



Supplementing a Gluten-Free Diet

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Individuals following a gluten-free diet may be susceptible to nutrient deficiencies. In those with celiac disease, gluten damages the small intestine, leading to malabsorption of nutrients. Until the intestine has had a chance to heal, this can cause deficiencies. In addition, after the intestine has healed, nutrient deficiencies may occur due to the fact that many processed gluten-free grain products are not enriched with vitamins and minerals, unlike their gluten-containing counterparts. Inadequate consumption of these nutrients may put individuals at increased risk of osteoporosis, heart disease, neurological decline and other health problems. It is important to include plenty of nutrient-dense foods in the gluten-free diet, such as: whole grains (e.g. quinoa, gluten-free oats, teff), vegetables, beans, fruits, nuts & seeds, meats and dairy products. At times a supplement may be necessary as well. **This should be discussed with a dietitian and/or physician. Supplementation should never take the place of a healthy, varied diet.** However, the right supplement may help improve the nutrient status of individuals who cannot get the nutrients they need from diet alone.

Potential Nutrient Deficiencies for Individuals Following a Gluten-Free Diet

- Vitamin A
- Thiamin (Vitamin B1)
- Riboflavin (Vitamin B2)
- Niacin (Vitamin B3)
- Folate
- Vitamin B12 (Cobalamin)
- Vitamin D
- Vitamin E
- Vitamin K
- Calcium
- Iron
- Magnesium
- Phosphorus
- Zinc

What should I discuss with my doctor?

Do I need a supplement?

Which nutrients am I lacking in my diet?

Can I take supplements at the same time as other medications?

Will my supplements interfere with any medications I am taking?

Other tips

- Supplements in pill form can be difficult for some to digest; supplements that are in liquid form can facilitate nutrient absorption and maximize benefits.
- Doses of vitamins and minerals that exceed established upper limits can be harmful. If you are concerned about exceeding the upper limit for a nutrient, visit the Office of Dietary Supplements Nutrient Recommendations for more information on recommended intake, and consult with your physician.
- Remember to bring any supplements or other medication you are taking to appointments with your doctor.
- Always confirm gluten-free status of supplements.
- Supplements are not a substitute for eating a healthy, varied diet.

Nutrients Potentially Deficient for Individuals Following Gluten-Free Diet

Nutrients Potentially Deficient for Individuals Following Gluten-Free Diet	Daily Value (DV)
Vitamin A	900 mcg
Thiamin (Vitamin B1)	1.2 mg
Riboflavin (Vitamin B2)	1.3 mg
Niacin (Vitamin B3)	16 mg
Folate	400 µg
Vitamin B12 (Cobalamin)	2.4 µg
Vitamin D	20 mcg
Vitamin E	15 mg
Vitamin K	120 µg
Calcium	1300 mg
Iron	18 mg
Magnesium	420 mg
Phosphorus	1250 mg
Zinc	11 mg

Know your needs

- **Consult with a physician and/or dietitian who can help you accurately identify your unique nutrient status and what your shortfall nutrients may be.**
- The U.S. Food and Drug Administration has released a set of recommended intake values for nutrients for individuals aged 4 years and older. These daily values (DV's) are based on a 2000 calorie diet. Daily values for nutrients that are potentially deficient in a gluten-free diet are listed in the table to the left.
- For recommendations specific to age, gender, and for women who are pregnant or breastfeeding, visit the Office of Dietary Supplements Nutrient Recommendations web page.*

*https://ods.od.nih.gov/Health_Information/Dietary_Reference_Intakes.aspx

Know your supplement

Many supplements use excipients, or “fillers,” which may contain gluten. The source of the excipient may be wheat, or it may be a gluten-free source such as corn. Read the ingredient list on the label and, if in doubt, check with your pharmacist or the manufacturer of the supplement to ensure that it is gluten-free. Remember, wheat free is not the same as gluten-free.

Some Ingredients that May Contain Gluten

Starch	Caramel Color
Dextrin	Grasses (wheatgrass, barley grass)
Pregelatinized starch	Dextrimaltose
Cross linked starch	Sodium starch glycolate
Dextrate	

- If you would like to investigate the quality of a supplement, there are currently three companies that conduct independent investigations and certify supplements. The three companies are U.S. Pharmacopeia, ConsumerLab.com, and NSF International.
- Read the supplement label and facts.

Sample Label Explained

Notice the **servicing size**. Some products will have recommended use (i.e. take one pill with meal).

Amount Per Serving tells how much of each nutrient is included in the supplement. Please note there are different units for different nutrients.

It is important to read the **Ingredients** list to determine if the supplement contains any gluten.

Supplement Facts			
Serving Size: 1 Capsule			
	Amount Per Serving	% Daily Value	
Vitamin A	450 mcg	50%	
Calcium	650 mg	50%	
Iron	9 mg	50%	
Vitamin D	20 mcg	100%	
Thamin	1.2 mg	100%	
Ribolavin	1.3 mg	100%	
Niacin	16 mg	100%	
Folate	300 µg	75%	
Vitamin B12	2.4 µg	100%	
Ingredients: Vitamin A acetate, thiamin mononitrate, riboflavin, niacinamide, folic acid, vitamin B12, vitamin D, dicalcium phosphate, ferrous fumarate, cellulose, water, gellatin.			
		Manufacturer's name	

All supplements should include the name of the **manufacturer**. If you have any questions about the product or its ingredients, contact the manufacturer.

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Other helpful information is available at www.GLUTEN.org.

Advances in celiac disease are fast-paced. If this document is more than 2 years old, please visit our website for updated documents.

This information should not be used to diagnose or treat gluten-related disorders or other medical conditions. For questions about these conditions consult your healthcare team when considering this information.

Please consider your local GIG support group as another resource.

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The Mission of the Gluten Intolerance Group is to empower the gluten-free community through consumer support, advocacy, and education.

To make a donation or become a volunteer to GIG, visit our website or call the office at 253-833-6655.

For more information on supplements, visit:

- Office of Dietary Supplements at <https://ods.od.nih.gov/>
- U.S. Food and Drug Administration, information on Dietary Supplements at <https://www.fda.gov/food/dietary-supplements>