

## Chapter 6 Infection Control

It is important to observe infection control practices when taking and processing radiographs to prevent the spread of microorganisms to patients and dental staff. During radiographic procedures, the dental assistant's gloves, dental films, X-ray equipment and processor, and surfaces in the dental operatory and darkroom can become contaminated.

When you place a film in a patient's mouth and then make adjustments to the X-ray head or press the exposure button, you contaminate the X-ray unit. If the equipment is not properly disinfected or covered with a barrier, it is a potential source of cross-contamination. Infection control standards must be maintained to protect patients and dental staff.

As with other dental procedures, the operatory surfaces and dental chair should be decontaminated or barriers placed according to your dental clinic infection control policies. You should follow handwashing protocols, and wear personal protection equipment (PPE).

Let's review some of the specific infection control practices when taking dental radiographs.

### Barriers

Use barriers on the X-ray head and control panel buttons. It is quicker to protect them with a barrier than to disinfect them after each patient. Barriers are changed when cleaning up the operatory for another patient.



X-ray control panel with barrier



Plastic barrier on PID

### **Dental Film**

Dental film that has been in a patient's mouth is contaminated. Most clinics now use barriers that protect the film from potential contaminants in oral fluids.



Dental film with barriers

### **Protection Devices (Apron and Thyroid Collar)**

Make it a routine practice, to disinfect the apron and thyroid collar after use. This will ensure that the protective devices are always ready for patient use. Be aware that some ingredients in disinfectants may be harmful to equipment when used long term. It is always a good practice to read the manufacturer's instructions before using a product.

### **Handwashing and Gloves**

An acceptable handwashing procedure should be followed before putting on gloves. PPE must be worn when taking dental radiographs.



Handwashing



DA wearing PPE

### **Film Positioning Devices**

Film positioning devices like the XCP are sterilized after being used. Bitewing tabs should be disposed of after being used. They are one time use items.

### **Panoramic Bite Stick and Temple Supports**

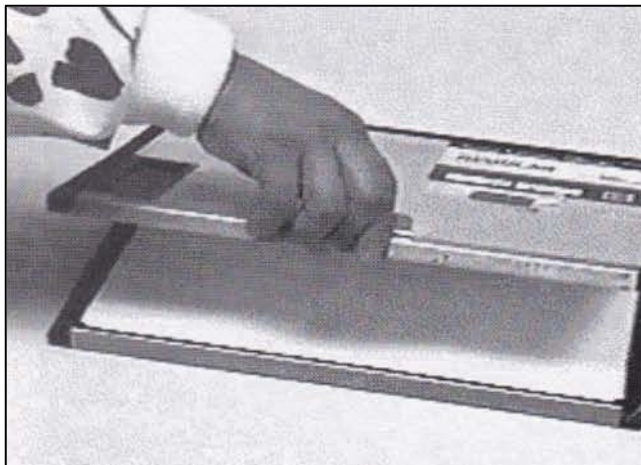
Disposable bite stick covers should be used when taking panoramic images. If disposable covers are not available, bite blocks should be sterilized. Temple supports should not be sterilized. Instead, use barriers.



Patient with panoramic unit

### **Panoramic Film Cassettes**

Do not handle panoramic cassettes with contaminated hands or gloves. Remove gloves, and wash hands before loading or unloading film into a cassette.



Panoramic film cassette

### **Processing Films with Barriers**

Barrier should be discarded directly into a waste container or put on a disposable towel to prevent contamination of the darkroom counter. Follow these steps:

1. While wearing gloves, remove barriers from exposed film packet and dispose in the trash.
2. Put film packets into a paper cup to transport to the darkroom. This is done in the operatory so the darkroom does not become contaminated.
3. Remove and dispose of gloves, and wash hands.
4. Carry paper cup into darkroom.
5. Turn out the light, and secure the darkroom door.
6. Unwrap and process films remembering to hold films by the edges.

### **Processing Films without Barriers**

Follow these steps:

1. Put film packets into a paper cup to transport to the darkroom.
2. Remove gloves, wash hands, and put on clean gloves.
3. Carry paper cup into darkroom.
4. Turn out the light, and secure the darkroom door.
5. Unwrap and process films remembering to hold films by the edges.
6. Take off gloves and place in paper cup with empty film packets.
7. Dispose of gloves and empty film packets.
8. Wash hands.

## Processing Films Using a Daylight Loader



Examples of daylight loaders

Daylight loaders present additional infection control challenges. They have cloth or rubber sleeves, cuffs or flaps to give access to the processing chamber without allowing light exposure. It is important that they are not contaminated. Follow these steps when you are using films with barriers:

1. While in the operatory and wearing gloves, tear open the film barrier, and drop the film packet into a paper cup. Dispose barriers in the trash.
2. Remove gloves, wash hands, and then place a paper towel, and paper cup inside the loader compartment.
3. Close the lid and place hands through the sleeves, and into the compartment.
4. Remove one film from the paper cup, and open packet.
5. Place the film into processor feed slot, handling by the edges.
6. Dispose of film packet into empty paper cup.
7. Remove hands from loader.
8. Lift the lid to the loader compartment and remove all contents.
9. Wash and dry hands.

This completes Chapter 6: Infection Control. You are now ready to test your understanding of the information you learned.