

## RADIOACTIVE BACKGROUND

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The average exposure dose from natural sources of radiation is about 2.4 mSv / h. The share of the cosmic radiation is about 15%, the remaining 85% corresponds to the terrestrial sources of radiation. 95% of the population lives in areas with natural levels of the Earth's radiation 0.3-0.6 mSv / h. About 3% of people in their places of residence receives a dose of 1 mSv / h. However, as mentioned above, there are areas in the world with significantly higher levels of Earth's radiation.

Internal exposure from natural radionuclides is approximately two times higher than exposure received outside.

It is believed that small doses can "start" a chain of events leading to cancer or genetic injury. Cancer becomes apparent many years after the exposure (i.e., not earlier than after one or two decades). Congenital malformations and other hereditary diseases caused by injury of the genetic apparatus, appear only in the next or subsequent generations.

In high doses, radiation can destroy cells, damage organs and tissues cause a quick death of the organism. These injuries occur within a few hours or days.

Insects are generally more resistant to radiation than mammals. The average dose, which is capable of killing the insect, is about 100 times greater than the appropriate dose for a mammal.

For the preliminary assessment of individual radio-sensitivity it is necessary to make a research in three directions:

- to evaluate the initial state of the various systems of the body in the normal conditions of life activity;
- to assess the overall reactivity of the body in his reaction to the functional load and various factors
- to compare the reactions of the body systems to radiation in low doses.

The radioactivity in high doses is rather unhealthy, but without it the body can not function properly.

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