

# GLUTEN GLIANDEN FREE DIET

## NUTRITION EDUCATION FOR GLUTEN GLIADEN FREE DIET

### INTRODUCTION

This diet is for the control of symptoms of non-tropical sprue of celiac disease or secondary gluten induced enteropathy, and as a part of the treatment for the skin lesions of dermatitis herpetiformis. Temporary gluten restriction may be indicated in the treatment of transitory gluten intolerance secondary to disorder that results in intestinal damage (e.g., some forms of gastrointestinal milk allergy of infancy). Diet is usually effective in children, but 15-25% of adults may not respond satisfactorily.

### NUTRIENTS MODIFIED

This diet is free of gluten protein as found in wheat, rye, oats, barley and buckwheat or their derivatives such as malt from barley. This diet is adequate in all nutrients specified by the 1989 Recommended Dietary Allowance for adult males and females, when selected from a variety of foods.

### DIETARY GUIDELINES AND FOOD LIST

Gluten is present in many foods, beverages or candy either as a basic ingredient or as a result of preparation or processing. IT IS MPORTANT TO READ LABELS CAREFULLY. However, gluten is often present as an incidental ingredient so the label cannot always be fully relied upon. Avoid foods and seasonings which list any of the following as ingredients: hydrolyzed vegetable protein, malt and malt flavorings, starch (unless specified as corn, tapioca or potato starch), emulsifiers, stabilizes, vegetable gum, flavoring and hydrolyzes plant protein. Food of unknown composition should be omitted; for complete ingredient information the manufacture should be contacted.

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1 C Wheat flour may be replaced by:

- 1 C Wheat starch
- 1 C Corn flour
- 1 scant C Fine cornmeal
- \_ C Coarse cornmeal
- \_ C potato flour
- \_ C Rice flour
- 1 C Soy flour plus 1/a C potato flour
- \_ C soy flour plus \_ C potato flour

**For thickening:** 1 Tbsp of wheat flour may be replaced by:

- \_ Tbsp Cornstarch, potato flour, rice starch or arrowroot.

There are some problems in the use of substitutions for wheat flour. The following suggestions will improve the eating quality of the final product:

1. Rice flour and cornmeal tend to have a grainy texture. A smoother texture may be obtained by mixing the rice flour or cornmeal with the liquid called for in the recipe, bringing this mixture to a boil and then cooling before adding to the other ingredients.
2. Soy flour must always be used in combination with another flour, not as the only flour in the recipe.
3. When using a substitute for wheat flour in baking, longer and slower baking is required. This is particularly necessary when the product is made without milk and eggs.
4. When using coarse meals and flours in place of wheat flour, the amount of leavening must be increased. For each cup of coarse flour, use 2\_ tsp of baking powder.
5. Substitutes for wheat flour do not make a satisfactory yeast bread.
6. Muffins or biscuits, when made with other than wheat flour, are of better texture, if baked in small sizes.
7. Dryness is a common characteristic of cakes made with flours other than wheat. Moisture may be preserved by (a) frosting; or (b) storing in closed containers.

<b><u>FOOD GROUP</u></b>	<b><u>SERVINGS DAILY</u></b>	<b><u>FOODS INCLUDED</u></b>	<b><u>FOODS NOT INCLUDED</u></b>
Milk, Yogurt and cheese	2-3 servings	Skim, lowfat, buttermilk, whole milk, plain milk drinks such as pasteurized eggnog, 100% cocoa, chocolate milk, milk-shakes, evaporated and condensed milk, nonfat dry milk solids, yogurt*, cheese except those to avoid.	Commercial chocolate milk made w/ malt or which may have cereal added, cocoa which has wheat flour added, any cheese containing oat gum as an ingredient. NOTE: Read all labels on commercial products.

