

What is PPE?

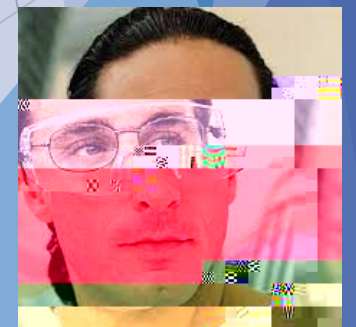


Clothing or equipment designed to reduce employee exposure to chemical, biological, and physical hazards.

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

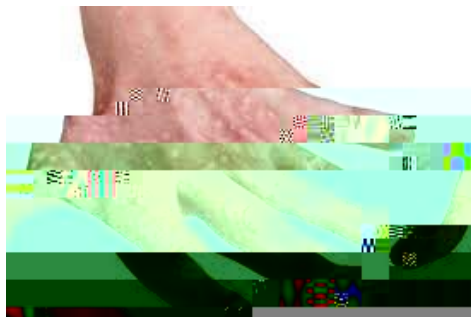
Broken bones

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 appropriate 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.

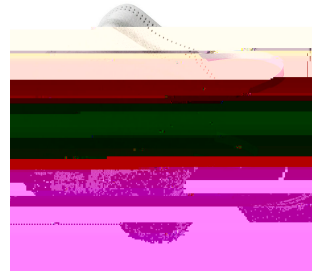
Respiratory fit testing is required for N-95 and tight fitting respirators.



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.



<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.