



"Safety Comes First"

Case Department of Occupational and Environmental Safety

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Service Building, 1st Floor

Phone: (216) 368-2906/2907

FAX: (216) 368-2236

Website: <http://does.case.edu>

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Why Wear a Laboratory Coat?

The answer to this question can of course be found in the DOES Laboratory Safety Manual available online at the DOES website (does.cwru.edu): *"Wearing a laboratory coat is required whenever you are in any laboratory on campus."* But do you ever wonder why this is the case?

In the simplest of terms, the laboratory coat provides an extra layer of protection from chemical splashes and accidental fires in the laboratory. The coat is intentionally designed to be loose fitting and easily removable so that if an accident does happen, you can quickly take off the laboratory coat and hopefully mitigate any health effects from chemical exposure and/or physical harm from fire. Sometimes, however,

even when the policy is clear, people can forget. And forgetting this simple rule can have dire consequences.

For example, on December 29th, 2008, a graduate student was using a syringe to remove a small quantity of t-butyl lithium from a sealed container. T-butyl lithium is a pyrophoric chemical, meaning that it will ignite when exposed to air. This student was wearing rubber gloves (not fire resistant), goggles, and a synthetic sweater (highly flammable) with no laboratory coat. She was using a syringe to obtain the required amount of chemical and pulled the plunger out too far, exposing the chemical to air causing it to flash. Her clothing was set on fire. Sheri Sangji died on January 16th due to 2nd and 3rd degree burns over 43% of

her body.

Unfortunately, Ms. Sangji's case is not an isolated one. A 37-year-old male laboratory technician in a geology laboratory was dissolving sedimentary rocks with 70% hydrofluoric acid (HF). He was wearing two pairs of wrist length rubber gloves and polyvinyl sleeve covers only. He knocked over a small quantity (100-230 ml) of
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Why Wear a Laboratory Coat? (con. from front page)

The point of these stories is not to elicit fear, but to address a common misapprehension some laboratory workers believe, i.e., "It can't happen to me."

HF into his lap. He sustained acid burns on 9% of his body surface. When he was admitted to the hospital he was hypothermic and hypocalcaemic (low level of calcium in blood serum). His right leg was amputated 7 days after the incident. He subsequently died from multi-organ failure 15 days after hydrofluoric acid spill.

In another case, a laboratory researcher was pouring chloroform through a gel column. Pressure built up in the column causing the glass to shatter spraying chloroform onto the worker's face, eyes, and clothing. He suffered 2nd degree burns on both arms.

The point of these stories is not to elicit fear, but to

address a common misapprehension some laboratory workers believe, i.e., "It can't happen to me." Could wearing a laboratory coat have prevented the deaths and injuries as a result of these accidents? Possibly.

For instance, in the first case, maybe the laboratory coat catches on fire instead of the young woman's sweater and she is able to remove the coat before she is burned too badly.

In the second case, maybe the hydrofluoric acid takes a split second longer to permeate through the laboratory coat, allowing the technician to quickly remove the coat lessening the amount of acid that reaches his epidermis.

In the final case, maybe the laboratory coat absorbs much of the spray from the column, preventing the skin exposure.

It is certainly possible that if laboratory coats were worn in these situations the result would have been better. What is clear is that not wearing a laboratory coat did nothing to prevent these tragic injuries. Quite simply, follow this simple rule—WHENEVER YOU ARE IN THE LABORATORY, WEAR YOUR LABORATORY COAT.

For more information about requirements of PPE in the laboratory please go to DOES website @ does.cwru.edu

Where is DOES?

If you're new to Case (or simply haven't been to visit us yet), we are located in the Service Building on the 1st floor just off Circle Drive between the Health Sciences Library to the east and the Powerhouse Building to the west. For clarity, call x2906/2907 or check our website (<http://does.case.edu>) for an interactive map before your visit. Keep in mind that much of the information and services (e.g., Safety Services manuals and forms, upcoming training sessions, online training sessions, past newsletters, etc.) that DOES provides can be found conveniently online at (<http://does.case.edu>) at any time.

