

Radiation Safety Training for WCCHC Employees

Name: _____ Date: _____

Type of Training: ☐ New Hire ☐ Annual ☐ Other

X-Ray services are available at Willow Creek Community Health Center. They can occur at any time during clinic operating hours.

Radiation Protection Basic Principles

Internal contamination occurs when people swallow or breathe in radioactive material. It can also enter the body through an open wound or are absorbed through the skin.

Some types of radioactive materials stay in the body and are deposited in different body organs. Other types are eliminated from the body in blood, sweat, urine and feces.

A person exposed to radiation is not necessarily contaminated with radioactive material. A person who has been exposed to radiation has had radioactive waves or particles penetrate the body, like having an X-Ray.

For a person to be contaminated, radioactive material must be on or inside of his or her body.

1. A contaminated person is exposed to radiation released by the radioactive material on or inside the body.
2. An uncontaminated person can be exposed by being too close to radioactive material or a contaminated person, place, or thing.

Dosimeters are used to monitor radiation levels. A control badge located away from radiation sources monitors background radiation. This is naturally occurring radiation.

Protection Against Radiation Exposure for occupational employees

ALARA (As Low As Reasonably Achievable) regardless of specific source of radiation are as follows:

1. Keep the time of exposure to a minimum.

2. Maintain distance from source.
3. Where appropriate, place shielding between yourself and the source.
4. Protect yourself against radioactive contamination.

The radiation worker can control and limit his/her exposure to penetration radiation by taking advantage of time, distance and shielding. By reducing the time of exposure to a radiation source, the dose to the worker is reduced in direct proportion with that time. Time directly influences the dose received. If you minimize the time spent near the source, the dose received is minimized.

The exposure rate from a radiation source drops off by the inverse of the distance squared. If a problem arises during a procedure, don't stand next to the source and discuss your options with others present. Move away from the source or return it to storage, if possible.

The third exposure control is based on radiation shields, automatic interlock devices, and in-place radiation monitoring instruments. This type of control is usually built into the particular facility. Temporary or portable shields are available for use if needed.

Protective equipment and measures

1. Radiation shielding devices such as aprons, gloves and gonadal shields are inspected on an annual basis.
2. Visible posting in place at all entry points to X-Ray
3. Warning lights illuminate at entry points when X-Ray is active. **(DO NOT ENTER WHEN LIGHTS ARE ON.)**
4. Immediately report any unusual equipment malfunction to fellow users and then to the Site or Clinic Administrator. Do NOT proceed with X-Ray until malfunction is understood and corrected.
5. There are three types of inspections completed on the X-Ray equipment:
 - a. Electrical Inspection
 - b. Annual Preventative Maintenance by West Coast Imaging
 - c. State required Physicist through Sutter Health.

Security

Restrict access only to those who must be in the X-Ray area.

Do not allow unauthorized person to enter the X-Ray area.

Keep the door to the treatment room secured and locked to prohibit entry during presence of radiation.

Declaring Pregnancy

All radiation employees, especially women of child bearing age, are encouraged to carefully monitor their dosimeter badge readings and become familiar with their potential sources of exposure and means of minimizing it.

Occupational exposure to radiation requires special considerations for women who are pregnant. The National Council of Radiation Protection (NCRP) has recommended that this dose be controlled such that no more than 50 mRem be delivered to the fetus in any month.

Employees are not required to declare pregnancy. You can declare or revoke your declaration of pregnancy at any time and without providing reason.

However, if you do decide to declare, Please note the following:

1. Inform your Site Administrator in writing.
2. HR can inform you of your rights regarding your declaration.
3. A fetal badge will be requested for you after you declare pregnancy. If you already wear a dosimetry on the job, you will wear this along with the rest of your normal dosimetry. The fetal badge will be kept on your person during work shifts. Fetal badges are monitored on a monthly basis.
4. If you normally do not wear any type of dosimetry, you will only wear the fetal badge.
5. You will be notified if you are approaching the maximum dose during your pregnancy. If you accumulate the maximum dose, you will be notified that you may no longer work with radiation sources until the pregnancy is complete.
6. For occupational workers who exceed recommended dosage thresholds, alternative work assignments away from radiation source shall be identified.

I have read and understand the Radiation Safety training:

Employee Signature: _____ Date: _____

Administered by: _____ Date: _____