

Radiation: Internet Research

Radiation site: www2.epa.gov/radiation

1. Click "Radiation Basics"

- Give 3 examples of nonionizing radiation:
- Give 3 examples of ionizing radiation:
- Give 3 sources of background radiation:

2. Click "Radiation Sources and Doses"

- The average radiation dose received per person is _____ millirems/yr.
- Besides background sources, how else do we normally typically receive ionizing radiation?

3. Click "Protecting Yourself from Radiation"

- Understand the radiation protection principles of _____, _____, and _____.
- In a radiation emergency you should: Get _____, Stay _____, and Stay _____.

4. Click "Radioactive Nucleotides"

- Define half life:
- What type of emitter is Cs-137? What common compound does it act like? What are its uses?
- What type of emitter is Co-60? Uses?
- What is the most common way people are exposed to radioactive iodine? What part of the body is most usually affected by iodine exposure?

- Plutonium isotopes are what type of emitters? Uses?
- Radium levels become elevated in the environment through what process? Radium produces what gas when it decays?
- Why does Sr-90 exist in the environment today? How do people usually become exposed to Sr-90? Chemically, Sr-90 acts like what element?
- What is the main use of Tc-99? What is an important factor that makes it desirable for this use?

5. Click "Radiation Health Effects"

- Explain the difference between chronic and acute exposure:
- Why are children and pregnant women especially sensitive to ionizing radiation exposure?

6. Click "RadTown USA"

Burbs

- What can be done to protect yourself from radon gas in the home?
- What isotope has been used in smoke detectors. How do they work?
- Do microwave ovens present any dangers to us?
- What is food irradiation? Is it safe to eat food that has been irradiated? Explain:
- Why is tobacco a radiation source?

Country Side

- What environmental problems can occur from mining uranium?
- Why are nuclear gauges and industrial radiography used in construction?
- What precautions should you take if you have a private water well?

Waterfront

- What precautions are taken in the shipping of radioactive materials?
- Explain the process of “nuclear power” in military submarines and aircraft carriers:

Downtown

- What is a particle accelerator? What is the largest particle accelerator in the world?
List 3 uses of particle accelerators:
- List 2 ways air travel increases our exposure to natural or man-made background radiation:
- What is the value of mail irradiation? What event in 2001 has caused an increase in its use? Does irradiation cause any problems to the mail itself?
- In terms of radiation, give an example of why you should be careful when shopping for antiques: