

The background features a complex network of blue lines and arrows. Some lines are solid, while others are dashed. The arrows point in various directions, creating a sense of movement and connectivity. The overall aesthetic is clean and modern, typical of a professional or academic presentation.

IS MY WORKSPACE OUT TO GET ME? CONTROLLING OFFICE HAZARDS

UB Business Days

Thursday, October 24th, 2024 11:00 – 11:40 am

Niagara Falls Convention Center

Room 6 - Porter-Deveaux

 **University at Buffalo** The State University of New York

Today's Speakers from EH&S

Joe Raab
Director

Bob Adams
Asbestos Program
Manager

Justin Miller
Safety Engineer

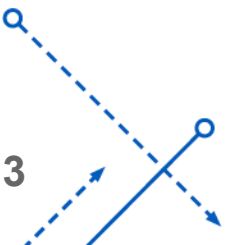
Karen Peissinger
Industrial Hygienist



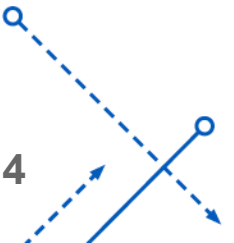
2024 UB Office Space Data

(Courtesy of David Barnas, Campus Planning, via Physical Space Inventory)

Site	ASF	Space Count	% Space Count
UB Downtown	352,458	2102	20.73%
UB North Campus	887,259	5,349	52.76%
UB Off Campus	44,777	291	2.87%
UB South Campus	434,899	2,396	23.63%
TOTAL	1,719,313	10,138	100%

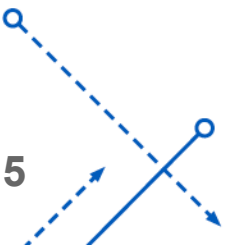


Is my office out to get me?



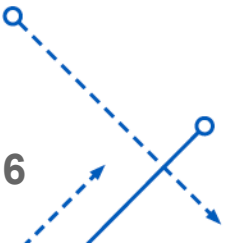
Office Hazards and Concerns

- Office Ergonomics
- Manual Materials Handling (Lifting)
- Slips, Trips and Falls
- Cuts
- Struck By Injuries
- Other Physical Injuries



Today's Presentation: Focus on Three Components of Many Offices that Pose Potential Risk

- Asbestos
- Electrical Hazards
- Mold



The background features a complex network of blue lines and arrows. Some lines are solid, while others are dashed. The arrows point in various directions, creating a sense of movement and connectivity. The overall aesthetic is clean and technical.

ASBESTOS: IT'S IN OUR BUILDING?

Bob Adams

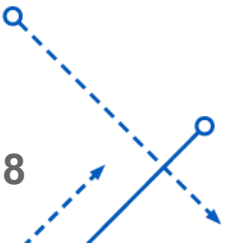
Asbestos & Lead Coordinator

Environment Health & Safety

 **University at Buffalo** The State University of New York

Today's Discussion

- Asbestos Awareness
 - What is asbestos, historical uses, health effects
- The UB Asbestos Program
 - What we do to keep UB safe

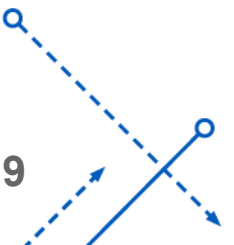


What is Asbestos?

Asbestos is a naturally occurring fibrous mineral mined from the earth

- Many desirable properties

Recognized as a serious health and safety hazard



Uses and History

- Fire resistant (2400 degrees F)
- High tensile strength
- Electrically non-conductive
- Chemical resistance
- Acoustic insulating properties
- Excellent matrix/binding agent



Uses and History

- Used as long as 4500 years ago
 - Egyptians, Persians, and Romans all used asbestos
- Mining increased with industrialization in the late 19th century
- Industry exploded during WWII
 - Fireproofing on Navy ships
- After WWII it was used in thousands of consumer products



Uses and History

Historical applications include:

- Floor Tile
- Transite Panels
- Mastics
- Baseboard
- Roofing
- Siding
- Joint Compound / Mud
- Fire Blankets
- Pipe / Tank Insulation
- Spray-On Fireproofing and Acoustical Insulation
- Duct Insulation / Tape
- Gaskets
- Plaster
- Stucco
- Paint
- Brake pads
- Almost anything!

