Selection of Protective Gloves

This table outlines common hazards and the typical type of gloves used. Refer to the EHS PPE webpage for more detailed guidance on glove selection.

Hazard	Glove	Comments
Biological research work, including bloodborne pathogens	Disposable gloves	• Nitrile glove or latex* glove offers a good barrier for most lab research or clinical applications.
Chemical contamination – low level. (Examples: Procedures with minimal risk of splashing or chemical contact with gloves.)	Disposable nitrile gloves	• In general, nitrile gloves are resistant to a broad range of chemicals. They are the glove of choice for most low-level chemical contamination. However, it is important to check the compatibility of the specific gloves and the chemicals to be used. • When any disposable glove becomes significantly contaminated with chemicals, it should be immediately removed and discarded and the hands should be washed thoroughly. New gloves should be put on before proceeding with work.
Chemical contamination – High level or high hazard. (Examples: Pouring acid, work involving immersion of hands in chemicals, work with toxic chemicals that readily penetrate the skin.)	Chemical resistant gloves	• It is critical to confirm the compatibility of gloves with chemicals before doing procedures with a higher chemical contamination risk. Contact EHS for assistance with selecting the best glove for these circumstances. • Glove manufacturers provide information on the models they produce. Links to some common manufacturers include Ansell, Best Glove Manufacturing/SHOWA, and Cole Parmer. • It is important to note that compatibility information is specific to each glove model. For example, do not assume that the chemical compatibility of nitrile gloves from different manufacturers is identical.
Cryogens	Cryogenic gloves	• Cryogenic gloves are insulated gloves to prevent burns from extreme cold temperatures when handling cryogens. They have different properties from gloves designed for hot temperatures, so for handling cryogens, select gloves specifically designed for cryogen handling. • It is recommended cryogen gloves with mid-arm or longer protection be selected for transfer of cryogenic liquids.
Hot surfaces, e.g., steam pipes, items from autoclaves, welding operations	Heat resistant gloves	• Gloves can prevent burns. • Check that the type of glove is appropriate for the temperatures and type of work you will be doing. • Gloves that extend up the arm are recommended for better arm protection.
Handling knives or sharp objects such as box cutters	Cut-resistant gloves, such as sturdy work gloves or metal mesh gloves	• The best glove will depend on the circumstances for which cutting tools are being used. • Light-weight chef's gloves may be appropriate for situations with a low risk of injury when good dexterity is needed. • Gloves with greater cut resistance should be used for higher-risk activities. • Cut-resistant gloves typically come with an ANSI level, indicating the level of protection they offer. More information on levels of cut-resistant gloves can be found on the Ansell website.
Material Handling, e.g., carrying supplies, moving furniture, removing debris from a work-site, handling wood or sheet metal	Sturdy work gloves	• Use of gloves will prevent cuts and splinters from these activities.
Radioactive materials in the laboratory	Disposable glove	• Nitrile glove or latex* gloves offer a good barrier for most lab research.