

Chapter 2

Intro to the Equipment



An **X-ray tube** is a vacuum tube that produces X-rays.



The Collimator is the device that is attached to the x-ray tube that limits the area of the primary beam.



The x-ray table is where patients are placed for radiographic studies when the patient cannot be positioned in an upright manner.



The cassette tray is a device that is built in to the x-ray table. It holds the IR for procedures when it is not appropriate to place the IR on top of the table.



The wall holder is used to hold the IR when we are positioning a patient in an upright manner.



The **image receptor** is the device used to capture the information needed to create the radiographic image.



The x-ray **control panel** is the device we use to set the technical factors needed to create the radiographic image.



The **personnel monitor** is used to measure the amount of radiation that an employee receives at work.



Protective apparel is worn to protect health care professionals or patients from excessive exposure to scatter or secondary radiation.



An **automatic film processor** is used to convert the latent image created on a sheet of x-ray film to a manifest image that can be interpreted by a physician.



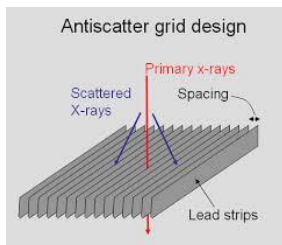
A **view box** is a box with light bulbs in it that we hang radiographs on in order to better see the information that they contain.



An **ID printer** is the device that we use to put the patients information on an analog radiograph.



Left and right **side markers** are used to indicate which side of the radiograph we are reviewing.



A **grid** is placed between the patient and the image receptor. It reduces the amount of scatter radiation that reaches the film.



We use **calipers** to measure the thickness of the body parts that we radiograph. These measurements are used to calculate the radiographic techniques that we use to create the image.



Computed Radiography (CR) is a digital x-ray system that uses a reusable phosphor plate inside of a cassette to create a radiograph that can be stored and viewed using a computer.



Direct Radiography (DR) is a digital x-ray system that uses an array detector built into the x-ray machine to directly capture the information needed to create the radiograph. The information is almost instantly transmitted to the computer near the control panel.



The **P.A.C.S.** system is the computer hardware that allows us to view, store and transmit diagnostic radiographic images.