Asbestos Diseases

- Asbestosis
- Lung Cancer
- Mesothelioma
 - All of these diseases have long latency periods
 - 10-40 years between exposure and disease onset
- Dose-response
 - The longer and higher the exposure, the higher the incidence of disease

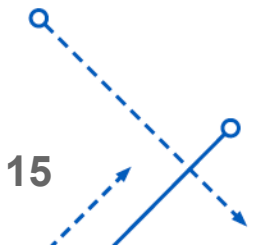


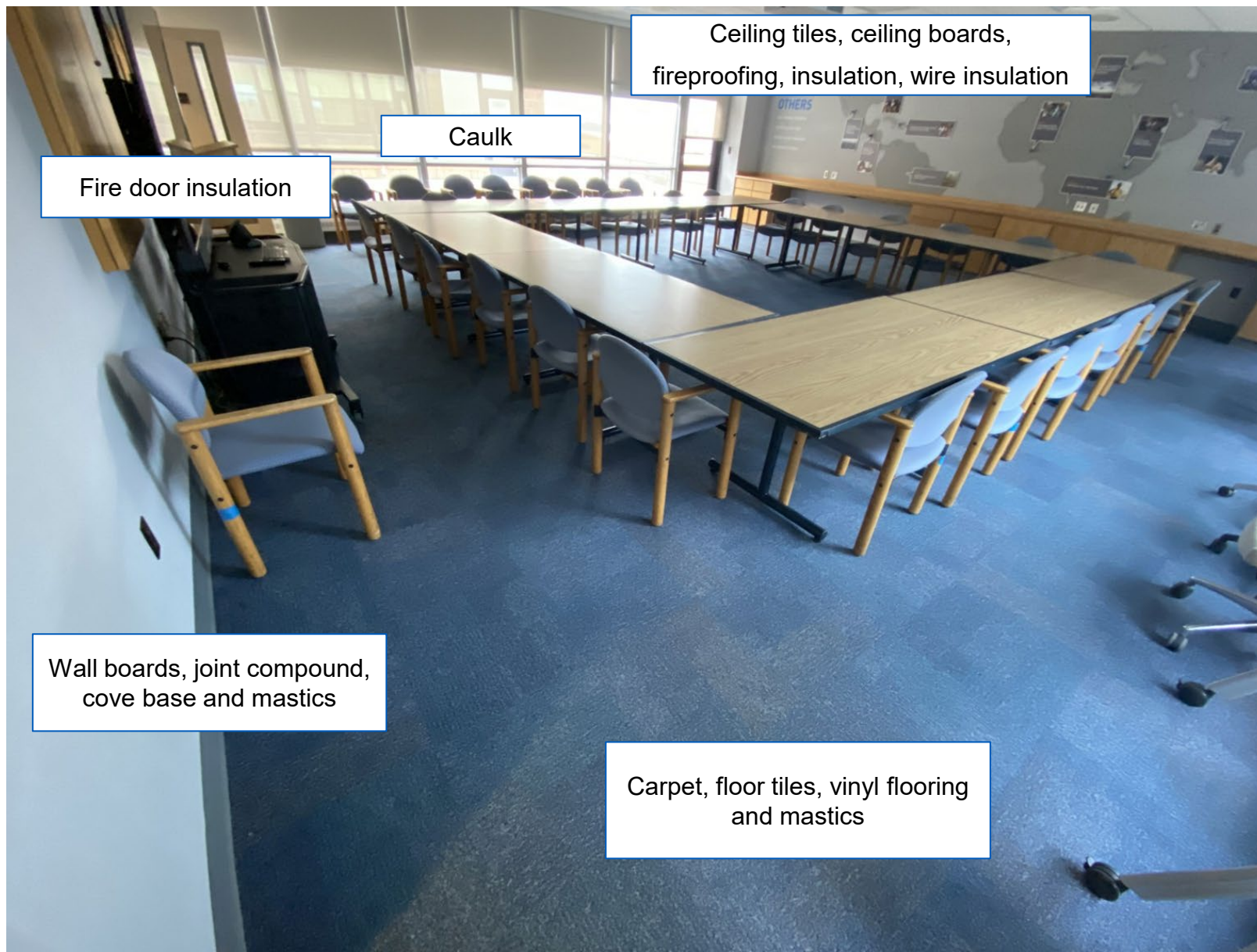
Regulations

- OSHA 29CFR 1926.1101
- EPA 40CFR763, Asbestos Hazard Emergency Response Act (AHERA)
- 12 NYCRR Part 56

What We Do

- Make sure work happening on campus does not release asbestos fibers into the air
 - Provide records for capital projects
 - Check materials for facilities work orders
 - Routine checks on abatements happening on campus





