

Chapter 1

Gluten-Free 101

In This Chapter

- ▶ What is gluten, anyway?
 - ▶ Getting essential nutrition
 - ▶ Handling social situations
 - ▶ Shopping and preparing gluten-free fare
 - ▶ Finding support
-

Gluten. This is probably the hundredth time you've seen that word in print in the past couple of months. It's everywhere — magazines, television commercials, websites, celebrity Tweets, Facebook feeds, restaurant menus, and even entire grocery aisles. Gluten-free has become a hip way to eat. Some people are embracing the trend by choice; others are forced into it for a range of medical reasons.

If you still wonder what this whole gluten thing is all about, you're not alone. In this chapter, I point out what gluten is, tell you where it lives, and introduce you to the basics of gluten-free living and cooking. Knowing the basics can help you better support a gluten-free friend or loved one or make the transition to gluten-free yourself — due to choice or necessity — and start enjoying the benefits of going gluten-free.

Getting Familiar with Gluten

Gluten, which is a natural element of wheat, is a food protein — technically a mixture of two types of protein, *gliadin* and *glutenin*. The gliadin is what causes problems for people with celiac disease (see Chapter 3). Rye and barley contain proteins similar to gliadin, so for simplicity, people use the term *gluten* to refer to the troublemaking proteins in wheat, rye, barley, and related grains.

Questioning an increasingly sensitive world

Gluten sensitivity, celiac disease, obesity, and a myriad of other diet-related chronic illnesses seem to be on the rise. Why is the world suddenly so darn sensitive? At the heart of the story is the evolution of wheat. This is not your grandparents' wheat.

Wheat has been scientifically manipulated to be a more efficient size, hardier, and higher yielding. Over the past 50 years, wheat has experienced three major hybridization changes that benefit the food industry but not necessarily human bodies. According to Dr. Mark Hyman, a practicing physician, founder of The UltraWellness Center, and a five-time *New York Times* bestselling author, today's wheat is a super starch (and thus super fattening), a super gluten (that is, super inflammatory), and a super drug (as in super addictive).

The starch in today's wheat is a rapidly digested carbohydrate, making it a fast train to stored body fat. Dr. William Davis, in the bestseller *Wheat Belly*, claims that two slices of commercial wheat bread raise blood sugar levels more than 6 teaspoons of straight sugar does. This modified form of gluten in modern-day wheat causes a significant amount of inflammation in the body, which leads to a host of chronic diseases, including celiac disease, heart disease, diabetes, and other autoimmune diseases.

The super addictive nature of wheat acts as an appetite stimulant and actually alters brain chemistry. Wondering why you get the urge to binge on cookies but don't feel hungry enough to scarf down a plate of veggies? The concentrated gluten in wheat turns into chemicals that can trigger cravings, affect behavior and mood, and even contribute to autism, depression, and schizophrenia, according to many experts.

Source: Hyman, MD, Mark. "Three Hidden Ways Wheat Makes You Fat." February 13, 2012. <http://drhyman.com/blog/2012/02/13/three-hidden-ways-wheat-makes-you-fat/>

For some people, the gliadin in wheat and the similar proteins in barley and rye cause the immune system to produce antibodies, leading to a host of health issues.

Finding Gluten's Hideouts

Not only is gluten present in foods that contain wheat, rye, or barley, but it also resides in some not-so-expected places, including soy sauce and natural flavorings and spices as well as beer, vitamins, and even lotions. In this section, I point out foods, beverages, and other products that contain gluten.

Food stuff: Discovering gluten's natural habitat

Gluten shows up in most baked goods and processed foods because it helps dough rise and stick together. Gluten gives baked goods that fluffy, bready texture or a crispy, crackery crunch. Without it, foods are denser and flatter, and they crumble more easily.

Gluten is in wheat, rye, and barley. Of all the grains that contain gluten, wheat is the most prevalent. It has a variety of names and related varieties, which makes gluten-free eating confusing at first. I recommend familiarizing yourself with these gluteny aliases so you aren't caught off-guard when shopping, dining, cooking, and eating gluten-free:

- ✓ Bulgur
- ✓ Bran
- ✓ Couscous
- ✓ Durum
- ✓ Einkorn
- ✓ Graham
- ✓ Matzo, matzah
- ✓ Seitan
- ✓ Semolina
- ✓ Spelt



Spelt is definitely not gluten-free, but it's marketed as a wheat alternative for people with wheat allergies. Be careful, because spelt breads and tortillas are often erroneously grouped with gluten-free products on the grocery store shelf.

