

SAFETY & LOSS PREVENTION

# OUTLOOK

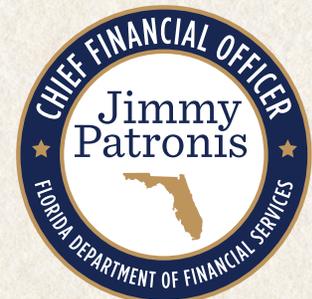


## PREVENTING BURNS IN THE WORKPLACE

National Burn Awareness Week | February 7-13, 2021

### ALSO INSIDE:

- Lockout / Tagout Procedures
- Struck-By Injuries
- Eye Health & Safety in the Workplace
- Why Masks Work Against COVID-19





# PREVENTING BURNS IN THE WORKPLACE

National Burn Awareness Week | February 7-13, 2021

The American Burn Association has established the first full week of February each year as National Burn Awareness Week, which is an opportunity to raise awareness of the causes, treatment, and prevention of injuries caused by burns, both at home and in the workplace.

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# NATIONAL BURN

## Awareness Week 2021



Every year, an estimated 486,000 people in the United States receive medical treatment for burn injuries — that's one person every 65 seconds. Though over 96% of people injured survive, non-fatal burn injuries often have devastating effects, including prolonged hospitalizations, scarring and disfigurement, and permanent nerve damage.

Burns occur when skin and other tissues are damaged by heat, chemicals, electricity, sunlight, or nuclear radiation. Skin acts as the body's protective barrier, and damage to this barrier allows bacteria an entrance into the body. Burns also weaken the immune system, which increases the risk of other infections, such as pneumonia and sepsis. This is why doctors often prescribe IV antibiotics after a serious burn.

The body naturally reacts to the threat of invaders such as bacteria, viruses, toxins, etc. with inflammation. However, a serious burn can cause the body's inflammatory response to go into overdrive, making the injury more severe and harming the body's organ systems, particularly the lungs, heart, brain, and kidneys.

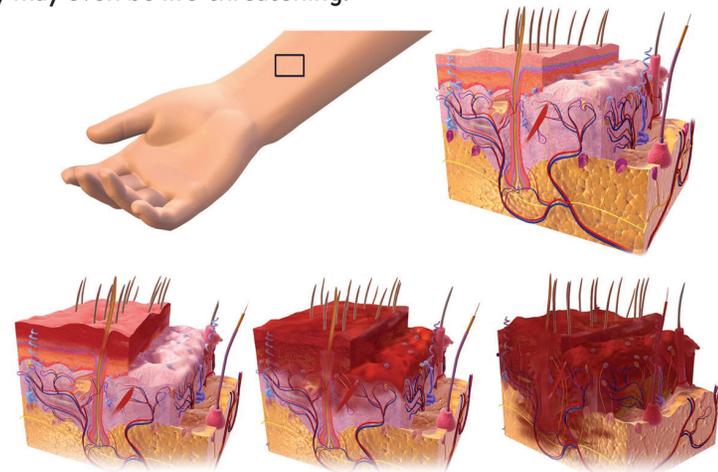
Most minor burns can be treated with sterile bandages and topical antibiotic ointments, either at an urgent care center or a hospital emergency room. Patients with more serious burns could need treatment in a special burn unit. These patients need extra fluids to prevent them from going into "shock" (a condition where blood pressure drops suddenly to dangerous levels), and they often require skin grafts to cover the burns while they heal.

Research and medical advances continue to improve burn care and increase survival rates, while safety education and prevention efforts help to reduce the occurrence of burn injuries. Today, people with burns covering 90% of their bodies can survive with intense medical treatment.