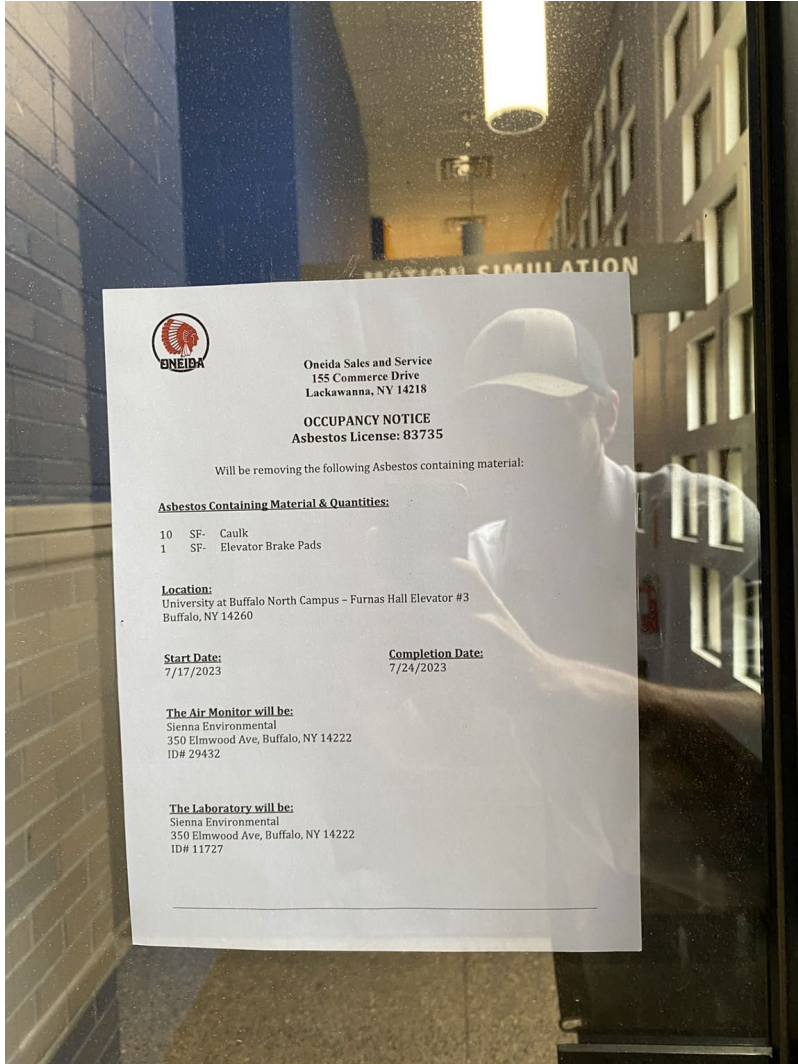
Fire door insulation

Caulk

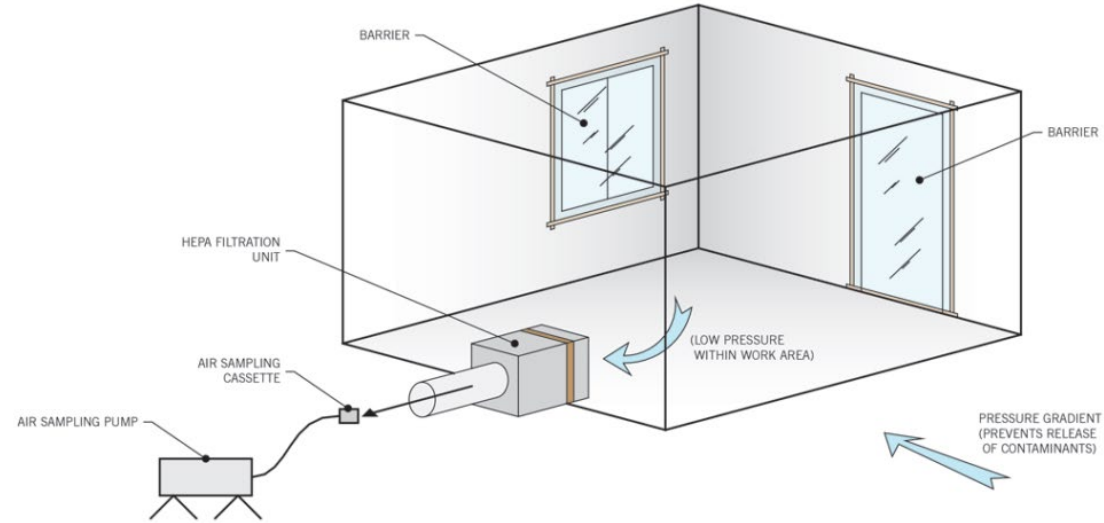
Ceiling tiles, ceiling boards,
fireproofing, insulation, wire insulation

