



Narodowe Centrum Edukacji Żywieniowej



GASTROESOPHAGEAL REFLUX DISEASE (GERD)

Gastroesophageal reflux disease is a condition in which the stomach content flows back to the oesophagus, usually due to a dysfunction of the lower esophageal sphincter. Reflux may also be caused, among other factors, by a disorder called the delayed gastric emptying or by pregnancy. Various environmental factors may also contribute to the onset of the disease, including inappropriate diet, obesity, low physical activity, stress, smoking or alcohol abuse. Apart from stomach content persistently flowing back up to the oesophagus, other characteristic symptoms include: belching, heartburn, or nausea.

Diet

Diet modifications and body weight normalization in obese or overweight individuals are an important element of GERD therapy, apart from pharmacological treatment. The implementation of recommendations that include a change of lifestyle helps alleviate or even entirely eliminate symptoms such as belching or heartburn. Diet-based treatment mainly involves avoiding products that may trigger symptoms and a more regular consumption of small portions of meals.



Key nutritional guidelines

1

Eat 4 to 6 meals a day at regular intervals, i.e. every 2 to 3 hours. Have your last meal 3 to 4 hours before bedtime. It usually takes approximately 4 hours for the stomach to empty its contents. Regular meals consisting of smaller portions may reduce the feeling of fullness, limiting the risk of stomach content flowing back to the oesophagus.

2

Eat your meals calmly and without rush to avoid swallowing large quantities of air.

3

Try not to drink too much fluids during and after a meal, as this will increase the volume of the stomach content.

4

Eat food at moderate temperature not to irritate the oesophagus and avoid eating hot and cold food.

5

Apply appropriate cooking techniques. Avoid deep frying. It is recommended to cook, steam-cook or stew/braise without pre-frying, and roast without adding any fat, e.g. in aluminium foil or roasting sleeve.

6

Eliminate products and foods that make your symptoms worse. These products are:

- fatty products which stay in the stomach for a long time, e.g. fatty meat, cold cuts, mould and maturing cheese, processed cheese, cream, chips, French fries, fried food, cocoa and chocolate;
- products and food that can irritate the mucosa of the oesophagus and/or stimulate the production of stomach acid, e.g. mustard, vinegar, ketchup, citrus fruit and juice, fresh tomato and tomato products, hot spices, chewing gum, mint;
- sparkling beverages - gas increases the volume of the stomach.

7

The scope of dietary restrictions should always be customised. However, if dietary restrictions seem not to improve the condition, they should be gradually lifted. Restrictions that are too strict may diminish the quality of the diet, making it more difficult to balance the nutrient intake.



Physical activity

1

Make sure you exercise regularly. Studies have shown that regular physical activity of moderate intensity may be beneficial in the treatment of GERD, as it may, among other things, strengthen the diaphragm muscles. Any form of physical activity of moderate intensity lasting at least 30 minutes a day is recommended, e.g. walking, running at varying paces, cycling, or swimming.

2

Exercising right after a meal is, however, contraindicated. In addition, exercises that increase the pressure within the stomach should also be avoided, e.g. weight lifting or sit-ups. Consult a personal trainer or physiotherapist to choose the right type, duration and frequency of exercises that will be appropriate to you.

Other elements of lifestyle

1

Reduce or eliminate alcohol consumption. Alcohol may irritate the mucosa of the oesophagus, reduce tension of lower sphincter and stimulate stomach acid production.

2

Quit smoking. Smoking may reduce the tension of lower oesophageal sphincter, impair the peristalsis of the oesophagus and cause coughing, which usually intensifies the symptoms.

3

If you are under stress, learn how to manage it effectively. Some relaxation techniques based on mindfulness and meditation may help, as well as breathing techniques or yoga.

4

Avoid clothes and underwear that provide pressure in the abdominal cavity region.

5

Sleep with your head higher (use a special wedge), especially if you have your symptoms at night.

6

Do not lie down right after a meal to avoid symptoms intensification.










References:

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2. Andrzejewska M.: Choroba refluksowa przełyku [w:] Grzymisławski M. (red.), Dietetyka kliniczna, Warszawa 2021, s. 147-159.
3. Włodarek D.: Choroba refluksowa [w:] Włodarek D., Lange E. (red.), Współczesna dietoterapia, Warszawa 2023, s. 205-211.
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Recommended and not recommended products in GERD

Remember that the overall profile of your diet, the composition of individual meals and the quality of individual products are all important aspects. In the table below, you will find examples of products that should be the basis of your diet as well as those which you may want to eliminate. Treat it as a guide to changing your dietary habits to healthier ones.