## LEVELS OF SEVERITY

Burns are categorized by the amount of damage done to the skin and other tissues:

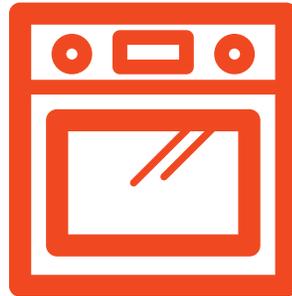
- **First-degree burns** damage the outer layer of skin (epidermis). Skin looks red and may be painful, but no blisters form. They typically heal on their own within a week. Mild sunburn is an example of a first-degree burn.
- **Second-degree burns** damage the first and second layers of skin (epidermis and dermis). These burns are painful to touch and may appear bright red, swollen, blistered, or shiny and wet. These type of burns can leave a scar and sometimes require a skin graft.
- **Third-degree burns** can destroy both layers of skin, including hair follicles and sweat glands, and can damage underlying tissues, including nerve endings, which can cause numbness. A third-degree burn may appear black, brown, white, or yellow, and a skin graft is necessary.
- **Fourth-degree burns** completely destroy the skin and extend into fat, muscles, tendons, and even bone. Deep burns are difficult to treat and can lead to serious complications such as infections, scarring, or joint problems — they may even be life-threatening.



The top row diagram shows a cross-section of healthy skin, while the bottom row depicts skin that has been damaged by first, second and third-degree burns.

# TYPE OF BURNS

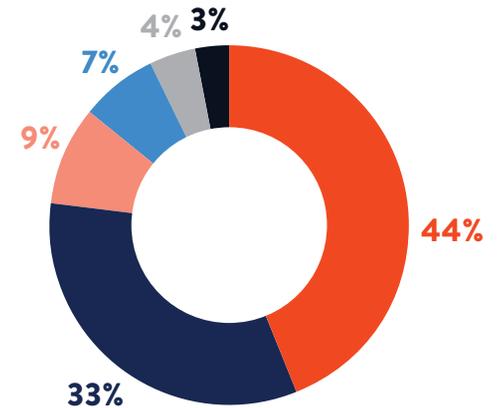
**CONTACT BURNS** Otherwise known as thermal burns, these are the most common type of burn injuries. Coming in contact with a hot object, scalding liquid or steam, or open flame raises the temperature of skin to the point where skin cells die. In 2018, an estimated 70,000 people in the U.S. received contact burns serious enough to require a visit to the ER. The majority of contact burns are caused by cooking accidents.



**FRICTION BURNS** These types of burns occur when skin is rubbed off by an object, most commonly by a rope, a rug, or a road. Friction burns are a combination of an abrasion and a heat burn. Though they are the second most common type of burn (the most common being contact burns), many friction burns are ignored or overlooked, either because the burn does not seem serious enough for medical attention, or because the patient has incurred simultaneous injuries (typically during accidents such as motorcycle crashes), such as broken bones and head trauma, that overshadow the burns. However, friction burns can be quite serious, and they are often preventable with the use of personal protective equipment.

**COLD BURNS** Otherwise known as “frostbite”, cold burns damage skin cells by freezing them, either from exposure to cold air temperatures or direct contact with a frozen object for a prolonged period of time, most commonly on hands, feet, and face. Anyone working in a cold environment or with frozen objects (such as food in freezers or dry ice) may be at risk. Symptoms include: red, pale, or gray skin that feels cold to the touch; numbness, tingling, or pain; hardened skin or blisters. Severe frostbite can cause infections and nerve damage.

## CAUSES OF BURN INJURIES AMERICAN BURN ASSOCIATION



- OPEN FLAME
- STEAM OR HOT LIQUIDS
- HOT OBJECTS (IRON, OVENS, ETC.)
- MISC (FIREWORKS, SUNBURN, INHALATION, ETC.)
- ELECTRICITY
- CHEMICALS

**ELECTRICAL BURNS** When electrical current passes through the body, it is converted to heat, causing thermal burns on both external and internal tissues. The higher the voltage of electricity, the more extensive and serious the burn. The outward appearance of an electrical burn may not depict the extent of the injury, as internal organs and tissues may be damaged more severely than the skin. Therefore, it is important for those who suffer electrical burns to receive treatment.

