

- Lightbulb = Has the ability to emit light

Lumen (lm) or Watt (W)

► Unit of light bulb brightness



Light



Lux (lx)

► Unit of brightness

- **Radioactive materials** = Have the ability to emit radiation (**radioactivity**)



Radiation



Becquerel (Bq)

► Unit of radioactivity

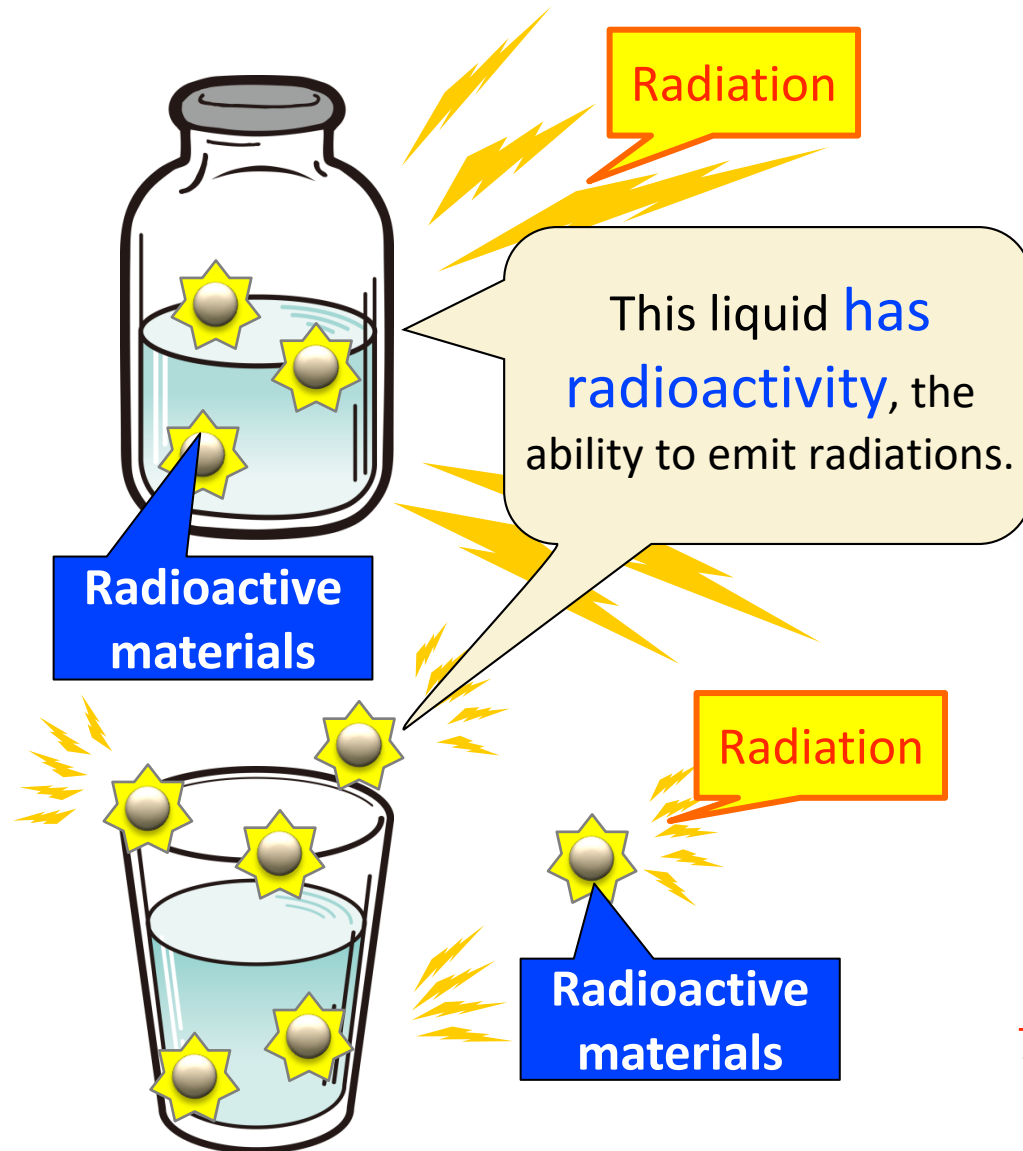
**Conversion
factor**

Sievert (Sv)

► Unit of radiation exposure dose that a person receives

*Sievert is associated with radiation effects.

