

NUTRITION OF DIFFERENT GROUPS OF POPULATION

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The plan

- 1. Principles of nutrition of pregnant women and breastfeeding mothers.**
- 2. Nutrition of the persons engaged in intellectual work.**
- 3. Nutrition of the employees in various branches of industry and construction.**
- 4. Nutrition of the employees in agriculture.**
- 5. Nutrition of the elderly persons.**

I. Principles of nutrition of pregnant women and breastfeeding mothers.

- 1. Ensuring the needs of the pregnant woman's body in energy and all the nutritionally and biologically active substances.**
- 2. The maximum variety of foods included in the daily food ration.**
- 3. Maximum retention of the food stereotype of the woman, if until pregnancy it was adequate enough.**

I. Principles of nutrition of pregnant women and breastfeeding mothers (continuation)

4. Supplemental provision of the diet with: a) the energy necessary for the growth of the fetus, the formation and development of the placenta, the maintenance of metabolic processes in the woman's body; b) the proteins necessary for the growth and development of the fetus, placenta, uterus, mammary glands; c) calcium, iron and folic acid, necessary for calcifying the fetal skeleton, creating iron reserves in the newly formed organism and the woman, preventing congenital malformations; b) the dietary fibers necessary for the normal functioning of the woman's intestines.

I. Principles of nutrition of pregnant women and breastfeeding mothers (continuation)

- 5. Further administration of preparations containing vitamins and mineral salts.**
- 6. Limiting the consumption of table salt during meals and content of the salt in different foods, liquids, which can promote edema.**
- 7. Limitation of food, which can cause allergic body.**

I. Principles of nutrition of pregnant women and breastfeeding mothers (continuation)

8. The maximum evidence of the individual culinary needs of the pregnant woman.

9. Culinary processing of raw materials and food for the preparation of dishes.

10. In special cases - consumption of foods specially designed for pregnancy, enriched with proteins, essential fatty acids, vitamins and mineral salts.

**During pregnancy it is recommended to limit
(or completely exclude):**

- 1. Products containing true allergens and so-called histamine releasing products (strawberries, tomatoes, cocoa, chocolate, citrus fruits, shrimps).**
- 2. Foods high in extractive substances (strong broths of meat and fish) and ethereal oils (onions, garlic).**
- 3. Foods high in salt and spices (smoked fish, highly spiced and salted preserves, sausages, salami)**
- 4. Products with many food additives (soft drinks, some kind of confectionery).**

I. Principles of nutrition of pregnant women and breastfeeding mothers (continuation)

Principles of nutrition of breastfeeding mothers :

- 1. Ensuring of the physiological needs of the maternal organism in energy and nutrients**
- 2. Supplementation of the daily diet in energy and nutrients in sufficient quantities to produce the milk of high biological value.**
- 3. To prevent the ingestion by the newborn of breast milk containing allergenic substances and those that could irritate the digestive tract.**

I. Principles of nutrition of pregnant women and breastfeeding mothers (continuation)

It is recommended for breastfeeding mothers, to limit:

onion, garlic, spiced preserves, chocolate, most citrus fruits, tomatoes, strawberries, nuts, honey, eggs, shrimps.

II. Nutrition of the persons engaged in intellectual work.

The principles:

- 1. Decreasing the energy value of the daily diet .**
- 2. The widest variety of foods included in the daily diet.**
- 3. Maximum balance of the daily dietary components.**
- 4. Providing the whole vitamin complex.**

II. Nutrition of the persons engaged in intellectual work(continuation).

The principles (continuation):

5. Limiting the content of lipids and carbohydrates, in particular, easily assimilable.

6. Balancing the amino acid composition of proteins, paying particular attention to sulfur-containing amino acids (methionine + cysteine, tryptophan, lysine).

II. Nutrition of the persons engaged in intellectual work(continuation).

7. Strict adherence to the diet with meals 4-5 times a day. Serving meals more often and in small portions throughout the day is particularly recommended, as it has been found beneficial effect in preventing body mass and atherosclerosis. The last meal will be 3 hours before sleep. Avoiding taking the meal before sleep will prevent the accumulation and increase of fat deposits in the body. In the case of dividing the daily food ration into 5 portions, it is recommended to distribute its energy value as follows: for breakfast - 20%, snack - 15%, lunch - 35%, chillies - 10% and dinner - 20%.

