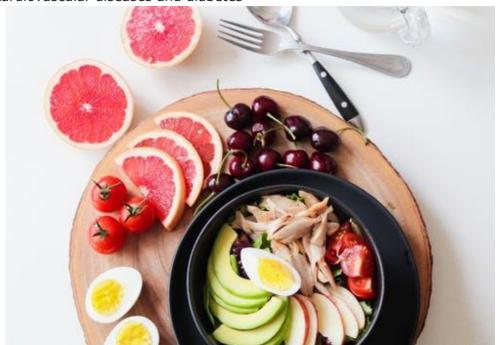
# Balanced and healthy nutrition basis for elderly people

\* Importance of nutrition in the development and prevention of cardiovascular diseases and diabetes



**Nutrition** is the supply of nutrients to the body to maintain its physiological needs (WHO).

**Healthy nutrition** - provides the body with the necessary nutrients: fluids, micro and macro nutrients, sufficient calories and helps maintain and improve health (WHO).

#### **Principles of nutrition:**

We need to eat: 1. regularly. 2. various foods. 3. in a balanced way. 4. in moderation. 5. less salt and sugar. 6. there must be healthy fats. 7. there must be more fiber. 8. dishes must be sustainable, free from carcinogens and take account of seasonality. 9. more plant foods. 10. we have to drink water.

#### **Nutrients are divided into two types:**

The main nutrients are carbohydrates, proteins, fats. Additional nutrients - minerals, vitamins and water.

**Carbohydrates** are the body's main source of energy. If the amount of energy from food exceeds the amount of energy consumed, there is a risk of obesity. 1 gram of carbohydrates releases 4 kcal. According to the structure, carbohydrates are divided into: monosaccharides, disaccharides, polysaccharides.

Only glucose and fructose, which are found in plant juices and some fruits, can be directly absorbed by the body. Many other carbohydrates must first be broken down into monosaccharides and the monosaccharides must be converted to glucose. More complex carbohydrates break down into glucose, which is absorbed into the bloodstream. Blood glucose is always constant (0.10-0.12%). Its amount is regulated by the insulin and glucagon system. Excess blood glucose is converted into animal starch, glycogen, which accumulates in the liver and muscles. When glucose is deficient, it is broken down from glycogen. When there is a lack of insulin in the body, you get diabetes.

Carbohydrates also include fiber, which the human body needs to consume - 20-35 g per day. They are not broken down by digestive enzymes, but are broken down slightly in the large intestine.

**Proteins** are made up of 20 amino acids. Proteins are part of cells and tissues, they are used to form the skeletons of cells and tissues, regulate the normal activity of the body, fight infections, and perform complex chemical reactions. 1 gram of protein releases 4 kcal.

#### **Protein functions:**

- **Structural function.** Collagen is an intercellular substance in connective tissue. Protein is a component of tendons and cartilage. Keratin is the base of the skin, nails, hair.
- Protective function. Blood protein fibrinogen is involved in the blood clotting process and protects the body from bleeding. When foreign substances enter the body, special immune proteins are formed and neutralized by antibodies.
- **Substance transport function.** The protein hemoglobin transports oxygen in the blood.

- **Catalytic function.** In cells, the reaction of chemical reactions is accelerated by protein catalysts called enzymes.
- **Signal function.** The outer cell membrane contains protein molecules that are able to change their structure in response to external stimuli (temperature, pH, light).

Depending on the functions of proteins, proteins are needed for the formation and recovery of bones, muscles, and connective tissues.

Protein is an important part of the diet. It is recommended to eat 0.8 grams of protein per kilogram of body weight per day. If a person weighs 80 kg, then it would be recommended for him to eat 64 grams of protein per day. Animal and plant products have protein.

Excessive protein intake is harmful to the body, as the risk of allergies increases, liver and kidney function becomes more difficult, and salts can accumulate in the joints. If the body does not get enough protein, resistance to infectious diseases decreases.

**Fats** are sparingly soluble in water, but soluble in organic solvents. About 90 percent of the fats in food are triglycerides. Other types of fat include cholesterol, phospholipids, sterols and carotenoids.

#### Fat functions:

- Energy source 1 gram of fat emits 9 kcal.
- Fat provides the body with essential fatty acids.
- Fats are carriers of fat-soluble vitamins A, D, E and K.
- Fat improves the taste and appearance of food.
- Some types of fat are important for the production of steroid hormones.
- Cholesterol is essential for the production of bile acids, which digest fats.