Wall boards, joint compound,
cove base and mastics

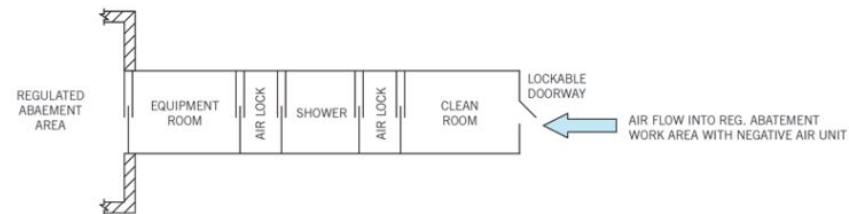
Carpet, floor tiles, vinyl flooring
and mastics



Contaminated Work Area with Negative Air Unit



Decontamination Unit





ELECTRICAL SAFETY IN THE WORKPLACE

Justin Miller

Safety Engineer

Environment Health & Safety

 **University at Buffalo** The State University of New York

Statistics

Electrical Fatalities in the Workplace

2011–2021

Contact with or exposure to **electricity** continues to be one of the **leading causes of workplace fatalities and injuries** in the United States. Between 2011 and 2021, there was a total of **1,201 workplace fatalities** involving electricity reported by the Occupational Safety and Health Administration (OSHA) and **1,653 electrical fatalities** reported by the Bureau of Labor Statistics. During this period, 69% of all electrically related fatalities happened in **non-electrically related occupations**.

Workplace Electrical Fatalities: Bureau of Labor Statistics and OSHA

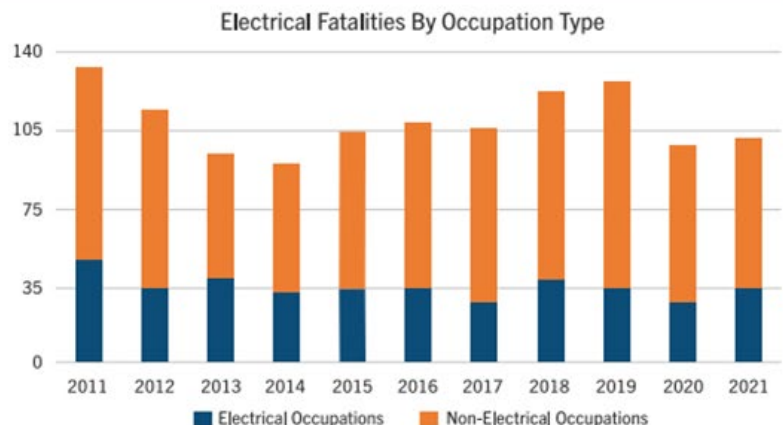


118 occupations were involved in electrical fatalities
31% of fatalities were in electrical occupations
69% of fatalities were in non-electrical occupations
1.2% average decrease in non-electrical occupations electrical fatalities
0.89% average decrease in electrical occupations electrical fatalities

*OSHA reports only account for completed accident reports **Total workplace fatalities as reported by the BLS

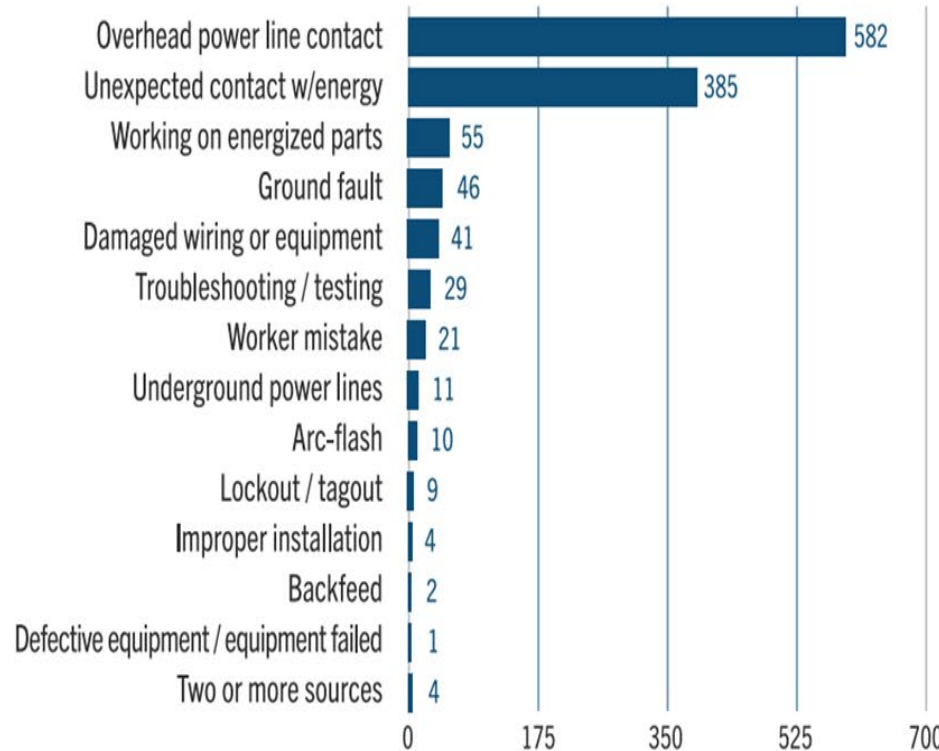
Top 10 Occupations Involved in Electrical Fatalities