**CHEMICAL BURNS** Corrosive substances such as acids, bases, solvents, and detergents can cause chemical burns, most commonly on the face, eyes, arms, and legs. Many household products, such as ammonia, bleach, drain cleaner, pool chlorine, and gasoline can burn the skin and other bodily tissues if not handled with proper care.



**DID YOU KNOW?**

Though only 10% of reported burn injuries occur in the workplace, more than 40% of all work related injuries are burns.

Source: American Burn Association

# PREVENTION

Burn injuries are highly preventable with the implementation of safety training and protocols, as well as proper use of equipment and personal protective equipment (PPE). Employers should provide employees with all of the equipment and instructions necessary to do their jobs safely.

## CONTACT BURNS

- Stand away from hot objects such as stoves and other appliances.
- Keep hot foods and liquids away from the edge of tables or counters where they can be easily knocked over.
- Assume all pots and pans are hot, and use oven mitts when handling them. Remember that cups and dishes holding hot food can also be hot enough to cause burns.
- Treat microwaved items as you would items from the oven.
- Use long oven mitts when reaching in or over hot surfaces, such as ovens or grills.
- When removing pot lids, avoid scalds from steam by wearing protective clothing such as long sleeves and gloves.
- Protect the soles of your feet by wearing shoes when walking on hot pavement or sand.
- Wear proper protective equipment such as gloves, aprons, masks, goggles, etc. when working with welding equipment.
- Gas fireplace doors can reach temperatures of up to 1,300° F and can remain hot for more than an hour after use — use safety gates, screen barriers, etc., and supervise children and pets around fireplaces.

## FRICTION BURNS

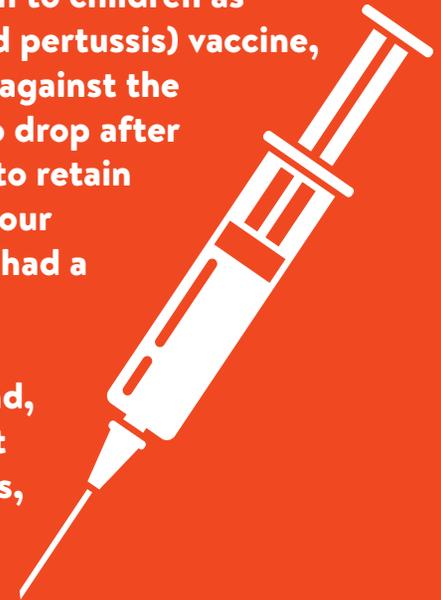
- Wear protective clothing, especially helmets, knee and elbow pads, and shoes, when riding a motorcycle, bicycle, or other uncovered vehicle.
- Always follow the rules of the road.
- Wear gloves when using ropes.
- Use caution when walking around ropes, tethers, and hoses to not get tangled in them.

# BURN INJURIES & TETANUS RISK

**Tetanus (sometimes called lockjaw) is a rare disease caused by the bacterium *Clostridium tetani*, which is found in soil, manure, and dust. It infects humans by entering the body through open wounds and produces a toxin which affects the nervous system, causing painful muscle spasms. Up to 30% of tetanus infections are fatal.**

**The vaccine for tetanus is commonly given to children as part of the DTaP (diphtheria, tetanus, and pertussis) vaccine, and it is considered to be 100% effective against the disease. However, antibody levels start to drop after five years, and booster shots are needed to retain immunity. Contact your doctor to bring your immunizations up to date if you have not had a booster within the past ten years.**

**If you are receiving treatment for a second, third, or fourth-degree burn and have not been immunized within the past five years, your doctor may prescribe a booster.**



## COLD BURNS

- Limit time spent in the cold, as frostbite can develop within a matter of minutes.
- Dress in several layers of loose, warm clothing. Change out of wet clothing as soon as possible.
- Wear a hat that fully covers your ears, warm boots, and gloves.
- Eat well, stay hydrated, and don't drink alcoholic beverages (alcohol can cause your body to lose heat faster).
- Wear protective gloves when handling dry ice or other frozen objects.
- When icing an injury, don't apply cold packs or ice directly to skin — wrap them in a towel first, or use a bag of frozen vegetables instead.

