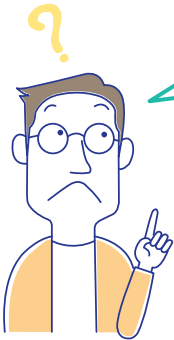


How is radiation used for medical treatments?

Examinations and therapy using the properties of radiation are common.

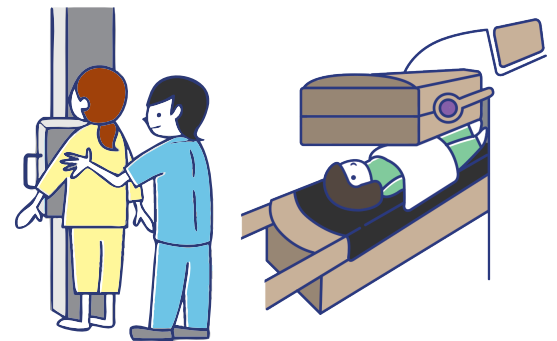
Editor's note: Herein, “radiation” refers to ionizing radiation.



For what purpose is radiation used in hospitals?

- It is widely used for diagnosis and treatment of diseases.

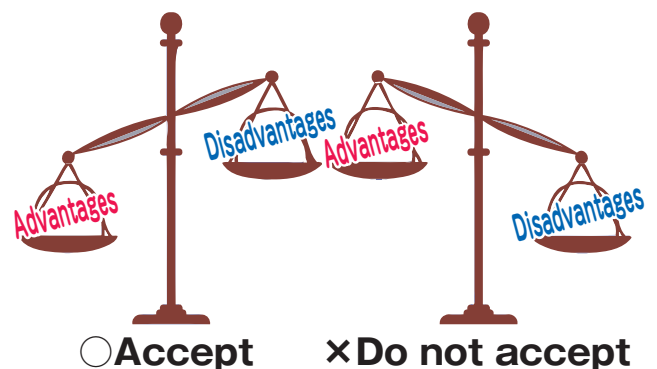
X-ray and CT scans utilize radiation that passes through the body to detect injuries and illnesses. It is also used for cancer treatment. Radiation, surgery, and anticancer drugs are called the “three major therapies of cancer.”



Do we have to undergo X-ray and CT scans?

- They are valuable for early detection and treatment of diseases.

Radiation can affect your health depending on the dose received, a potential disadvantage. On the other hand, X-rays and CT scans have the advantage of detecting some diseases earlier than other means, so patients can undergo appropriate treatment. Use of radiation is accepted when the advantages brought about by receiving radiation outweigh the disadvantages.



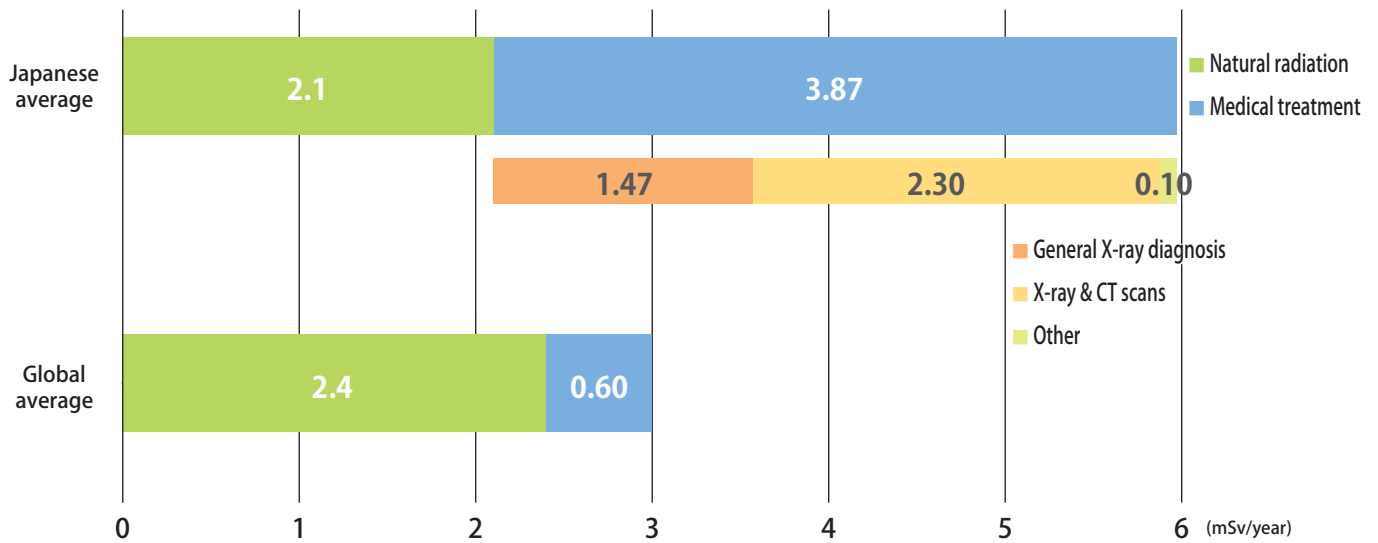
Is it OK to receive radiological examinations repeatedly?

- Please consider the necessary examinations by weighing the advantages and disadvantages.

