

[Allergy restaurants \(across the USA\)](#)

[Find Me Gluten Free](#)

[Gluten Free App Reviews \(Academy of Nutrition and Dietetics\)](#)

[Gluten Free Ontario](#)

[Gluten free Passport](#)

[Is that Gluten Free?](#)

[Zomato](#)

Gluten-Free-Friendly Companies

[Benjamin's Bites](#)

[Dion Herbs & Spices](#)

[Home Free](#)

[Living Now Foods](#)

[Marinelli's True Italian Pasta Sauce](#)

[Molly B`s Gluten-Free](#)

[Niagara Naturals Fruit Snack Company Inc.](#)

[Glutino](#)

[Kingsmill Foods](#)

[Norther Quinoa Corporation](#)

[All But Gluten](#)

[Baby Mum-Mum](#)

[Breton](#)

[Catelli Foods Corporation](#)

[Club House Spices](#)

[Compliments Gluten-Free](#)

[Dempster's Bakery Gluten Zero](#)

[Flamingo](#)

[President's Choice](#)

[Pure Organic Foods](#)

[Quaker Crispy Minis](#)

These are just some gluten-free friendly companies and there are many others to choose from!

Gluten-Free Beers

Les bières de la Nouvelle-France

Nickel Brook

New Grist

New Planet

Redbridge

HB Honey Beer (kosher)

St. Peter's G-Free

Glutenbourg Bard's

Mbege

Shakparo

Quest

Schnitzerbräu

Magner's

Omission

Discovery

Endeavour

Green's

For more details on Gluten-free beers, please click [here](#) to find your provincial liquor commission.

Appendix 5: Additional Resources for Health Professionals

- Dietitians of Canada and Canadian Celiac Association-produced consumer tool under PEN client handout collection (requires a subscription). Available at [PEN nutrition](#)
- Health Canada Statement on Labeling Oats Gluten-Free. Available [here](#)
- Health Canada Labeling of Natural Health products containing Gluten. Available [here](#)
- Health Canada Food and Nutrition Allergen Labeling. Available [here](#)
- Health Canada Tables
 - [Vitamin D and Calcium: Updated Daily Reference Intake](#)
 - [Reference Values for micro \(Iron\) and macronutrients \(fibre\)](#)
- Codex Alimentarius. 2008. Codex Standard for Foods for Special Dietary Use for Persons Intolerant to Gluten. CODEX STAN 118-1979. Rome: FAO/WHO. Available [here](#)
- Guidelines for Consumption of Pure and Uncontaminated Oats by Individuals with Celiac Disease. See [2007 guidelines](#) and [2015 position statement](#)
- [National Institute of Health Celiac Disease Awareness Campaign.](#)
- [Managing Diabetes and Celiac Disease Together \(Canadian Celiac Association\)](#)
- Thompson, Tricia and Suzanne Simpson. Counting Gluten-Free Carbohydrates: A dietitian resource for counseling individuals with diabetes and celiac disease. Available [here](#)
- University of Virginia. Celiac Diet Series and Educational Materials from the Journal of Practical Gastroenterology, 2006. Available [here](#)
- Moon, Maggie. Double Trouble: Counseling Clients with Diabetes and Celiac Disease. *Today's Dietitian* 11:8, 32. Available [here](#)
- [Thompson, Tricia. The Gluten-Free Nutrition Guide and more...](#)
- Green, Peter and Roy Jones. *Celiac Disease: A Hidden Epidemic*. Revised and updated edition. 2010. William Morrow. Available at www.amazon.com

