

Radiation Safety Training for Veterinary Office Personnel

Course Description:

This course was designed to provide the participant with a foundation of radiation safety and protection and up-to-date information regarding equipment components.

Course Length: 2 hours

CE Credits: Veterinary

Contact Information:

Radiologic Education Center

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Course Outline:

I. Basic Radiation

- a. Define Ionizing Radiation
- b. Identify the sources of ionizing radiation
- c. Review units of dose and measurements

II. Veterinary Equipment

- a. General x-ray-analog, CR and DR
- b. Portable devices
- c. Dental
- d. C-arm/fluoro
- e. CT and CBCT

III. Equipment Components

- a. Anode, cathode and the parts of the tube
- b. Image intensifiers
- c. Image receptors
- d. Processing

IV. Radiation Safety

- a. ALARA
- b. What is a Radiation Safety Officer (RSO)
- c. Quality Assurance Program (QAP)
- d. Biological effects of radiation exposure
- e. Measures to reduce and minimize exposure
- f. Shielding placards
- g. Protective garments
- h. Technique chart requirements and their value
- i. Personal monitoring

Course Objectives:

I. Basic Radiation

- a. Define ionizing radiation
- b. Recognize sources of ionizing radiation
- c. Understand US measurements and their relative international equivalents

II. Veterinary Equipment Overview

a. Recognize various types of x-ray equipment that might be found in a veterinary setting

III. Equipment Components

- a. Recognize the parts of an x-ray tube
- b. State the differences between image receptors used in analog, CR and DR systems

IV. Radiation Safety

- a. Know the ALARA concept
- b. Recognize the RSO
- c. Identify measures and methods to reduce radiation exposure
- d. Understand the importance of protective garments
- e. Personal monitoring
- f. Be aware of the biological effects of radiation exposure
- g. Explain what a Quality Assurance Program(QAP) is and who is responsible for creating and maintaining the document