- Electricians **15.15%**
- Laborers, except construction **10.07%**
- Construction laborers **8.99%**
- Electrical power installers and repairers **8.49%**
- Tree trimming occupations **5.33%**
- Electricians' apprentices **3.25%**
- Heating, air conditioning, and refrig. mechanics **2.83%**
- Painters, construction and maintenance **2.75%**
- Roofers **2.16%**
- Truck drivers, heavy **1.92%**

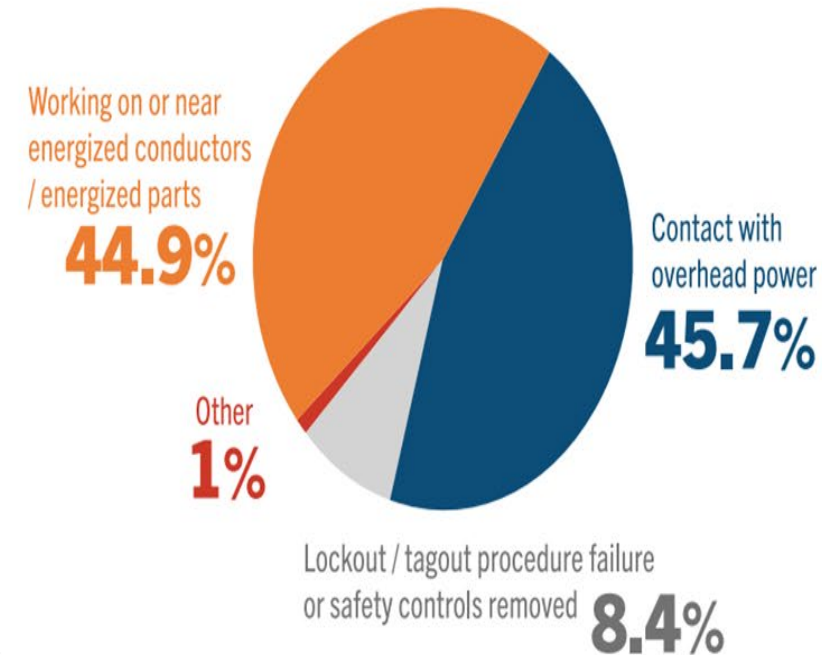


Statistics Continued

Source of Electrical Fatalities, All Workers



Cause of Electrical Fatality, All Workers



Please **share** this **free** resource to save lives



www.facebook.com/ESFI.org



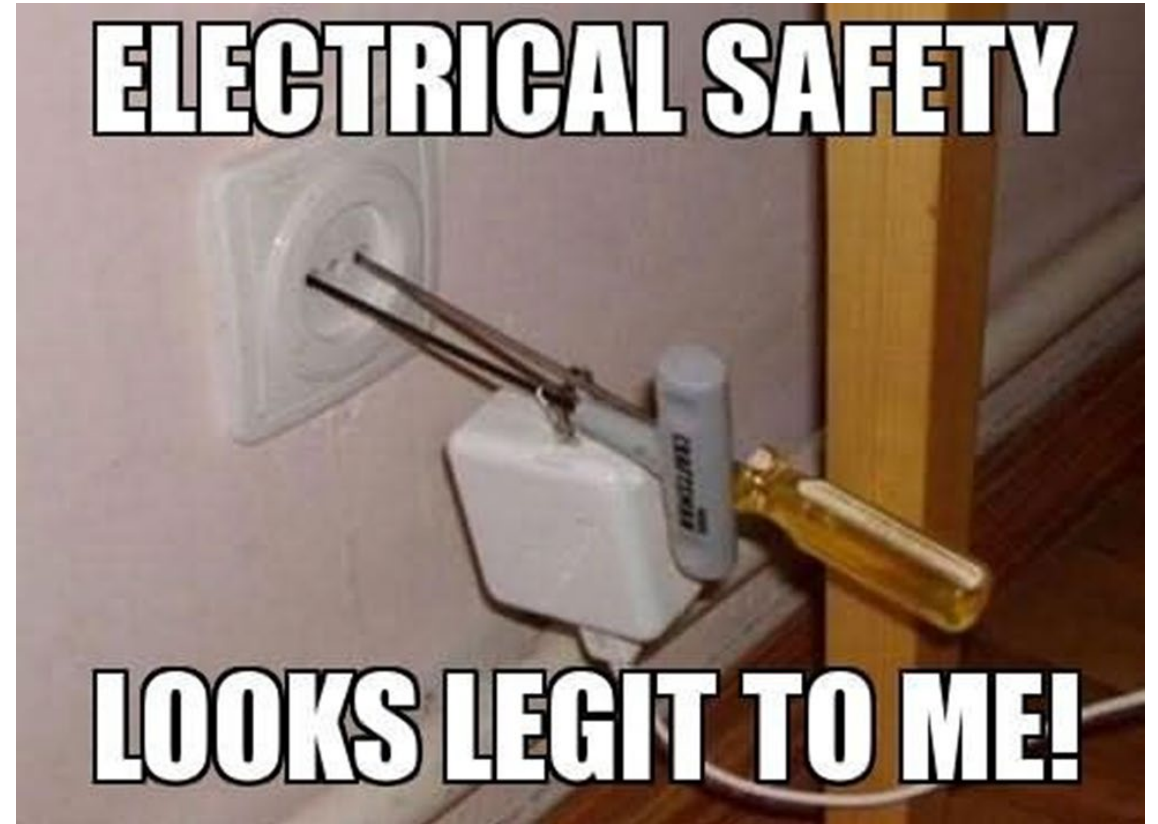
www.twitter.com/ESFI.org



www.youtube.com/ESFI.org

Some Electrical Hazards to Consider

- Power Strips
- Extension Cords
- Lights and Ballasts
- Space Heaters
- Frayed Cords



Electrical Cords

- If a cord is damaged, throw it out or have it repaired
- Frayed cord can lead to electrical shocks
- Avoid unplugging equipment by pulling on the cord
- Do not plug extension cords into other extension cords (daisy chain)



Power Strips

- Only plug one power strip into an outlet box
- Do not plug power strips into extension cords or other power strips
- Must be supported and not hanging by the cord



2023 Outlet Fire at UB

- Fire Department responded to very hot outlet fire that had penetrated wall cavity.
- They were able to extinguish fire.
- Likely cause determined as electrical.
- Three electrical heaters in vicinity
- Investigation determined that a single 1800 watt heater and any additional device plugged in could have been enough to overload the surge protector



Space Heaters

- 36 inches of clearance
- Avoid High Traffic Areas
- Plug Directly into wall outlet
- Lonely space heaters can get angry
- Tip over automatic shut off



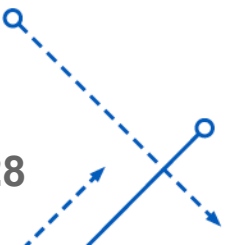
Grounding Prong

- Cords with ground prong removed – not allowed
- Three prong to two prong adapters – not allowed
- These create additional shock risk to user
