Why You Should Care

Spilling a biological substance, whether it is a cell line, human or animal blood or other bodily fluids, viral vector, recombinant/synthetic nucleic acids (r/sNA), biological toxins, or actual pathogens, can have a range of consequences, depending on the type of spill, the volume, and the location, along with how you clean it up. Identifying where spills could happen can help you determine what clean up and decontamination supplies you need to have quick access to.

If you think you have been exposed during the spill or cleanup activities, clean any exposed areas according to the GBP for Biological Exposures and seek medical attention immediately.

Biosafety Level 2 (BSL2) Key Steps before Cleanup:
1. Avoid inhaling possible airborne material, notify others and make sure everyone quickly leaves the room, and close the door.
2. Post every door to the space with a warning sign (see Page 3).
3. Remove contaminated clothing, turning exposed areas inward, and place in a biohazard bag (to be autoclaved later).
4. Allow aerosols to dissipate for at least 30 minutes before reentering the laboratory.

Biosafety Level 1 (BSL1) (including r/sNA spills) and BSL-2 Cleanup:
1. Wash all exposed skin with soap and water.
2. Report the incident immediately to your supervisor.
3. Evaluate whether you have the supplies and knowledge to clean up the spill. If not, request help by contacting 911.
4. Assemble cleanup materials (disinfectants, paper towels, red biohazard bags, sharps disposal container, and forceps).
5. Put on protective clothing (lab coat, gloves, booties, mucous membrane protection).
6. Cover the area with disinfectant soaked paper towels (or 2N NaOH if the spill involves biological toxins) and then carefully pour disinfectant around the spill. Make certain that the disinfectant chosen will inactivate the biohazardous or infectious materials. Household bleach is your best bet, made up fresh in a 1:10 dilution.
7. Avoid spreading the contaminated area by placing extra paper towels around the perimeter of the spill, and work toward the middle. Use more concentrated disinfectant as it is diluted by the spilled material.
8. If the spill occurred inside the biosafety cabinet, keep it running, and make sure to wipe down all interior surfaces, including the grilles, the seams, and lift out the work surface to get into the plenum if necessary.
9. Allow at least 15-20 minutes contact time.
10. Use tongs to pick up any sharp objects and discard in a sharps disposal container.
11. Use tongs or a broom and dustpan (don't ever use your hands) to remove the saturated paper towels since there may be sharps under the paper towels, and place all the cleanup materials into a sharps disposal container. Smaller pieces of glass may be collected with cotton or paper towels held with forceps. If no sharps were involved in the spill discard the materials into an autoclave bag.
12. Soak up the remaining disinfectant and spill with fresh paper towels, and place the materials into a biohazard bag.
13. Re-apply fresh disinfectant to the spill site (air dry or wipe down with disinfectant-soaked towels after a 10 minute contact time). Place all contaminated paper towels and any contaminated protective clothing into a biohazard bag.
14. Identify and treat surrounding areas that may have received splashes with fresh disinfectant (look on furniture, freezers, etc.).
15. Note about bleach: Bleach solutions are not to be used on metal surfaces as corrosion may result. If bleach must be used, perform a final wipe of affected surface with ethanol or water to remove residues.
16. Remove PPE and wash hands and exposed skin areas with soap and water.

Report the details of the spill event through the University’s Accident reporting System. https://rmps-prod.hosting.cornell.edu/accinj/

Questions? Contact EHS!
www.ehs.cornell.edu 255-8200 askEHS@cornell.edu
17. Important Phone Numbers:

In cases of emergency, keep these numbers handy:

- **Dial 911 from the lab** or **255-1111 from your cell phone** if you think this is something you can’t/shouldn’t handle alone. Notify a lab mate and your supervisor as soon as you can…don’t be afraid to ask for help.

- **Cornell Health Occupational Medicine 255-6960.** If you prefer seeing your personal physician, please notify Cornell Health the next business day so that they can help follow up with any related response activities.

- **EHS 255-8200** if you have non-emergency questions. Do not call EHS if you are having an emergency.

Where to get training and more information

- **Talk to your lab manager** and/or PI to become familiar with where your spill supplies are, where in your lab there have been spills before and additional steps you can take to maintain safety in the lab

- **Contact EHS** for tailored, hands-on spill response training in your lab or at our training lab

Visual Guide

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<th>![Image 1]</th>
<th>![Image 2]</th>
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To remove sharps from a spill site, use tongs, hemostats, cardboard, or other equipment that will prevent your hands from coming into direct contact with the sharp object.
(hang this sign on every door leading to the lab if you have a spill)

DO NOT ENTER:

Biological Spill Has Just Occurred

____________  ____________
(Date)         (Time)

Contact

__________________________
(full name)

__________________________
(phone number)

for more information

Questions? Contact EHS!

www.ehs.cornell.edu  255-8200  askEHS@cornell.edu