## ELECTRICAL BURNS

- Always be sure that the power is off before working in electrical boxes or appliances.
- Use only grounded electrical outlets (three-prong); outlets near water (sinks, tubs, or outdoors) should contain a GFCI (ground fault circuit interruptor).
- Keep electrical devices away from water.
- When working outside, be careful to avoid power lines. Call the city to determine the location of underground power lines before digging.
- Use outlet covers when outlets are not in use.
- Extension cords should be used temporarily and not to replace permanent wiring. Check all cords for signs of fraying or other damage and replace immediately.
- When performing maintenance or repair on machines or other electrical equipment, always follow lockout / tagout procedures. *Learn the steps to creating an effective lockout / tagout program as well as more information regarding lockout / tagout procedures [here](#).*



GFCI OUTLET

## CHEMICAL BURNS

- Store chemicals in their original containers that are clearly labeled and secure them in locked cabinets when not in use.
- Always follow directions for use and safety precautions provided by the chemical manufacturer.
- Work in well-ventilated areas.
- Always use proper PPE (goggles, goggles, etc.) when working with corrosives.

## FIRST AID

In the event that burns do occur, it is important to know how to treat them quickly.

- **Stop the burning.** Put out the fire and remove hot objects, embers, or smoldering material from the skin. *For electrical burns: Shut off the power source only if it is safe to do so, and do not touch the person until the flow of electric current has stopped.*
- **Remove restrictive clothing.** Burns can swell quickly; remove clothing, including belts and jewelry, from the burned area.
- **Clean and cool the burn.** Hold skin under cool (not cold) running water until pain subsides. If running water is not available, use cool compresses. **DO NOT** use ice. *For electrical burns: Try not to move the patient until medical assistance arrives, as there could be unseen damage to internal organs.*
- **Assess the wound.** Burns that are second degree and higher should receive medical attention. Look out for signs of infection, such as pain lasting longer than a few hours, swelling, oozing, or fever. Do not attempt to pop any blisters that form
- **Protect the burn.** Apply a petroleum-based ointment (such as Vaseline) or aloe vera gel two to three times per day. Cover with a clean nonadhesive gauze bandage or a clean cloth, wrapped lightly.
- **Treat the pain.** Over-the-counter pain relievers such as acetaminophen (Tylenol), ibuprofen (Advil), or naproxen (Aleve) can help with the pain caused by burns. Ibuprofen and naproxen can also help treat the swelling.
- **Stay hydrated.** Drink lots of water, as burns can cause dehydration.



Nearly all burns can be prevented with the use of proper personal protective equipment (PPE), such as goggles, gloves, boots, and clothing made with flame-retardant fabrics. [Click here](#) to learn more about choosing the right PPE for the job.

# LOCKOUT/ TAGOUT

## WHAT IS LOCKOUT / TAGOUT?

**Lockout / tagout** refers to specific procedures aimed at safeguarding employees from accidents associated with hazardous energy. Employees can be seriously injured or even killed if the machinery they service or maintain unexpectedly energizes or releases stored energy. Having a lockout / tagout procedure protects workers from accidents, protects equipment from damage, and reduces downtime.

**Lockout** is the placement of a lockout device (typically a lock operated by a key or a combination) on a mechanical device such as a circuit breaker, slide gate, line valve, or disconnect switch (generally referred to as an “energy-isolating device”) that physically prevents the transmission or release of energy to ensure that the equipment cannot be operated until the device is removed.

**Tagout** is the attachment of a tag or other warning device on an energy-isolation device to indicate that the equipment is not to be operated until the tagout device is removed. These tags should be placed prominently on the equipment and include warning statements such as “DO NOT ENERGIZE” or “DO NOT OPERATE”.