#### Fatty acids:

**Saturated fatty acids** have a high melting point and therefore maintain a firm consistency at room temperature. Saturated fatty acids are obtained from animal sources, vegetable oils (fats) are dominated by unsaturated fatty acids, with the exception of coconut and palm oils. Some industrially produced margarines and spreads are high in saturated fatty acids.

**Monounsaturated fatty acids** - are in liquid form at room temperature. Olive and rapeseed oils are the best source of monounsaturated fatty acids.

**Polyunsaturated fatty acids** - are in liquid form at room temperature. They are easily oxidized in food and in the body, are involved in the metabolism of cholesterol, and are part of the phospholipids in cell membranes. Polyunsaturated RRs are divided into omega 3 (alpha linoleic -

found in linseed, pumpkin seeds, walnuts, rapeseed and soybean oils and green leafy vegetables) and eicosapantane, docosahexaene - found in marine fish oil and seaweed oil and seaweed oil) and omega 6 (linoleic, gamma linoleic, arachidonic - their derivatives are present in milk fat, especially in summer, because in the body of animals they are made from the linoleic acid obtained with feed. Linoleic acid itself is abundant in oils, especially sunflower). Omega 3 fatty acids are actively involved in cellular metabolism, involved in the regulation of cholesterol in the human body: reduces the amount of low-density lipoprotein cholesterol (so-called bad cholesterol) in the body, as well as the risk of heart disease. The recommended optimal ratio of omega-6: omega-3 fatty acids is 5: 1, the wrong ratio of Omega-3 to Omega-6 is even dangerous to health.

**Trans isomeric acids** are found in small amounts in natural fats, cow and sheep stomachs, lamb, beef, milk and cheese. The most important source of trans isomeric acids is hydrogenated spreads, margarines. During the process, when heating vegetable oil, unsaturated acids become saturated and liquid fats become solid. Hydrated dietary fats have a number of benefits. They are cheaper, spoil more slowly than animal fats, are more resistant to oxidation and high temperatures. Trans isomeric acids formed during hydrogenation are associated with an increase in LDL cholesterol and a decrease in HDL cholesterol, which increases the risk of cardiovascular disease, obesity, diabetes, and high levels of which may be carcinogenic.

Not fats are evil, and they are consumed in excessive amounts.

The Lithuanian population is recommended to eat daily: protein 10-20%, carbohydrates 45-60%, fat 25-35%.

**Vitamins and minerals.** People need 13 different vitamins. They cannot be produced (synthesized) by the body itself, so it must be obtained with food. Although these compounds are often sufficient in very small quantities, they are essential for the body, many vital reactions would not be possible without the help of vitamins. Some of the most important vitamins are vitamins A, C, D, E and K, B: thiamine (B1), riboflavin (B2), pantothenic acid (B5), pyridoxine (B6), cobalamin (B12) and folic acid (B9).

#### Minerals.

Minerals are vital nutrients that make up about 5% of our total body weight. Minerals affect our physical and mental health and are a

component of teeth, bones, tissues, muscles, blood and nerve cells. Minerals act as a catalyst (increases the rate of a chemical reaction), transmitting information through the nervous system, digestive system, participating in metabolism and helping to absorb nutrients. Vitamins cannot be absorbed without a certain mineral, for example, calcium C requires calcium, vitamin A - zinc, B vitamins - magnesium, vitamin E - selenium.

The diet of the elderly is a diet based on the provisions and rules of a healthy diet that meets the nutrient and energy needs of people over the age of 65. Diet increases protein and reduces fat content, adjusts food consistency as needed.

In old age, human metabolic, physiological and biochemical



processes change. These changes affect nutrient requirements and nutrient uptake and affect nutritional status. A decrease in lean body mass and an increase in adipose tissue are observed. As muscle mass decreases, energy needs decrease. Decreased thirst increases the risk of developing dehydration and hypernatremia. Deterioration of taste, smell, vision, lack of food satisfaction. Altered condition of the teeth and gums alters the ability to chew. Decreased gastrointestinal secretion changes the digestion and absorption of nutrients, slows down gastrointestinal motility. Eternal changes in the kidneys and liver change the function of these organs, metabolism changes, and the processes of elimination of metabolic products slow down.

Dietary quality plays an important role in preventing chronic diseases associated with aging. In this diet it is necessary to ensure a sufficient

amount of complete protein, the diet should also choose foods rich in iron, B vitamins, antioxidants, vitamin D, calcium.

