



**WHITEPAPER**

**OSHA Guidance on Preparing Workplaces  
for an Influenza Breakout & H1N1 Virus  
Updated: June 2009**

# Summary – OSHA Guidance on Preparing Workplaces for an Influenza Breakout

The bulletin is a summary prepared by Sperian Respiratory Protection USA of the OSHA Guidance on Preparing Workplaces for an Influenza Breakout as stated by OSHA. The information contained in this brief is meant to be a summary and is not intended to be comprehensive or take the place of the OSHA guidance document. Please read the Pandemic Influenza Preparedness Guide guidance document for a complete understanding. This document can be found at – <http://www.osha.gov/Publications/OSHA3327pandemic.pdf>

## Introduction

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza virus emerges for which there is little or no immunity in the human population, begins to cause serious illness and then spreads easily person-to-person worldwide; such as the H1N1 Virus and/or Avian Flu. A worldwide influenza pandemic could have a major effect on the global economy, including travel, trade, tourism, food, consumption and eventually, investment and financial markets. Planning for pandemic influenza by business and industry is essential to minimize a pandemic's impact. As with any catastrophe, having a contingency plan is essential.

Employers and employees should use the OSHA guidance on preparing workplaces for an influenza breakout to help identify risk levels in workplace settings and appropriate control measures. Up-to-date information and guidance is available to the public through the [www.pandemicflu.gov](http://www.pandemicflu.gov) website.

## How a Severe Pandemic Influenza Could Affect Workplaces

An influenza pandemic will be widespread, affecting multiple areas of the United States and other countries at the same time. A pandemic will also be an extended event, with multiple waves of outbreaks in the same geographic area; each outbreak could last from 6 to 8 weeks. Waves of outbreaks may occur over a year or more. Your workplace will likely experience:

- **Absenteeism** – A pandemic could affect as many as 40 % of the workforce during periods of peak influenza illness.
- **Change in patterns of commerce** – During a pandemic, consumer demand for items related to infection control is likely to increase dramatically, while consumer interest in other goods may decline. Consumers may also change the ways in which they shop as a result of the pandemic.
- **Interrupted supply/delivery** – Shipments of items from those geographic areas severely affected by the pandemic may be delayed or cancelled.

More information on the effect of pandemic influenza in a workplace can be found in the Guidance on Preparing Workplaces for an Influenza Breakout (pg. 7)

## Classifying Employee Exposure to Pandemic Influenza at Work

Employee risks of occupational exposure to influenza during a pandemic may vary from very high to high, medium, or lower (caution) risk. The level of risk depends in part on whether or not jobs require close proximity to people potentially infected with the pandemic influenza virus, or whether they are required to have either repeated or extended contact with known or suspected sources of pandemic influenza.

**Very high exposure risk** – those with exposure to high concentrations of known or suspected sources of pandemic influenza during specific medical or laboratory procedures.

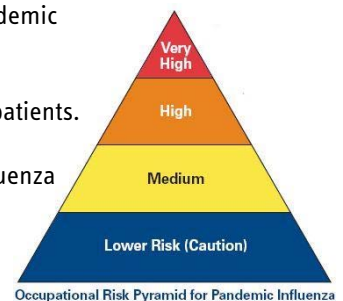
- Healthcare employees (for example, doctors, nurses, dentists) performing aerosol-generating procedures.
- Healthcare or laboratory personnel collecting or handling specimens from known or suspected pandemic patients.

**High exposure risk** – those with high potential for exposure to known or suspected sources of pandemic influenza virus.

- Healthcare delivery and support staff exposed to known or suspected pandemic patients.
- Medical transport of known or suspected pandemic patients in enclosed vehicles.
- Performing autopsies on known or suspected pandemic.

**Medium exposure risk** – include jobs that require frequent, close contact (within 6 feet) exposures to known or suspected sources of pandemic influenza virus.

- Employees with high-frequency contact with the general population (such as schools, airline attendants and high population density work environments)



**Lower exposure risk (caution)** – those that do not require contact with people known to be infected with the pandemic virus, nor frequent close contact (within 6 feet) with the public.

- Employees who have minimal occupational contact with the general public and other coworkers (for example, office employees).

#### **Which classification of workers needs to wear a respirator?**

- Very High Risk and High Exposure Risk Workers
- Other workers whose work may not normally put them at Very High or High Risk but who, during a pandemic, are performing high-risk tasks such as isolating and quarantining people who are ill.

More information on classifying employee exposure to pandemic influenza at work can be found in the Guidance on Preparing Workplaces for an Influenza Breakout (pg. 10-11 and pg.28-34)

## **How to Maintain Operations During a Pandemic**

As an employer, you have an important role in protecting employee health and safety, and limiting the impact of an influenza pandemic.

### **Develop a Disaster Plan**

- Prepare and plan for operations with a reduced workforce.
- Work with your suppliers to ensure that you can continue to operate and provide services.
- Develop a sick leave policy that does not penalize sick employees.
- Identify possible exposure and health risks to your employees.
- Minimize exposure to fellow employees or the public.
- Identify business-essential positions and people required to sustain business functions and operations.
- Stockpile items such as soap, tissue, hand sanitizer, cleaning supplies and recommended personal protective equipment.
- Develop policies and practices that distance employees from each other, customers and the general public.
- Organize and identify a central team of people to serve as a communication source so that your employees and customers can have accurate information during the crisis.
- Provide your employees and customers in your workplace with easy access to infection control supplies and personal protective equipment.

