



Evidence of Risks: Head and Neck Tumors

- Interventionalists have selfreported numerous cases of malignancies
- Among these include many incidence of GMB, the most aggressive & deadly brain tumor with 2yr mean survival from diagnosis
- Hazard Ratio Cardiologists
 ~75-100X more likely to develop
 GBM (underestimate)

Brain and Neck Tumors Among Physicians Performing Interventional Procedures

Ariel Roguin, MD, PhDa**, Jacob Goldstein, MDb, Olivier Bar, MDc, and James A. Goldstein, MDd

Brain tumours among interventional **cardiologists**: a cause for alarm? Report of four new cases from two cities and a review of the literature

by Roguin, Ariel; Goldstein, Jacob; Bar, Olivier

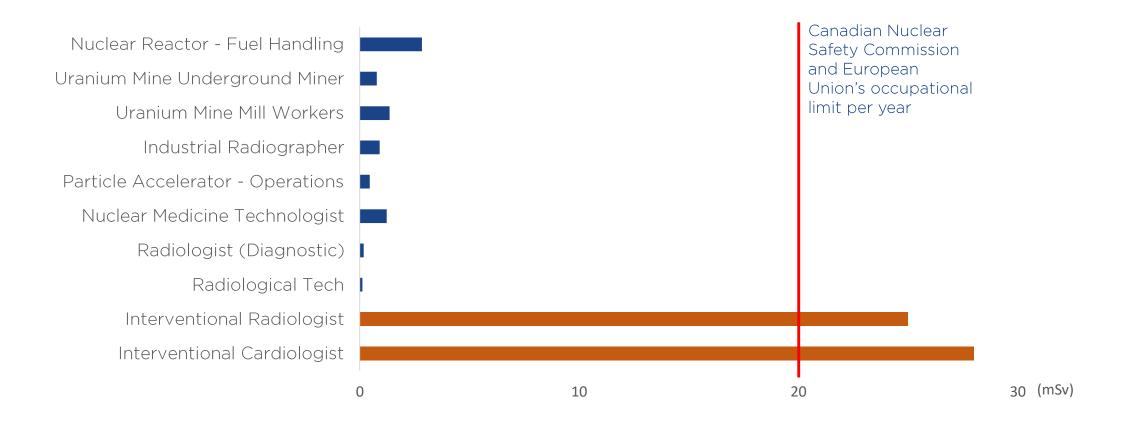
Radiation and Your Brain

Possible measures to reduce radiation exposure in the cath lab.

BY ARIEL ROGUIN, MD, PHD, AND GABRIEL BARTAL, MD, FCIRSE, FSIR



Mean Annual Radiation Dose by Occupation



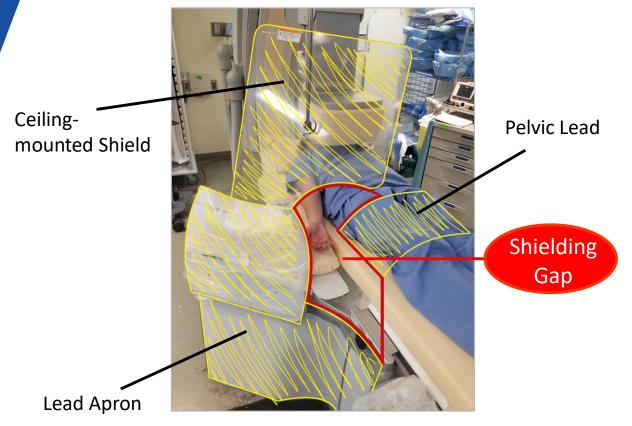
Source: Choudhury, T. et al. (2018), London Health Sciences Center and University of Western Ontario study

Source: Health Canada (2017), Report on Occupational Radiation Exposures in Canada