# Nutritional and energy value of the diet

Proteins 20 % (90 g)



Fat 30 % (60 g)

Carbs 50 % (225 g)

Fiber nutrients 25-35 g

Energy value 25 kcal / per kilogram of ideal body weight (1800 kcal).

Salt 5 g

Liquids 1 ml/1 kcal (1,8 l per day)

Eating mode: ≥ 4 per day

#### Foods to be included in the diet are rich in iron:

#### Foods high in (3 - 6 mg / 100g) heme iron:

- •Boiled beef:
- Boiled turkey;

#### Foods with a moderate amount (1 - 3 mg / 100g) of heme iron:

- Chicken:
- Greenland halibut, cod, perch, salmon.
- Pork:
- Veal;

#### Foods high in iron (> 6 mg / 100g):

- Cereals are fortified with iron;
- Tofu, soy;
- White beans;
- Pumpkin, sesame seeds, linseed, poppy seeds, sunflower kernels, pistachios;
- Wheat bran;

#### Foods high in (3-6mg / 100g) non-heme iron:

- Lima beans, red beans, broken peas, chickpeas;
- Dried apricots, figs;
- Walnuts;
- Rye;
- Broccoli;
- Oat flakes;

# Foods with an average content (1 - 3 mg / 100g) of non-heme iron:

- Peanuts, Curry nuts, almonds, cashews;
- Raisins, prunes;
- Green peppers;
- Buckwheat groats, barley groats;
- Rice;

#### Foods to be included in the diet are rich in vitamin D:

Vitamin D levels in some foods

Name of the food	Vitamin D content μg/100g
Rainbow trout	13,6
Herring (fatty)	12
Sardines	12
Salmon	12
Carp	5
Tuna fish	4,5
Egg yolks	4
Mackerel	2
Pig liver	1,5
Butter	1
Pike	0,9
Zander	0,7
Various meats	0,7



# Foods to be included in the diet are rich in antioxidants (bioflavonoids, phytonutrients, vitamin C, vitamin A (and carotenoids), vitamin E, selenium)

		-			
Vegetables	Mushrooms	Fruits	Nuts, oils	Grains	Other
Chickpeas	Boletus	Apricots	Extra	Oats	Herbal
Broccoli		Kiwi	virgin	Bolivian	tea
Brussels		Pineapple	olive oil	pigeon	Basil
sprouts		Orange	Almonds	Buckwheat	Garlic
Beets		Raspberries	Pistachios	Wheat	Thyme
Seedlings		Avocado	Walnut	germ	Ginger
Spinach		Strawberries	oil	Wheat	Rosemary
Arugula		Lemons	Sesame	groats	Marjoram
Leaf beets		Figs	seeds	Common	Oregano
Cabbage		Blackberries		wheat	Parsley
leaf		Pomegranate		Brown rice	
Lentils		Grapefruit		Millet	
beans		Pears		Spelled	
Pumpkins		Mango		wheat	
Carrots		Bananas		Whole	
Fennel		Mandarins		grain	
Watercress		Blueberries		bread	
Common		Papaya		Whole	
purslane		Passion		grain	
Tomatoes		fruits		pasta	
Brassica		Peaches and			
rapa		nectarines			
Cichorium		Rock melon			
endivia		Persimmon			
Lettuce		Kankan			
Asparagus		Plums			
Onions		Cranberries			
Paprika		Elderberry			
Beans		berries			
		Blueberries			
		Cherries			

#### Foods to be included in the diet are rich in calcium

Products of animal origin	Products of plant origin
Milk	Soy milk
Hard and soft cheeses	Tofu
Yogurt	Poppies
Greek yogurt	Sesame seeds
Curd	Chia seeds
Kefir, buttermilk	Celery
Whey protein	Kale cabbage
Sardines	Dark green foliage greens
Salmon	Beans
	Lentils beans
	Rhubarb
	Figs

#### 1. Source used:

http://sam.lrv.lt/uploads/sam/documents/files/DIETOS%20IR%20J%C5%B2%20APIB%C5%AADINIMAS2020%2006%2010.pdf

2. Recommendations of the World Health Organization and the Ministry of Health of the Republic of Lithuania.

#### **Recommended menu**

#### I day:

#### **Breakfast**

Dish name	Yield (g)
Porridge of five cereals with carrots and onions	300
Whole grain rye bread roll with curd spread (22%) and	70(30/20
cucumbers	/
	20)
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	
Orange (or other unsweetened fruit)	1 pc.

