

NON-FOOD SOURCES OF GLUTEN

Gluten cannot be absorbed through the skin, but you can still ingest it if you eat something without washing your hands*

A diagnosis of celiac disease means becoming intimately familiar with all of the food you eat. However, did you know that many non-food products still contain gluten? You can use this guide to determine whether it's safe to take that medication or play with that modeling clay. As a rule, the younger children are, the more strongly we recommend gluten-free alternatives to non-food items. We want our kids to still be able to explore their new world without the danger of getting sick!

MEDICATION & SUPPLEMENTS

Gluten can be used as an excipient (inactive ingredient) to help act as a binder for pills. Most commonly, pharmaceutical companies use corn, potato or lactose as binders; however, wheat is still used on occasion. Because these binders are inactive ingredients, they are not required to be listed on the product's label. Some over-the-counter medications are labeled with ingredient lists, so make sure to check for those first. These excipients change regularly, so it's always important to check medications that you take daily. For a list of gluten-free medications, please visit www.glutenfreedrugs.com.

Gluten is only found in tablets and chewable medication, so liquid and injectable/intravenous medication is always gluten-free. How much gluten is in these pills, though? The FDA says that pills that use wheat as an excipient contain "less than the amount of gluten that could potentially be found in a single serving of a cookie labeled gluten-free in accordance with the FDA's [20ppm] regulation."¹

It is important to note that not enough research has been conducted to determine whether taking a long-term medication using wheat as a binder is safe for people with celiac disease. Because of this, we recommend working with the prescribing provider and pharmacist to look at gluten-free alternatives.

In the case of an emergency, we recommend treating the emergency first. Getting immediate treatment far outweighs any result of ingesting a medication containing gluten. Should follow-up care involve a long-term medicine, we recommend finding a gluten-free alternative.

Treat the emergency first; research the GF status of the medication later.



*If you react topically to something that contains gluten, we recommend a visit with an allergist for allergy testing. This would not be a celiac reaction; rather, it could be a wheat allergy. Some patients experience dermatitis herpetiformis (DH) as a symptom of gluten ingestion. It is important to note that DH only occurs upon gluten ingestion, not upon skin contact.

¹U.S. Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research, and Center for Biologics Evaluation and Research. (2017). *Gluten in Drug Products and Associated Labeling Recommendations: Guidance for Industry*.



ART SUPPLIES

- **Paper mâché glue** is typically made using wheat flour and water. Because of the messy nature of this art form, we recommend using cornstarch and water as a replacement.
- Most **fingerpaints** do not contain gluten, but there are a very small handful that do. We recommend thorough handwashing after use, or a gluten-free alternative for smaller children who tend to put their hands in their mouth.
- Many people believe that some **glue** brands contain gluten. After a thorough search of glues made by different companies, the Children's National staff were unable to find one brand out of over two dozen brands that contained gluten. Still, it's good practice to wash your hands after using it.
- Several **modeling clay** brands are made primarily with wheat flour. We recommend thorough handwashing after use, or a gluten-free alternative for smaller children who tend to put their hands or foreign objects in their mouth.

TOILETRIES

- **Toothpaste** and other dental treatments are almost always gluten-free, but it's always a good idea to check that the manufacturer hasn't added malted products in the additives and stabilizers.
- Some **shampoo and conditioner** use various forms of gluten as ingredients. We recommend gluten-free hair products for small children who may accidentally get some product in his or her mouth in the bathtub, but it is not necessary for older patients.
- **Lotion and sunscreen** also sometimes contain gluten, usually in the form of oat protein. Our study in 2019² showed that there was no detectable transfer from hands that had used gluten-containing lotion onto gluten-free bread. However, this was a small sample size, so we still recommend using a gluten-free lotion or sunscreen to reduce the chance of accidental gluten ingestion.
- **Makeup** can contain gluten in many different forms. We recommend choosing a gluten-free option for products that are applied near the mouth (foundation, setting powder, lipstick/lip balm/lip gloss, lip liner, etc.). There is no need to search for gluten-free products like mascara, eyeshadow, eyebrow pencil or other products that are not at risk at getting into your mouth.
- **Hand sanitizer** is almost always gluten-free, but a select few brands contain wheat. We recommend a gluten-free hand sanitizer to reduce any risk of accidental gluten ingestion.
- Some **soap** uses gluten as an ingredient. However, we know that gluten will wash off with water alone³, so it is not necessary to find a gluten-free soap.
- **Pet food** that is not grain-free almost always contains gluten. We recommend thorough handwashing after handling pet food. If you would prefer to place your pet on a grain-free diet, please consult with your veterinarian to discuss risks.

UNSAFE INGREDIENTS

to look for on non-food items:

- AMP-isostearyl hydrolyzed wheat protein
- Avena Sativa
- Avena Sativa Extract
- Barley Extract
- Cyclodextrin
- Dextrin
- Dextrin Palmitate
- Hordeum Vulgare
- Hordeum Vulgare Extract
- Hydrolyzed Malt Extract
- Hydrolyzed Oat Flour
- Hydrolyzed Vegetable Protein
- Hydrolyzed Wheat Flour
- Hydrolyzed Wheat Gluten
- Hydrolyzed Wheat Protein
- Hydrolyzed Wheat Starch
- Malt Extract
- Secale Cereal
- Sodium Lauroyl Oat Amino Acid
- Triticum Lipids
- Triticum Vulgare
- Triticum Wheat Amino Acids
- Wheat Bran Extract
- Wheat Germ Extract
- Wheat Germ Glycerides
- Wheat Germanido-propalkonium Chloride
- Wheat Protein
- Wheatgermamidopropyl Ethydimonium Ethosulfate

Many of these ingredients will already look familiar to you. The ones that aren't familiar are likely because they are the Latin name or chemical formula for the ingredient.

²Weisbrod, V. M., Silvester, J. A., Raber, C., Suslovic, W., Coburn, S. S., Raber, B., McMahon, J., Damast, A., Kramer, Z., & Kerzner, B. (2020). A Quantitative Assessment of Gluten Cross-contact in the School Environment for Children With Celiac Disease. *Journal of pediatric gastroenterology and nutrition*, 70(3), 289-294.

³Weisbrod, V. M., Silvester, J. A., Raber, C., McMahon, J., Coburn, S. S., & Kerzner, B. (2020). Preparation of Gluten-Free Foods Alongside Gluten-Containing Food May Not Always Be as Risky for Celiac Patients as Diet Guides Suggest. *Gastroenterology*, 158(1), 273-275.