Group of products	Recommended	Not recommended
Vegetables 	<ul style="list-style-type: none"> peeled and thermally processed vegetables (cooked/baked) raw, only if well-tolerated 	<ul style="list-style-type: none"> vegetables served with greasy sauces, roux vegetables in vinegar, pickled garlic, onion, leek, asparagus, tomatoes and tomato products (e.g., passata, concentrate), cabbage, bell pepper, radish, if poorly tolerated
Fruit 	<ul style="list-style-type: none"> peeled and thermally processed fruit (cooked/baked) raw, only if well-tolerated 	<ul style="list-style-type: none"> candied fruit, fruit syrups and dried fruit citrus fruit, cherries, sweet cherries, gooseberry, plums, currants, pears, if poorly tolerated
Grain products 	<ul style="list-style-type: none"> wheat flour fine groats: farina, couscous, corn grits white rice light pasta: wheat pasta, rice noodles light wheat and mixed-type bread, graham bread natural cereal flakes, e.g. oat, barley flakes, spelt flakes, rye flakes, if well-tolerated 	<ul style="list-style-type: none"> confectionery breads, toast bread, butter rolls sweetened breakfast cereals (cornflakes, chocolate flakes, muesli, crunchy flakes) wholemeal bread, whole grain bread rice: brown, wild, red whole grain pasta: wheat, rye, buckwheat, spelt coarse-grained groats: buckwheat, hulled barley
Potatoes 	<ul style="list-style-type: none"> cooked baked 	<ul style="list-style-type: none"> potatoes with fatty additives like cream or butter fried potatoes French fries, chips fried potato pancakes
Milk and dairy products 	<ul style="list-style-type: none"> reduced-fat milk (up to 2% fat) dairy products: natural (sugar-free), fermented, with up to 3% fat (e.g. yogurt, kefir, buttermilk, skyr, cottage cheese, soured milk) skimmed and semi-skimmed curd cheese mozzarella light cream cheese (in limited quantities) 	<ul style="list-style-type: none"> whole milk condensed milk sour cream, coffee cream sweetened fruit yogurts, dairy desserts cheese: full-fat curd and cheese, processed cheese, feta cheese, soft cheese, e.g. brie, camembert, roquefort, full-fat mozzarella cheese, mascarpone
Eggs 	<ul style="list-style-type: none"> soft-boiled eggs, hard-boiled eggs, poached eggs, scrambled eggs and omelettes fried without fat or with a small amount of fat 	<ul style="list-style-type: none"> eggs fried in a large amount of fat, e.g. butter, bacon, lard or salo (slanina) eggs served with mayonnaise
Meat and meat products 	<ul style="list-style-type: none"> lean skinless meat, e.g. veal, chicken, turkey, rabbit, lean beef and pork (pork loin, tenderloin) lean cold cuts, preferably home-made e.g. tenderloin, cooked ham, poultry cold cuts, roasted pork loin, roasted turkey/chicken breast 	<ul style="list-style-type: none"> fatty meats such as pork, beef, mutton, goose, duck fatty cold cuts e.g. gammon, salami, brawn, bacon, spam canned meat, offal processed meats, pâtés, hot dogs, kabanos sausages, sausage
Fish, fish products and seafoods 	<ul style="list-style-type: none"> lean sea fish and freshwater fish, e.g. cod, sole, hake, blue grenadier, zander, bream, pike, perch fatty fish in limited quantities, e.g. herring, mackerel, salmon, halibut and carp 	<ul style="list-style-type: none"> canned fish, caviar smoked fish fish in oil or in cream-based fatty sauce
Legumes and legume products 	<ul style="list-style-type: none"> legume spreads in moderate quantities soy flour, sugar-free soy drinks, soy products: tofu, tempeh legume pasta (e.g. from beans or peas), if well-tolerated 	<ul style="list-style-type: none"> all legumes, e.g. soybeans, chickpeas, peas, lentils, beans, broad beans, if poorly tolerated low-quality, ready-made legume products, e.g. soy sausages, breaded soy cutlets, soy pâtés, veggie burgers



