

Dental Radiation Safety and Infection Control

Curriculum Overview

Designed for:

- High school students
- Post-secondary students in dental courses

Length:

The activities in this curriculum will last approximately three to six hours.

Goal:

To help participants understand dental radiation, its risk factors, operator and patient protection, and infection control.

Synopsis:

This curriculum will help students learn the purpose of radiographic images and the techniques used to safely expose an image. Participants will also understand the basics of radiation safety, including X-ray production and patient and operator safety. They will learn the basics of infection prevention, such as using standard precautions for equipment, patients, and operators.

Curriculum Components:

- Curriculum – Complete lessons, including detailed steps of activities, time and materials needed, student handouts, and instructor information to teach the lesson
- Presentation slides
- Student materials

Learning Objectives:

Lesson 1 – Purpose and Technique of Dental Radiographs

- Describe uses for dental X-rays
- Discuss techniques for managing patients with special medical needs
- Identify techniques for managing patients with special dental needs
- Name techniques for managing pediatric patients

Lesson 2 – Dental Radiation Safety

- Explain how X-rays are produced
- Describe how to protect the patient from excess radiation
- Discuss how to protect the operator from excess radiation
- Explain the ALARA concept

Lesson 3 – Infection Prevention and Control

- Explain the Centers for Disease Control and Prevention guidelines for infection control in dental radiology
- Describe the infection control requirements for preparing the dental operator for radiation exposures
- Discuss the infection control protocol when making exposures using conventional dental X-ray film, phosphor storage plates, and digital sensors
- Explain infection control procedures during and after X-ray exposure
- Describe procedures during X-ray film processing