

The Safety Net

Eastern Virginia Medical School’s Environmental Health and Safety Newsletter
https://myportal.evms.edu/research/safety/environmental_health_and_safety

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Special Interest Articles:

- National Drug Take Back Day
- Volunteer Procedures
- EH&S Emergency Cold Storage
- SteraMist Options

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Earth Day 2023 – Invest In Our Planet

Earth Day has been an expanding movement since beginning in 1970. April 22nd marks the anniversary of a young activist, Denis Hayes, who was recruited by congressional representatives to organize “teach-ins”. He traveled to several college campuses around the nation to educate the new generations of the impacts of climate change. The official name change to “Earth Day” sparked interest nationwide and inspired 20 million Americans to advocate for a cleaner environment. By the end of 1970, the creation of Earth Day led to the establishment of the United States Environmental Protection Agency and several environmental laws, such as the National Environmental Education Act, the Occupational Safety and Health Act, and the Clean Air Act.

Earth Day’s theme for both 2022 and 2023 is “Invest In Our Planet.” The mission is to diversify, educate, and activate the environmental movement worldwide. The Earth Day organization is the world’s largest recruiter to the environmental movement, with over 150,000 partners in over 192 countries to provide positive action for the planet.

The Earth Day organization has multiple campaigns and programs. The End Plastic Pollution campaign helps people from the community understand the harsh impacts of plastic pollution on both human and environmental health and how small changes in everyday actions can help lessen the problem. The Canopy Project has planted tens of millions of trees since 2010. Trees are planted in areas that need rehabilitation, including after a natural disaster. Through education, the Earth Day organization strives to inform the masses of climate change and teach ways to help combat this global issue.

Changes can be made at both a local and national level. Choosing sustainable fashion choices is an easy way to help combat the tons of waste that the fashion industry creates. Fast fashion produces 150 billion garments a year, 87% of which end up in landfills. Organizing a community cleanup can help your local biodiversity thrive. Environmental Health & Safety holds a community cleanup through the Keep Norfolk Beautiful campaign several times a year. Take part in Earth Day by doing your part to help the environment.

EARTHDAY.ORG. (2021, July 2). *The History of Earth Day*. Earth Day. Retrieved March 29, 2023, from <https://www.earthday.org/history/>

EARTHDAY.ORG. (2023, March 29). *Earth Day 2023 | Invest in Our Planet™*. Earth Day. Retrieved March 29, 2023, from <https://www.earthday.org/earth-day-2023/>



National Drug Take Back Day

Have patients been asking what to do with their old prescription medicines? Do you have expired medications yourself? Well there's good news! Saturday, April 22, 2023 is DEA National Take Back Day!

The National Prescription Drug Take Back Day aims to provide a safe, convenient, and responsible means of disposing of prescription drugs, while also educating the general public about the potential for abuse of medications. There will be multiple collection sites, including:

- Chesapeake Police Department – Precincts 2, 4, and 5
- Virginia State Police Area 47 Office – 1557 S. Military Highway

If you know of medications that need disposal before or after April 22nd, there is another resource. The Virginia Beach Police Departments operates a [Prescription Medication Take Back Program](#). Citizens are able to drop off unused medications at any Virginia Beach precinct; look for the blue lock box! The Program accepts:

- All prescription and over-the-counter medications
- Vitamins
- Veterinary medications
- Liquid medications (in sealed bags)
- Loose pills (in sealed bags)
- Medicine patches
- Needles, syringes, Epi-pens



EPA Hazardous Waste Generator Improvements Rule

The [hazardous waste generator regulatory program's final rule](#) includes over 60 changes to the hazardous waste generator regulations that clarify existing requirements, increase flexibility, and improve environmental protection. One of the changes is revisions to the labeling requirements for containers and tanks of hazardous waste. EPA believes it is important that employees, transporters, downstream handlers, emergency personnel, and EPA and state inspectors know about the potential hazards of the contents in containers being accumulated, transported, and managed, whether on-site and/or off-site so that the hazardous wastes are managed in a safe and environmentally sound manner. To this point, labs shall properly label all hazardous waste containers using the "Hazardous Waste" label pictured.

