



How many changes?

1

Sources of Radiation

In 1972 a detailed survey was made of average annual whole-body doses to the U.S.A. population from various sources. Occupational and miscellaneous artificial exposures averaged about 1-2 mR/y (remember, some people got enough to make up for the vast majority who got none!); global fallout from nuclear testing made up about 6 mR/y ; medical exposures (X-rays, radiotherapy, etc.) were good for nearly 100 mR/y ; and natural background averaged about 120 mR/y . The numbers have not changed much in the intervening years. One must conclude that for the average person there are only two significant sources of radiation exposure: medical and natural. Although this begs the question of 'extraordinary cases' who receive larger exposures in accidents such as Chernobyl, it still helps to set perspectives for those examples.

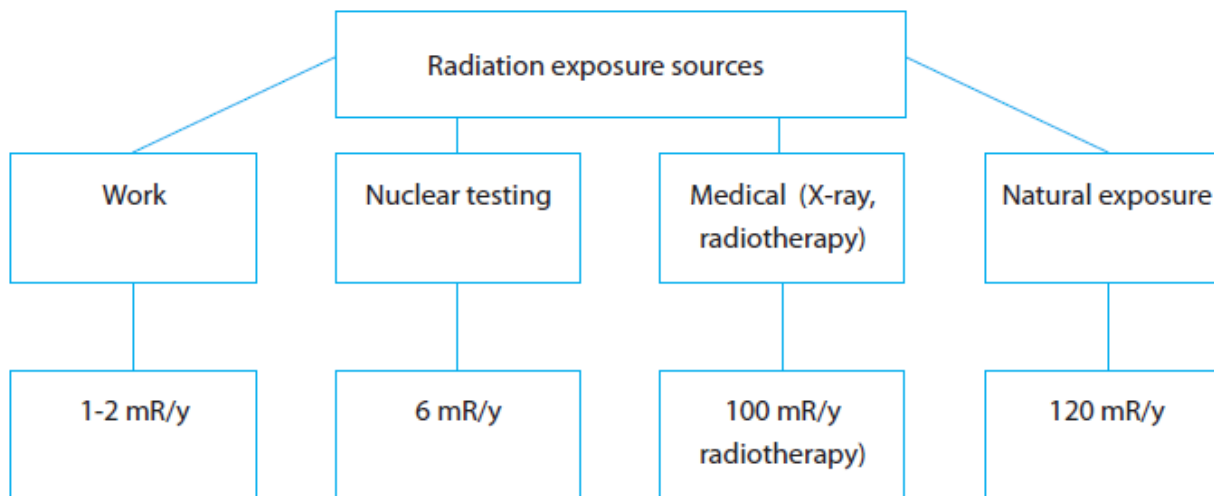
Where does radiation come from?

Radiation exposure is how much radiation a person receives.

2

Survey

In 1972, a survey in the U.S.A. looked at the average amount of radiation that people received in a year from various sources. This was measured in mR/y , milliRöntgen per year. The survey showed that the average radiation exposure at work and from other various sources about 1-2 mR/y (milliRöntgen per year); the radiation from the fallout from nuclear testing was about 6 mR/y ; medical exposure (X-rays, radiotherapy) was nearly 100 mR/y and natural background radiation was about 120 mR/y . This information is still true today. The survey results are presented below:



Conclusion

We must conclude that for the average person there are only two significant sources of radiation exposure: medical and natural. This may lead us to ask: what about 'extraordinary cases' who receive a lot of radiation exposure, in accidents such as in the nuclear plant at Chernobyl? These cases should be put in the right perspective, and this conclusion helps us to do it.