Recommended and not recommended products in GERD

Group of products	Recommended	Not recommended
Fats 	<ul style="list-style-type: none"> olive oil, canola oil, linseed oil butter and vegetable oils mix soft margarines margarines with addition of plant sterols and stanols 	<ul style="list-style-type: none"> butter and clarified butter in limited quantities lard, сало (slanina), tallow hard margarine (blocks) tropical oils: palm, coconut mayonaise
Nuts and seeds 	<ul style="list-style-type: none"> ground nuts and seeds, if well tolerated 	<ul style="list-style-type: none"> whole nuts and seeds, if poorly tolerated nuts and seeds: salted, in chocolate, in caramel, honey, sprinkled, breaded
Sugar, sweets and salty snacks 	<p>In limited quantities:</p> <ul style="list-style-type: none"> unsweetened fruit purees, mousses and sorbets natural yogurt with fruit, fruit yogurt without added sugar natural sweeteners e.g. xylitol, stevia, erythritol low-sugar jam kissels and jellies without added sugar home-made pies and cakes without added sugar 	<ul style="list-style-type: none"> cocoa, chocolate and chocolate products sugar, e.g. white, cane, brown, coconut honey, maple syrup, date syrup, agave syrup sweets high in sugar and fat, e.g. cakes, cookies, chocolate bars, halva, doughnuts, Angel wings, candies salty snacks, e.g. chips, salty sticks, crispy flakes, crackers, nachos, crisps
Beverages 	<ul style="list-style-type: none"> still water sugar-free beverages, e.g. cereal coffee, herbal and fruit infusions, kompots light coffee and tea in limited quantities selected vegetable and fruit juices in limited quantities 	<ul style="list-style-type: none"> strong coffee and tea pepper mint infusion alcohol drinks sparkling beverages beverages with added sugar energy drinks nectars, high-sugar fruit syrups drinking chocolate, cocoa citrus juices tomato juice
Spices and sauces 	<ul style="list-style-type: none"> fresh and dried single-ingredient herbs, e.g. basil, oregano, herbs de Provence, turmeric, cinnamon, ginger salt-free spice mixtures home-made salad dressings based on a small amount of oil or yogurt salt in limited quantities 	<ul style="list-style-type: none"> spice mixtures containing large amounts of salt pepper mint bouillon cubes liquid spices to enhance flavour ready-made sauces, marinates hot spices vinegar
Soups 	<ul style="list-style-type: none"> soups based on vegetable or lean meat broths soups whitened with yogurt or milk up to 2% fat 	<ul style="list-style-type: none"> soups based on fatty meat broths soups whitened with sour cream and thickened with roux instant soups
Ready-made foods 	<ul style="list-style-type: none"> frozen stir-fry vegetables mix, frozen fruit mix instant oatmeal cream soups ready-made vegetable stir-fry foods salt-free vegetable pastes and purees <p>*Read labels, compare ingredients and pay attention to added sugar, salt and fat content</p>	<ul style="list-style-type: none"> fast food, e.g. toasted open-faced sandwiches, hot dogs, hamburgers, kebab frozen pizzas, toasted open-faced sandwiches ready-made foods products in breadcrumbs, fatty sauces instant meals, e.g. sauces, soups
Technological processing of food 	<ul style="list-style-type: none"> boiling, steaming grilling (electric grill, grill pans) baking in foil, parchment paper, roasting bags, heat-resistant dish no-fat frying stewing without pre-frying <p>* Small amounts of the recommended vegetable fat, e.g. olive oil or canola oil are acceptable, if used occasionally.</p>	<ul style="list-style-type: none"> deep frying stewing with prior deep frying baking in large amounts of fat breeding



Quality menu ideas for persons with gastroesophageal reflux disease

BREAKFAST:

Ham and young green beans Omlet

- eggs
- oat flakes
- lean ham
- young green beans
- herbs de Provence, parsley

LUNCH :

Cottage cheese sandwich

- cottage cheese
- oregano, basil
- graham roll
- lettuce

DINNER:

Barley soup (krupnik)

- barley groats
- potatoes
- skinless chicken leg
- carrot
- parsley root
- celery
- light bouillon
- allspice, bay leaf, dill, parsley



AFTERNOON SNACK:

Baked peach with yogurt

- peach
- natural yogurt
- cinnamon

SUPPER:

Tofu and zucchini pasta

- fusilli pasta
- tofu
- zucchini
- light red pepper ajvar
- olive oil
- herbs de Provence