More information on how to maintain operations during a pandemic can be found in the Guidance on Preparing Workplaces for an Influenza Breakout (pg. 12-15)

## **How Organizations Can Protect Their Employees**

The types of measures that may be used to protect yourself, your employees and your customers are engineering controls, administrative controls, and personal protective equipment (PPE). Most employers will use a combination of control methods.

Here is a description of each type of control:

**Engineering Controls** – Engineering controls involve making changes to the work environment to reduce work-related hazards.

**Work Practice** – Work practice controls are procedures for safe and proper work that are used to reduce the duration, frequency or intensity of exposure to a hazard

**Administrative Controls** – Administrative controls include controlling employees' exposure by scheduling their work tasks in ways that minimize their exposure levels.

**Personal Protective Equipment (PPE)** – While administrative and engineering controls and proper work practices are considered to be more effective in minimizing exposure to the influenza virus, the use of PPE may also be indicated during certain exposures. Examples of personal protective equipment are gloves, goggles, face shields, surgical masks, and respirators (for example, N-95).

It is important that PPE be:

- Selected based upon the hazard of the worker
- Properly fitted and worn
- Regularly maintained and replaced in accordance with manufacture's specifications
- Properly removed and disposed of to avoid contamination of self, others or the environment
- If reusable, properly removed, cleaned, disinfected and stored

More information on how organizations can protect their employees can be found in the Guidance on Preparing Workplaces for an Influenza Breakout (pg.16-20)

## The Difference Between a Surgical Mask and a Respirator

It is important that employers and employees understand the significant differences between these types of personal protective equipment.

**Surgical Masks** – Surgical masks are used as a physical barrier to protect employees from hazards such as splashes of large droplets of blood or body fluids. Surgical masks are not designed or certified to prevent the inhalation of small airborne contaminants. Surgical/procedure masks are not designed to seal tightly against the user’s face. During inhalation, much of the potentially contaminated air passes through gaps between the face and the surgical mask, thus avoiding being pulled through the material of the mask and losing any filtration that it may provide.

**Respirators** – Respirators are designed to reduce an employee’s exposure to airborne contaminants. Respirators are designed to fit the face and to provide a tight seal between the respirator’s edge and the face. A proper seal between the user’s face and the respirator forces inhaled air to be pulled through the respirator’s filter material and not through gaps between the face and respirator.

**Surgical N95 Respirator** – Surgical N95 Respirators offers the combined protective properties of a surgical mask and a N95 respirator.

### Types of Respirators

Respirators can be air supplying or air purifying. Most employees affected by pandemic influenza who are deemed to need a respirator to minimize the likelihood of exposure to the pandemic influenza virus will use some type of air purifying respirator. They are also known as “particulate respirators” because they protect by filtering particles out of the air as you breathe.

Air purifying respirators can be divided into several types:

- **Disposable or filtering facepiece respirators** – the entire respirator facepiece is comprised of filter material. This type of respirator is also commonly referred to as an “N95” respirator.
- **Reusable or elastomeric** respirators – where the facepiece can be cleaned, repaired and reused, but the filter cartridges are discarded and replaced when they become unsuitable for further use.
- **Powered air purifying respirators, (PAPRs)** – a battery powered blower pulls contaminated air through filters, then moves the filtered air to the wearer’s facepiece.

When choosing between disposable and reusable respirators, employers should consider their work environment, the nature of pandemics, and the potential for supply chain disruptions.

### Classifying Particulate Respirators and Particulate Filters

Respirator filters that remove at least 95 percent of airborne particles during “worst case” testing using the “most-penetrating” size of particle are given a 95 rating. Those that filter out at least 99 percent of the particles under the same conditions receive a 99 rating, and those that filter at least 99.97 percent (essentially 100 percent) receive a 100 rating. In addition, filters in this family are given a designation of N, R, or P to convey their ability to function in the presence of oils that are found in some work environments.

- “N” if they are Not resistant to oil. (e.g., N95, N99, N100)
- “R” if they are somewhat Resistant to oil. (e.g., R95, R99, R100)
- “P” if they are strongly resistant (i.e., oil Proof). (e.g., P95, P99, P100)

### Replacing Disposable Respirators

Disposable respirators are designed to be used once and are then to be properly disposed of. Once worn in the presence of an infectious patient, the respirator should be considered potentially contaminated with infectious material, and touching the outside of the device should be avoided to prevent self-inoculation (touching the contaminated respirator and then touching one’s eyes, nose, or mouth).

### Dust or Comfort Masks

Employers and employees should be aware that there are “dust” or “comfort” masks sold at home improvement stores that look very similar to respirators. Nuisance dust masks are not NIOSH approved respirators.

More information on the difference between a surgical mask and a respirator can be found in the Guidance on Preparing Workplaces for an Influenza Breakout (pg.20-26)

*This document is not a standard or regulation, and it creates no new legal obligations. Likewise, it cannot and does not diminish any obligations established by Federal or state statute, rule or standard. The document is advisory in nature, informational in content, and is intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with hazard-specific safety and health standards. In addition, pursuant to Section 5(a)(1), the General Duty Clause of the Act, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Employers can be cited for violating the General Duty Clause if there is a recognized hazard and they do not take reasonable steps to prevent or abate the hazard.*

For a respiratory program that will comply with OSHA standards and with your business, contact your Sperian sales representative.