- Ground is what trips the circuit in case of a fault



UB Electrical Shock Example

- In 2005, wood planer with improperly wired plug.
- Connected to 480 V service instead of 220 V.
- Evidence indicated employee touched metal frame of the planer and a conduit on the wall.
- Became part of circuit and unable to remove himself.
- Co-worker heard screams and unplugged the planer.
- Subsequent investigation revealed electrical leads improperly connected resulting in planer being energized.
- Could have been a fatality if working alone.



Lights and Ballasts

- Please do not attempt to change your own lights in the workplace
- Many lights have backup power
- Installing lights can expose an untrained person to electrical shock



Electrical Shocks

- If an electrical shock occurs, seek medical treatment right away
- Electrical shocks can lead to heart problems up to 24 hours after an incident
- For on-campus emergencies, call UB Police at (716) 645-2222, not 911
- Be aware of where your workspace AED is located



The background features a complex network of blue lines and arrows. Some lines are solid, while others are dashed. The arrows point in various directions, creating a sense of movement and connectivity. The overall aesthetic is clean and modern, with a focus on geometric patterns.

MOLD ROADSHOW: A BRIEF OVERVIEW OF INDOOR MOLD

UB Business Days

October 24, 2024

Presented By: Karen Peissinger

Environment Health & Safety

What Are Molds?

- Molds are a subgroup of fungi.
- Mold species are in the thousands.
- Molds grow as a fluffy mat made up of thread-like mycelium.
- Mold spores can be released in the air.
- Molds are ubiquitous.
- There is no such thing as *“toxic black mold”*.



http://www.diffen.com/difference/Mildew_vs_Mold

How Do Molds Grow?

- Molds need three things to grow:
 - ✓ Proper temperature
 - ✓ Source of nutrition
 - ✓ Moisture content
- Remove one of these and mold will not grow.
- This is like removing one leg of a three-legged stool, it will not function.



