

Radiation Safety

Radiation Safety at Baptist Hospital



Course Objectives

- **Explain principles of radiation safety.**
- **Describe proper handling of lead aprons.**
- **List the radiation safety precautions for staff and patients.**



The C-Arm

Here is a picture of the C-arm used in the OR at Baptist Hospital.



The C-Arm

With the C-arm in this position the X-ray tube is on the bottom of the C-arm and the image intensifier is on the top of the C-arm.



The C-Arm

This picture shows the X-ray tube at the top of the C-arm and the intensifier on the bottom of the C-arm.



Lead Aprons

This picture shows the **proper** way to store lead aprons.



Lead Aprons

This is the **improper** way to store lead aprons. Aprons are folded and crushed. This cracks the lead which compromises the aprons effectiveness.



Lead Aprons

Another demonstration of mishandling of the aprons.



Lead Aprons

This shows **proper** hanging of the apron.

Lead Aprons



Another **proper** way of handling the apron.



Lead Aprons

Here is another picture of how **not** to care for the aprons. When aprons are not properly handled, they crack and damages the lead.



Lead Aprons

Here is another picture of how **not** to care for the aprons.



Lead Aprons

Here is another picture of how **not** to care for the aprons.



Lead Aprons

Here is another picture of how **not** to care for the aprons.



Lead Aprons

This is demonstrates the **improper** way to wear a thyroid shield and film badge.



Lead Aprons

This is the **improper** way to wear a thyroid shield and film badge.

Lead Aprons



Here is the **proper** way to wear the apron, thyroid shield, and film badge. The thyroid shield has to be worn high enough to cover the thyroid gland. The film badge should be worn on the neck on the outside of the lead apron. The reason for this location of the film badge is to have the proper radiation reading.

The one thing *wrong* with this picture is the way the technologist is standing. Her back is not protected by the apron and is exposed to the radiation.

Lead Aprons



This demonstrates the **proper** way to wear the apron, thyroid shield, and film badge. The technologist is protected by the apron. Her unprotected back is away from the X-ray tube.



This demonstrates the **proper** way to shield a patient when the X-ray tube is on the bottom.



This demonstrates the **proper** way to shield a patient when the X-ray tube is on the top.



This demonstrates the **improper** way to wear a film badge.



This is the **proper** way to wear the film badge.



This demonstrates the **improper** way to stand behind the lead shield.



This demonstrates the **proper** way to stand behind the lead shield.



Congratulations!

You have successfully completed the tutorial portion of this program and are ready to take the quiz.

Before you exit, you may review the content once more. Please complete the quiz in order to complete this course.

Take the quiz and score at least 80% to successfully complete the quiz. After passing the quiz, provide us with your valuable feedback in the brief evaluation so that we may continue to improve our courses. The evaluation is not required for successful completion of this course.

Thank you!

HR Learning Management