

Effects of Radioactive Pollution

1. Genetic mutations

Radiation has adverse effects when it comes to genetics. It leads to damage of DNA strands leading to genetic break up in the course of time. The degree of genetic mutation leading to changes in DNA composition vary due to the level of radiation one has been exposed to and the kind of exposure.

In the event that a human or an animal is exposed to too much radiation from the atmosphere, food consumed and even water used then chances are that their bodies have already absorbed the radiation. Once in the body, it remains active because energy cannot be destroyed.

The resulting mutation makes one highly susceptible to cancer. For pregnant women, kids born have adverse defects caused by genetic mutations like low weight during birth. Effects such as disfigured births and impairment like blindness in children have also been reported. Infertility has also been mentioned as an effect of radiation.

2. Diseases

Cancer is the most dominant radiation related disease. It has developed over the years and poses great risk in global health. Others include leukemia, anemia, hemorrhage, a reduction in the life span leading to premature aging and premature

deaths as well as others such as cardiovascular complications. Leukemia, for instance, is caused by radiation in the bone marrow.

3. Soil infertility

Exposure of radiation to the atmosphere means it is present even in soils.

Radioactive substances in the soil react together with the various nutrients leading to destruction of those nutrients, thus rendering the soil infertile and [highly toxic](#).

Such soil leads to the harvest of crops that are riddled with radiation and thus, unfit for consumption by both humans and animals.

4. Cell destruction

[Radioactive pollution](#) has diverse effects such as the alteration of cells. The bodies of living organisms are unique in that there are millions of cells in one single body, where each has its purpose to fulfill. Radiation distorts the cells present leading to permanent damage of the various organs and organ systems. In the face of too much radiation, permanent illnesses and death are inevitable.

5. Burns

Radiation is not easy to feel but it is easy to realize that you have been affected by it. The immediate presence of burns, red lesions and sores is evidence. To make it worse, this can lead to skin cancer.

Solutions of Radioactive Pollution

1. Proper method of disposing radioactive waste

Radioactive waste still has some level of radiation. Accordingly, it cannot be disposed in the same way as normal waste. It cannot be incinerated or buried. Since there is likelihood of seepage, this waste should be stored in heavy and thick concrete containers. Another option is to dilute the radiation since storage may not be possible. Since there are no easy ways of disposing of radioactive material, professional assistance should always be sought.

2. Proper labeling

It is necessary for any material with radioactive content to be labeled and the necessary precautions advised on the content of the label. The reason for this is because radiation can enter the body by a mere touch of radioactive material. Containers with such elements should be well labeled in order for one to use protective gear when handling them.

3. Banning of nuclear tests

It has already been proven that nuclear power has a lot of latent power that is very destructive. Nevertheless, the tests done to perfect the energy contribute greatly to the overall presence of radioactive substances. Moreover, these tests though done in the deserts end up escaping from one ecosystem to another eventually affecting the lives of many people.

4. Alternative energy sources

The evolution and use of nuclear power was not a bad thing initially.

5. Proper storage

It is mandatory for containers carrying radioactive material to be stored properly. For starters, such substances should be stored in radiation proof containers to ensure no seeping or leakage during handling. Proper storage means no harm and can minimize cases of accidental leakage.

6. Reusing

Since it is not easy to store or dispose the waste, it can be recycled and used for other purposes like in another reactor as fuel thereby [protecting the environment](#).

Radioactive Pollution: Causes, Effects and Solutions

[Radioactive pollution](#) occurs when there is presence or depositions of radioactive materials in the atmosphere or environment, especially where their presence is accidental and when it presents an [environmental threat](#) due to radioactive decay. The destruction caused by the radioactive materials is because of the emissions of hazardous ionizing radiation (radioactive decay) like beta or alpha particles, gamma rays or neutrons in the environment where they exist.

Since the substances are characterized by radiation – because there is a lot of instability of the particles present in the radioactive materials, it can seriously affect, alter and even destroy plant, animal, and human life. The extent of damage or danger posed to the environment depends upon the radioactive material concentration, the energy emitted by the radiation, proximity of the radioactive materials to those exposed, and the radiation type. **Herein is a detailed explanation of the causes, effects, and solutions of radioactive pollution.**