H1N1 Reminders—Staying Educated and Taking Necessary Precautions

According to the CDC, H1N1 Influenza 2009 is a strain of influenza that is similar to the influenza strain that struck the world in 1918 killing over 30 million people. The so-called “Spanish Flu,” was particularly notable in its ability to spread quickly from one infected person to the next.

Similar to the Spanish Flu of 1918 and other strains of influenza, H1N1 2009 is highly contagious. It is spread mainly from person to person through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

Symptoms of H1N1 2009 include (but are not limited to) the following:

- Fever
- Cough
- Sore throat
- Body aches
- Headache
- Nausea

- Vomiting
- Diarrhea

******You should call or go to the doctor IF you or someone you know has these symptoms.***

******If you are a student, you should contact your health care provider to determine proper treatment options or contact the University Health Service at 216-368-4539 or 216-368-6150.***

How is H1N1 2009 treated?

The new H1N1 2009 virus is sensitive to the antiviral drugs Tamiflu and Relenza. The CDC recommends those drugs to prevent or treat H1N1 2009; the drugs are most effective when taken within 48 hours of the start of flu symptoms. But not everyone needs those drugs; many of the first people in the U.S. with lab-confirmed H1N1 2009 recovered without treatment.

The Department of Homeland Security has released 25% of its

stockpile of Tamiflu and Relenza to the 50 states. Health officials have asked people not to hoard Tamiflu or Relenza.

Is there a vaccine commercially available against the new H1N1 2009 virus?

No. But as this newsletter goes to print, the CDC and the World Health Organization have targeted mid-October 2009 for the release of an effective vaccine. The first batch of vaccines will be made available to those populations at highest risk of complications from infection, i.e., pregnant women, children under the age of four, people with compromised immune symptoms. After these populations have been served, the vaccine will become available to the general population.

It's a lengthy process—it takes months of testing.

I had a flu vaccine this season. Am I protected against H1N1 2009?

No. This season's flu vaccine wasn't made with the
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H1N1 Reminders—Staying Educated and Taking Necessary Precautions (con. from page 3)

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flu virus in mind; no one saw this virus coming ahead of time.

If you were vaccinated against flu last fall or winter, that vaccination will go a long way toward protecting you against certain human flu virus strains. But the new H1N1 2009 virus is a whole other problem.

To minimize the risk of infection, we strongly recommended that you and others around you adhere to the following simple guidelines:

1) Wash your hands frequently with soap and warm water not alcohol-based cleaners. Alcohol-based cleaners are for temporary use only.

Alcohol-based cleaners are for temporary use only until you are able to wash with soap and water.

2. Cover your mouth and nose with your arm as opposed to your hand when you cough or sneeze. Coughing and/

or sneezing in your hand spreads germs since most people tend to shake hands or touch things frequently.

3. Please encourage those that are sick to stay at home so as not to spread the germ to others. Coming to work sick will spread the germ quicker.

As this newsletter goes to press, over 550 US citizens have died from H1N1 2009 or complication resulting from H1N1. For comparison, the CDC notes that between 30,000 and 40,000 people die in the US each year from influenza.

THIS DOES NOT MEAN THAT H1N1 SHOULD BE TAKEN LIGHTLY.

However, perspective is necessary. Following the guidelines provided in this article will minimize infection risk.

The University's Response

It is important to note that CWRU has been exercising a plan for a possible influenza pandemic for some time and has many special communications, training, and administrative responses already in place. Furthermore, the Influenza and Emerging Diseases Task Force Committee that includes the front line of service (i.e., administrative and academic response leaders) has been meeting on a frequent basis to ensure all response elements are in place since the emergence of the H1N1 2009 as a likely pandemic threat.

