

# Safety Topic – Personal Protective Equipment

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- Personal Protective Equipment (PPE) is any piece of equipment that is used to keep an employee safe during work
- Assess hazards in your working environment before deciding the appropriate PPE required
- Be aware of the limitations of the PPE you are utilizing (gloves, eye wear, etc.)



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- Eye and Face Protection
  - Required for anyone who works, studies, or visits a lab
  - Very high percentage of eye injuries occur from the side, i.e. not due to your own activity
  - For our lab, standard safety glasses with eye shields are appropriate, although face shields and goggles could be necessary for situations involving the possibility of splashing chemicals
  - Prescription safety glasses can be obtained through MIT optical
  - Roughly 1000 eye injuries/day in the US, 70% due to small particles

More information at [www.mit.edu/ehs](http://www.mit.edu/ehs)



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- Hand protection
    - High potential for hands to be injured at work
    - Many injuries that occur are preventable
    - Key source for spreading of contamination through eating, etc. (Always wash hands before leaving lab)
    - Be careful to choose gloves that are resistant to the materials you plan to work with
      - Nitrile gloves are a good choice, resistant to a broad range of chemicals (do not hold up well against methyl ethyl ketone (MEK), nitrobenzene, benzene, toluene, styrene, or THF)
    - For high levels of contamination and glove resistance charts, visit [www.chemrest.com](http://www.chemrest.com)
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- Clothing
    - Pants and close toe shoes should always be worn in the lab in case of chemical spill
    - In case of spill on clothing, immediately remove clothing and use safety shower (located near the doors to 353 and 357)
    - Lab coats are a simple way to prevent laboratory chemicals from leaving the lab
    - Depending on the chemicals you are using, a rubber apron or a chemical resistant suit may be appropriate
    - Be aware of loose clothing which could inadvertently be exposed to chemicals or fire
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- Hearing protection
  - People exposed to time weighted average of 85 dbA threshold for an 8 hour day are required to wear hearing protection
  - Contact EHS for noise exposure measurements or engineering controls to limit noise exposures
- Respiratory protection
  - Determine need for this equipment in conjunction with the Industrial Hygiene Program
  - Yearly training required

