



Narodowe Centrum Edukacji Żywieniowej



GLUTEN-FREE DIET

A gluten-free diet involves the elimination of gluten, a mixture of plant proteins found in cereal grains, i.e. wheat, barley and rye. Gluten can be found in processed products, such as baking powder or cold meats. For this reason, proper adherence to a gluten-free diet requires careful reading of product labels and ingredients and, in some cases, altered cuisine organisation. A gluten-free diet is most commonly used to treat celiac disease, gluten intolerance and non-celiac gluten sensitivity. It is not recommended to eliminate gluten before diagnosis.

Key nutritional recommendations

1

Follow a gluten-free diet. In the case of celiac disease, strict adherence to a gluten-free diet and gluten-free hygiene (e.g. using separate boards, knives and utensils) is the only treatment. Successful elimination of gluten requires the use of gluten-free foods, which, according to the FAO/WHO Codex Alimentarius (2008), means products that are naturally gluten-free or from which gluten has been removed and the gluten content in 1 kg of product does not exceed 20 mg. Products that could contain gluten but are gluten-free should have the wording 'gluten-free' on the packaging and may additionally be marked with a crossed wheat symbol.

After the introduction of a restrictive gluten-free diet, improvements in wellbeing and health are observed after 1-35 months. Remission of symptoms occurs in 75% of people with celiac disease after one year on a gluten-free diet.



2

In case of celiac disease, before purchasing food, carefully analyze the composition of the product and make sure it does not contain gluten. Pay particular attention to information on packaging such as "may contain traces of gluten", "may contain cereals containing gluten", "made in a facility that packs products containing gluten" or "made in a facility that processes products containing gluten". When a product contains, for example, vegetable protein or vegetable fibre of unknown origin and you are not sure whether the product contains gluten, do not buy it.

3

Due to its properties, gluten is commonly used in food production as a water binder, emulsifier, stabiliser, and flavouring and seasoning carrier. For this reason, gluten can be found in a wide variety of products, including halva, chips, sausages, offal cold cuts (e.g. pâtés, brawn), instant soups and sauces, dressings, alcohol and chewing gum. In addition, medicines and dietary supplements may contain gluten.

4

Even if you consistently buy a particular product and you are sure it is gluten-free, check the ingredients once in a while, as manufacturers change their recipes.

5

Immediately after the diagnosis of celiac disease, a gluten-free, easily digestible diet is recommended, depending on the degree of damage to the intestinal villi. In case of patients in whom celiac disease causes gastrointestinal disorders, especially in the form of frequent diarrhoea, periodic elimination of lactose from the diet may be beneficial. In these cases lactose-free milk and lactose-free dairy products are recommended. In a minority of cases, permanent lactose intolerance or allergy to cow's milk proteins may occur, which requires the permanent elimination of lactose or milk, and dairy products from the diet. **Ultimately, a gluten-free diet should also be a healthy diet.**

6

Adults' adherence to a gluten-free diet is often associated with weight gain. It happens because the elimination of cereals and gluten products usually promotes an increase in fat intake and a decrease in protein and fibre intake. It is necessary to replace gluten cereals with gluten-free cereals or potatoes and other starchy foods. Weight gain is influenced by an improvement in bone mineral density (if the dietary calcium supply is normal) and an increase in the proportion of body fat. In addition, a gluten-free diet rich in processed food can lead to the development of metabolic syndrome.

7

When buying gluten-free products, don't forget to check labels in regards to salt, sugar or additives - choose those with lower content.

8

Oat is a controversial cereal in the gluten-free diet. It is often contaminated with gluten, but it also causes discomfort even when in case of its gluten-free form in some people with celiac disease.

Physical activity

1

Make sure you exercise regularly. Try to make daily activities such as housework, walking, dancing, choosing the stairs instead of the lift your routine. Simple activities also have health benefits, and any physical activity is better than no activity. Do at least 30 minutes of moderate exercise (e.g. walking, running, cycling or swimming) each day.

Other lifestyle elements

- 1 Eliminate alcohol from your diet.
- 2 Quit smoking.
- 3 If you are exposed to stress, work out how to cope with it. Relaxation techniques based on mindfulness and meditation, breathing exercises or yoga will be useful.

