

# Bloodborne Pathogens Key Topic for 2015

## Gloves – The First Line of Defense

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In 2014, the Occupation Health & Safety (OH&S) Bloodborne Pathogens course focused on the first line of defense - gloves. The information covers:

1. Determining the different types of gloves for specific situations
2. Dealing with latex allergies
3. Donning and doffing gloves properly
4. Disposing of gloves correctly
5. Knowing and practicing proper hand hygiene

### The Basics

#### *Influencing Factors – Determining the Appropriate Gloves*

To determine the appropriate gloves for the type of job, you should first determine the following.

1. What kind of exposure will you experience (e.g., touching, splashes, or spray)?
2. How durable and appropriate are the gloves for the work?
3. Do the gloves fit properly?






#### *Types of Gloves*

Everyone at risk of Bloodborne Pathogens and Other Potentially Infectious Materials (OPIM) exposure should wear the appropriate gloves to ensure the best defense level against contamination. Exposure can occur through contact with an individual's mucous membranes, bodily fluids, blood, and OPIM.

By wearing the appropriate gloves correctly, employees significantly decrease the level of risk transmitted from person to person or from the environment.

Review the glove manufacturer guidelines if you have questions. The chart on the next page lists the various types of gloves that used on campus at UAB and their advantages/disadvantages.

## Bloodborne Pathogens Key Topic for 2015 Gloves – The First Line of Defense

Type	Advantages	Disadvantages
<p>Latex (natural rubber)</p> 	<p>Suitable for biological and water-based materials</p>	<p>Poor for organic solvents, provides little chemical protection, hard to detect puncture holes, can cause or trigger latex allergies</p>
<p>Nitrile</p> 	<p>Excellent general use glove. Good for solvents, oils, greases, and some acids and bases.</p> <p>Nitrile has a clear indication of tears and breaks.</p> <p>It is a good alternative for those with latex allergies.</p>	<p>Resistant to many chemotherapy drugs</p> <p>Poor for delicate, intricate work requiring sensitivity</p>
<p>Butyl Rubber</p> 	<p>Good for ketones and esters.</p>	<p>Poor for gasoline and aliphatic, aromatic, and halogenated hydrocarbons.</p>
<p>Neoprene</p> 	<p>Good for acids, bases, alcohols, fuels, peroxides, hydrocarbons, and phenols</p> <p>Good for most hazardous chemicals</p>	<p>Poor for halogenated and aromatic hydrocarbons</p>
<p>Viton</p> 	<p>Good for chlorinated and aromatic solvents</p> <p>Good resistance to cuts and abrasions</p>	<p>Poor for ketones</p> <p>Expensive</p>

# Bloodborne Pathogens Key Topic for 2015

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### Latex Allergies



If a campus employee is exposed to latex and experiences a serious allergic reaction, take the person to The Workplace immediately.

Latex allergies can cause mild to severe problems. You can react to latex even if you have not been allergic previously. An allergy can happen through repeated exposure to a specific protein in natural latex.

### *Reactions and Symptoms*

<i>Types of Reactions</i>	<i>Symptoms</i>
Irritant Contact Dermatitis	Most common Dry, itchy, and irritated skin (mostly felt on the hands)
Allergic Contact Dermatitis	(Delayed Hypersensitivity) Skin reaction similar to a poison ivy rash Shows up 24-96 hours after exposure
Latex Allergy	(Immediate Hypersensitivity) Usually occurs immediately Mild – itching and red skin, hives Severe – trouble breathing, runny nose, sneezing, and irritated throat. Although very rare, shock can happen

### *If You Suffer From a Latex Allergy*

- Avoid any contact with any latex products.
- Know what the allergic reaction symptoms are: itching in nose and eyes, rash or hives, asthma and even shock.
- Tell your supervisor/manager immediately that you have an allergy.
  - Request other non-latex gloves (reduced protein, powder free, vinyl, nitrile, and polymer products are an acceptable replacement).
- Wash your hands after using gloves with warm water and soap.

