



Radiation Incident Mass Casualty Radiation Injury Triage

Produced by the Canadian Nuclear Safety Commission for First Responders

**THE FOLLOWING ARE RECOMMENDATIONS ONLY.
LOCAL OR PROVINCIAL PROCEDURES AND PROTOCOLS MUST BE FOLLOWED.**

To be performed after standard medical triage and decontamination

Always wear personal protective equipment (PPE) when dealing with loose contamination. Immediate care of critical injuries takes precedence over care of radiation injuries and radioactive contamination control.

Time to emesis (vomiting) is an initial but crude treatment indicator for individuals who have been exposed to very high doses of radiation. Physiological responses to radiation doses vary from person to person. Some unexposed individuals will vomit (e.g. due to stress), while others who received very high doses will not.

A gamma dose rate measured one metre from a person's chest is a crude indicator of gross internal radioactive contamination, but is not reliable for all radionuclides. Any information available concerning the radionuclide should be relayed to hospital staff.

Vomiting within 1 hour of exposure	Seek immediate medical care Possibly life threatening if left untreated
Gamma Dose Rate > 1 µSv/h one metre from chest	Seek immediate medical care Possibility of high levels of internal contamination
Localized otherwise unexplained erythema (skin reddening)	Mark area with surgical marker and seek immediate medical care for possible radiation burn to skin
Vomiting 1-4 hours after exposure	Seek medical care for possible high radiation dose
Dose Rate approx. twice background level one metre from chest	In case of persistent external contamination, continue cleaning and monitoring the area. Seek medical care for possible internal contamination
Nausea, vomiting or diarrhea within 24 hours	Seek follow-up medical care for possible external exposure

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