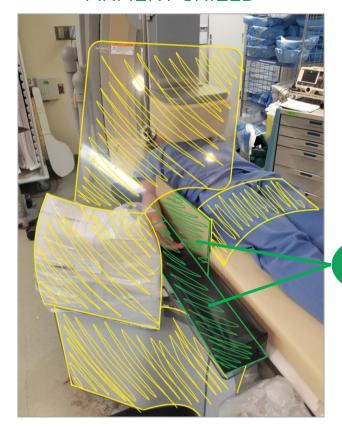
Armery Shield Closing the Radiation Gap

RADATION GAP IN CATH LABS TODAY



Gap responsible for annual exposure equivalent to ingesting 20g of pure natural Uranium

CLOSING THE GAP WITH ARMERY SHIELD

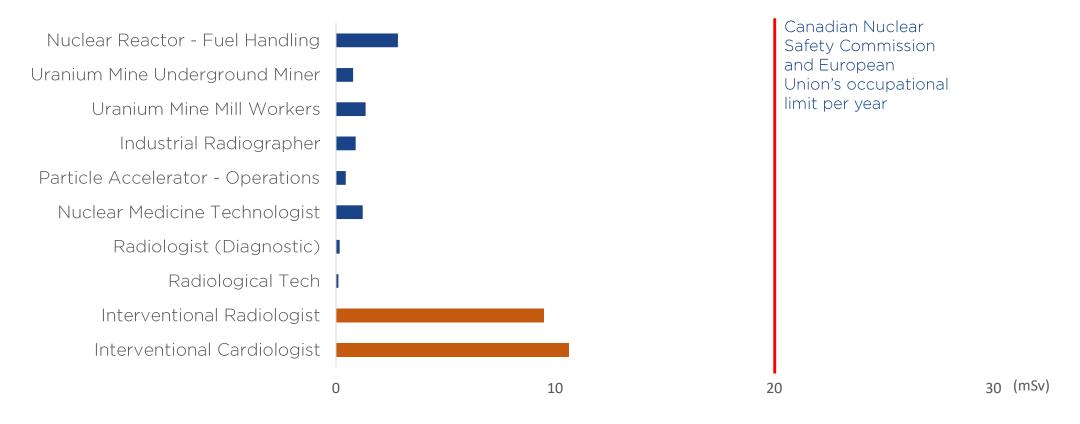


Only technology of its kind with real-world evidence of radiation reduction

Armery Shield



Projected Mean Annual Radiation Dose with **Armery Shield**

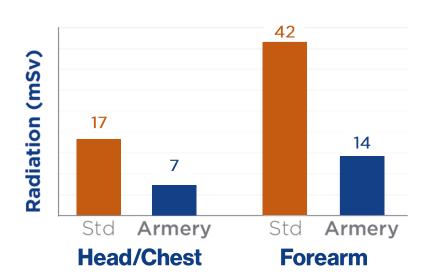


ARMERY SHIELD is the only device of its kind scientifically proven to reduce radiation exposure to within internationally recognized limits for safety



Published Radiation Reduction

- Armery Shield only device of its kind with independent, real-world evidence of effectiveness: Choudhury, T. et al. (2018)
- Significant radiation dose reduction to interventionalist head/chest





TCT-247 Reducing Radiation Exposure to Operators During Invasive Cardiac Procedures with a Novel Lead-Based Arm-Board (RADAR)

Tawfiq Choudhury ¹, Samual Hayman ², Andrew McLellan ², Rodrigo Bagur ³, Shahar Lavi ⁴, Amir Solomonica ¹, Zeev Israeli ¹, Andrew Yadegari ², Terrence McPherson ², Patrick Teefy ², Pallav Garg ²



Head/Chest Level 58% reduction;

 $17.3 \pm 17.2 \text{ vs.}$ $7.3 \pm 10.3 \mu \text{SV}$



Forearm Level 65% reduction;

42.4 ± 48.9 vs. 14.8 ±19.1 µSv JACC =



Thank You!

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