Gamma Ray Encyclopedia Article

Gamma Ray

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Gamma Ray

High energy forms of electromagnetic radiation with very short wavelengths. Gamma rays are emitted by cosmic sources or by **radioactive decay** of atomic nuclei which occurs during nuclear reactions or the detonation of **nuclear weapons**. Gamma rays are the most penetrating of all forms of nuclear radiation. They travel about 100 times deeper into human tissue than beta particles and 10,000 times deeper than alpha particles. Gamma rays cause chemical changes in cells through which they pass. These changes can result in the cells' death or the loss of their ability to function properly. Organisms exposed to gamma rays may suffer illness, genetic damage, or death. Cosmic gamma rays do not usually pose a danger to life because they are absorbed as they travel through the **atmosphere**.

See Also

Ionizing Radiation; Radiation Exposure; Radioactive Fallout