

## **PHYSICAL REQUIREMENTS**

***Clinical assignment: 8-hour daily shifts***

In order to fulfill the requirements of the Radiography Program at Idaho State University, students must be able to meet the physical demands associated with the Radiology profession, and make clinical judgments using critical thinking.

### **Essential Duties and Tasks:**

Ability to sit, stand, neck/waist bend, or squat to perform a variety of patient care activities.

Ability to walk between departments while transporting a patient on a wheelchair, stretcher or bed, applying 30-70 lbs. of force to initiate the motion.

Ability to lift or apply a lifting force of 50 lbs. or more from the floor to a 34" high gurney or x-ray table in order to assist with patient mobility, repositioning, transfers, or fall recovery.

### **Walking:**

To move the entire body for some distance using a heel to toe gait. Walks constantly in order to transport a patient, process images, move between patient exams, and to move or transport equipment to perform a procedure at bedside on a nursing unit.

### **Standing:**

To maintain the entire body in an erect posture with minimal change in position. Stands frequently in order to work in the radiographic or fluoroscopic suite or while imaging a patient in surgery. The lead apron can weigh up to 25 lbs. during examinations, time varies between 1-4 hours. The student may be required to stand during the entire 8-hour shift.

### **Squatting:**

Flexing forward at the hips/waist with maximum flexion at the knees. Squats occasionally in order to reach supplies and assist with patient fall recovery.

### **Climbing:**

To ascend or descent ladders, stairs, scaffolding, ramps, poles, etc. using feet, legs, and/or hands and arms. Only required in the event an elevator is unavailable.

### **Kneeling**

Bending legs at knees to come to rest on knee or knees. Kneeling during one episode is required for 15-20 minutes.

**Bending at the neck:**

Bends the neck occasionally in order to chart, assist with positioning a patient, assist with positioning an x-ray machine or image receptor. Turns the neck frequently in order to perform radiographic procedures, view patients while setting up controls, and respond to patients.

**Bending at the waist:**

Bends the waist occasionally in order to assist with a lateral transfer of a patient between a gurney or bed and an x-ray table. Bends the waist frequently in order to perform radiographic procedures, view patients while setting up controls.

**Repetitive hand use:**

Performs repetitive hand use frequently in order to sustain a grasp on a gurney and IV pole while transporting a patient, sustain a grasp on the activator bar on the portable x-ray machine, push buttons to expose images. Repetitive hand use during one episode is required for grasp may be sustained for 1-5 minutes at a time while transporting the portable x-ray machine.

**Pushing/Pulling:**

Exerting force upon an object so that the object moves away (pushing) from the force or towards (pulling) the force. Pushes/pulls frequently in order to assist with a lateral transfer of a patient, reposition a patient, move and transport equipment, position the tube crane.

A student may be required to move the portable equipment 10-12 x/shift or the C-arm 0-6 x/shift. The portable x-ray equipment is motorized. A C-arm monitor requires 40 to 70 lbs. of force to initiate motion and 15-20-lbs. of force to sustain motion on linoleum. The monitor cart is 68" tall x 28" wide with horizontal handles at 36½" high. A C-arm requires 30-70 lbs. of force to initiate motion and 15-lbs. of force to sustain motion on linoleum. The horizontal handles are used for steering and are 34" high requiring that the student forward bend; grasp the handles firmly, while pushing the equipment.

The tube crane requires 12-15 lbs. of force to pull it horizontally to the body and is moved using both hands with the arms extended over the head. On the average, the crane is pulled 150 times/shift. It can be moved anywhere in the room.

**Reaching above shoulder, elbow is above shoulder level:**

To extend the hand and arm so that the elbow is above shoulder level. Reaches above the shoulder occasionally in order to reach supplies and position the tube crane. The crane can be positioned from 15-74" from the floor. The tube crane can be moved about 150 times per shift at a variety of heights depending on the studies.

**Lifting:**

To raise or lower an object from one level to another and includes upward pulling. Assist a patient while applying 50 lbs. of lifting force. For instance, assisting a patient off the floor up onto a gurney at 34" high or lowering a patient to the floor.

**Carrying:**

To hold and transport an object in the hands or on the arms, shoulders or back while walking. Imaging receptors and grid caps, 30 lbs.

**Senses:**

Near Vision: 20 inches or less. For charting, computer, set up x-ray equipment, and to function in a radiographic imaging environment

Hearing Sensitivity: Communicate with visitors, MDs and staffs, use the telephone, differentiate alarms and tones on equipment

Feeling: Adequate for fine manipulation