HAZARDOUS WASTE	
Name:	Date:
Bldg/Room:	Phone #:
KEEP CONTAINER CLOSED AT ALL TIMES	
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
Do Not Fill Within 2" of Container Top	
CONSTITUENT(S)	%
FOR WASTE PICKUP CALL EVMS EH&S 757-446-5798	

If you need labels or you need more of them, please contact EH&S. You can read more about the Hazardous Waste Generator Improvement Rules at www.epa.gov.

Mold: It's Everywhere!

Molds produce tiny spores to reproduce, which continuously waft through the indoor and outdoor air continually. While most molds are not necessarily hazardous, mold spores can trigger allergy and asthma problems.

Water in your home or workspace can come from many sources. Water can enter by leaking pipes or by seeping through floors. The amount of moisture that the air in your home can hold depends on the temperature of the air. As the temperature goes up, the air can hold more moisture. High moisture can encourage biological pollutants to grow.

To control mold growth, you must control moisture. Reduce indoor humidity to 30-60%. Dry water-damaged areas within 24-48 hours. Fix leaky plumbing or other sources of water intrusion. Wash mold off hard surfaces with detergent and water, and dry completely. Replace absorbent materials (like carpet and ceiling tiles) that become moldy.

If you have a mold issue here at EVMS, contact [EH&S](#).

Source: U.S. EPA, <https://www.epa.gov/mold/resources-public-health-professionals>

Volunteers Information and Procedures

It's the time of year when new faces pop-up all over the place; it's time for the volunteers!

Whether going into a research lab or shadowing a clinician, EVMS Human Resources (HR) must account for all volunteers. Contact Erika Sage (SageEL@evms.edu, 757-446-6043) to start the process. HR will dispense the Volunteer Forms packet consisting of these forms:

- Job Description (to be completed by the supervisor)
- Human Resources Volunteer Application
- Confidentiality Statement
- Release and Waiver of Liability

The completed packet must be returned to HR; they will forward the information to EH&S and Occupational Health. This will determine the volunteer's safety training and health requirements. More information and restrictions may be warranted if biohazardous, radioactive, or animal materials are part of the volunteer's work.

HR will communicate the training requirements to the volunteer's department; the department will notify the volunteer of his/her training requirements. HR will contact the department when the volunteer has been cleared for duty and may then be issued a badge.

For more information consult the EVMS [Volunteer Policy](#).



Semiannual Radioactive Material Inventory!

Spring is finally here. Spring brings warmer weather, extended daylight, and sunshine - Spring is the season for semiannual radioactive material inventory at EVMS. Formal requests and inventory forms will be sent to each Authorized User. These are to be completed and returned to EH&S. The inventory form includes instructions on how to complete it and the EVMS's Radioactive Material Inventory policy. In addition, the decay spreadsheet will be emailed, which will help your data compilation process.

State and Federal regulations require completion of the inventory form. If you have any questions or concerns, please feel free to contact the EHS office at 757.446.5798.

EH&S Emergency Cold Storage (Options and Procedures)

Environmental Health & Safety (EH&S) has multiple freezers available when emergencies occur and are available 24/7. Currently, there are four -80° freezers, one -20° freezer, and another -20° freezer that utilizes liquid nitrogen for cold storage. All of the EH&S freezers have [Minus80 Monitoring](#).

To be allowed access to the Emergency Freezers, you must first contact EH&S through phone, email, or in person at the EH&S Office (in Lewis Hall 2132) during regular working hours. For after-hours and weekends, call the Emergency Freezer Pager. Callbacks are usually received in a few minutes. During the call, coordination for freezer access will start; someone from EH&S will unlock the freezer for you. You will be responsible for placing your materials into the freezer. These materials should be labeled with the PI/clinician's name and the contents within the container being stored. While placing objects within the freezer, we require that the freezer door being left open for no longer than one minute to maintain the temperature within the freezer.

After materials are placed within the freezer, you will be provided with a "Description of Emergency Freezer Material" form to fill out. The storage of materials in the Emergency Freezers is provided for up to 60 days. You will be sent a reminder approximately ten days before the deadline to remove materials from the freezer. The materials will be returned to the laboratory if no response is received.