Difference between Radiation and Radioactive Materials

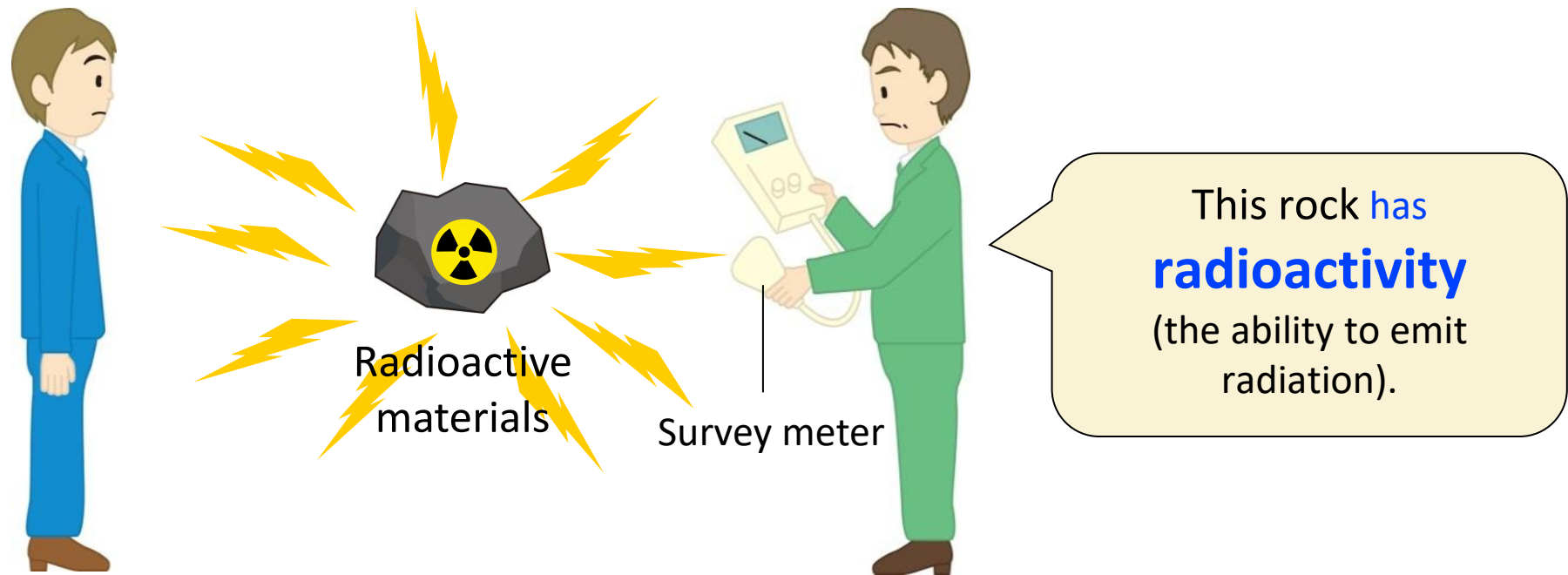


Radioactive materials themselves emit radiation.

If radionuclides are incorporated into the body, they will be partly removed outside the body (excreted) or be transferred to particular organs/tissues.

Radiation itself does not remain in the body.

