

## STEMRAD®

## Shielding the Warfighter from Gamma Radiation



Nuclear Weapon Detonation



Radiological Dispersal Device



Nuclear Reactor Incidents

- Current solutions protect personnel from alpha and beta radiation but do nothing to block gamma radiation.
- By selectively shielding stem cell rich organs in the pelvic region, StemRad has made protection from gamma radiation possible.
- StemRad's 360 Gamma reduces the probability of cancer due to low dose exposures while preventing early mortalities following high dose exposures.
- ALARA dictates dose reduction through 'time, distance, shielding'. StemRad enables shielding to save lives.













## Reduction in Cancer Incidence



Ovarian cancers 35%



Colon cancers 27%



Bladder cancers 22%



Stomach cancers 19%



Leukemias 19%

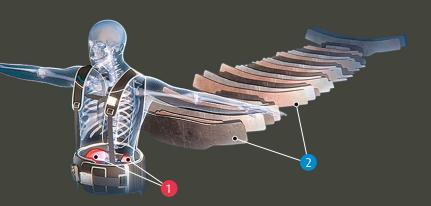
## Prevention of Acute Radiation Syndrome\*

Dose in Sv	1.5	2	3	4	5	6
% Lethality Unshielded	3.5%	<b>6</b> %	<b>25</b> %	<b>50</b> %	<b>80</b> %	95%
% Lethality Shielded	0%	0%	0%	0%	<b>0</b> %	0%

<sup>\*</sup> survival will vary depending on radionuclide energy

1 By sparing a sufficient volume of the wearer's bone marrow, the 360 Gamma enables the body to perform its crucial life-saving regenerative biological processes post-exposure.

2 Patented internal structure ensures optimal protection while minimizing weight. The 360 Gamma accounts for pelvic bone marrow depth and the natural attenuation properties of human tissue.



"While whole body shielding is inherently heavy, partial body shielding is lighter in weight and selectively shields tissues of increased radiosensitivity (i.e. bone marrow) with substantial amounts of shielding material to protect hematopoietic functions; therefore, potentially preventing the acute health effects of exposure to gamma radiation (i.e. Acute Radiation Syndrome -ARS)." OECD Report on Occupational Radiation Protection in Severe Accident Management