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Milk, Poultry Fish, Dry Beans, Eggs and Nuts	2-3 servings	Beef, pork, veal, poultry, lamb, fish, shellfish, organ meats, prepared w/ out wheat, barley or malt products, cold cuts, frankfurters labeled as pure meat or no fillers, dry beans and peas peanut butter, nuts, & eggs.	Commercially prepared meats such as bologna, luncheon meats, hot dogs, hamburger w/ cereal filler, any breaded products, frozen dinners w/ Gluten stabilizers, processed cheeses and cheese foods with gluten stabilizers, creamed or stuffed items, sausage w/ cereal filler, commercial chili or tacos, eggs prepared w/ wheat, oat, rye flour (white sauce, creamed), raw eggs, canned baked beans.
Bread, Cereal, Rice, & Pasta	6-11 servings	Breads made from corn, rice, potato, arrowroot, Soybean flour, gluten-free bread mix, cereals made from rice or corn, such as cream of rice, boiled rice, corn grits, rice crispies, puffed rice, rice flakes, gluten-free macaroni product, gluten-free hot cereal, rice wafers, pure rice, tapioca, pure corn meal tortillas, bean noodles, hominy, pasta made from wheat starch.	Commercially prepared bread, rolls, hot breads, any made w/ wheat (except wheat starch), rye, oats, buckwheat, barley, malt products, dumplings, cereals made from wheat, rye, oats, buckwheat, barley, malt, bran, bread crumbs, matzoth, pretzels, wheat germ, zwieback, bread mixes, regular Commercial noodles, macaroni, spaghetti, pasta, Yorkshire pudding, bread stuffing, packaged rice mixes**.

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Vegetable	3-5 servings	Any prepared w/ out wheat, rye, oats, buckwheat, barley or malt products.	Regular “creamed” & breaded vegetables, instant potatoes.
Fruit	2-4 servings	Any fresh, frozen, dried or canned fruit, fruit juice or fruit drink.	Thickened or prepared fruits, some pie fillings.
Fats & Oils	Use sparingly	Margarine, oil, lard, shortening, butter, bacon, mayonnaise and salad dressings (made w/ allowed ingredients), meat, sauce or gravy made w/ cornstarch or an allowed thickener, pure French dressing, fortified olive oil, creams (whipping, light, sour)	Mayonnaise or salad dressings w/ flour added, regular gravy, commercial salad dressings that contain gluten stabilizers or prohibited flour, non-dairy whipped topping that contains gluten stabilizers.
Sweets & Desserts	Use sparingly	Sugar, honey, molasses, syrup, jam, jelly, preserves homemade candy made w/ allowed ingredients, gelatin, ices, sherbet, homemade ice cream w/ allowed ingredients, rice, cornstarch & tapioca puddings, junket, pure cocoa, pure baking chocolate, coconut, marshmallows, carbonated beverages.	Any prepared w/ wheat, rye, oats, buckwheat, barley or malt products, commercial ice cream w/ gluten stabilizers, ice cream cone, flavored syrups**, root beer.

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Miscellaneous	As desired	Salts, spices, pepper, herbs, extracts, olives, popcorn, pickles, potato chips, catsup, prepared mustard, soy sauce, Worchestershire sauce, cider vinegar, wine vinegar, coffee, tea, decaffeinated beverages, cocoa in no wheat flour has been added, broth**, boullion**, any home made soup from allowed foods & thickened potato flour or cornstarch.	Chewing gum**, baking powder**, all other vinegars, some seasoning mixes**, commercial soups**, soup mixes**, soups thickened w/ wheat flour, oats, barley or rye or those containing whole barley, ale, Beer, whiskies, gin vodka, malted beverages, postum, Ovaltine, cereal beverages.

\* Check vegetable gum used.

\*\* If not gluten-free, consult manufacturer for detailed information.

### **SAMPLE MEAL**

<b>BREAKFAST</b>	<b>LUNCH</b>	<b>DINNER</b>
1 C Orange juice	3 oz Roast beef	_ C Navy bean soup
_ C Puffer rice	1 Baked potato	2 oz Tuna fish salad
1 Poached egg	_ C summer squash	lettuce & tomato
2 Slices Bacon	1 Tbsp Pure French dressing	1 Tbsp allowed mayonnaise
1 Slice Low protein bread	1 C Spinach salad	2 Slices Low protein bread
1 tsp Margarine	1 Slice Low protein bread	1 tsp Margarine
1 tsp Jam	1 tsp Margarine	1 C 2% Milk
1 C 2% Milk	1 C Cantaloupe	

Sugar, salt, pepper and allowed beverage of choice are routinely included.

### **APPROXIMATE NUTRITIONAL ANALYSIS**

Protein	83.72gm	Vitamin C	263.9mg	Phosphorus	1440mg
Fat	61.6gm	Niacin	17.6mg	Iron	14.1mg
Carbohydrate	209.0gm	Riboflavin	1.9mg	Sodium	2242mg
Calories	1702kcal	Thiamin	1.2mg	Potassium	4098mg
Vitamin A	2335RE	Calcium	903.6mg	Dietary Fiber	21.7gm
Folate	341.9ug	Zinc	11.1mg		

The sodium value will vary with the amount of salt added in food preparation.

