

Biological Effects of Ionizing Radiation: Key Concepts

Refer to the reading entitled “Biological Effects of Ionizing Radiation” to answer the questions below.

1. The principal factors that determine the biological effect of ionizing radiation are _____.
2. The possibility of injury from ionizing radiation _____ with increasing exposure.
3. Increasing the volume of tissue exposed _____ the severity of radiation injury.
4. Alpha particles deposit all their energy along a _____ path.
5. Beta particles deposit their energy over a _____ path.
6. The two main categories of biological effects from radiation are _____ effects and _____ effects.
7. Of the two main types of effects in question 6, which applies to the exposed individual and which applies to future generations?
_____ effects apply to the exposed individual.
_____ effects apply to future generations.
8. Natural background radiation is estimated to account for only ____ to ____ percent of the spontaneous incidence of cancer.
9. The _____ and _____ are particularly sensitive to radiation exposure.
10. For any radiation exposure greater than zero, there may be at least some _____.