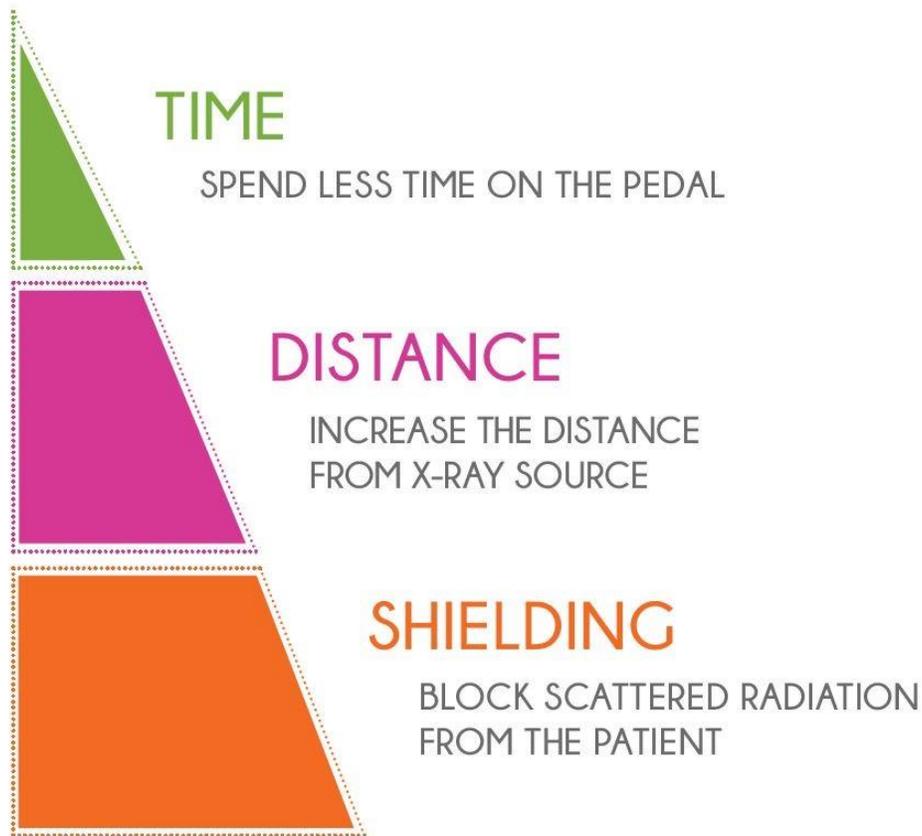


Radiation Exposure and Safety in Cardiology – A Fourth Fundamental of Radiation Safety?

April 6, 2021



womanasone.org

In an [article](#) presented with the American College of Cardiology, Dr. Sheila Sahni et al. takes a look at the issue of radiation safety in cardiology with an emphasis on women. The article looks at the lack of training on radiation safety and the lack of consistent safety policies and procedures. These deficiencies impact not only women cardiologists, but all cardiologists.

There are three fundamentals proposed as key to radiation safety – time, distance, and shielding. Time refers to the amount of radiation used to achieve the needed imaging. Basically, spending less time on the pedal. Distance means increasing the distance from the x-ray source while shielding refers to blocking the scatter radiation reflecting off the patient.

Further aspects of radiation safety are the use of protective equipment (lead garments) and the use of dosimeter radiation badges to limit and monitor exposure, respectively. How the interventional system is angled can also help reduce exposure as can the choice of image acquisitions. Collimation too is an important tool in reducing radiation to both the patient and in scatter radiation.

These best practices are important steps in providing improved radiation safety to women cardiologists – to all cardiologists. With improved safety, perhaps more women would look at cardiology as a specialty. What's more, all cardiologists could be more confident in the safety of their own practices – in their own health.

But is there more? At Omega, we think there is. We would respectively call it a fourth fundamental – technology. Technology can further the best practices of radiation safety. Technology can dramatically reduce radiation exposure to not only physicians and staff, but to patients as well.

When pulsed fluoro was introduced, it was revolutionary. It was technology providing a solution to reduce the radiation exposure for advanced procedures that required longer radiation run times. Even though pulsed fluoro was proven to reduce radiation by about 65% compared to continuous run systems, the technology was not universally adopted immediately. Such is often the case with technology – even when dramatic results are proven.

Omega systems use AI image-guided technology that automatically tracks and collimates to the Region of Interest (ROI). With advanced image processing, Omega systems reduce radiation exposure by up to ~84% while delivering superior image quality. These results are above the reduction provided by the now standard use of pulsed fluoro and cine.

Like pulsed technology before, ROI technology is [proven to provide dramatic results](#) in radiation exposure reduction. Also, like pulsed fluoro and cine before, ROI

technology has not yet been universally adopted. Currently, only Omega systems utilize this advanced technology.

All efforts to reduce the risk of radiation exposure are to be championed, but so too should proven technology. Omega has created a new modality, a new standard of care that obsoletes non-AI/ROI systems that cannot match Omega's proven results in radiation reduction and safety.



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