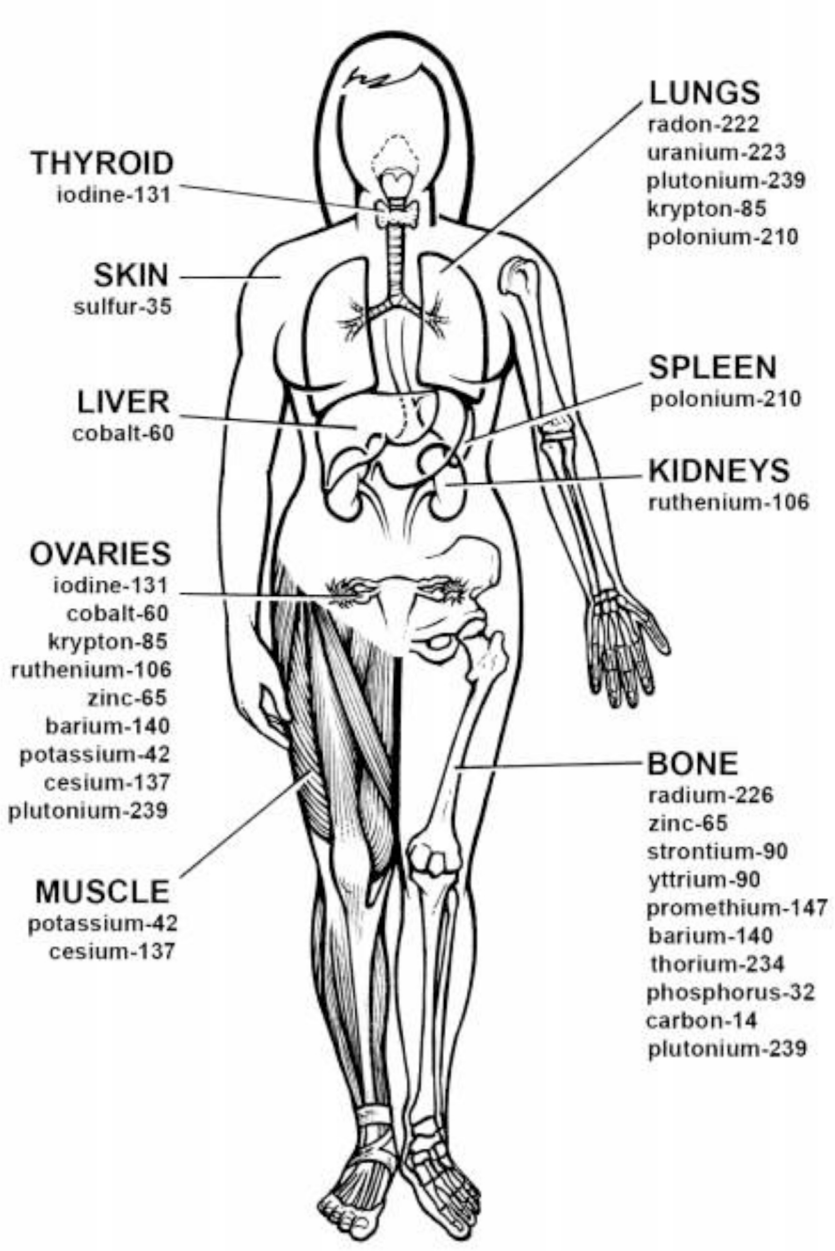
RADIATION AND THE HUMAN BODY



Ionizing radiation can cause: cancer, leukemia and **genetic damage** - sometimes seen as **birth defects** or **chronic disease.**

Radiation can also cause: cardiovascular & **renal disease, immune system damage, cataracts, sterility, premature aging, miscarriages, premature births** & **increased infant mortality.**

All human organs and tissues are adversely affected by ionizing radiation to varying degrees. Different radioactive isotopes are attracted to different organs or tissues according to their chemical makeup *(see diagram).*

The common fission product strontium-90 acts like calcium and concentrates in bone, teeth and breast milk as calcium does. Radioactive iodine-131 is rapidly absorbed by the thyroid gland replacing normal iodine. Cesium-137 mimics potassium inside the body, seeking out muscle tissue.

Sources: *International Commission on Radiation Protection (ICRP) United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)*