

What is Interventional Fluoroscopy?

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Your doctor has talked to you about the need for an interventional procedure. They used the term fluoroscopy. But what is that? What is interventional fluoroscopy? In the simplest of terms, fluoroscopy is using X-rays to show your internal body structures in real-time – like a movie. An interventional specialist uses this “movie” to “see” inside your body without the need to perform invasive surgery. Fluoroscopy is an imaging tool that enables physicians to see different internal body systems and their functions.

Unlike a traditional X-ray that takes a single image at a time – a snapshot – fluoroscopy sends a constant (or near-constant) beam to provide live images. Interventional fluoroscopy works by sending an X-ray beam through the part of the body being examined – the region of interest (the ROI). This beam is then transmitted to a TV-like monitor so that your doctor can see this part of your body and its live motion.

Medical imaging procedures like fluoroscopy are non-invasive and play a critical role in helping doctors diagnose and treat diseases and other health issues. Interventional fluoroscopy is used to guide the placement of catheters, stents, or other devices like pacemakers inside the body. It’s also used to locate tumors and other diseases for treatment or in locating blood clots.

Like other medical procedures, there is risk associated with fluoroscopy. The detailed imaging provided by fluoroscopy involves exposure to ionizing radiation. Radiation exposure can cause an increase in the likelihood of cancer in your lifetime. A large exposure to ionizing radiation can cause skin reddening and burns or hair loss.

It’s important that a patient fully understands the benefits of a procedure as well as the potential risks. Medically appropriate fluoroscopy provides clinical benefits that typically outweigh the potential risk of radiation exposure. Even so, all efforts to minimize that risk should be taken.

Doctors and the facilities in which they provide care adhere to a guiding principle of radiation safety called [ALARA](#) – “as low as reasonably achievable.” The idea behind ALARA is that any dose of radiation, however small, must have benefit or it should be avoided. The three basic protective measures of radiation safety are time, distance, and shielding. Time refers to the amount of time radiation is used to generate images. Distance refers to how close someone is to the source of the radiation. While shielding is the practice of putting something between you and the radiation source.

It is not unreasonable for you, as the patient, to ask about the imaging process – the facility and the equipment used. Does the facility follow ALARA techniques? What about the imaging

equipment itself? Does it utilize the latest and best technology to lower the radiation risk to you while providing the valuable imaging your doctor needs?

The interventional X-ray systems designed and built by Omega provide an automatic, hands-free solution to radiation reduction – delivering the benefit of consistent and repeatable radiation reduction to patients and staff beyond anything else in use today.

AI image-guided ROI systems are proven to be safer than non-AI systems and are quickly becoming the new standard of care for interventional imaging. The science on the advantages of AI is clear and [proven in a new study](#) that compares an Omega AI image-guided ROI system to a competitor's non-ROI system.

The risks of radiation exposure are [well documented](#). However, just as technology can improve medical procedures and the systems that are used to perform them, so too can technology help to reduce the risk of radiation exposure. Technology like that provided by Omega in all their interventional fluoroscopy systems.

Interventional fluoroscopy is an invaluable tool in your doctor's arsenal to provide you the best care. It is technology that is commonly used, but there are risks involved with radiation exposure. Know those risks and talk with your doctor about them. Let them assure you that they and their staff have your safety in mind and that they follow the best practices with the best technology available.



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