

IONIZING RADIATION'S EFFECT ON THE BODY

SKIN

(RADIONUCLIDE	TYPE	HALF-LIFE)
URANIUM 238	ALPHA	162,000 YRS.
PLUTONIUM 239	ALPHA	24,000 YRS.
COBALT 60	BETA/GAMMA	5 YRS.

Skin Cancer

BREASTS

PLUTONIUM 239	ALPHA	24,000 YRS.
CESIUM 137	BETA/GAMMA	30.17 YRS.
STRONTIUM 90	BETA	29.1 YRS.

Breast Cancer

LIVER

COBALT 60	BETA/GAMMA	5 YRS.
-----------	------------	--------

Liver Cancer - higher death rate in women

OVARIES

- Attacked by all radioactive isotopes emitting gamma radiation.
- PLUTONIUM 239 known to concentrate in the ovaries or testes.

Birth defects, mutations and miscarriages.

MUSCLE

POTASSIUM 42	BETA/GAMMA	12 HRS.
CESIUM 137	BETA/GAMMA	30 YRS.

Sarcoma - cancer of muscle tissue

WHOLE BODY

TRITIUM	BETA	12 YRS.
---------	------	---------

Breast Cancer

Intestinal Cancer

Down Syndrome

THYROID

(RADIONUCLIDE	TYPE	HALF-LIFE)
IODINE 131	BETA/GAMMA	8 DAYS

Thyroid Cancer - women are three times as likely to be affected as men

LUNGS

URANIUM 234	ALPHA	162,000 YRS.
PLUTONIUM 239	ALPHA	24,000 YRS.
KRYPTON 85	BETA/GAMMA	10 YRS.

Lung Cancer - much higher rate among uranium miners

SPLEEN

POLONIUM 210	ALPHA	138 DAYS
--------------	-------	----------

Lymphoma - cancer of the blood cells

KIDNEYS

RUTHENIUM 106	BETA/GAMMA	1 YR.
---------------	------------	-------

Kidney cancer - difficult to detect, hard to stop after 5 yrs.

BONE

RADIUM 226	ALPHA	1620 YRS.
STRONTIUM 90	BETA	29.1 YRS.
<i>(crosses into the bone marrow)</i>		
YTTRIUM 90	BETA	64 HRS.
PROMETHEUM 147	BETA	2 YRS.
BARIUM 140	BETA/GAMMA	13 DAYS
THORIUM 234	BETA	24 DAYS
CARBON 14	BETA	5,600 YRS.

PLUTONIUM

Leukemia - an overproduction of abnormal white blood cells which can be treated to some extent.

