MARO MONTHLY

with Northwell Health's Crisis **Management Team**

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HELLO!

Welcome to another month of Northwell Health Crisis Management Team's newsletter, where you can share, learn about, and explore emergency management topics! Each month we will highlight different topics in emergency preparedness and emergency management, as well as healthcare administration. We encourage you to review our upcoming course offerings and other relevant information!

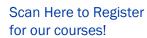
As always, we look forward to sharing our resources, hearing your suggestions, and getting to know you at our trainings.

The July 2023 newsletter will be centered around Radiation Emergencies within the Emergency Management Healthcare Space.











OUR MISSION

To lead the health system and community in an efficient and effective way before, during, and after emergency situations.

OUR VISION

Northwell's Crisis Management Incident **Response Team is** committed to providing the surrounding community with a high-quality learning environment, training resources, and promoting an environment of collaboration with our training partners.



"Learn to respect radiation emergencies rather than fear them."

- Eddie Reyes, RN

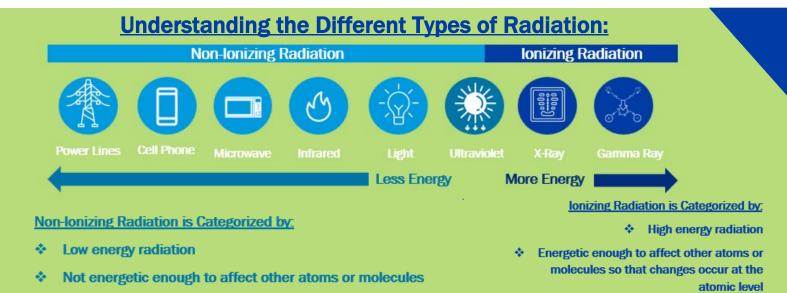


Radioactivity: A natural occurrence on earth, but what is it and why should we care?

Radiation refers to energy that moves from one place to another via waves or particles. Radioactivity is a naturally occurring process that is present in anything from the earth's crust to the microwave in your home. Many forms of radiation pose no risk to health or well-being and can be used for beneficial applications in health care, the environment, energy, and other industries. The question begs to be asked "why do we need to protect ourselves from radiation if it is helpful?". According to the International Atomic Energy Agency, radiation has lower risk at lower doses, but can be associated with higher risks at higher doses. Additionally, different types of radiation require different levels of protection, such as non-ionizing radiation and ionizing radiation which may require fewer and higher levels of protection respectively. It is important that healthcare and emergency management professionals receive radiation related education to respond to radiation events effectively and safely.



See diagram below to better understand ionizing and non-ionizing radiation.



Poses minimal to no health risk

 In high doses can damage cells or organs or in extreme cases death

<u>Radioactive Atoms:</u> The Origin Point of Ionizing Radiation

Unstable, or radioactive atoms, that release energy to transition to a more stable state release ionizing radiation. This process is known as radioactive decay and can result in various forms of ionizing radiation. During a radiation emergency it is important to know the difference of each and what tools can determine the type(s) of radiation present in the environment. *Source: (IAEA, 2023)*

See below to review the several forms of radioactive decay:

Alpha Radiation	Beta Radiation	Gamma Rays	Neutrons
 Particles can not penetrate the skin and can be shielded with a sheet of paper. If taken into the body via breathing, eating or drinking can negatively impact health. 	Can pass through water but can be shielded by a sheet of aluminum.	 Electromagnetic form of radiation. Some forms can pass through the body without causing harm while others can have negative impacts. Levels can be reduced by thick walls of concrete and lead. 	 Uncharged particles that do not produce ionization particles directly, however, can give rise to alpha-, beta- , gamma- Penetrating particles that are shielded with large masses of concrete, water, or paraffin.

Interesting Fact:



"Each type of radiation has different properties which affect how we can detect it and how it can affect us."