#### **Brunch**

Dish name	Yield (g)
Curd (9%) with herbs	100
Crispy rye bread	20
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Lunch

Dish name	Yield (g)
Thick tomato and lentil soup (vegetable) (sustainable)	250
Oven-baked pork chops with vegetables (carrots, zucchini,	100
leeks) and cheese filling	
Cooked brown rice	150
Headed cabbage salad with leeks, apples and especially	100
pure olive oil	
Whole grain rye bread	30
Water with lemon	200

# Afternoon snack

Dish name	Yield (g)
Tomato and cucumber salad with pearl barley (vegetable)	150
Whole grain rye bread	30
Natural tomato juice (without salt)	250

## **Dinner**

Dish name	Yield (g)
Buckwheat steaks with carrots, peppers and celery and	250/40
Greek yogurt (2%)	
Roasted root vegetables with sunflowers	100
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

# II day:

#### **Breakfast**

Dish name Yield	l (g)
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Pearl barley baked with curd (9%), yoghurt sour cream	
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, cumin)	
Unsweetened pear (or other seasonal unsweetened fruit)	1 pc.

#### **Brunch**

Dish name	Yield (g)
White radish and carrot salad with extra virgin olive oil	180
Whole grain rye bread	40
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

## Lunch

Dish name	Yield (g)
Mashed red pepper soup	250
Stewed pigeons with chicken thigh meat and unroasted buckwheat filling (sparing)	200
Peking, leek and tomato salad with extra virgin olives oils	150
Whole grain rye bread	40
Water with kiwis and blackberries	200
Baked apple slices	110

#### **Afternoon snack**

Dish name	Yield (g)
Crispy rye bread	40
Natural apple juice	200

#### **Dinner**

Dish name	Yield (g)
Whole grain spelled pancakes with zucchini	260
Fermented buttermilk (0.3%)	250

# III day:

#### **Breakfast**

Dish name	Yield (g)
Corn porridge with zucchini and apples	300

Whole grain rye bread with butter (82%) and fermented	50(26/4/2
(45%) cheese	0)
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	
Apple (or other unsweetened fruit)	1 pc.

#### **Brunch**

Dish name	Yield (g)
Whole grain tortilla rolls with carrots, spinach and cream	130
cheese (4%)	
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Lunch

Dish name	Yield (g)
Pea soup with potatoes and carrots	250
Oven - baked beef dumplings	100
Boiled potatoes	80
Carrot and cabbage salad with extra virgin olive oil	100
Whole grain rye bread	40
Water with cucumbers, basil and cranberries	200

## **Afternoon snack**

Dish name	Yield (g)
Buckwheat casserole with curd (0.5%)	120
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

# Dinner

Dish name	Yield (g)
Green pea stew with vegetables and kynva groats	320
Whole grain rye bread	40
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

# IV day:

#### **Breakfast**

Dish name	Yield (g)
Oven baked omelet with spinach and canned corn	170
Canned corn	100
Whole grain rye bread	40
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### **Brunch**

Dish name	Yield (g)
Baked apple slices	180
Crispy (corn, wheat, buckwheat)	20
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Lunch

Dish name	Yield (g)
Sauerkraut soup	250
Stewed chicken with green beans and carrots	120(58/62
Buckwheat porridge with extra virgin olive oil	150
Lettuce, tomato and cucumber salad with onions and	100
especially with pure olive oil	
Whole grain rye bread	30
Water with mint leaves	200
Unsweetened pear (or other seasonal unsweetened fruit)	1 pc.

## **Afternoon snack**

Dish name	Yield (g)
Whole grain tortilla roll with salted salmon fillet, iceberg	120
lettuce, cucumber and curd spread (22%)	
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Dinner

Dish name	Yield (g)
Pearl barley porridge with carrots and onions	320
Kefir (2.5%)	250

# V day:

#### **Breakfast**

Dish name	Yield (g)
Whole grain oatmeal porridge with apples and cinnamon	300
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	
Orange (or other unsweetened fruit)	1 pc.

