

Diet name	LOW PROTEIN DIET (10)
Application	<p>For people:</p> <ul style="list-style-type: none"> <li>• with kidney failure,</li> <li>• with liver failure,</li> <li>• in diseases of the pancreas, gallbladder and bile ducts,</li> <li>• in phenylketonuria.</li> </ul>
Dietary recommendations	<ul style="list-style-type: none"> <li>• a low-protein diet is a modification of the basic diet,</li> <li>• the basis of the diet is to control the content of protein, sodium, phosphorus and potassium - the allowable amount of these components depends on the degree of kidney function impairment,</li> <li>• the amount of protein must be determined individually (it should be limited to an extent depending on the tolerance of this component by the patient's body, changes during the course of the disease should be taken into account),</li> <li>• the protein supplied with the diet must be wholesome (of animal origin) and should constitute 75% of the total amount of protein consumed during the day,</li> <li>• the energy and nutritional value of the diet is adjusted to the patient's body weight and physiological condition, based on current nutrition standards for the Polish population and guidelines of scientific societies, or: 25-35 kcal/kg NMC (normal body weight) depending on age and physical activity ,</li> <li>• the diet should be properly balanced and varied in terms of the share of food groups: cereal products, dairy products, vegetables and fruits, potatoes, meat products and fish, legumes and fats,</li> <li>• products that are a source of protein should be eaten simultaneously with products rich in carbohydrates, so that the body can use the protein for tissue synthesis, and not as an energy material,</li> <li>• fluid intake should be monitored in patients on a low-protein diet,</li> <li>• the supply of vegetables and fruits should be reduced due to the high content of potassium and water in them,</li> <li>• in the case of hyperkalemia, the method of double cooking potatoes and vegetables can be used,</li> <li>• the temperature of meals should be moderate,</li> <li>• meals should be served 4-5 times a day as recommended by a doctor and/or dietitian,</li> <li>• avoid snacking between meals</li> <li>• the diet should be diverse and diverse in terms of colors, consistency and digestibility of dishes as well as thermal processing,</li> <li>• the amount of milk and milk products consumed should depend on the concentration of protein, phosphorus and calcium in the blood serum,</li> <li>• at least 1 portion from the group of meat, eggs,</li> <li>• fish and/or fish products (mainly from marine fish) should be included at least 3 times in the decade menu,</li> <li>• animal fats (e.g. lard) should be limited in favor of vegetable fat,</li> <li>• at least 1 meal a day should contain products rich in unsaturated fatty acids,</li> <li>• Eliminate salt and simple sugars from your diet.</li> </ul> <p>When choosing products, pay attention to their:</p>

	<ul style="list-style-type: none"> <li>• quality,</li> <li>• best-before date,</li> <li>• seasonality.</li> </ul> <p>Culinary techniques used:</p> <ul style="list-style-type: none"> <li>• traditional or steam cooking,</li> <li>• stewing without prior frying,</li> <li>• baking without the addition of fat, e.g. in aluminum foil, baking sleeves, parchment, heat-resistant dishes and in convection ovens.</li> </ul> <p>Practical tips for preparing meals:</p> <ul style="list-style-type: none"> <li>• soups, sauces and dishes should be prepared from natural ingredients, without the use of food concentrates, excluding concentrates from natural ingredients,</li> <li>• limit the whitening of soups and sauces with cream and its vegetable substitutes, e.g. coconut milk,</li> <li>• do not add roux to dishes,</li> <li>• limit sugar added to drinks and food,</li> <li>• reduce the addition of salt to a minimum in favor of herbs and natural spices.</li> </ul>		
<b>Energy value</b>	Energy (En)	K: 2000 - 2200 kcal	M: 2201-2400 kcal
<b>Nutritional value</b>	Protein	Reference values: 15-25% En 0.8-1.0 g/kg bw/d when eGFR <60, then the amount of protein is 0.6-0.7 g/kg bw/d approx. 75% of complete protein (of animal origin)	
	Total fat	Reference values: 25-35% En 27.8-38.9 g/1000 kcal	
	including saturated fatty acids	Reference values: as little as possible, but not more than 7% En 7.8 g/1000 kcal	
	Total carbohydrates	Reference values: 50-60% En 125 -150 g/1000 kcal	
	including simple sugars	Reference values: <10% En < 25 g/1000 kcal	
	Fiber	15g/1000 kcal	
	Sodium	2000-2500 mg/day	
<b>Groups of foodstuffs</b>	Recommended products	Contraindicated products	
<b>Grain products</b>	<ul style="list-style-type: none"> <li>• low-protein, protein-free flours,</li> <li>• wheat, rice, potato, corn starch,</li> <li>• protein-free bread, low-protein bread, light bread, flatbread,</li> <li>• medium and fine-grain groats, e.g.: semolina, corn, barley (pearl, Masurian, country), spelled, millet, Krakow (in limited quantities),</li> </ul>	<ul style="list-style-type: none"> <li>• traditional flours, including wholegrain,</li> <li>• plain bread, wholemeal bread, wholemeal bread,</li> <li>• bread with added sugar, malt, syrups, honey, caramel,</li> <li>• confectionery and semi-confectionery bread,</li> <li>• high-mill flour products fried in a large amount of fat, e.g. donuts, faworki, pancakes,</li> </ul>	

