

Dose Rate Unit

The ISO unit for the equivalent dose per time unit is the **sievert per time unit**.

Most often used units are the millionth of a sievert per hour = **microsievert/hour ($\mu\text{Sv/hr}$)** and the thousandth of sievert per year = **millisievert/year (mSv/yr)**.

For comparison:

- *A dose rate of 1 mSv/yr from technical sources is considered safe for the general public according to recommendations by the International Commission on Radiation Protection (ICRP).*
- *The dose rate from natural radioactivity is in the range of 1.5–5 mSv/yr (and can be much higher in certain regions) or about 0.2–0.6 $\mu\text{Sv/hr}$.*
- *For professionals – persons who are exposed to radiation from technical sources and are under dose surveillance, e.g. medical personnel or workers in a nuclear installation wearing a personal dosimeter – a whole-body dose rate of 20 mSv/yr or about 2 $\mu\text{Sv/hr}$ is considered safe. If only parts of the body such as the skin, the hands or the feet are exposed, 500 mSv/yr are still considered safe.*