References:

1. Polskie Stowarzyszenie Osób z Celiakią i na Diecie Bezglutenowej. Celiakia i dieta bezglutenowa – praktyczny poradnik. Wydanie XII, Warszawa, 2017.
2. Lange E., Włodarek D. (eds): Współczesna dietoterapia. Wydawnictwo Lekarskie PZWL, Warszawa, 2023.



Gluten content of individual products











Remember that the overall profile of your diet, the composition of individual meals and the quality of the products you choose are important. Products included in the table have been categorised according to their gluten content, and do not take into account the principles of healthy nutrition and recommendations in other disease entities.

Group of products	Gluten-free	May contain gluten	Contain gluten
Vegetables 	<ul style="list-style-type: none"> all fresh frozen (without seasoning) purees and concentrates (without additives) 	<ul style="list-style-type: none"> canned (e.g. bell peppers, cucumbers) 	<ul style="list-style-type: none"> thickened with gluten flour with the addition of fatty sauces, roux
Fruit 	<ul style="list-style-type: none"> all fresh frozen candied in syrups without additives 	<ul style="list-style-type: none"> dried 	—
Grain products 	<ul style="list-style-type: none"> cereals: maize, rice (e.g. white, brown, wild), millet, buckwheat, amaranth, sorghum, teff (Eragrostis tef), quinoa, oats labelled gluten-free flours: maize, rice, buckwheat, millet, amaranth, oat (must be labelled gluten-free) groats: cornmeal, millet, buckwheat cereal flakes: rice, buckwheat bran: rice, maize, buckwheat pasta: prepared from gluten-free flours, labelled as gluten-free (e.g. maize, rice noodles, buckwheat) bread: prepared with gluten-free flours, labelled gluten-free gluten-free breadcrumbs rice and corn wafers 	<ul style="list-style-type: none"> flours from permitted cereals (e.g. buckwheat, maize, rice) not labelled as gluten-free (they may be contaminated with gluten) cornflakes 	<ul style="list-style-type: none"> cereals: wheat, rye, barley, triticale, spelt, Khorasan wheat, einkorn wheat and emmer (wheat species), other wheat varieties, oats flours: wheat, rye, spelt, barley, plain oats groats: farina, couscous, bulgur, barley (e.g. pearl, pearl barley, Masurian), oat groats, instant cereals cereal flakes: wheat, barley, rye, oats bran: wheat, rye, barley, oats pasta: wheat, spelt, barley, rye wheat, barley, rye bread (including light, wholemeal, crispbread, rolls, pumpernickel, pretzels, matzah) and other bakery products not labelled as gluten-free breadcrumbs
Potatoes and other starchy products 	<ul style="list-style-type: none"> potatoes, sweet potato, cassava potato starch, maize starch, rice starch, gluten-free wheat starch potato flour tapioca sago 	—	—
Milk and dairy products 	<ul style="list-style-type: none"> milk (fresh and UHT) natural yoghurt, kefir, buttermilk cheese condensed milk milk powder 	<ul style="list-style-type: none"> flavoured milk drinks flavoured yoghurts, kefirs and buttermilks ground cheeses for cheesecakes seasoned cheese for sandwiches processed cheese 	<ul style="list-style-type: none"> beverages and desserts with added wheat flour, wheat starch, barley malt, cereal flakes or other gluten-containing additives
Meat, fish, eggs and products 	<ul style="list-style-type: none"> fresh, unprocessed meat, fish and eggs cold cuts and preserves labelled as gluten-free 	<ul style="list-style-type: none"> cold cuts, sausages, hot dogs canned meat and fish pre-packed minced meat 	<ul style="list-style-type: none"> offal cold cuts (e.g. black pudding, brawn, pâté, leberwurst) if they contain gluten additives breaded foods (e.g. cutlet, fish fillet, fish fingers), minced cutlet, meatballs



