# Additional for Chapter 5: Personal Protective Equipment Guidelines

Personal protective equipment (PPE) is used by workers in various work settings. Gloves, hard hats, safety glasses, ear plugs, aprons, laboratory coats, safety shoes, and respirators are all examples of PPE. When a hazard cannot be removed from the workplace, or when engineering controls are insufficient to control the hazard, PPE must be considered. PPE does not eliminate hazards from the workplace but places a barrier between the worker and the hazard. If the PPE fails or is not used properly, the worker will be exposed.

In order to ensure that workers are provided with correct PPE, and that the PPE is used properly, the Occupational Safety and Health Administration (OSHA) has developed standards for certain types of PPE. The employer must provide to employees certain PPE when a workplace hazard assessment reveals the need for its use. Standards have been developed for hard hats, work shoes, gloves, eyewear, and respirators.

The employer is obligated to provide and to pay for personal protective equipment required by the company for the worker to do his or her job safely and in compliance with OSHA standards. Where equipment is very personal in nature, such as safety shoes, and is usable by workers off the job, the matter of payment may be left to labor-management negotiations. However, items such as safety shoes which are subject to contamination by carcinogens or other toxic or hazardous substances, and which cannot be safely worn off-site, must be paid for by the employer.

**Types of Personal Protection Equipment**

There is a large variety of PPE available. It can range from simple safety glasses to full body suits. The selection and proper use of PPE is vital to health and safety on the job. The following is a current list of PPE recommended for use at Albert Einstein College of Medicine:

* **Eye Protection -** Employees and students are required to wear safety glasses or chemical splash goggles at all times when they perform laboratory work involving hazardous materials.
  + If an employee is performing any operation such as sawing, grinding, welding, or spray painting, safety glasses\face shields specific to those tasks shall be worn.
  + Employees in the clinics must wear safety glasses or face shields whenever there is possible exposure to a potentially infectious material.
  + Specialized eyewear must be worn during work with lasers.
  + Wearing personal glasses (not safety approved), with plastic side shields is not an acceptable substitute for safety glasses.
  + Contact lenses should not be worn in laboratories or in any other work area where a chemical splash is possible.

* **Hand Protection -** Appropriate gloves are required to be worn when hands are exposed to potential hazards. These hazards may arise from exposure to any item or substance which has the potential to damage the skin or pass through the skins protective barrier. Chemical hazards include acids, bases, flammables, and other toxic chemicals. Physical hazards include infectious agents, sharps, and temperature extremes.
  + Selection of gloves is based upon the performance characteristics of the glove relative to the employee's work. EH&S staff members are available to make recommendations on the types of gloves required.
  + Whenever hazardous chemicals are handled, gloves must be either thoroughly washed with soap and water before removal, or disposed of as hazardous materials in the appropriate receptacle.
  + Latex examination gloves should be removed at the conclusion of a procedure and discarded in a hazardous waste container (red bag) according to Albert Einstein College of Medicine's Waste Disposal Guidelines.
  + Laboratory employees working with infectious agents should discard their gloves in an autoclave bag.
  + EH&S recommends that powder-free latex examining gloves be used to avoid allergic reactions to the powder.

* **Hearing Protection** - Albert Einstein College of Medicine currently do not have work areas where OSHA noise levels are exceeded. However, hearing protective devices may be recommended in certain areas that may experience elevated noise levels. Protecting oneself from unnecessary noise is always a prudent practice. Noise assessments are made by EH&S and recommendations for hearing protection may be made following these assessments. Elevated noise levels may be found in mechanical areas such as craft shops and duplicating.
* **Respiratory Protection -** Employees involved with asbestos removal, chemical emergency response, facilities maintenance, plant operations, and infectious materials may require respirators. If an employee performs a job for which respiratory protection is necessary, the requirements of Albert Einstein College of Medicine's Respiratory Protection Program apply.
* **Foot Protection -** It is a good work practice for employees who work in the maintenance shop, plant operations areas, EH&S, and housekeeping to wear steel-toe safety shoes. Safety personnel may also be required to wear safety shoes.
* **Protective Clothing -** All employees and students in research and academic laboratories should wear laboratory coats; laboratory workers may wear chemical resistant aprons/protective sleeves.
  + Employees in clinical settings are required to wear laboratory coats/aprons whenever there is possible exposure to potentially infectious material, including human blood and related blood products.
  + Any employee who performs work involving the maintenance or removal of asbestos-containing material must wear a protective suit.
  + For cleanup of spills of hazardous materials, employees must wear either a laboratory coat, Tyvek suit, or other protective clothing depending on the degree of hazard during cleanup.
  + Engineering and housekeeping staff must wear the appropriate clothing (uniform or coveralls) to prevent contact with hazards or potentially hazardous chemicals such as oils, solvents and thermal exchange chemicals.
  + Animal caretakers are required to wear protective clothing such as a laboratory coat, Tyvek suit, or surgical scrubs, as needed.

* **Head Protection -** All employees and students entering or working in a construction site must wear a hard hat to protect the head from falling objects, bumps, and abrasions.
* Torso Protection - Many hazards can threaten the torso such as heat, splashes from hot metal and liquids impacts, cuts, acids, and radiation. The employees or students who are involved in activities that may affect the torso must wear the appropriate protective PPE such as a vest, jacket, apron, coveralls, or full body suit.

**Examples; Housekeeping -**must wear, as appropriate:

* protective coveralls or uniforms - to protect against skin cuts, abrasion and contact with chemicals.
* safety glasses or goggles - to protect from chemical splash, projectiles and other debris hitting the eye.
* chemical resistant gloves - to prevent abrasions to the skin from rough/sharp objects and contact exposure to chemicals, such as solvents, ammonia, pesticides, cleaning solutions, etc.
* steel toe shoes - to protect the feet when lifting heavy objects.

<https://www.einstein.yu.edu/administration/environmental-health-safety/documents/personal-protective-equipment.aspx>