Energy sources (such as electricity, gas, steam, compressed air, etc.) that run machines can create hazards for employees even when the machines are not running. Lockout / tagout procedures are designed to keep employees safe by isolating or shutting off machines and equipment from their power sources before any servicing or maintenance work can be performed.

Employers are responsible for developing and implementing these procedures, as well as ensuring that employees are adequately trained to understand and follow them. OSHA has developed a standard to address the creation of lockout / tagout procedures, which establishes the minimum performance requirements for the control of hazardous energy. (This standard can be viewed [here](#).) According to OSHA, compliance with these standards prevents an estimated 120 fatalities and 50,000 injuries per year.

# 8 STEPS TO AN EFFECTIVE LOCKOUT / TAGOUT PROGRAM

**Step 1: Detail procedures.** Identify equipment. Detail the correct procedure for shutting down and restarting equipment, step by step, in writing. Consider all energy sources connected to equipment. Be specific in your language.

**Step 2: Notify affected employees when maintenance will be performed.** Notify them when the work will be done and how long the equipment will be unavailable. Be sure employees are familiar with any changes in work processes that may be required.

**Step 3: Shut down equipment properly.** Explain the shutdown process in detail in order to ensure everyone’s safety. Spell out the exact actions to be taken in the correct sequence.

**Step 4: Disconnect all primary energy sources.** Don’t assume the person performing maintenance will know the correct procedure to follow — explain clearly and precisely what needs to be done.

**Step 5: Address secondary sources of potential danger.** Residual energy, such as trapped heat, unvented fumes, etc., may need to be released. Also consider other hazards, such as equipment that must be moved and/or secured before work begins. Document these processes in detail.

**Step 6: Verify the lockout.** Once all sources of energy are disconnected, attempt to start the equipment to verify that the lockout has been successful. Return all switches back to their “off” positions to avoid the equipment starting unexpectedly when the energy source is reconnected. Attach a lockout or tagout device to ensure it cannot be started prematurely.

**Step 7: Keep it in force during shift changes.** If individual locks or tags are used, the person responsible for designating the lockout / tagout and the person responsible for it during the next shift must both be present as the locks or tags are switched.

**Step 8: Bring equipment back online.** When work is done and all tools and other materials have been removed, the machine can be brought back into operation. Once again, spell out each step in the procedure in detail.

# MARCH IS WORKPLACE EYE HEALTH & SAFETY AWARENESS MONTH

*Keeping Healthy Vision and Preventing Eye Injuries on the Job*



The CDC reports that around 2,000 eye injuries occur on the job in the U.S. each day. This accounts for an estimated \$300 million annually in lost production time, medical expenses, and workers' compensation. Around 90% of these injuries could have been prevented if proper personal protective equipment had been used to protect the eyes, according to Prevent Blindness America.

## EYE HAZARDS

**Scraping** The majority of eye injuries are the result of small particles or objects scraping the eye. Particles of dust, metal, glass, wood, or other materials can fly or fall into the eyes, scratching the surface.

**Striking** Objects striking the face can cause blunt force trauma to eyeballs or sockets.

**Penetration** Larger objects such as nails, staples, metal shards, or wood chips can pierce the eyeball, which may result in permanent vision loss.

**Chemical and Thermal Burns** Chemicals such as industrial cleaning products commonly cause burns when spilled or splashed into the eyes. Thermal burns can occur when sparks are thrown from a fire or a machine (common among welders).

**Absorption** The mucous membranes of the eyes are also gateways to infection, and illnesses are often transmitted through direct exposure to blood, droplets from coughing or sneezing, or from touching the eye with a contaminated finger or other object.

**Eye Strain** Excessive use of computer, tablet, and



smartphone screens can lead to symptoms such as blurred vision, dry eyes, and headaches. Visit [Your Sight Matters](#) for more information on how to avoid eye strain and fatigue.

