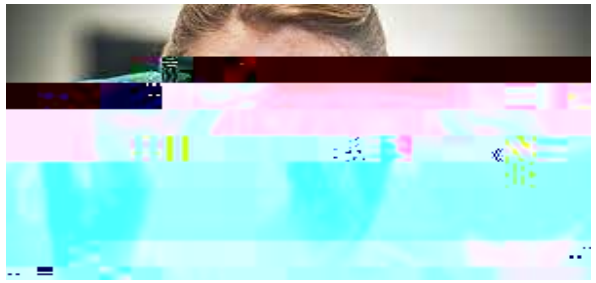
What is PPE?



- Clothing or equipment designed to reduce employee exposure to chemical, biological, and physical hazards.
- Often the last line of defense for prevention of occupational injuries, illnesses, and fatalities.
- Should be combined with other control measures to ensure a safe and healthy environment.
- Protects employees when engineering and administrative controls are not feasible or when they fail.

Basic PPE

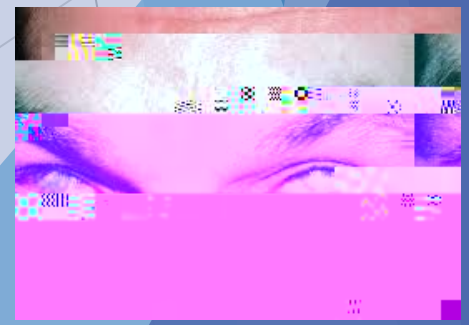
Why is PPE Important?

- PPE protects your body from:
  - Cuts
  - Lab-acquired infections
  - Chemical burns
  - Damaged vision
  - Broken bones
  - Sprains
  - Lost limbs

- These illnesses or injuries could cause acute or chronic symptoms, and could be life threatening.


Dermal Contact


Slips/trips/falls


Chemical Splash

Gloves

- Wear gloves that are appropropriate for the materials in use.
  - Nitrile - for most chemicals, toxins, and biologics.
  - Latex - for most applications, less resistant to chemicals than nitrile.
    Note: some individuals have latex allergies precluding their use.
  - Cryogenic gloves - for handling objects in extreme (low) temperatures.
  - Vinyl gloves - not appropriate for most laboratory tasks!

- Gloves should not be worn outside of the laboratory (e.g., hallways, elevators, corridors). No such thing as “one glove rule”.

- Change gloves often. Disposable gloves are not meant for indefinite use or re-use!

- Change gloves immediately after rips, tears, or contamination with chemicals, radionuclides, or biological agents!

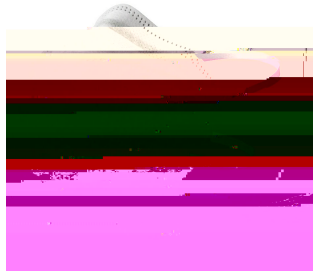
Respiratory Protection

- Used to protect against the inhalation of vapors, gases, dusts, mists, respiratory pathogens, or other particulates.
- Respirators are recommended and used based on the hazard.
- Contact EHS for consultation on respirator selection.
- Medical clearance is required for individuals using respirators.
- Respiratory fit testing is required for N-95 and tight fitting respirators.

Types of Respirators

Disposable

- Filters out particles (dust, mists, fumes)
- Does NOT protect against gases or vapors
- Includes N95 masks



Half-Face

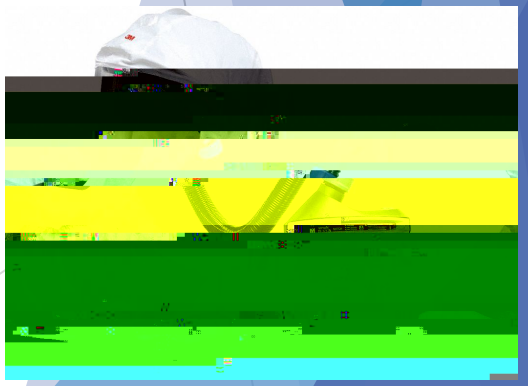
- Covers nose and mouth to protect against gases, vapors, and particles
- Use appropriate cartridge or filter
- Reusable

Full-Face

- Covers face and eyes to protect against gases, vapors, and particles
- Use appropriate cartridge or filter
- Reusable

Powered Air Purifying Respirator (PAPR)

- Circulates filtered air into contained headgear
- HEPA filtered



Foot Protection

- Shoes which completely cover the foot must be worn in the laboratory at all times.
  - No sandals, flip flops, or slides!
  - No crocs with holes!
  - No flats, heels, or other shoes that expose the top of the foot!

- Shoe covers may be necessary in certain areas to prevent cross-contamination.

- Work-appropriate shoes can also protect you from physical hazards, spills, or splashes.

Work-Specific PPE

Chemicals/Radioactive materials:

- Lab coat, gloves, eye protection, and appropriate shoes

Cryogenic liquids:

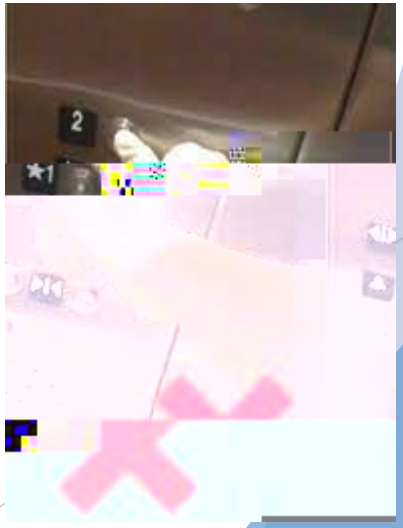
- Cryogenic gloves to protect hands
- Safety glasses, goggles, face shield to prevent splashes into eyes
  - Materials can rapidly expand after removal from deep temperatures and may cause tubes to explode unexpectedly!

Pathogens:

- BSL3 and Select Agent facilities may require use of coveralls, double layers of gown/shoe covers/gloves, and respiratory protection (N95 face masks or Powered Air Purifying Respirators (PAPR))
  - Personnel should should consult their biosafety protocols.

Common PPE Violations

- Glove use outside of the lab
- Not wearing safety glasses
- Not wearing a lab coat
- Reusing gloves
- Wearing open toed shoes



https://www.youtube.com/watch?v=GjAD83B4JaY&t=49s

Help Us Keep Everyone Safe!

Remind those that are not wearing appropriate PPE to please do so, for everyone's sake!

Report safety concerns to:

- Lab Supervisors
- Principal Investigators
- Building Managers
- EHS

Please note: Principal Investigators are responsible for providing PPE and ensuring appropriate use.