





### Narodowe Centrum Edukacji Żywieniowej





# DIARRHOEA

In adults, diarrhoea is commonly defined as three or more loose or watery stools per day. Symptoms lasting less than 14 days are defined as acute diarrhoea, 14-30 days as persistent diarrhoea, and more than 30 days as chronic diarrhoea. The causes of diarrhoea may include viral and bacterial infections, enzyme deficiencies (e.g. lactase), food allergies, oncological treatment, use of certain medicines (e.g. antibiotics), abuse of laxative medications, intestinal dysfunction (e.g. irritable bowel syndrome) or organic digestive tract diseases (e.g. intestinal inflammation).





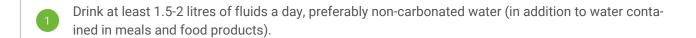








### Key nutritional recommendations



- Enrich your diet with fluids known to have a stool-firming effect as well as those that are a source of electrolytes and tannins: black tea, bilberry infusion, non-carbonated mineral water, chocolate water drink (cocoa), vegetable broths, salted tomato juice, oral rehydration solutions (ORS).
- Increase consumption of stool-firming products such as white rice, semolina, stale wheat bread and rusks, boiled carrots, blueberries, unripe bananas, raw grated or baked apples, jellies, kissels and hard-boiled eggs.
- Limit the consumption of products known to have a laxative effect such as coffee, fruit juices, prunes, or beets.
- Limit the consumption of whole grains, raw vegetables and fruits. When your symptoms improve, reintroduce these products gradually and in small amounts while monitoring your body's reaction.
- When you have diarrhoea, replace milk and fermented milk products with lactose-free products or fortified drinks and plant products without added sugar (e.g. soy, coconut, oat, almond and rice).
- Avoid foods that sit in the stomach for too long, stimulate peristalsis, cause flatulence or are rich in dietary fibre, e.g. fatty products, fried and smoked foods, legumes, alcohol and hot spices.
- Use methods that will help your digestive system tolerate fibre better: peel fruit and vegetables and remove seeds, separate and remove any hard and fibrous parts of plants (e.g. from beans, asparagus or kohlrabi), extend cooking time, grind your food, e.g. by mixing or passing through a sieve.
- Limit the consumption of sweeteners such as sorbitol, xylitol or mannitol which are commonly added to drinks, sweets and chewing gum as well as fructose (contained among others in honey and fruit) as they may worsen your symptoms of diarrhoea.
- In order not to put too much stress on your digestive system, the recommended methods of preparing foods include boiling, steaming, stewing without pre-frying or baking in foil, parchment paper or heat resistant dishes without adding fat.













- Make sure your food has just the right temperature so that it does not irritate your digestive tract lining. Avoid eating hot and cold foods.
- Eat 5-6 times a day, at regular intervals (every 2-3 hours). Eat your final meal 2-3 hours before bedtime.
- Try to have your meals in a relaxed atmosphere. Eat at the table. Chew your food slowly and thoroughly. Avoid watching TV, reading newspapers, etc while you eat.

### Other lifestyle changes

- Eliminate alcohol from your diet.
- Quit smoking.
- If you are often under stress, find ways to manage it better. Try relaxation techniques based on mindfulness, meditation, breathing exercises or yoga.

#### Literature:

- Poniewierka E.: Dietetyka Kliniczna. Wydawnictwo UMW, Wrocław, 2016.
  Ciborowska H, Rudnicka A.: Dietetyka. Żywienie Zdrowego i Chorego Człowieka. PZWL, Warszawa, 2021.
  Grzymisławski M.: Dietetyka Kliniczna. PZWL, Warszawa, 2021.
  Reinhard T, Width M.; red. wyd. pol. Chojnacki J., Klupińska G.: Dietetyka Kliniczna. Edra Urban & Partner, Wrocław, 2019.









