One system can read up to 5 different dose points. A typical configuration includes the thyroid, left and right scapula.

BELOW: Setup screen is easy to use and allows the user to define the application of interest.

What is the D$_X$posure Software?

The D$_X$posure Software is a software program that works in harmony with the mobileMOSFET Patient Dose Verification System to measure the real-time skin dose that patients receive during interventional and diagnostic x-ray procedures, such as fluoroscopy and CT. This product is unique to other products currently on the market as it yields a real-time dose readout and generates a report for the patient's file. In these days of heightened sensitivity to radiation exposure and potential legal repercussions should side effects result, these two attributes are essential for patient dosimetry.

Why Measure CT/X-ray Dose?

Diagnostic imaging techniques have become increasingly advanced and accurate over time. However with this accuracy often comes a greater dose to the patient. A sick patient may undergo multiple diagnostic imaging procedures, resulting in a high accumulated dose. This issue is particularly important to watch in children, who are more sensitive to the effects of radiation. The D$_X$posure Software allows users to monitor this accumulated dose and tailor diagnostic imaging procedures accordingly.
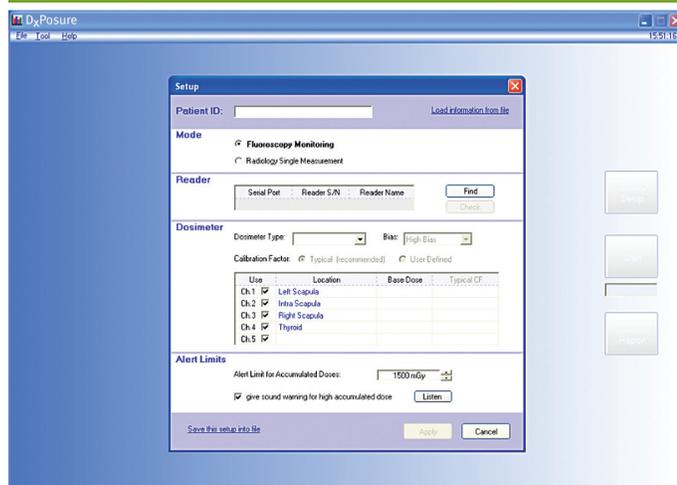

Benefits of using D$_X$posure Software to measure accumulated dose in CT/X-ray Imaging Procedures

- Instantaneous readout
- Dose report electronically generated for patient's records
- Dosimeters unobtrusive in images and to patient
- Measure entrance skin dose and scatter dose to sensitive organs such as eyes and thyroid
- Integrates easily with daily clinic routine
- Verify CT exposure dose in phantoms for imaging protocols

Best medical *canada* ®

Why Measure Fluoroscopy Dose?

X-ray exposure during fluoroscopy procedures can be high enough to cause skin burns and hair loss. Severe conditions such as epilation, radiation induced erythema and blistering, can also be a result of over-exposure during fluoroscopic procedures. Government regulatory bodies have advised hospitals of these potential dangers and recommend that patient entrance skin dose be monitored in certain procedures[1]. The D$_X$posure software has been developed with this in mind.

The D$_X$posure software works in conjunction with the mobileMOSFET Patient Dose Verification System. The system includes a small, battery operated reader module, a wireless transceiver that connects the reader to a controlling PC, and MOSFET dosimeters. Each reader module can support up to five MOSFET dosimeters, affording physicians greater flexibility to measure not only the entrance skin dose, but also other organs of interest such as eyes and thyroid.

1. "Interventional Fluoroscopy, Reducing Risks for Patient & Staff", NIH Publication No. 05-5286, March 2005.

Benefits of Using D$_X$posure Software During Fluoroscopy Procedures

▶ Software clearly indicates dose in real-time
▶ Tracks cumulative entrance skin dose to patient
▶ Report generated electronically with dose and machine (x-ray) set-up parameters
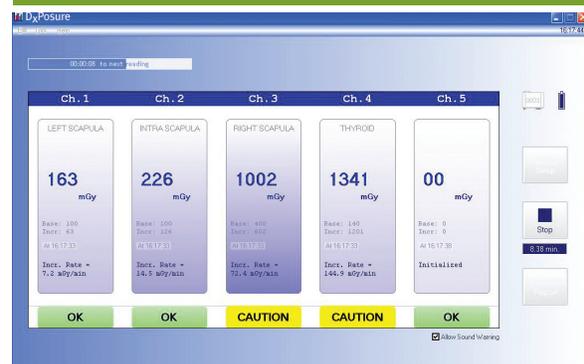▶ Prevents over-exposure
▶ Integrates easily with daily routine

Radiology Applications

Typical Applications	Radiology Skin Entrance Dose	Recommended Dosimeter	Software Mode
CT/X-ray	0.1 to 5 R	High Sensitivity Dosimeter	Radiology
Fluoroscopy	›5 R	Standard Dosimeter	Fluoroscopy

The above table indicates the common energy range for each application mentioned in this datasheet and recommends the ideal dosimeter for that application.

ABOVE: Example of skin injury following a fluoroscopy procedure. **BELOW:** During fluoroscopy procedures the software displays the accumulated patient dose continuously.

Best ®

healthcare for everyone