	<ul style="list-style-type: none"> <li>• instant natural flakes, e.g.: buckwheat, barley, rye, rice (in limited quantities),</li> <li>• protein-free, low-protein pasta,</li> <li>• rice (in limited amounts),</li> <li>• flour dishes, e.g. dumplings, dumplings, noodles, without lard (from low-protein or protein-free flour in limited quantities),</li> <li>• low-protein rusks.</li> </ul>	<ul style="list-style-type: none"> <li>• coarse grain groats, e.g.: buckwheat, pearl barley,</li> <li>• oatmeal, cornflakes and other sweetened breakfast cereals, e.g. cinnamon, chocolate, honey,</li> <li>• traditional pasta,</li> <li>• flour dishes, e.g. pancakes,</li> <li>• bran, e.g.: oat, wheat, rye, spelled.</li> </ul>
<b>Vegetables and vegetable preserves</b>	<ul style="list-style-type: none"> <li>• fresh vegetables, frozen, boiled, stewed with a little fat, baked (with the exception of contraindicated),</li> <li>• boiled cauliflower, broccoli - without the stem (in limited quantities),</li> <li>• skinless tomato.</li> </ul>	<ul style="list-style-type: none"> <li>• cruciferous vegetables: cabbage, Brussels sprouts, radishes, turnips,</li> <li>• onion vegetables served raw and fried: onion, leek, garlic,</li> <li>• processed vegetables, i.e. canned, salted, pickled vegetables, pickled vegetables, including sauerkraut, pickled cucumbers,</li> <li>• vegetables fried or cooked with a lot of fat,</li> <li>• salads with the addition of sour cream.</li> </ul>
<b>Potatoes, Sweet potatoes</b>	<ul style="list-style-type: none"> <li>• potatoes, sweet potatoes: boiled, baked.</li> </ul>	<ul style="list-style-type: none"> <li>• fried potatoes (fries, slices).</li> </ul>
<b>Fruit and fruit preserves</b>	<ul style="list-style-type: none"> <li>• ripe fruits, fresh and frozen (berry, citrus, apples, apricots, peaches, grapes, cherries, melon, kiwi),</li> <li>• fruit purees and mousses with low or no added sugar,</li> <li>• low-sugar fruit jams (in limited quantities).</li> </ul>	<ul style="list-style-type: none"> <li>• unripe fruit,</li> <li>• hard to digest fruits (cherries, pears, plums),</li> <li>• fruit in sugar syrups,</li> <li>• candied fruit,</li> <li>• high-sugar fruit preserves,</li> <li>• dry fruits,</li> <li>• pickled fruit.</li> </ul>
<b>Legume seeds</b>		<ul style="list-style-type: none"> <li>• all legumes.</li> </ul>
<b>Seeds, pips, nuts</b>	<ul style="list-style-type: none"> <li>• ground seeds, e.g. linseed, pumpkin (in limited amounts).</li> </ul>	<ul style="list-style-type: none"> <li>• whole seeds, pits, nuts, almonds,</li> <li>• sunflower seeds,</li> <li>• "peanut butter",</li> <li>• coconut shrimps.</li> </ul>
<b>Meat and meat products</b>	<ul style="list-style-type: none"> <li>• with low fat content, e.g. skinless poultry (chicken, chicken, turkey), lean beef, veal, lamb, rabbit, lean parts of pork, e.g. tenderloin, pork loin, ham (in limited quantities),</li> <li>• lean types of unground sausages: poultry, pork, beef (in limited quantities).</li> </ul>	<ul style="list-style-type: none"> <li>• with high fat content, e.g. fatty poultry (duck, goose), fatty beef and pork, mutton,</li> <li>• cured meats and meats with high salt content,</li> <li>• meat fried in a large amount of fat,</li> <li>• fatty meats, e.g. ham, bacon,</li> <li>• sausages, frankfurters, luncheon meats, mortadella,</li> <li>• pies,</li> <li>• offal cold cuts (pâté, liver</li> </ul>