## **Brunch**

Dish name	Yield (g)
Grain crumb with curd (0.5%) and avocado spread	90(20/70)
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Lunch

Dish name	Yield (g)
Bean soup with carrots (sparing) (vegetable)	250
Oven-baked fish (cod) with bran (sustainable)	100
Stewed vegetables (cauliflower, asparagus, carrots,	200
potatoes)	
Whole grain rye bread	40
Water with melons and basil leaves	200

#### **Afternoon snack**

Dish name	Yield (g)
Whole grain rye bread sandwich with iceberg salad, butter	110(40/20
(82%) and tomato	/12/38)
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Dinner

Dish name	Yield (g)
Whole grain spelled pizza with tomatoes	200
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

# VI day:

#### **Breakfast**

Dish name	Yield (g)
Whole grain spelled and cornmeal spreads with curd (9%)	200
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	
Apple (or other unsweetened fruit)	1 pc.

#### **Brunch**

Dish name	Yield (g)
Salad (iceberg, cucumbers, tomatoes) with boiled eggs	170
and canned tuna	
Whole grain rye bread	30
Natural tomato juice (without salt)	250

#### Lunch

Dish name	Yield (g)
Mashed canned corn soup	250
Oven - baked turkey fillet cutlets with peppers and zucchini	100
Barley groats porridge	150
Fresh cabbage salad with hot peppers and lime juice	100
Whole grain rye bread	50
Water with fruits or berries	200
Baked apple slices	110

#### Afternoon snack

Dish name	Yield (g)
Pumpkin and buckwheat flour cupcakes	100
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, cumin)	

#### **Dinner**

Dish name	Yield (g)

Oven-baked peppers with basmati rice-vegetable filling and fermented cheese (45%)	220
Whole grain tortilla rolls with carrots and leaves salad and cream cheese (4%)	140
Unsweetened tea (black, chamomile, thyme, mint, lemon balm, fennel, rosehip, rosehip, cumin)	200

# VII day:

#### **Breakfast**

Dish name	Yield (g)
Buckwheat groats with milk (2.5%)	300
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	
Unsweetened pear (or other seasonal unsweetened fruit)	1 pc.

### **Brunch**

Dish name	Yield (g)
Beetroot mix with beans, carrots and pickles cucumbers	160
Whole grain rye bread	30
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

# Lunch

Dish name	Yield (g)
Thick cucumber soup with potatoes, pearl barley and	250
carrots	
Beef stew with pumpkin	120
Boiled potatoes	80
Fresh cucumber salad with onions and dill (vegetable)	100
Whole grain rye bread	30
Water with oranges	200

#### Afternoon snack

Dish name	Yield (g)
Whole grain loaf / bread roll with curd spread (22%) and	120
pickles	

Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

#### Dinner

Dish name	Yield (g)
Cabbage roast, yogurt sour cream	230/50
Whole grain rye bread with butter (82%) and tomato	40(20/5/1
	5)
Unsweetened tea (black, chamomile, thyme, mint, lemon	200
balm, fennel, rosehip, rosehip, cumin)	

## **Recipes**

#### Thick tomato and lentil soup

Canned tomatoes in their own juice (skinless) - 450 g, lentils red - 40 g, small apple - 1 piece, celery stalks - 1 piece, carrot - 1 piece, small onion - 0.5 piece, oil - 21,72 g, tomato sauce - 30 g, ground black pepper - 3 g, bay leaves - 2 g, iodized salt - 1 g, vegetable broth - 50 g.

#### **Directions**

Soak the lentils in water for 3-4 hours, then rinse, pour cold water and cook for 20-25 minutes until the lentils are soft.

Cut the onions into cubes, cut the celery, grate the carrots. In a heated skillet with oil for 2-3 min. fry the chopped onions, then add the carrots and fry for another 3min. Add roasted vegetables, tomatoes in their own juice, tomato sauce, pepper, salt and cook for 8-10 minutes. 5-8 min. add the diced apples until the soup is cooked through.

#### Whole grain oatmeal porridge with apples and cinnamon



Whole grain oatmeal - 324 g, butter 82% fat. - 30 g, small apples - 2 pcs., cinnamon - 6 g, iodized salt - 1.2 g, water - 360 g, milk - 360 g

#### **Directions**

Gently add the oat flakes to a boiling, salted mixture of water and milk with stirring and cook for 3-4 minutes until the flakes soften and

absorb all the liquid. Peel the apples, grate and mix with the mash. After cooking, add the butter and cinnamon, cover the pot and leave for 8-10 minutes to allow the flakes to swell.

#### Whole grain spelled pancakes with zucchini

Green zucchini - 713.2 g, whole grain spelled flour - 312 g, eggs - 2 pcs., water - 52 g, ground black pepper - 3.12, iodized salt - 1.04 g, oil - 32 g.

