

DOSIRING The extremity dosimeter



Product description:

Monitoring extremities radiation exposure, in particular fingers, is crucial for interventional radiologists and medical staff potentially exposing their fingers to radiation in the course of medical procedures. X-ray imaging and nuclear medicine procedures can cause quite high extremity doses, often close to the legal limits.

Extremity monitoring is complementary to whole body dosimeters and recommended by the ICRP and legally required in many countries. In recent years more and more surgeons and interventional radiologists started to routinely wear our extremity dosimeter since it doesn't interfere with their finger agility due to its small size. International studies like ORAMED prove the effectiveness of ring dosimeters compared to wrist dosimeters in assessing the extremity dose. Thus, while we still offer wrist dosimeters we no longer recommend them.

Our dosimeter ring was designed to attain maximal comfort with following characteristics:

Small and comfortable:

- 2 shapes to fit user's preferences : classic and spiral
- the flexible arms fit any finger size

Fully sealed:

- ultrasound welding technology assures 100% waterproof element sealing. This enables biological decontamination / cold sterilisation of the ring by immersion in liquid decontaminants

label inside:

- wearer name and wear period provide easy and direct wearer identification.
- The ring color-coding matches the whole body wear period colour coding

thin cap to minimize beta filtration:

- The cap has a minimal thickness enabling accurate beta measurements while still being sufficiently robust to resist harsh environments

Legislation varies from county to country but the European harmonisation trend is to require that persons having an elevated extremity exposure risk, normally around 20mSv/year shall wear a ring dosimeter in addition to the whole body dosimeter. The “work situational studies” performed by the radioprotection officer of your organization determines who in the organization shall wear a ring dosimeter.

Sterilization:

Ring dosimeters are often worn under the surgical gloves. Therefore a ring needs only to be decontaminated before use at the same level as the surgeon hands. The dosimeter ring can fulfill this requirement by cold sterilization done by immersion in an appropriate decontamination / sterilization liquid.

Reference: DOSI0001