What Good Are Molds?

- Penicillin
- Biopesticides
- Chemicals
- Enzymes
- Cheeses
- **Fungiture** like the Shrüm Stool
- Sneakers (made from faux leather called Mylea™)



<http://en.wikipedia.org/wiki/Penicillin>



<http://www.botany.hawaii.edu/faculty/wong/BOT135/Lect16.htm>

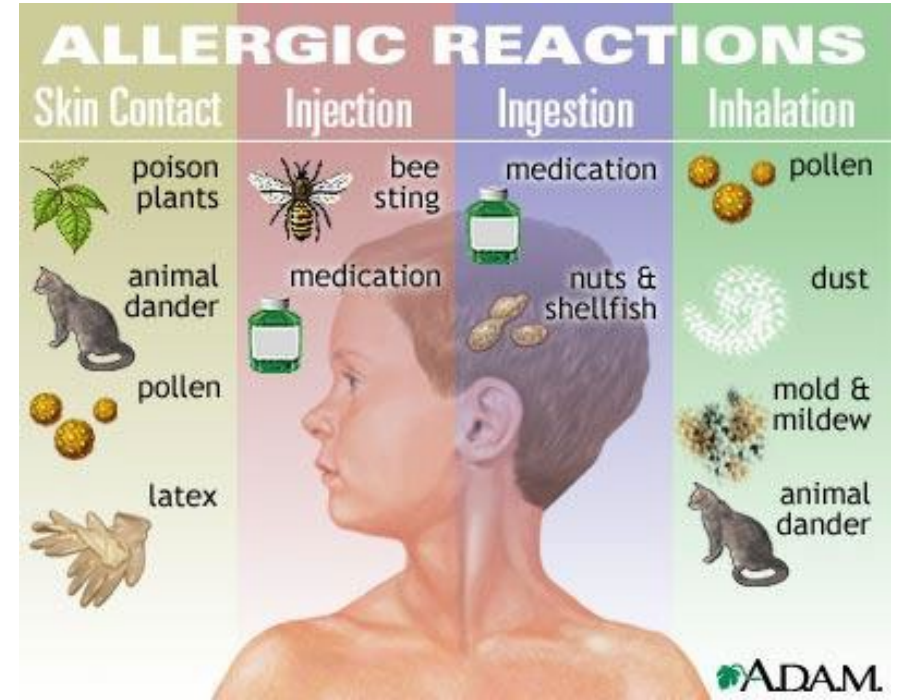


Bottom photos: <https://mycl.bio/>

How Can Molds Affect Health?

- Molds may cause or aggravate allergic symptoms or breathing conditions.
- It is rare for healthy people to contract pathogenic fungal infections. (e.g., histoplasmosis, coccidioidomycosis – Valley Fever)
- For those with underlying diseases/conditions, they can be subject to opportunistic infections. (e.g., cryptococcosis, invasive aspergillosis)

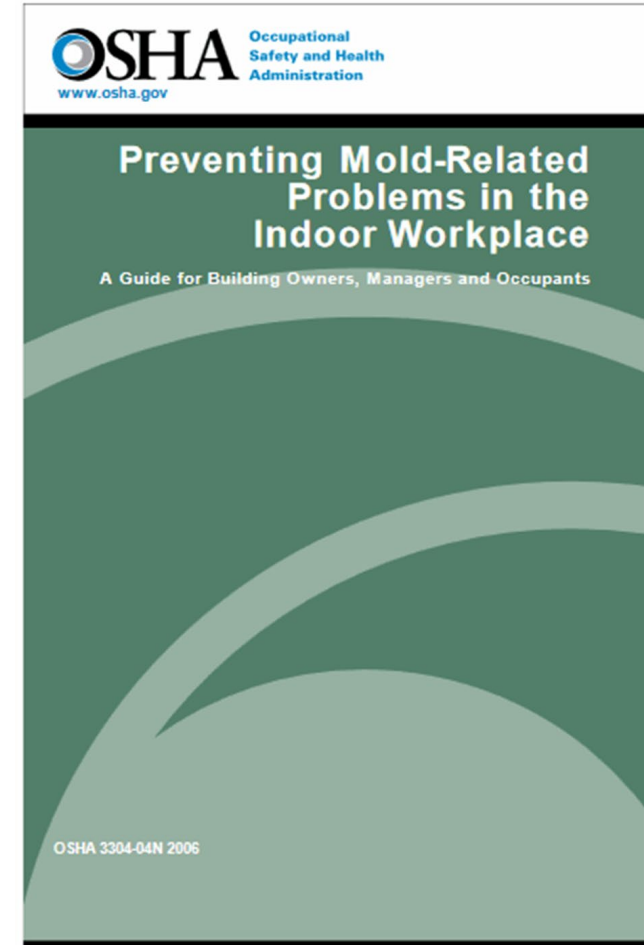
(Disease reference: <http://www.cdc.gov/fungal/>)



Source: <http://www.nytimes.com/health/guides/disease/allergies/overview.html>

How To Control Mold?