Similarly, barley often masquerades as *barley malt*, *malt vinegar*, or just *malt* and is used as a flavoring and a sweetener. Malt can also come from corn, but if the label just says "malt," assume that it comes from barley and isn't gluten-free.



A good way to start your gluten-free journey is to avoid common foods with flour in them. Wheat flour is a popular base ingredient for most traditional baked goods, including bread, bagels, buns, cookies, cake, pie crust, muffins, donuts, and brownies as well as crackers, pasta, and pizza crust.

But don't worry! You don't have to live without your favorite foods, because great gluten-free versions of almost everything that contains gluten are available. You just need to know how to make the swap. Check out Chapter 5 to find out how to decode food labels and avoid hidden gluten in salad dressings, baking ingredients, spices, soups, and other groceries. Find more than 150 already gluten-free recipes in Parts II and III of this cookbook.



You may find glutinous rice in an Asian recipe, but that rice doesn't contain gluten. *Glutinous* (with an *i*) simply means "sticky." However, *glutenous* with an *e* does mean "related to gluten."

Choosing booze you can use

Some alcoholic beverages are unsafe for people on a gluten-free diet. These popular products are among the beverages to avoid:

- ✔ Beers made from barley (unless they're deglutenized)
- ✔ Malt beverages (like wine coolers)
- ✔ Beverages with barley-based flavorings (such as some teas)

However, the list of alcohol you can drink on a gluten-free diet is actually pretty long, and it includes a growing list of gluten-free beers. Here are some of the most popular gluten-free alcoholic beverages:

- ✔ **Gluten-free beer:** Most beers are made from barley and therefore contain gluten, but a growing list of gluten-free beer comes from sorghum, rice, corn, buckwheat, or other gluten-free grains.

Some new beers on the market are made from barley, but through a process similar to distillation, the gluten is removed. These beers are called *deglutenized beers*. Whether you feel comfortable trying these beers or prefer to stick to beers made from gluten-free grains is a personal choice that probably depends on the severity of your body's response to gluten.

- ✔ **Hard cider:** Ciders that don't contain barley as a flavoring are gluten-free.
- ✔ **Rum:** Most rums are made from sugar cane, which is gluten-free.
- ✔ **Tequila:** Tequila is made with the gluten-free blue agave plant.
- ✔ **Wine and champagnes:** Nearly all wines and champagnes (sparkling wines) are gluten-free because they're made from grapes.



Gluten is included in some flavorings, which contaminates otherwise gluten-free beverages, so always read labels and check specific brand websites to verify gluten-free status — even on products that are known to be predominately gluten-free. Contact the manufacturer if you're unsure of the gluten content in your favorite beverage.

In addition to the naturally gluten-free adult beverages, some liquor that's made from gluten-containing grains can be gluten-free due to the distillation process, which removes the gluten. So as long as these liquors are distilled and the gluten-containing mash isn't added back into the spirits, these beverages are also on the gluten-free party list:

- ✔ **Vodka:** Most vodka is made from potato or corn. Some vodkas are made from glutenous grains, but vodkas are distilled, which removes the gluten. Yet some celiac specialists recommend sticking with the potato and corn-based versions to ensure safety.
- ✔ **Whiskey:** Most whiskey is made from glutenous grains, but it's still considered gluten-free because whiskey is distilled. However, if the gluten-containing mash is added back into the whiskey (which is uncommon), then this beverage is definitely not gluten-free. Contact the distiller if you have questions about its products.

Making sure medications are gluten-free

Gluten may be in medicine, vitamins, and herbal supplements, too! Finding out the source of each ingredient in medications is much more difficult than reading food labels because different regulations apply to different products and because the source of some ingredients is unclear.

Some companies are beginning to label over-the-counter liquids and pills as gluten-free because more consumers are now looking for that information. And some companies list the gluten-free status of supplements, over-the-counter drugs, and prescription medicines on their websites.