Gluten content of individual products

Group of products	Gluten-free	May contain gluten	Contain gluten
Legumes and legume product 	<ul style="list-style-type: none"> all, e.g. soybeans, chickpeas, peas, lentils, beans, broad beans soy flour, soy drinks soya products, e.g. tofu pasta made from legume (e.g. lentils) 	<ul style="list-style-type: none"> legume pastes tempeh 	<ul style="list-style-type: none"> ready-made legume preparations (e.g. soy sausages, breaded soy cutlets, soy pâtés, vege burgers)
Fats 	<ul style="list-style-type: none"> butter vegetable oils (e.g. canola, olive oil, linseed) lard margarines 	<ul style="list-style-type: none"> wheat germ oil 	—
Nuts and seeds 	<ul style="list-style-type: none"> nuts (e.g. walnuts, hazelnuts) and almonds seeds (e.g. pumpkin, sunflower, flax seeds, chia) 	<ul style="list-style-type: none"> hazelnut cream nuts and seeds: salted, in chocolate, in caramel, in honey 	<ul style="list-style-type: none"> nuts and seeds in sprinkles, breaded and in chips
Sugar and sweets, salty snacks 	<ul style="list-style-type: none"> sugar honey maple syrup jams molasses pastilles, lollipops cakes made from gluten-free flours, cakes and biscuit labelled as gluten-free puddings and kissels other: popcorn, corn crisps 	<ul style="list-style-type: none"> vanillin sugar jellies, pudding and kissels powders (for preparation) ice cream chocolates, chocolate bars, candies chewing gums chips, nachos 	<ul style="list-style-type: none"> barley malt desserts and confectionery made from gluten flour or with plain baking powder cakes and cookies, sponge cake, rusks, breadsticks, sweet buns
Beverages 	<ul style="list-style-type: none"> mineral water fruit and vegetable juices (without additives) tea, natural coffee, herbal infusions, kompots, cocoa 	<ul style="list-style-type: none"> Earl Grey flavoured teas, fruit teas instant coffee, 2-in-1 instant coffee drinks drinking chocolate 	<ul style="list-style-type: none"> cereal coffee oat cocoa barley malt beverages
Spices and sauces 	<ul style="list-style-type: none"> fresh and dried single-ingredient herbs (e.g. basil, oregano, turmeric, cinnamon, ginger) mixtures of herbs (e.g. Herbes de Provence) homemade salad dressings peppercorns wine and cider vinegar 	<ul style="list-style-type: none"> mixtures of spices (e.g. curry) mustard ketchup horseradish in a jar plain, vegan mayonnaise (e.g. soybean mayonnaise) 	<ul style="list-style-type: none"> universal seasonings in various forms (e.g. bouillon cubes, liquid spices) prepared or powdered sauces soy sauce
Prepared meals 	<ul style="list-style-type: none"> frozen vegetables or fruit vegetable pastes and purees 	<ul style="list-style-type: none"> depending on the composition, e.g.: salads with dressing, cream soups, potato pancakes, mixed cereals and legumes 	<ul style="list-style-type: none"> fast food (e.g. toasted open-faced sandwiches, pizza, French fries) breaded ready-made food products (e.g. fish fingers), made from gluten flour e.g. dumplings, pyzy (type of dumplings), potato dumplings instant dishes (e.g. sauces, soups, porridges) soups with roux
Other 	<ul style="list-style-type: none"> gluten-free baking powder baking soda yeast 	<ul style="list-style-type: none"> flavours sprinkles and cake decorations low gluten sacramental bread 	<ul style="list-style-type: none"> plain baking powder gluten flour sourdough starter seitan wheat germ and sprouts wafers and sacramental bread

Example of a quality menu in a gluten-free diet

BREAKFAST:

Hummus and vegetable sandwiches

- gluten-free bread
- hummus: chickpeas, sesame paste (tahini), olive oil, lemon juice, garlic, cumin, pepper
- egg
- fresh vegetables, e.g. red bell pepper, tomato, cucumber
- sprouts, e.g. broccoli, radishes

LUNCH:

Cauliflower cream soup with croutons

- soup: cauliflower, potatoes, onion, broth, sour cream, dill, pepper, sweet and hot paprika, garlic
- croutons: gluten-free bread, olive oil or butter, sweet and hot paprika, garlic

DINNER:

Stuffed chicken fillet, groat with vegetables, salad

- chicken breast fillet
- spinach
- mozzarella
- buckwheat groats
- vegetables, e.g. green beans, broccoli, cauliflower, bell peppers, onions, zucchini
- salad: Chinese cabbage, cucumber, bell pepper, sunflower oil, pepper



AFTERNOON SNACK:

Milk and fruit cocktail

- natural yoghurt
- banana
- blueberries
- expanded amaranth

SUPPER:

Cottage cheese with vegetables, bread

- cottage cheese
- vegetables, e.g. tomato, radish, chives, dill
- gluten-free bun