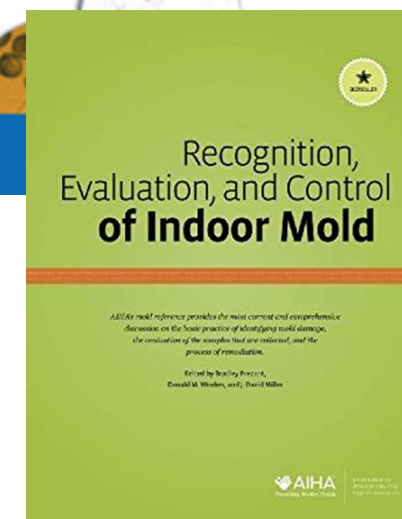
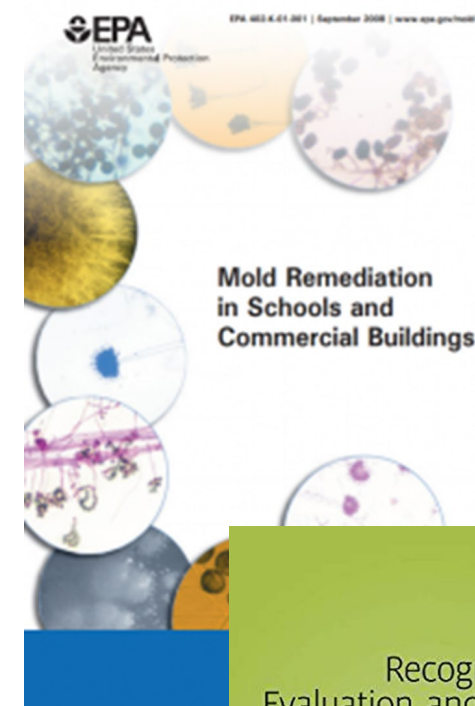
- Maintain relative humidity <60%.
- Eliminate the source of moisture.
- Maintain good housekeeping.
- In case of water release:
 - thoroughly dry all wet building materials within 24 hours, 48 hours maximum.
 - Impacts by grey or black water require additional actions.
 - If mold is present, remediate appropriately.



How To Remediate Mold?

- Surficial mold
 - Clean using fresh rags dampened with water/detergent solution, and thoroughly dry surfaces.
- Deterioration mold
 - Remove affected building materials under controlled conditions.
- Moldy soft materials (e.g., upholstery, textiles)
 - Disposal likely for most items if not able to be cleaned.

Size of mold growth dictates the level of remediation. The more mold, the more stringent the methods.



Where Has Mold Been Found?

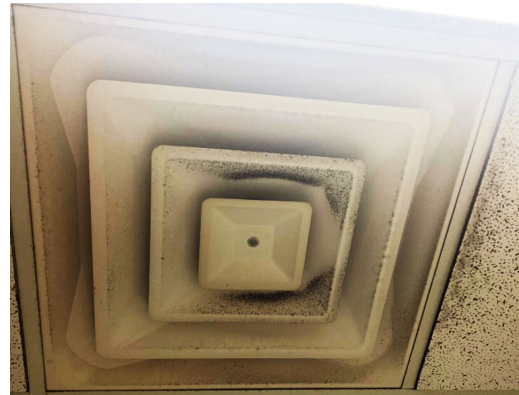
- Walls



Where Has Mold Been Found?



Where Has Mold Been Found?



Do You Have Questions?



So, is my office out to get me?



Answer: Not if you are observant and respect hazards

- Manage asbestos in place
 - Be aware of potentially ACM
 - Have testing performed prior to renovations
- Be aware of electrical hazards
 - Use power surge protectors carefully
 - Be careful with electric heaters
 - Have qualified electricians perform electrical work
- Report all leaks, water problems and suspected mold
- Your workplace is different from your home

Call EH&S for help in evaluating

- Bob Adams, Asbestos Program Coordinator
 - (716) 829-5832
 - rdadams@buffalo.edu
- Justin Miller, EH&S Safety Engineer
 - (716) 334-1012
 - jcmiller@buffalo.edu
- Karen Peissinger, Industrial Hygienist
 - (716) 829-5837
 - karenpei@buffalo.edu
- ***EH&S General Office: (716) 829-3301***

How did we do?

Take the Session Survey on your smart device using the QR Code on your schedule.

