

What About Gluten?

Gluten is a natural plant protein found in wheat, rye and barley. It is unique in its functional contribution to foods like bread, pasta and baked goods.

Learn the facts about gluten and the benefits of including wheat-based foods in your diet.

WHAT IS GLUTEN?

When water is added to wheat flour, two plant proteins combine to form gluten. Gluten works like an elastic net that stretches to trap air bubbles in the dough. This contributes to the signature texture of bread and the light, fluffy cakes we enjoy. In pasta, gluten helps provide the shape and structure of the pasta while lowering its glycemic index.

Because of it's great versatility, wheat is a common ingredient and gluten is found everywhere wheat is present.



WHAT'S THE NUTRIENT BREAKDOWN FOR PASTA?

Wheat Pasta Value per 100 g	Whole Wheat Pasta Value per 100 g	Rice Pasta Value per 100 g
5.80 g	5.33 g	1.79 g
1.28 mg	1.06 mg	0.14 mg
119 mcg	5 mcg	1 mcg
1.8 g	3.2 g	1.0 g
18 mg	30 mg	3 mg
44 mg	44 mg	4 mg
	Wheat Pasta Sabaga 1.28 mg 119 mcg 1.8 g 18 mg 44 mg	Wheat Pasta value per 100 gWhole Wheat Pasta value per 100 g5.80 g5.33 g1.28 mg1.06 mg119 mcg5 mcg1.8 g3.2 g18 mg30 mg44 mg44 mg

COMPARE THE LABEL



Iron **0.15 mg** Folic acid **5 mcg** Fibre **1.5 g**

*Udi's gluten-free soft and delicious white sandwich bread Source: USDA FoodData Central

Canada's Nutrient File (CNF)



WHAT ABOUT GLUTEN-FREE FOOD SUBSTITUTIONS?

Gluten-free food products are extremely important for people who need to avoid gluten or wheat, but they don't always stack up nutritionally.

In Canada refined wheat flour, ('all-purpose flour'), and the products made with it, are required to be fortified and enriched with important vitamins and minerals. Gluten-free substitutions made with rice or other grains do not have this requirement.

Because of this, gluten-free foods such as bread, cereals, flours and pastas may have less iron, folic acid,² protein and fibre,³ so it's important to check the label carefully.

² https://pubmed.ncbi.nlm.nih.gov/27211234/ ³ https://pubmed.ncbi.nlm.nih.gov/17625125/

WHEAT BRINGS A LOT To the table

Research suggests that gluten-free diets can be lower in **dietary fibre** and micronutrients including **vitamin D**, **vitamin B12**, **folic acid**, **calcium** and **magnesium** due to the avoidance of several foods naturally rich in fibre like grains¹. This means individuals following a gluten-free diet should work with a registered dietitian to ensure they aren't missing out on key nutrients in their diet.

¹ https://pubmed.ncbi.nlm.nih.gov/27211234/

UNDERSTANDING WHEAT FREE DIETS

Celiac disease

Celiac disease is an autoimmune disorder where the body mounts an immune response to attack the small intestine when foods containing gluten are consumed. This results in symptoms such as diarrhea, abdominal pain, weight loss and malabsorption of nutrients. Celiac disease is diagnosed through an antibody blood test often followed by a biopsy of the small intestine. It is estimated that 1% of the population⁴ is affected by celiac disease.

⁴ Health Canada 2018; Jamnik et al. 2017

Wheat allergy

Similar to a peanut or other food allergy, a wheat allergy is a serious condition in which an immune response occurs after consuming wheat proteins. It includes symptoms such as swelling of the mouth, hives, difficulty breathing and anaphylaxis, requiring immediate medical attention. It is not related to celiac disease or non-celiac gluten sensitivity. It is estimated that 0.3 - 0.4% of the population⁵ has a wheat allergy.

⁵ Canadian food allergy prevalence. Hamilton (ON): AllerGen, Michael DeGroote Centre for Learning and Discovery, McMaster University; 2017

Gluten sensitivities and intolerances

Non-celiac gluten sensitivity (NCGS) or intolerance, is a condition where a person may test negative for celiac disease, but still experiences symptoms such as bloating, excess gas, abdominal pain, diarrhea, headache and a runny nose after consuming products containing gluten. These symptoms can occur hours or days after ingestion, and severity is determined by the amounts of food eaten. There is currently no accepted method to confirm a diagnosis of NCGS. As it is often self-diagnosed, the prevalence is unknown.

WHAT ABOUT WHEAT? For more information and resources on **Enrichment & Fortification, Gut Health, Diabetes** and more visit:

whataboutwheat.ca