Units of Radiation and Radioactivity



Becquerel (Bq)

Unit for intensity of radiation:
one nucleus decays (disintegrates) per
second = 1 becquerel

Sievert (Sv)

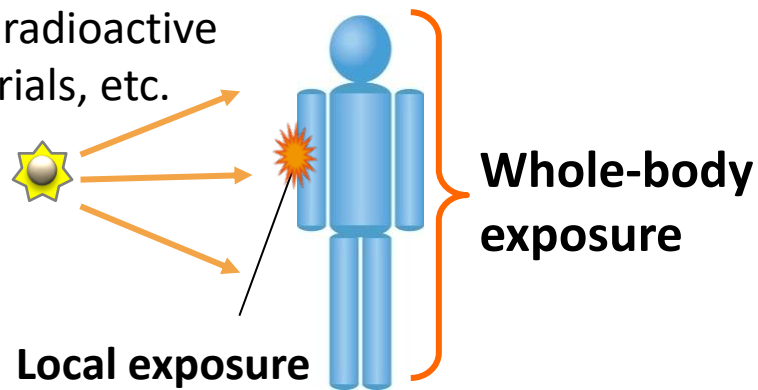
Unit of radiation exposure dose which a
person receives:
associated with radiation effects

Types of Exposure

External exposure

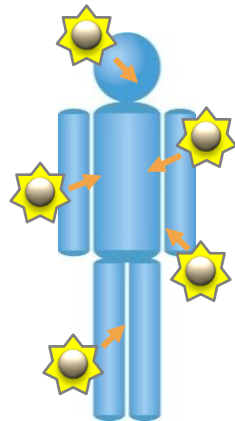
Exposure due to radiation outside the body

Radiation sources
such as radioactive
materials, etc.



Local exposure

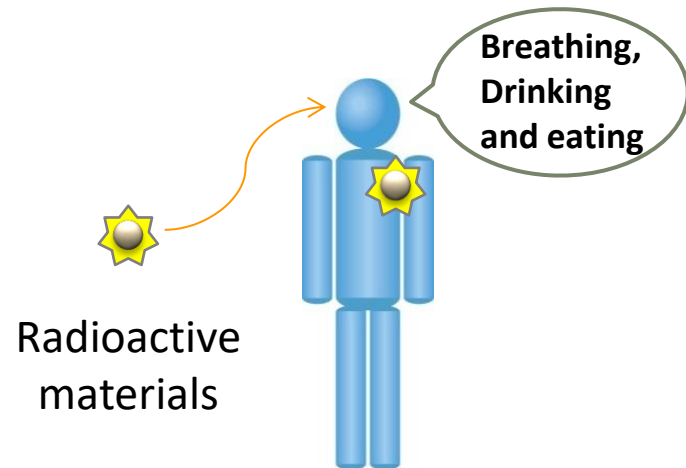
Whole-body
exposure



Body surface contamination

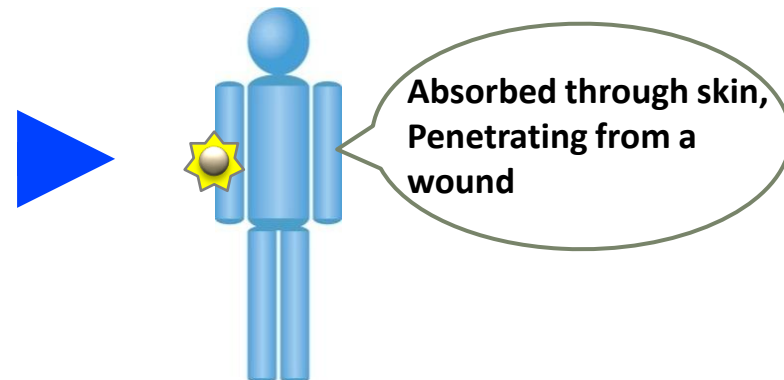
Internal exposure

Exposure from inside the body



Radioactive
materials

Breathing,
Drinking
and eating



Absorbed through skin,
Penetrating from a
wound