At this time, the H1N1 epidemic has progressed to the point that it is likely that symptomatic individuals could have acquired the infection from a variety of contacts within the United States. Moreover, this strain of H1N1 is likely to spread quickly during the coming flu season in

H1N1 Reminders—Staying Educated and Taking Necessary Precautions (con. from page 4)

late fall and could present with different infective virulence and antibiotic sensitivity properties at that time. Therefore, it will be important for everyone to take advantage of all available protective measures as the fall approaches. For more details on the University's response to H1N1 2009, please go to <<http://www.case.edu/news/flu/faqs/swinefaq.html>>.

Your best defense against H1N1 2009 is to be proactive and responsible. Again, you can do this best by following the sensible precautions outlined in this article. Be safe!!!

Sources: Centers for Disease Control and Prevention (<http://www.cdc.gov/>)
World Health Organization (WHO) (<http://www.who.int/en/>)



Safety Goggles and Glasses: Keeping Them Clean

(Originally Published in January 2008 —DOES Newsletter)

Dirty safety glasses can be very irritating and can lead to the hazard of reduced visibility. Therefore, it's important that workers clean their safety glasses (and other personal protective equipment) periodically. However, there's more to cleaning than just wiping the lenses clean with a shirt.

How to Clean Your Safety Glasses

Several methods for disinfecting eye-protective equipment are acceptable. The most effective method is to disassemble the goggles or spectacles and thoroughly clean all parts with soap and warm water.

- Carefully rinse all traces of soap and replace defective parts with new ones.
- Swab thoroughly or completely and immerse all parts for 10 minutes in a solution of germicidal deodorant fungicide.

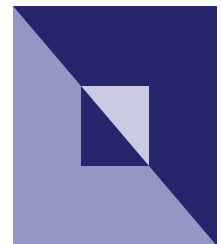
Remove parts from solution and suspend in a clean place for air drying at room temperature or with heated air.

Do not rinse after removing parts from the solution because this will remove the germicidal residue that re-tains its effectiveness after drying.

When to Clean Your Safety Glasses

There are many situations where safety glasses should be cleaned:
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“Dirty safety glasses can be very irritating and can lead to the hazard of reduced visibility.”





Safety Goggles and Glasses: Keeping Them Clean (continued from page 5)

- Eye and face protection equipment that has been previously used should be disinfected before being issued to another employee.
- When employees are assigned protective equipment for extended

periods, the equipment should be cleaned and disinfected regularly.

- Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.

If you have any questions about the proper care of your safety goggles or safety glasses, please contact DOES @ x 2907

“Safety Services is requiring all laboratories generating chemical waste to keep a log that consists of weekly inspections of all containers containing waste.”

State of Ohio Waste Log Requirement Reminder

The State of Ohio regulations require that generators and their satellites (laboratories) keep leakage logs for the storage containers used for chemical waste. Therefore, Safety Services is requiring all laboratories generating chemical waste to keep a log that consists of weekly inspections of all containers containing waste.

The log must be in a bound book (not a binder) with dates of inspections, name of inspector, and the status of the waste container at that time (acceptable or leaking).

It is suggested that each

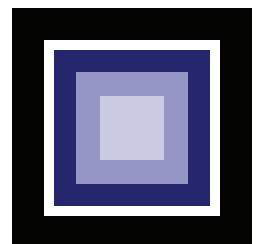
primary investigator choose a member of his staff to conduct the weekly inspection and to keep the log in the laboratory area so that Safety Services can also audit these logs at inspection time.

The importance of this log cannot be overstated. Similar to the label on hazardous waste on each waste container, failure to check the log can result in a substantial fine to each investigator for each period of non compliance.

It is our goal to keep all laboratories in compliance with undisrupted

research because of EPA error.

Should you have any questions, please feel free to call DOES at 368-2907. We will be happy to assist you.