III. Nutrition of the employees in the various branches of industry and construction

The nutrition of these employees is based on the same principles of rational nutrition:

- 1. The energy value of the food ration must correspond to the energy consumption of the body.**
- 2. The quantities of the main nutrients - proteins, lipids, carbohydrates - must not only cover the needs of the body, but also have an optimal ratio between them.**
- 3. Optimal ratio between animal and vegetable proteins.**

Nutrition of the employees in the various branches of industry and construction(continuation)

- 4. Ensuring the optimal ratio between the lipid components of the daily dietary ration - vegetable oils and lipids of animal origin, saturated and unsaturated fatty acids, omega-6 and omega-3 series of essential fatty acids, weight of trans fats;**
- 5. Optimal ratio between the carbohydrate components of the food ration: sugars, digestible polysaccharides, indigestible polysaccharides or dietary fiber.**
- 6. Providing the body with the necessary vitamins.**

Nutrition of the employees in the various branches of industry and construction(continuation)

7. Providing the body with the necessary quantities of mineral salts and an optimal ratio between the main macro-elements for example, the ratio of calcium, phosphorus and magnesium should be 1: 1.5: 0.5

8. Strict adherence to the diet. For example, if the activity starts daily in the morning the energy value of the diet is recommended to be distributed as follows: at breakfast - 30%, at lunch - 45% and at dinner - 25%.

9. If the employees activate in harmful conditions, contacting toxic substances, it is necessary to organize the prophylactic diet.

IV. Nutrition of the employees in agriculture.

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Peculiarities of the work:

- 1. Extended working day at certain times of the year.**
- 2. The division of the working day for certain categories of employees in the village household, for example, for the persons employed in the zootechnical sector - every two or three hours in the morning, in the middle of the day and in the evening.**
- 3. Different intensity of work depending on the season**

IV. Nutrition of the employees in agriculture (continuation).

Peculiarities of the work(continuation):

- 4. Frequent exchange of work operations for one and the same person.**
- 5. Great distance from the place of life to the place of work.**
- 6. The influence on the organism of the various environmental factors, both beneficial and evil, and their frequent exchange.**

V.Nutrition of the elderly people.

A. The main causal factors, which influence the nutritional requirements of the elderly:

- 1. Decrease the intensity of assimilation processes.**
- 2. Reduction of the functional capacities of the enzymatic equipment of the digestive tract, of the secretory and motor function**
- 3. Disturbances of the intestinal microbiocenosis (endoecosystem).**

V.Nutrition of the elderly people (continuation).

A. The main causal factors, which influence the nutritional requirements of the elderly (continued):

- 4. Reduction of the capacities of protection and adaptation of the organism.**
- 5. Decreased tolerance to glucose and saturated fatty acids.**
- 6. Frequent dysbacteriosis.**

V.Nutrition of the elderly people (continuation).

B. The principles of nutrition of the elderly people:

- 1. Corresponding energy value of daily diet to energy consumption.**
- 2. Anti- sclerosing orientation of the daily diet on account of the modification of the chemical composition and the enrichment with food products - sources of anti - sclerosing substances.**
- 3. The maximum variety of foods included in the daily diet to ensure an optimal and balanced content of indispensable factors.**

V.Nutrition of the elderly people (continuation).

B. The principles of nutrition of the elderly people(continuation):

- 4. Inclusion in the daily diet of the easily digestible foods and dishes in combination with foods, which stimulate the motor activity and secretion function of the digestive tract.**
- 5. Strict adherence to the diet with a more even distribution of the energy value of the daily diet**
- 6. Individualization of nutrition, taking into account the reduced metabolism during this period and the concrete state of different organs.**
- 7. Consumption of functional foods**

V.Nutrition of the elderly people (continuation).

- **Physiological aging of the body leads to deterioration of the metabolism of certain vitamins and mineral salts. Vitamins C, A, D, folic acid and B12 are of the highest importance among vitamins, and of the mineral elements - calcium, magnesium, potassium and iron.**

V.Nutrition of the elderly people (continuation).

- In this period of life osteoporosis occurs because of the massive elimination of *calcium* from the bone system. Osteoporosis in the elderly is linked, in particular, to protein deficiency and calcium migration from bone to maintain homeostasis. In addition, the fact that calcium deficiency can also be caused by blocking the absorption of the element mentioned in the intestines under the influence of phytates in some foods such as cereals and legumes, oxalic acid in some vegetables and fat.**

V.Nutrition of the elderly people (continuation).

- **Due to the antispastic and vasodilating action of *magnesium*, the stimulating and facilitating capacity of the bile removal, the positive influence on the processes of excitation and braking of the central nervous system, this element also has a special importance for the elderly.**

V.Nutrition of the elderly people (continuation).

- **The third macro-element of major importance in the nutrition of the elderly persons is *potassium*, which contributes to the elimination of water from the body, beneficially influences the activity of the circulatory system, has other functions welcome for the body of older people. Potassium also plays a prophylactic role in the aging period. Despite the fact that official potassium norms are not for the elderly, according to the literature data, 3 g of potassium daily is recommended.**

V.Nutrition of the elderly people (continuation).

- **The fourth very important element in the nutrition of the elderly is *iron*, because most of them show iron deficiency anemia.**
- **In connection with dysbacteriosis, which often affects the mentioned persons, it is recommended to consume some functional products, for example, from the group of acid dairy products**