# Bloodborne Pathogens Key Topic for 2015

## Gloves – The First Line of Defense

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- Avoid the use of lotions and creams before putting on gloves. The ingredients can damage or even break down the gloves.
- Invest in and wear a medical ID bracelet.
- Listen to the advice of your doctor.

### *Supervisors/Managers – if You Have an Employee with Latex Allergies*

- Provide non-latex gloves. (Vinyl, nitrile, reduced protein, powder-free, or polymers are an acceptable replacement.)
- Get training on how to help someone with a latex allergy. Know in advance what to do in case of an emergency.
- Request a personal assessment for any employee that has a latex allergy.

## Donning, Doffing, and Disposal

### *Donning*

	<p>Grasp the glove in one hand.</p> <p>Pull it on the first ungloved hand using the fingers of the other hand curled around the top of the glove as shown here.</p>
	<p>Do the same to the other glove on the ungloved hand. Adjust as needed to ensure proper fit – not too loose or tight.</p>
	<p>Check for tears, perforations, or other damage once the gloves are on. If the glove has the slightest tear, perforation, or bit of damage, remove it and replace it before beginning work.</p>



When wearing a disposable gown, tuck the bottom of the gown sleeve into your gloves to add one more layer of protection.

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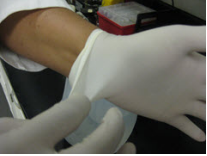







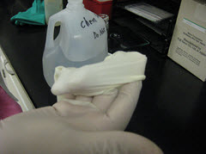

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If you plan to wear the gloves for an extended period, ensure that you are wearing the correct gloves. If you are unsure, ask your lab supervisor/manager or call OH&S.

### ***Doffing***

It is so important to take your gloves off properly to reduce the exposure of contamination to yourself and your environment

	1. Take one of your gloved hands, and firmly grab the wrist of your other hand.		6. Take one or two fingers from the ungloved hand and insert them under the wrist of the gloved hand.
	2. Gently pull off the glove at the grasped wrist.		7. Curl the ungloved fingers inside the glove carefully so that you don't get the exposed skin contaminated.
	3. This movement should turn the glove inside out with the contamination facing inside.		8. Gently peel the second glove off. The first glove should contain both gloves.
	4. Securely hold the removed glove in the other gloved hand.		9. Roll the glove off the fingers so that the first glove is inside the second one.
	5. Hold the discarded glove in the palm of your gloved hand.		10. Place in the proper disposal container. Wash hands thoroughly.

### ***Proper Disposal***

Refer to your lab's Exposure Control Plan (ECP) for appropriate disposal of gloves. Please contact UAB's Occupational Health and Safety at 205-934-2487 if you have questions.

# Bloodborne Pathogens Key Topic for 2015

## Gloves – The First Line of Defense

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### Hand Hygiene



Gloves **do not** take the place for handwashing!

Knowing and implementing good hand hygiene habits can significantly reduce chances of contamination, transmission, or infection. Proper handwashing is the primary tool for proper hand hygiene.

Before donning your gloves, wash your hands with warm water and soap. Make sure your hands are dry. Moist or wet hands can make donning gloves difficult and promotes the growth of bacteria under your glove.

Once your gloves are on, do not wash them. Washing your gloves can cause “wicking” to happen. Wicking happens when liquids can penetrate the glove and reach your skin. Also, washing gloves can weaken or create holes in them.

After doffing your gloves, wash your hands with warm water and soap. Dry your hands completely. This practice ensures that little to no contamination remains on your hands.

### ***Other Information You Need***

- Work from clean to dirty – While performing your work, you should **ALWAYS** work clean to dirty. Working clean to dirty means that you touch clean sites before touching an unclean/contaminated site.
- Limit opportunities for contamination.
  - Monitor the number of times you touch a site or surface. Keep this number low to reduce chances significantly of contamination, transmission, or infection.
  - Avoid scratching, touching your face, adjusting your glasses, or putting your hands in your hair.
- Monitor your gloves while performing your work – If your gloves become soiled or tear, stop work immediately and change them. Continued work with soiled or torn gloves can put you at risk.