Upcoming Training Sessions*

IMPORTANT NOTE: While all laboratories must attend training at DOES, labs must hold specific training in the CHP and ECP as it pertains to the actual work they do. Labs will also need an outline of the CHP and ECP training and a sign in sheet to accompany. Store the sign-in sheet and outline with the CHP and ECP. It will be asked for during lab inspections.

New Hazard Communication (Right-to-Know) Training

Retraining is required annually.

DOES Small Meeting Room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED!* - Please call 368-2907

New Radiation Safety Training

Retraining is required annually.

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED!* - Please call 368-2906

New Laser Safety Training

Retraining is required annually.

DOES conference room - Service Building 1st Floor

PREREGISTRATION IS *REQUIRED!* - Please call 368-2906

FOR THE FOLLOWING CLASSES:

Laboratory Safety Retraining

Regulated Chemical Retraining

Hazard Communication (Right-to-Know) Retraining

Bloodborne Pathogen Retraining

Radiation Safety Retraining

Laser Safety Retraining

Respirator Safety Retraining

Please retrain on the Internet at <<http://does.case.edu>> and click on Training.

Print test and fax or mail it to the DOES office.

If your training is more that one year overdue, then you must attend the training class in person and cannot retrain online.

FOR THE FOLLOWING CLASSES:

New Laboratory Safety Training

New Regulated Chemical Training (Formaldehyde, Benzene, Methylene Chloride, Vinyl Chloride, etc.)

New Bloodborne Pathogen Training

New Respirator Safety Training

New BSL-3 Safety Training

Retraining is required annually.

DOES Conference Room - Service Building 1st Floor

PREREGISTRATION IS REQUIRED! - Please call 368-2907

***THIS IS A TRUNCATED LIST OF OUR OFFERINGS. As always, consult our website (<http://does.case.edu>) for a full schedule of training sessions.**



Please remember that our updated DOES website provides many resources to meet your safety needs. The DOES website (<http://does.case.edu/>) includes all of the following resources:

- **Safety Services Manuals and Forms**
- **Archived DOES Newsletters**
- **Training Class Schedules**
- **Staff Information**
- **MSDS**
- **Important Safety Links**
- **Our Mission Statement**
- **Contact Information**

If you have any questions about our website, please feel free to contact us at ext. 2906/2907

DOES STAFF

W. David Sedwick, Ph.D., (wds), Director and RSO Radiation Safety.
Marc Rubin (mdr6), Associate Director of Chemical and Biological Safety
Felice Thornton-Porter (fst2), Assistant Director and Asst. RSO, Q.A. Specialist
Shirley Mele (smm5), Manager/Ergonomic Coordinator
Gwendolyn Cox-Johnson (gxc13), Dept. Assistant II
Jason May (jason.may), Dept. Assistant I
Ronald Tulley (rxt33), Technical Writer

Chemical Safety

Robert Latsch (rnl2), Specialist II
Bill DePetro (wjd11), Specialist II
Tom Merk (tlm8), Specialist II
Jon Birkes (jon.birkes), Specialist II
Edwin Filppi (edwin.filppi), Specialist II
Mary Ellen Scott, Ph.D. (mas35), Specialist II
Anna Dubnisheva (anna.dubnisheva), Specialist I

Radiation Safety

Yelena Neyman (yxt13), Specialist I
Charles Greathouse (cxg118), Analyst Programmer I
Joe Nikstenas (jen), Operations Supervisor, Specialist II
Victoria Cook (victoria.cook), Specialist I
Sylvia Kertesy (sylvia.kertesy), Specialist I

**Remember, all back issues of the DOES Newsletter can be found online at
<http://does.case.edu> Simply click on the "Newsletter" link in the left-hand column!**

**Department of Occupational and Environmental Safety
Case Western Reserve University
(216) 368-2906/2907 FAX: (216) 368-2236
(E-mail) does@po.case.edu (www) <http://does.case.edu>**