For radiation-based examinations, it is necessary to pay attention to the dose amounts received at one time and the total dose amounts rather than just the number of times. Examinations are carried out by adjusting the dose amounts of radiation so that impacts on health can be minimized. If you have any questions or concerns about a radiological examination, consult your doctor.

Radiation dose amounts from medical treatment (annual)

Compared with other countries, it is known that Japan uses relatively more radiation in medical care. Medical exposure to radiation often exceeds what is received from natural sources.

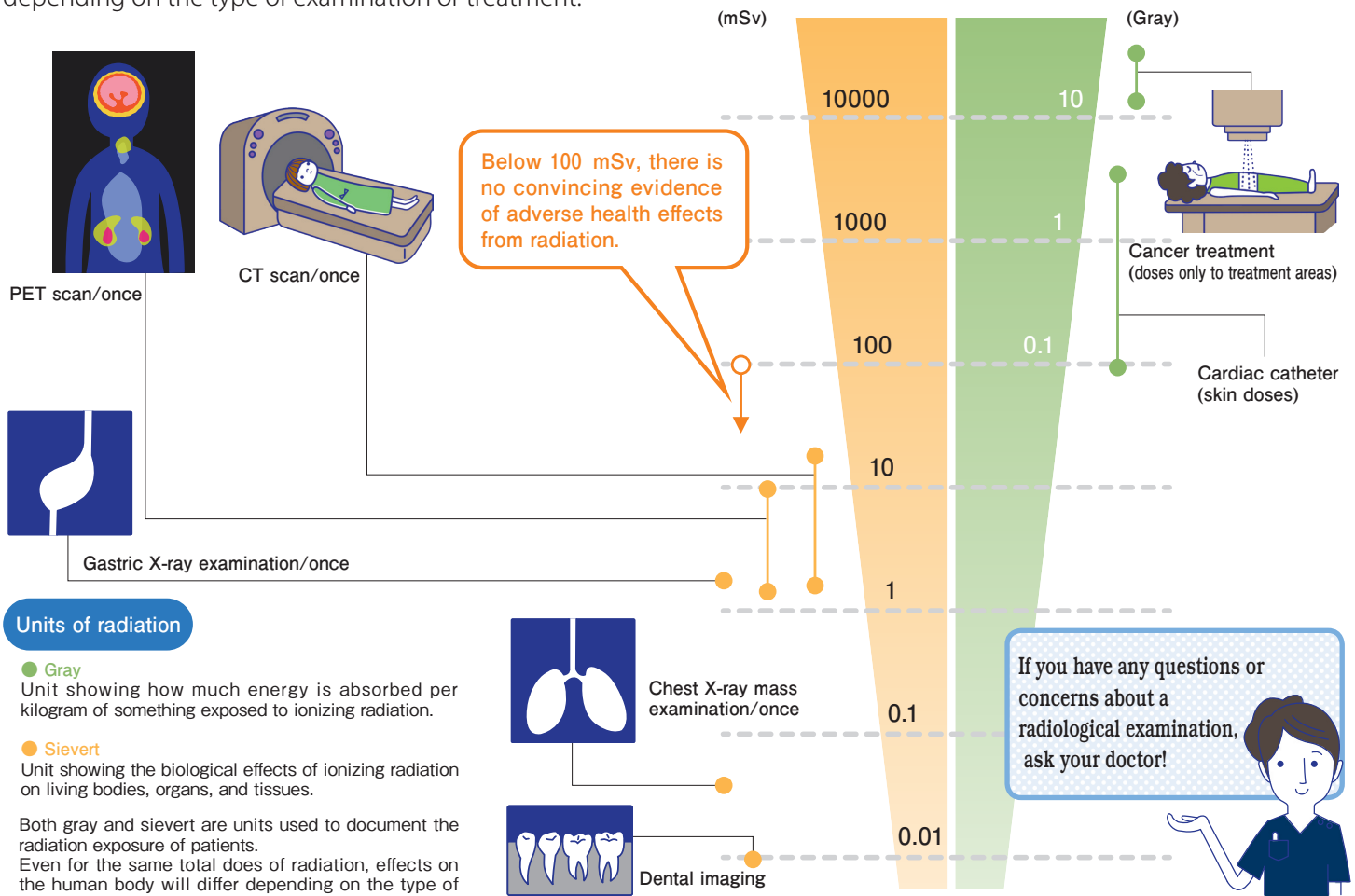


Based on BOOKLET to Provide Basic Information Regarding Health Effects of Radiation published by the Ministry of the Environment (FY2019); Methods for Proper Management of Medical Exposure at the Fourth Study Group on Proper Management of Medical Radiation (Jan.19,2018) published by the Ministry of Health, Labour and Welfare

Medical treatments using radiation, and dose amounts received at one time

The radiation dose amounts will differ significantly depending on the type of examination or treatment.

Based on BOOKLET to Provide Basic Information Regarding Health Effects of Radiation published by the Ministry of the Environment (FY2019);(extraction of medical exposure)



Units of radiation

Gray
Unit showing how much energy is absorbed per kilogram of something exposed to ionizing radiation.

Sievert
Unit showing the biological effects of ionizing radiation on living bodies, organs, and tissues.

Both gray and sievert are units used to document the radiation exposure of patients. Even for the same total dose of radiation, effects on the human body will differ depending on the type of radiation and the body part(s) receiving the radiation.

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