-80°C Freezer Best Management Techniques

TIPS FOR BEST SAMPLE STORAGE

Minimize ice build-up
Keep door openings to a minimum and to short lengths of time (30 seconds to one minute is normal)

Clean door gaskets
Use a cloth to wipe these at least once a month



Clean the condenser coils
Vacuum coils at least every 6 months or more often if there is dust or heavy foot traffic near the unit

Change the condenser filter
Clean the filter monthly and change it out at least annually



Utilize your freezer racks
Know where your samples are located before you retrieve them to minimize exposure to ambient temperatures



Remove frost and ice build-up
Periodically scrape the frost and ice from the inner doors, chamber and vacuum-release port



Defrost
Do this at least annually

EVMS

ENVIRONMENTAL
HEALTH & SAFETY

Emergency Freezer Access

Lewis Hall 2132

Office: 757.446.5798

Pager: 757.415.0014




SteraMist is Ready for You!

IEH&S has a TOMI™ SteraMist™ system for all your decontamination needs! We have the SteraMist Environment

1. It was developed by the Defense Advanced Research Projects Agency (DARPA) after the 2001 anthrax attacks, and the technology was classified until 2009. TOMI™ SteraMist™ BIT™ (Binary Ionization Technology) works by converting hydrogen peroxide (H_2O_2) into a hydroxyl radical.
2. The BIT process takes a 7.8% H_2O_2 solution and passes it through a cold plasma arc to change the molecules into free radicals that are about 2 microns in size and get a very quick six log kill.
3. The small particle acts like a gas, penetrating cracks and crevices where aerosols and sprays cannot penetrate.
4. The BIT solution is applied in 5 seconds per square foot with a 7 minute contact time. Effective whole room treatment time of just over 75 minutes (including application time, contact time, and aeration time) can be achieved using the Environment System.
5. The product is safe, easy to use and leaves no by product, residue or noxious fumes; and best of all it does not rust or corrode any of your equipment due to the low concentration of H_2O_2 used. No wipe, no rinse, non-corrosive and is a visible fog which disperses as a gas. Spaces are safe to enter once the hydroxyl radical is below 1 ppm.



TOMI SteraPak



TOMI SteraMist Environment System

6. The produced hydroxyl radical allows aeration time to be extremely quick. The application phase facilitates concentration of Ionized Hydrogen Peroxide (IHP) in the treatment area, and time is determined by the number of application nozzles used, enclosure materials, environmental conditions, and treatment volume/area. TOMI's products consistently provide maximum efficacy from validated cycles as measured by a 6-log reduction (99.9999%), the standard for sterilization.

To schedule the decontamination of your biosafety cabinet (BSC), clinical space, or room fogging, call (757-446-5798) or email ehs@evms.edu. The cost for these services: a flat \$15 fee for BSCs, while the cost of non-BSC surface and room areas depends on space(s) to be decontaminated.

Ask the S.O.B.

Q: Dear S.O.B.,

My PI likes to wear sandals/Crocs and shorts when the weather gets warm. Is it OK for me to wear them in the lab even if I am not doing any lab work?

- Sox N. Sandals

A: Dear Sox,

Short answer: no. Longer answer: Upon arriving at the laboratory, whether you are working at the benchtop or not, proper lab attire is required. This includes pants or long dress, covering the ankles and closed-toe shoes. Following OSHA’s Laboratory Standard, [29CFR1910.1450](#), and EVMS’s [Chemical Hygiene Plan](#), Section 10.4, the following shall not be worn in the lab:

- Shorts or Short Skirts
- Sandals or other open-toed shoes
- Loose or dangling clothing or jewelry
- Unrestrained long hair

If you have questions or need assistance with the process, please contact EH&S at x5798 or ehs@evms.edu.



Safety Office Boy to the rescue!

Notes from the Office

EH&S Training Courses.

Course	Date/Time	Location
Chemical Hygiene Plan	April 20, 2023 9:30 AM - 12:30 PM	Lewis Hall 2162
	May 18, 2023 9:30 AM - 12:30 PM	Lewis Hall 1033
	June 1, 8, 15, 2023 9:30 AM - 12:30 PM	Lewis Hall 2162
Radiation Safety in the Laboratory	Contact EH&S	
Respirator Fit Test Training Biosafety in the Laboratory Biological Materials Shipping Autoclave Safety Training OHSP Training	Available on BioRAFT!	https://evms.bioraft.com/
HAZCOM Bloodborne Pathogens Biological Safety in the Clinical Laboratory	Available on Blackboard!	https://evms.blackboard.com/