#### **Directions**

Add half the amount of water to the flour, salt, eggs and mix until a dough of homogeneous consistency and pour in the remaining amount of water. Peel the zucchini (if young, no need to peel), grate it through the beetroot grate, add salt and keep for 15 minutes, pour the juice and mix with the dough. Add oil to the pan, heat and bake the pancakes on both sides for 2-4 minutes until a yellow soft crust forms.

#### Oven - baked turkey fillet cutlets with pepper and zucchini

Chilled turkey fillet - 612 g, green zucchini - 316.5 g, red pepper - 126 g, small onion - 1 piece, egg - 1 piece, garlic - 6.5 g, dried oregano - 3 g, ground black pepper - 2 g, iodized salt - 1 g.

#### **Directions**

Grind the turkey. Grate the zucchini with a large grater, cut the peppers into small cubes, finely chop the onions and garlic. Mix minced meat with chopped vegetables, eggs, spices, pepper and salt. From the mass, form round semi-finished products and place in a tin lined with baking paper, bake in a preheated oven at 180° C for 25-30 minutes, until nicely roast.



#### Pumpkin and buckwheat flour cupcakes

Pumpkin - 250 g, buckwheat flour - 140 g, eggs - 1 pc., raspberries (fresh or frozen) - 24 g, oil - 12 g, baking powder - 4 g, cinnamon - 0.8 g, turmeric - 0.8 g, sesame seeds - 8 g.

#### **Directions**

Crush the pumpkin with a grater. Separate the egg white from the yolk and beat until stiff foam. Mix the pumpkin puree with the egg yolks. Mix buckwheat flour with baking powder, cinnamon and turmeric. Mix the mass of the pumpkin to a homogeneous mass with the mass of bulk products and add the oil. Carefully mix the resulting mass with the whipped egg whites. Put paper skirts in cupcake tins, if you use silicone tins, nothing is needed. Pour the mass of the semi-finished product into the prepared molds and press the berry inwards. Sprinkle with sesame seeds. Bake in the oven at 180° C for 40 minutes.

#### **Butter rhubarb cake**

Whole grain spelled flour - 125 g, light spelled flour - 125 g, eggs - 5 pcs., butter - 125 g, unrefined sugar - 175 g, baking powder - 2 teaspoons, rhubarb - 525 g, vanilla extract - 1 g, almond chips (for sprinkling) - 13 g.

#### **Directions**

Whisk the butter with the sugar, add the eggs, vanilla extract and whisk well. Mix the baking powder with the flour and combine the two masses into one. The consistency of the mass should be similar to sour cream. Then add the chopped rhubarb to the mass and stir. Place the dough in a baking dish and sprinkle with almond chips. Bake at 180° C for 30-40 minutes.

# **Butter whole grain cookies**

Whole grain spelled flour - 300 g, light spelled flour - 300 g, eggs - 2 pcs., butter - 240 g, unrefined sugar - 90 g, baking powder - 10 g

#### **Directions**

Add flour, sugar, sliced butter, eggs and baking powder to the bowl. Stir until smooth for 5-10 minutes. Take 1 meal spoon mass and twist a small ball (about 3 cm in diameter) out of it. Place on a baking sheet lined



with baking paper and press with a fork to obtain a flat, round cookie. Do the same with the remaining dough. Bake for 20 minutes at  $180^{\circ}$  C or until the formation of a golden crust.



# Project "Cooperation for strengthening cross-border health system capacity " (No. LT-PL-3R-220)

Europos Regioninės Plėtros Fondas

Training centre "Dainava" for civil servants and local administration together with Independent Public Center of Long-term Care Facilities in Augustow (Lead Beneficiary) implement Project "Cooperation for strengthening cross-border health system capacity". Project No. LT-PL-3R-220. Project is financed by Interreg V-A Lithuania-Poland Program (Priority 4 – Enhancing institutional capacity of public authorities and stakeholders and efficient public administration). Total value of the project 965 009,18 Eur. Start of project implementation 01.04.2019. End of project implementation 30.09.2020.

Overall objective – to increase cross-border cooperation of the institutions in order to develop more integrated and better quality of public services and to enhance the access to health care services.

#### Specific objectives:

- Improvement of cross-border healthcare long-term health care and rehabilitation institutions' infrastructure
- Strengthening cross-border cooperation in the field of healthcare
- Increase of the borderland's long-term health care and rehabilitation institutions' workforce skills and competences

Samodzielny Publiczny Zespół Zakładów Opieki Długoterminowej w Augustowie