## CHOOSING PROPER PROTECTIVE EYEWEAR

Eye protection needs to be fitted to the individual person, job, and environment. Employers should assess the workplace for eye hazards to determine what type of eye protection is best suited for a given task. Employees who are required to wear eye protection must be trained on its use, including proper fit, maintenance and storage of equipment, and how it works to protect eyes, as well as its limitations. Post warning signs in areas where eye safety hazards exist, and have an eye wash station available.

**Safety Glasses** fit over the eyes like regular

eyeglasses and are intended to shield the eyes from impact or splash hazards. They consist of metal or plastic frames, impact-resistant lenses, and side shields to protect from flying debris.

**Safety Goggles** fit around the eyes, forming a protective seal, which prevents materials from entering from any direction. These can fit over each eye individually (eyecups) or over both eyes like a mask. Mask goggles are useful for people who wear corrective lenses, as they can be worn over a pair of eyeglasses.

**Face Shields** are made from lightweight, transparent plastic, glass, or wire screen, and are worn on or around the head and are used as extra protection against impact hazards. They must be paired with safety glasses or goggles in order to be effective. Certain types of hard hats can be fitted with face shields.

Eye protective equipment must be kept clean and well maintained in order to be effective. Dirty, foggy, or scratched lenses can impair vision, creating another set of hazards to the worker. Equipment can be shared among employees but requires disinfection between uses. Be sure to store the equipment properly when not in use.

*Note: Typical eyewear, such as sunglasses or corrective lenses, does not provide sufficient eye protection against workplace hazards and must be paired with another form of protective equipment. Only protective eyewear labeled "Z-87" meets industry standards.*

# “STRUCK-BY” INJURIES

Accidents involving objects coming into contact with workers result in hundreds of thousands of injuries per year — and the numbers are climbing.

“Struck-by” injuries occur when a flying, falling, swinging, or rolling object comes into forcible contact with a worker. Such accidents are ranked the second most deadly type of construction injury in OSHA’s “Fatal Four.” They also account for more than a quarter of all occupational injuries that result in missed workdays (U.S. Bureau of Labor Statistics, 2018). Unfortunately, the number of cases has increased in recent years.

## WHAT ARE SOME COMMON CAUSES OF STRUCK-BY INJURIES?

- A moving object, such as a vehicle or machine, striking a worker
- A worker bumping into, stepping on, kicking, or being pushed into an object
- Objects falling onto a worker from an elevated work surface or a suspended load
- An object sliding or flying after being pushed, pulled, or pried off
- A worker being injured from vibration from a jackhammer or other machine

## HOW CAN STRUCK-BY INJURIES BE PREVENTED?

**Stay alert.** Be mindful of hazards and alert to your surroundings at all times. Do not allow distractions to make you lose focus. This is especially important when operating or working around machinery. Use extra caution around corners, in doorways, and near stairs or ramps.

**Don’t get overloaded.** Carry only what you can without straining, and never allow objects that you are carrying to obstruct your view — this includes while using equipment such as pallet jacks and forklifts.

**Stand clear.** Many construction vehicles have obstructed views — use extra caution around moving vehicles and loads being dumped or transported. Stay outside of the swing radius of cranes and backhoes, and walk behind moving equipment.

**Post warning signs.** Areas with hazards should be clearly marked with warnings and blocked off, if possible.

**Secure loads.** If you are lifting or carrying a load, be sure it is properly secured to prevent it from slipping.

**Store equipment and materials properly.** Items should be stacked at a safe height to avoid tipping, with the largest, heaviest objects at the bottom. Only open one drawer at a time in filing cabinets. Machines such as forklifts, pallet jacks, and bulldozers should be parked in the lowered position when not in use.

**Keep equipment well maintained.** Perform regular inspections to ensure tools and machines are in proper working order.

