

RECOMMENDATIONS

and some information in the conditions of elevated radiation levels in the city of Kiev

The composition of emissions into the atmosphere: 200 isotopes, 30 elements, out of which 45% short-lived and 55% with the half-life of 7 days and above.

Long-lived radionuclides:

- Strontium-89 – 4.7%, dangerous to agricultural livestock;
- Strontium-90 – 5.77%, 28 years, deposited in the bones;
- Vanadium-91 – 5.4%, 58 days;
- Rhutenium-102 – 3%;
- Zirconium-42 – 5.6%, 6 days;
- Rhutenium-106 – 0.38%, 1 year;
- Barium-140 – 6.75%, 12.8 days;
- Caesium-137 – 6.12%, 30 years;
- Germanium-141 – 6%, 33 days;
- Germanium-144, 288 days.

Strontium is excreted from the body with the help of red wine.

It is possible to get radiation sickness after the five-year exposure to the current radiation level of 3 $\mu\text{Sv}/\text{hour}$.

Isotopes of iodine:

Iodine-126 – 13.3 days;

Iodine-129 – 1,720 years;

Iodine-131 – 8.06 days;

Iodine-132 – 2.6 days;

Iodine-133 – 20.9 hours;

Iodine-134 – 54 minutes;

Iodine-135 – 7.6 hours.

The normal level of background radiation is 0.2 $\mu\text{Sv}/\text{hour}$.

The depth of the penetration of radionuclides: the more the density and the porosity – the higher is the degree of the penetration of radioactivity into a product/substance.

Flour – 0.5 cm

Semolina – 1 cm

Sugar – 0.5 cm

Cereals, grain – 2-3 cm

Salt – 3 cm

Soil – 5 cm

Fruit/vegetables – 10 cm

Beetroot piles – 15-30 cm

Currently recommended daily diet:

Water – 1 litre, cheese – 50-100 grams, fish – 100 grams, meat – 100 grams, sour cream – 200 grams, butter – 50 grams, leafy vegetables – 100 grams. All together – 2.6 litres.



Potatoes and carrots practically do not absorb radioactivity, the contamination of pork is 10 times lower than contamination of beef. When the meat is boiled, 60% of radioactivity is transferred to the water. The meat needs to be boiled for 1-2 hours, first water is to be disposed after 20 minutes of boiling, then the fresh water must be used for the remainder of cooking.

Decontamination of water: keep the water standing for 10-15 minutes, dispose of the top one third of the volume, remaining two thirds can be consumed.

General decontamination methods: sweeping, shaking, use of vacuum cleaner. For liquids: filtration, settling, washing the floors with soap and washing powder.

For the removal of radioactivity from the body:

1. Red juices (grape, tomato, carrot, cherry);
2. Red wine cabernet (1-2 teaspoons to the children, mixed 50/50 with water, 1-2 hours before meals);
3. One tablet of glucose with vitamin C three times a day;
4. Vitamin A – one capsule twice day for not more than two weeks;
5. 4-5 nuts per day;
6. Radishes in unlimited amounts;
7. Plentiful water;
8. Cottage cheese – 3 spoons, 1 raw egg – mix with one spoon of honey, followed by kefir [*fermented milk drink*].

The following is not to be consumed: sorrel, spinate, salad; as they contain oxalic acid that disrupts calcium absorption.

It is necessary that the diet includes food that is rich in calcium salts: hard melted cheeses, condensed milk, as well as pickles, grated horseradish with beetroot, currants, citrus fruits, shrimp paste, seaweed, sea fish.