Many, if not most, medications do not contain gluten, but if you become sick from a little gluten, it's important to confirm that pills you may be taking daily aren't going to trigger your gluten-related symptoms. Look out specifically for starch, wheat, flour, or malt listed as an ingredient, especially in herbal and vitamin supplements that may use gluten as a binder and filler. In addition, Vitamin E can be derived from wheat.

Here are some credible resources for finding out whether a medication is gluten-free:

- ✓ A shopping guidebook such as *Cecelia's Marketplace Gluten-Free Shopping Guide* by Matison and Matison
- ✓ Gluten-free apps, including ScanAvert
- ✓ A prescription website such as www.glutenfreedrugs.com
- ✓ FDA package inserts (which are often online as well)
- ✓ Drug company websites
- ✓ Pharmacists



Be sure to ask your pharmacist to make a note in your file that you're gluten-free.

Avoiding gluten in cosmetics and hair and skincare products

If you're just trying out a gluten-free diet, you probably don't need to worry about topical gluten; but if you're gluten-free due to a medical condition, then what you put *on* your body may be important.

Some experts say that gluten molecules are too large to enter the skin and that they're fine unless you ingest them, but a few doctors disagree, claiming that topical skincare products enter the bloodstream after being absorbed through the skin.

Swearing that they feel “off” or “glutened” when they use gluten-containing products, some people prefer to avoid gluten even for nonfood products. Others get contact rashes and other skin problems from gluten-containing skin products. But no matter what you decide in terms of lotion and makeup in general, lipstick needs to be gluten-free (and lots of it isn't) if you — or someone you're kissing — is gluten-free due to a medical condition.



Cosmetics companies aren't required to list wheat as an ingredient on the label, and they aren't obligated to declare the presence of gluten. As with food, check manufacturer websites, shopping guides, and smartphone apps to find the gluten-free status of cosmetics, lotions, shampoos, and other nonfood products.

Here are some ingredients that may contain gluten in your cosmetics:

- ✓ **Glutens:** Hydrolyzed wheat gluten, *Triticum vulgare* (wheat) gluten
- ✓ **Flours:** *Avena sativa* (oat) kernel flour, hydrolyzed oat flour, *Secale cereale* (rye) seed flour

- ✔ **Extracts and oils:** Barley extract, fermented grain extract, hydrolyzed malt extract, phytosphingosine extract, *Triticum vulgare* (wheat) germ extract, *Triticum vulgare* (wheat) germ oil, yeast extract
- ✔ **Proteins:** Hydrolyzed vegetable protein, hydrolyzed wheat protein, hydrolyzed wheat protein/PVP crosspolymer
- ✔ **Starches:** Hydrolyzed wheat starch, *Triticum vulgare* (wheat) starch
- ✔ **Dextrins:** Dextrin and maltodextrin (usually gluten-free because it's derived from corn in the U.S., but not always), dextrin palmitate, and cyclodextrin
- ✔ **Vitamins:** Vitamin E (may have wheat germ as the source)
- ✔ **Other:** Samino peptide complex, sodium C8-16 isoalkylsuccinyl

Choosing Naturally Gluten-Free Foods

The good news is that the list of foods you can eat on a gluten-free diet is much longer than the list of things you can't. For starters, finding gluten-free replacements for almost all the gluten-containing foods you love is getting easier. But you can also decide to just eat more naturally gluten-free foods, especially if you're newly gluten-free or you want to eat healthier in general.

Here are some food options that naturally contain no gluten:

- ✔ Fresh vegetables, fresh fruits, fruit juice
- ✔ Unseasoned beef, pork, chicken, turkey, fish, seafood
- ✔ Fresh eggs
- ✔ Milk, butter, margarine, cream, yogurt, cheese
- ✔ Beans, lentils, corn, rice, potatoes
- ✔ Unseasoned nuts and seeds
- ✔ Oils
- ✔ Sugar, honey, molasses
- ✔ Pure spices and herbs



Eating naturally gluten-free is a call to cooking! The key is to combine ingredients — soften the garlic and onions in the butter or oil, brown the meat, add vegetables and herbs, and learn to use new sauces and spices. Choosing naturally gluten-free foods isn't about subtracting things from your diet; it's about adding to your cooking!