**Instruct workers on how to work safely.** Conduct safety training sessions and provide education to workers on the proper use of tools

and equipment. Address hazards immediately and take corrective action.

**Wear your personal protective equipment.** Employers must provide PPE to employees and ensure it is being used at all times. Hard hats, steel-toed boots, safety glasses, goggles, and face shields can help protect workers from falling objects; non-slip gloves can make it easier for workers to keep a firm grip.



Older carpenter wearing mask and safety goggles in workshop by Jacob Lund from Noun Project

# WHY MASKS WORK

## Science & Statistics Teach Us How Masks Help Stop The Spread Of Covid-19

Over the past year, we have seen recommendations about mask wearing shift and evolve as scientists and doctors learn more about COVID-19. Health experts around the globe now have a better understanding of the transmission of the virus and have concluded that masks are a safe and effective tool to help stop the spread.

COVID-19 is primarily transmitted through respiratory droplets that are expelled when an infected person exhales, talks, sneezes, or coughs, and the droplets are inhaled by an uninfected person. Cloth masks not only block large droplets (20-30 microns or larger), but also filter some of the finer particles, called aerosols (10 microns or smaller). For size reference, a human hair is typically 60-120 microns in diameter. Large droplets contain more of the virus than aerosols; however, aerosols can remain airborne for much longer and can travel longer distances. Masks help to filter out these respiratory droplets by capturing them in their tightly woven fibers.

### WHO SHOULD WEAR MASKS

Anyone over the age of 2 should wear a mask when in public and/or around people who do not live in their household. If you have a medical condition which makes wearing a mask impossible, alternatives (such as face shields) and adaptations (such as working from home, having groceries delivered, etc.) should be utilized.

**To Protect Others** When an infected person wears a mask, it blocks not only the majority of larger particles, but also 50-70% of aerosols. In addition,

the cloth acts as a barrier to decrease the speed and distance of the aerosols that are released.

Around 40% of infections are caused by people who have COVID-19 but are asymptomatic – that is, showing no symptoms. This is one reason why it's so important that everyone, not just sick people, wear masks. Those infected could be spreading the disease to their friends, family, and others in the community without even knowing it.

**To Protect Yourself** In November 2020, the CDC updated their guidelines to state that cloth masks, especially those with multiple layers and higher thread counts, also reduce exposure to COVID-19 for the wearer by filtering out particles containing the virus.

### TYPES OF MASKS

Whichever type of mask is used, it should be neither too loose nor too tight, and fit snugly around the nose and chin with no large gaps around the sides of the face. Each type of mask has a different **filtration efficacy** – that is, level of effectiveness. The combined filtration efficacy increases the more people use them.

**Disposable Surgical Masks** Typically loose fitting, these masks create a physical barrier but do not form a seal around the nose and mouth. Their fluid resistance, filtration efficiency, bacterial efficiency, flammability, and biocompatibility are tested and regulated by the FDA. These masks should be used once and thrown away.



Masks have become an important piece of PPE since the start of the COVID-19 pandemic.

**Cloth Masks** The CDC recommends simple cloth face coverings be used by the general public. Cloth masks should be made from two or three layers of tightly woven but breathable fabric, such as cotton; loosely woven, knitted, or gauzy material will not be effective. A good rule of thumb — no light should be able to pass through the fabric. The addition of a filter inside a pocket in a mask can increase the filtration efficacy. Multilayer masks with high thread counts have been shown in studies to be on par with surgical masks in levels of filtration. Because they are made of cloth, they can be washed and reused after each use.

**N95 Respirators** Considered the “Gold Standard,” these devices fit closely to the face and form a seal around the nose and mouth, making them more efficient at filtering out airborne particles than other types of masks. N95 refers to the percentage of particles capable of being filtered out — up to 95%. The larger breathing zone created by the shape, as well as the random pattern of the fabric increase the chance of droplets being caught. They also have an extra feature — an electrostatic charge that attracts and captures particles. Like other disposable masks, they should not be shared or reused. The CDC does not recommend use of N95s for the general public, as supplies are limited and should be reserved for health care workers and first responders; however, they are safe for everyday use if you happen to have a supply of them at your disposal.