# Recommended and not recommended products in diarrhoea





#### **Product group**

#### Recommended

#### Not recommended

#### Vegetables



- peeled and thermally processed vegetables (cooked/baked): carrots, parsley root, beetroot, pumpkin, courgette, zucchini, baked bell pepper (peeled), broccoli, spinach
- raw: green lettuce, grated carrots and apples (carrots can be pre-steamed),
- green beans, sugar snap peas
- onion, leek, garlic
- cabbage, cauliflower, Brussels sprouts, radishes
- raw cucumber, unpeeled bell pepper
- mushrooms
- · vinegared and canned vegetables

#### Fruit



- peeled and thermally processed fruit (cooked/baked): apple, pear, peach, banana
- raw fruit: grated apple, unripe banana, blueberries and lingonberries
- lemons, oranges, tangerines, grapefruits, limes plums, cherries, sweet cherries, grapes, pears,
- current
- · small seed fruits e.g. raspberries, figs, strawberries
- dried, candied, in syrups

#### **Grain products**



- · bakery products: wheat bread, wheat rolls, rusks
- · fine groats: semolina, couscous, corn, fine barley
- · white rice
- · light pasta: wheat pasta, rice noodles
- · instant oats, rice flakes
- corn crisps, rice wafers (can be salted)
- · refined wheat flour, corn flour, rice flour, potato starch
- bakery products: whole grain bread, pumpernickel
- cereal flakes: oats, barley cereals, spelt cereals, rye cereals
- wheat, rye and oat bran
- · coarse groats: bulgur, buckwheat, barley, millet
- · rice: brown, wild, red
- · whole-grain pasta
- · confectionery breads
- · sweetened breakfast cereals, muesli

#### **Potatoes**



- boiled
- foil-baked (with no added fat)

- · potatoes with fatty additives like cream or butter, e.g. puree
- fried potatoes
- French fries, chips
- fried potato pancakes

### Milk and dairy products



- reduced-fat milk (up to 2% fat)
- natural dairy products (sugar free) up to 2% fat, e.g. yogurt, kefir, buttermilk, skyr, cottage cheese, soured milk
- · skimmed or semi-skimmed cottage cheese
- · light mozzarella cheese
- natural cottage cheese

- whole milk
- · condensed milk
- · cream, sour cream
- sweetened fruit yogurts / cheese, milk desserts,
- full-fat cottage cheese
- processed cheese, cheese, soft cheese e.g. Brie,
- · camembert or roquefort
- feta cheese

#### **Eggs**



- · soft-boiled eggs, poached eggs
- steamed scrambled eggs
- · omelette fried without fat or with little fat
- · hard-boiled eggs

- · eggs fried in large amounts of fat: butter, bacon or lard
- eggs with mayonnaise or fatty dressings

### Meat and meat products



- · lean skinless meat: veal, chicken, turkey, rabbit
- moderate amounts of lean beef and pork (mid loin, tenderloin)
- lean cold cuts, preferably homemade: tenderloin, cooked ham, poultry cold cuts, baked pork loin, baked turkey/ chicken breast
- fatty meats, e.g. beef, pork (ribs, chuck steak, ham hock), mutton, goose, duck
- fatty cold cuts, e.g. gammon, salami, bacon, spam
- canned meats, offal meats, e.g. brawn, pâtés, hot dogs, kabanos sausages, sausage, blood sausage

### Fish, fish products and seafoods



- lean or fatty sea fish and freshwater fish: cod, sole, hake, blue grenadier, zander, bream, pike, perch, mackerel, salmon, halibut, carp
- fish in oil, e.g. herring
- smoked fish
- canned fish
- breaded fish fingers

## Legumes and products



- · sugar-free soy drink
- natural tofu

- all varieties, e.g. soybeans, chickpeas, peas, lentils, bean, broad beans
- legume bean spreads
- soy flour
- legume pasta, e.g. from beans or peas









# Recommended and not recommended products in diarrhoea





#### **Product group**

#### Recommended

#### Not recommended

#### **Fats**



- · vegetable fats, e.g. olive oil, canola oil, linseed oil
- · butter and clarified butter,
- · mixtures of butter with vegetable oils,
- · soft margarines

- lard, salo (slanina)
- hard margarine (blocks)
- tropical oils: palm, coconut

#### **Nuts and seeds**



· not recommended

- nuts, e.g. walnuts, hazelnuts
- · seeds, e.g. pumpkin or sunflower seeds
- salted, in chocolate, caramel, honey, sprinkles, breading and in chips

#### Sweets, desserts and salty snacks



In moderate amounts:

- homemade low-sugar yeast cake / apple pie
- kissels, lactose-free milk pudding (with no added sugar), sponge cakes, rusk, Challah
- low-sugar seedless fruit jams
- honey (in moderate amounts)
- dark chocolate (70% cocoa minimum)

- sugar, glucose-fructose syrup, fructose
- high-sugar preserves and jamsmilk and white chocolates, chocolate products
- sugar-free candies and unsweetened gums containing sugar alcohols such as sorbitol, mannitol and xylitol
- ice-cream
- cream cakes, pies, cakes, chocolate bars, whipped cream, doughnuts, Angel wings (faworki)
- · candies, halva
- salty snacks, e.g. crackers, salty bread sticks

#### **Beverages**





- still mineral water
- · strong black tea, green tea, fruit tea
- blueberry infusion
- · salted tomato juice
- chocolate water drink (cocoa)
- · vegetable broth
- · herbal infusions
- cereal coffee, decaffeinated coffee
- kompots without added sugar
- fortified plant drinks, without added sugar, e.g. rice, oat, almond
- · oral rehydration solutions

- coffee
- · sparkling water
- flavoured 'waters'
- fruit juices and nectars
- sweet soda and non-carbonated drinks with added sugar/glucose-fructose syrup/fructose
- energy drinks
- alcoholic drinks

#### Spices and sauces





- herbal pepper
- · lemon balm, cinnamon, vanilla, cloves, caraway, allspice
- dried herbs, e.g. parsley, dill, lovage, marjoram, thyme, oregano, tarragon, basil, herbes de Provence, ginger, rosemary
- sweet paprika, saffron
- · lemon juice, lime juice
- table salt, Himalayan salt, sea salt in limited quantities
- bouillon cubes
- spice mixtures with monosodium glutamate (MSG)
- flavour enhancing liquid spices
- ready-made sauces
- mayonnaise
- hot spices: garlic, onion, pepper, chilli, hot pepper
- · mustard, horseradish, vinegar

#### **Prepared meals**



- soups on weak vegetable or lean meat broths
- meat and fish prepared using the recommended cooking methods
- rice, groats and pastas from the recommended column (long-boiled to become slightly sticky)
- dumplings (kopytka), Silesian dumplings, batter dumplings (boiled in water), water-boiled dumplings stuffed with lean meat or cottage cheese, pancakes fried without oil
- soups based on fatty meat broths
- · soups and sauces thickened with roux
- instant soups and sauces, instant ramen
- fast foods e.g. fries, hamburgers, hot dogs, kebab, toasted open-faced sandwich (zapiekanka)
- · ready-made foods (in jars, breaded)
- breaded meat and fish

### Technological processing of foods



- cooking in water, steaming, grilling (electric grill, grill pans, using special trays for meals prepared in charcoal/garden barbecues)
- baking in foil, parchment paper or covered baking without fat\*
- frying without fat\*
- · stewing without pre-frying
  - \* avoid using fat for preparing your meals. However, small amounts of vegetable fat, e.g. olive oil or canola oil are acceptable if used occasionally.
- deep frying
- stewing pre-fried foods
- baking in large amounts of fat
- breading













### Quality menu ideas in diarrhoea

#### **BREAKFAST**:

## Ham and tomato sandwiches with soft-boiled egg

- · white wheat bread
- butter
- · lean poultry ham
- egg
- peeled tomato

#### LUNCH:

#### Rice pudding with banana and natural yogurt

- · unripe banana
- · natural lactose-free yogurt
- · rice flakes
- cinnamon

#### **DINNER:**

## Steamed chicken meatballs in dill sauce with boiled potatoes and carrots

- meatballs: chicken breast, egg, breadcrumbs, salt, paprika, marjoram, herbs de Provance
- sauce: refined wheat flour, lactose-free milk 1.5%, dill, nutmeg
- potatoes
- · mini carrots



#### **AFTERNOON SNACK:**

#### Fruit kissel

- grated apple
- · potato starch
- water
- · cinnamon, cloves

#### **SUPPER:**

#### Couscous, roasted vegetables and turkey salad

- · couscous
- baked zucchini
- baked skinned bell pepper
- roast turkey breast
- · canola oil
- parsley