Many people who are just beginning to explore the gluten-free diet are surprised to find out that many satisfying grains and seeds are also gluten-free, including these:

- ✓ Amaranth
- ✓ Arrowroot
- ✓ Buckwheat
- ✓ Chia
- ✓ Corn (**Note:** All forms of corn are gluten-free, including maize, polenta, hominy, grits, cornmeal, and cornstarch.)
- ✓ Flax
- ✓ Flours made from nuts, beans, seeds, coconut, or rice
- ✓ Millet
- ✓ Oats (**Note:** Oats are naturally gluten-free but are often contaminated with wheat in growing, processing, or storing, so buy oats that are marked gluten-free.)
- ✓ Quinoa
- ✓ Rice
- ✓ Sorghum
- ✓ Soy (but not soy sauce unless it's marked gluten-free)
- ✓ Tapioca (cassava)
- ✓ Teff

Staying Nourished on a Gluten-Free Diet

The gluten-free diet isn't so much a diet as it is a lifestyle. If you have celiac disease, then permanently and exclusively eating gluten-free foods is the only treatment. Staying gluten-free is also important if you're treating other medical conditions, such as a gluten sensitivity or wheat allergy, autoimmune disorders, and more. (Find information on reasons to go gluten-free in Chapter 2, and find details on celiac disease, gluten sensitivity, and nutrition in Chapter 3.)

Cutting out nearly an entire food group means you need to be careful that you get enough of the nutrients your body requires for optimal operation from other foods. After all, a food labeled "gluten-free" isn't necessarily good for you — it just doesn't contain gluten.



When cutting gluten from your diet, you may inadvertently cut something else: fiber. Fiber improves digestive function, lowers blood cholesterol, helps control diabetes and weight, plays a role in the prevention of colon cancer, and supports friendly gut bacteria. People are often told that whole-wheat bread is the best way to get fiber in their diets. Wrong! There are plenty of healthy, gluten-free ways to make sure you add this important element to your diet.

Steer clear of low-fiber processed foods and eat plenty of these high-fiber, naturally gluten-free foods:

- ✔ Gluten-free whole grains
- ✔ Fresh fruits and vegetables
- ✔ Nuts and seeds
- ✔ Beans
- ✔ Almond flour
- ✔ Popcorn
- ✔ Gluten-free oatmeal



If you're worried you may be lacking key vitamins and minerals when you go gluten-free, consult a dietitian or nutritionist during a visit home or on campus.

Socializing in a Gluten-Loving World

Socializing can be a little tricky when you're gluten-free.

Fortunately, it's getting easier each day, as more and more people understand the ins and outs of gluten-free eating. There are still many challenges, though, in mingling socially with gluten-consuming family, friends, and schoolmates.



Don't let your dietary requirements or choices keep you away from all the fun! Try these simple tips to raise your confidence in dealing with those around you:

- ✔ Tell your friends and relatives about your decision or need to begin eating gluten-free and ask for their support in meeting your goals, but don't turn the focus of a gathering on your dietary restrictions. (See Chapter 4 for more advice on dealing with social situations.)

- ✔ Be specific with roommates about your expectations for sharing kitchen space and keeping your food gluten-free. (Find guidance on setting up and maintaining a gluten-free cooking space in Chapter 6.)
- ✔ When planning to eat out — or order in — check the menu online and pick out some options ahead of time. (Check out Chapter 4 for more tips on gluten-free dining.)
- ✔ Keep a few gluten-free snacks with you when visiting friends, traveling, and attending parties. (Find recipes for great take-along snacks in Chapter 14.)

Preparing Gluten-Free Meals

There are lots of details to manage when living gluten-free, but when you get down to it, it's all about the food: shopping, cooking, and eating! Knowing what to buy and how to cook it is the key to a happy gluten-free experience. Not only will you improve your health by cooking your own food, but you'll likely enjoy a wide range of additional perks, including finding new foods to love, developing cooking skills, and being able to serve friends and dates delicious homemade food.

Shopping smart

Smart gluten-free shopping is a bit of an art. Here are some things to keep in mind when shopping:

- ✔ Keep your pantry and fridge stocked with gluten-free staples to make mealtime quick and to avoid emergency trips to the grocery store (see Chapter 6).
- ✔ Check labels and ingredients for obvious and not-so-obvious gluten (see Chapter 5).
- ✔ Buy at a discount. Chapter 5 helps you find ways to save some (ahem) dough on gluten-free groceries.