- Eddie Reyes, RN



Radiological Emergency Considerations

Radiation emergencies can occur because of accidents or intentional acts intended to cause harm to others. Regardless of the intent of a radiological emergency, in the healthcare setting, it is important to understand how to prepare for and respond to radiological emergencies as patients may present to hospitals because of radiation exposure.

For those without official training in radiation emergency response, it is crucial to understand that exposure to radiation should be as low as possible. According to the United States Environmental Protection Agency, minimizing radiation can be achieved by the following:

- 1. Get Inside: Many forms of harmful radiation are minimized by the walls of buildings. Try to stay in a room with no windows, such as a basement or rooms in the middle of a house.
- 2. **Stay Inside:** Do not leave your place of shelter until told to do so by police, fire, or government officials. While inside, remove all clothing worn outside, wash off hair, and gently clean skin with water. These actions will help remove any radiation particulates.
- 3. **Stay Informed:** Watch TV or listen to the radio regarding updated instructions from emergency response officials.

Additionally, implementing the protective practice "Time, Distance and Shielding (TDS)" can aid in radiation protection (OSHA, 2023).

- **Time** refers to minimizing time spent in areas with identified elevated radiation levels.
- Distance refers to maximizing distance from the source of radiation.
- Shielding refers to the use of appropriate materials to function as a barrier between radiation source and an individual.

Although there are several guidelines for minimizing radiation exposure, the best protective measure is to enroll in official radiation response training. Official training can expand upon radiation mitigation, response, and recovery effort knowledge. To inquire about available radiation trainings please contact <u>CrisisManagementTraining@northwell.edu</u>.

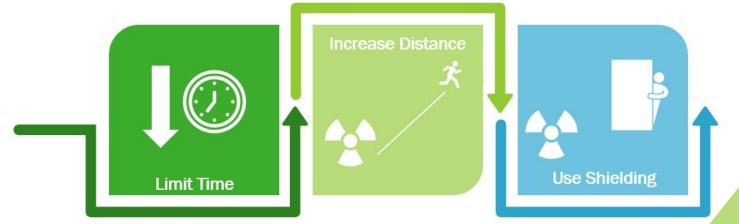
Radiation Protection: Time, Distance and Shielding *To Reduce Radiation Exposure, Do the Following:*

Health System Highlights: The MARO RTC at Northwell Health's Crisis

Management Pilots Radiation Course for Hospital First Receivers

At the start of November 2022, PER-370: Hospital First Receivers-**Detecting Radioactive Contamination** was presented by Counter Terrorism Operations Support (CTOS) at the MARO RTC Nassau training facility. In attendance, were several stakeholders throughout the MARO region including emergency management, hospital administration, and radiation subject matter expert personnel. The course highlighted the essential knowledge and skills necessary for first receivers and health care workers to respond to a radiological event in the safest manner possible. The course included didactic learning and hands-on instruction to enhance students understanding of course material. Below is a picture of the course instructors in action!





Source: Centers for Disease Control and Prevention





We encourage you to listen to our July 2023 podcast, hosted by Director of Business Continuity, Glenn Schaefering. The July podcast focuses on radiation emergencies. Mr. Schaefering is joined by Emergency Manager's Eddie Reyes and Tom Brandon. Together, the three discuss what radiation is and why it is important for healthcare professionals, first responders, and emergency managers to be up to date on radiation education. Additionally, response and personal protection considerations are highlighted.

LISTEN HERE

UPCOMING COURSES



Course: AWR-140 Radiation **Awareness**

Date: 08/01/2023

Location: Webinar- Register through the Crisis Management Website



Course: eFINDS Train the Trainer

Date: 08/10/2023

Location: In-Person- Register through Northwell Crisis Management Website



Course: Mass Casualty Incident Workshop

Date: 08/19-20/2023

Location: In Person- Register through the Crisis Management Website

For the full list of upcoming courses visit the Crisis Management Website!

August 2023 MARO Monthly Topic: Active Shooter Response & Communication De-**Escalation Tactics**



Submit your questions about Active Shooter Response & Communication De-escalation by scanning the QR code!





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