

MCW Radiation Safety Policy

Monitoring Radiation Dose

Purpose: Define the process of monitoring and recording occupational radiation dose to staff

A. External Radiation Dose Monitoring

1. Contact Radiation Safety to apply for a radiation dosimeter.
2. Radiation Safety will assign dosimeters according to the following criteria:
 - a. Adults likely to receive an annual dose in excess of 10% of the annual radiation dose limits,
 - b. Occupationally exposed minors who could exceed 10% of the radiation dose limits for minors,
 - c. Declared pregnant workers likely to receive, in one year, a dose greater than 100 mrem,
 - d. An individual entering a high or very high radiation area, and
 - e. An operator of fluoroscopic equipment
3. Monitoring devices shall be individually assigned and not shared.
4. Whole body dosimeters are to be worn on the body where the greatest radiation dose is anticipated. The whole body is considered the torso, neck, and head. If a lead apron is being used, the dosimeter shall be worn on the outside of the apron at the collar level.
5. Extremity dosimeters shall be worn on the finger where the greatest radiation dose is anticipated.
6. Dosimeters will be exchanged at a predetermined interval. Most badges used at MCW are exchanged quarterly.
7. Notify Radiation Safety of any lost or damaged dosimeters.
8. Notify Radiation Safety of any suspected overexposure or contamination of the dosimeter.
9. Individual radiation dose information is available by logging into the Mirion website or by contacting Radiation Safety.

B. Internal Radiation Dose Monitoring

1. Monitoring (bioassay) for the ingestion or inhalation of radioactive materials may be required. Measurements of internal radionuclides are generally taken by in-vivo by direct measurement or in-vitro by measurement of biological samples.
2. Radiation Safety will measure bioassays according to the following criteria:
 - a. Adults likely to receive, in one year, an intake in excess of 10% of the applicable Annual Limit of Intake (ALI),
 - b. Minors likely to receive, during the entire pregnancy, a committed effective dose equivalent in excess of 100 mrem, and
 - c. Declared pregnant workers likely to receive, during the entire pregnancy, a committed dose equivalent in excess of 100 mrem.