Naturally gluten-free foods are most often found along the edges of the grocery store. Start in the produce section to gather fruits and veggies. Enjoy all you want of these items. Even starches such as potatoes and corn are safe on a gluten-free diet.



The back or side wall of many grocery stores contains seafood, meat, and poultry. In their natural forms, these foods are gluten-free, but you need to watch out for these potentially gluten-containing additives:

- ✔ Flavorings
- ✔ Spice mixes
- ✔ Breading, coating
- ✔ Marinades
- ✔ Injected broth

Continuing around the store, you find dairy and eggs. Milk, yogurt, sour cream, butter, and eggs are all gluten-free. Just watch for gluten on the labels of flavored yogurts and flavored coffee creamers. Most are fine, but a few brands contain gluten.

The bakery and deli areas are also on the perimeter of most grocery stores. Run, don't walk past the bakery. All those breads and desserts likely contain gluten, unless your store has a little gluten-free section. In the deli, almost all cheese is fine, but sometimes wheat is used as an anti-caking agent in shredded, packaged cheese. Blue cheese sometimes contains gluten as well.



If your gluten-free deli meat is sliced on the same cutter as the gluten-containing stuff, then it's no longer safe for you. It's often safest to go with prepackaged deli meat that's marked gluten-free to avoid cross-contamination.

Setting up your kitchen

Student living is filled with more time and space challenges than almost any other time of life. Living with gluten-loving roommates who share your kitchen is another challenge — and that's if you even have the luxury of a kitchen. Turn to Chapter 6 for info on setting up your kitchen and working with your roommates to avoid cross-contamination. If you live in a dorm, find help in Chapter 17.

Get cooking!



After you stock up on gluten-free ingredients and have your kitchen in some semblance of order, you're ready to get cooking! Here are some general cooking tips:

- ✔ **Start simple.** If you're cooking a main dish, keep the sides simple — a lettuce salad, veggie sticks, fresh fruit, or a microwaved potato is perfect.
- ✔ **Do some planning.** Think about what you'd like to make before you head to the store, and think about what you want to eat before you're hungry. Thaw meat overnight in

the fridge, and get the butter and eggs out a couple of hours before you bake so they can warm to room temp.

- ✔ **Get organized.** Read through the entire recipe of the dish you hope to prepare — before you start cooking. Make sure that you have enough of each ingredient, that you have the right tools (or a way to improvise), and that you understand the directions. Chop and measure ingredients so they're ready to go. Keep your space clean.
- ✔ **Use your senses, not just the clock, to tell when food is ready.** Cooking equipment varies, and stoves, ovens, and pans don't always heat the same way. Pay attention to the food's appearance, texture, flavor, and so on when deciding whether to adjust the heat and when to move to the next recipe step.
- ✔ **Measure carefully when baking.** For some dishes, you can eyeball the measurements and adjust ingredients to taste. If you're baking, however, measurements should be precise. You can experiment with add-ins like chocolate chips, nuts, and flavorings, but in general, keep the recipe's ratios of dry ingredients, wet ingredients, and fats intact.
- ✔ **Be patient.** Give ovens and skillets time to heat up, and let water come to a full boil. Skillet temperature can mean the difference between steaming meat and giving it a tasty brown crust. Don't try to rush things by turning up the heat — you may burn the food instead of making it cook faster.
- ✔ **Relax, have fun, and expect mistakes.** Having recipes not turn out is a sign that you've tried cooking, not a sign that you're a bad cook. You gain skills with experience. Enjoy the process, learn from your mistakes, and regale your friends with your best kitchen disaster stories.

The recipe chapters of this book, Chapters 7 through 15, offer more than 150 great but easy gluten-free dishes that you can enjoy and share with your gluten-consuming friends and family.

Finding Support and Reliable Information

As the gluten-free diet continues to become more popular — and, dare I say, mainstream — more and more resources and people are emerging to help gluten-free newbies and vets alike live and dine more comfortably. Still, connecting with others who share your perspective and accessing other kinds of information and support is pretty helpful. Find a list of valuable resources in Appendix A.