		sausage, brawn), • raw meats, e.g. tartare.
<b>Fish and fish products (in limited quantities)</b>	• all sea and freshwater fish (boiled, baked, stewed without frying).	• raw fish, • fried fish, • smoked fish, • canned fish.
<b>Eggs and egg dishes (in limited quantities)</b>	• soft boiled, • steamed eggs, • as a food additive.	• hard boiled, • eggs cooked with a lot of fat, • scrambled eggs, fried eggs, omelettes, fried egg cutlets.
<b>Milk and dairy products (in limited quantities)</b>	• milk and cottage cheese, • low-fat natural fermented milk drinks, no added sugar.	• condensed milk, • yoghurts, milk drinks and desserts - with added sugar, • high-fat fermented milk drinks, • rennet cheeses, • fatty rennet cheeses, • cream.
<b>Fats</b>	• butter (in limited amounts), • soft margarine, • vegetable oils, e.g. rapeseed, olive oil.	• animal fats, e.g. lard, lard, tallow, • hard margarines, • clarified butter, • Mayonnaise, • coconut and palm fat, • "coconut butter" • frying frying.
<b>Desserts (in limited quantities)</b>	• pudding (with or without added sugar), • jelly (with no added sugar or with a small amount of sugar), • jelly (with no added sugar or with a small amount of sugar), • honey, • fruit salads from allowed fruits (without added sugar), • starch cakes.	• sweets containing large amounts of sugar and/or fat, • cakes and cakes with confectionery masses, creams, whipped cream, • shortcrust pastries with a lot of fat and sugar, • puff pastry, • chocolate and chocolate-like products.
<b>Drinks</b>	• still water, • weak tea infusions, e.g. black, green, red, white, • fruit infusions, • cereal coffee (in limited quantities), • bavarian, • vegetable juices, • fruit juices (in limited quantities), • compotes (with no added sugar or with a small amount of sugar).	• sparkling water, • carbonated drinks, • high-sugar drinks, • fruit nectars, • flavored waters with added sugar, • strong coffee and tea infusions, • cocoa, • energy drinks, • alcoholic drinks.
<b>Spices</b>	• mild natural herbal and spices, e.g. bay leaf, allspice, fennel,	• hot spices, e.g. black pepper, cayenne pepper, hot pepper,

	<p>cumin, thyme, marjoram, basil, oregano, thyme, lovage, rosemary, herbal pepper, cloves, cinnamon (in limited amounts),</p> <ul style="list-style-type: none"><li>• ready-made vegetable seasonings (in limited quantities),</li><li>• salt and sugar (in limited quantities).</li></ul>	<p>chili pepper,</p> <ul style="list-style-type: none"><li>• bouillon cubes and bouillon essences,</li><li>• ready-made bases for soups and sauces,</li><li>• ready-made salad dressings and dressings,</li><li>• mustard, ketchup, vinegar,</li><li>• soy sauce, liquid universal seasoning,</li><li>• pickles.</li></ul>
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