*Note: N95 respirators with exhalation valves can actually increase the spread of viral particles to others and are therefore not recommended for stopping the spread of COVID-19.*

## OTHER WAYS TO STOP THE SPREAD

Masks alone are just one tool in the arsenal against COVID-19. The combined use of all the tools at our disposal can help to slow the spread of the virus until there’s a cure.

- **Physical Distancing** The CDC recommends maintaining 6 feet or more between you and others.
- **Proper Handwashing Techniques** Scrub all surfaces of the hands for 20-30 seconds using soap and water and rinse under running water (or use hand sanitizer when soap and water are not available).
- **Improved Ventilation** Opening windows even just six inches can provide five or more Air Changes per Hour (ACH). If windows cannot be opened, air can be ventilated through portable air purifiers, exhaust fans, or HVAC systems fitted with high efficiency air filters.
- **Use Your “Indoor Voice”** The louder the sound projected, the more respiratory droplets are released into the air. Aerosols from loud talking, yelling, or singing can remain in the air for longer than eight minutes — sometimes as long as 14 minutes, depending on the environment.

# CASE STUDY

## HEALTH SYSTEM'S MASK POLICY LEADS TO SIGNIFICANT DROP IN COVID-19 INFECTIONS, STUDY FINDS

Boston — A universal masking policy for employees at Mass General Brigham led to a significant decrease in the rate of COVID-19 infections among workers, results of a recent study by researchers at the health system show.

The 12-hospital system — the largest in Massachusetts — in March began requiring all of its 78,000 employees to wear surgical masks, while implementing a number of other mitigation strategies. The researchers compared workers’ electronic medical records from a preintervention period (March 1-24) with an intervention period (April 11-30) — allowing for a transition period (March 25-April 10) to account for a lag in symptoms.

During the pre-intervention period, the positivity rate rose nearly 1.2% a day — to 21.3% from 0% — with the number of cases doubling every 3.6 days. During the intervention period, positive cases among employees decreased to 11.5% from 14.7%.

As the number of cases dropped among workers during the study period, it rose throughout the state. According to [data](#) from *The New York Times*, new COVID-19 cases in Massachusetts rose to 1,940 on April 30 from one on March 1.

“These results support universal masking as part of a multipronged, infection-reduction strategy in health care settings,” Deepak L. Bhatt, study co-author and executive director of interventional cardiovascular programs at Mass General Brigham, said in a recent press release. “While we studied health care workers, the results also apply to other situations in which [physical] distancing is not possible.”

Over the course of the study period, 9,850 workers were tested for COVID-19 after reporting symptoms, with 1,271 (12.9%) testing positive.

“The results of this study demonstrate that requiring masks for all hospital staff, regardless of role in the organization, was critical to protecting our employees,” Dean Hashimoto, chief medical officer for occupational health services at Mass General Brigham, said in the release.

The study was [published online](#) in the *Journal of the American Medical Association*.

Originally published September 30, 2020 in  
Safety + Health, a National Safety Council publication

**Safety+Health**  
an NSC publication



An email blast will be sent from the State Loss Prevention Program prior to each of these webinars with registration information.

## UPCOMING TRAINING WEBINARS:

1/13

**SAFETY COORDINATOR ORIENTATION**

1/27

**HOW TO GET THE MOST VALUE FROM YOUR SAFETY COMMITTEE**

2/10

**JOB SAFETY ANALYSIS**

3/10

**FACILITY & EQUIPMENT INSPECTIONS**

3/24

**PROMOTING EMPLOYEE SAFETY AWARENESS**

All webinars will be offered on each date through GoToMeeting at both 10:00 am and 2:00 pm (Eastern Time).

For questions, contact Juana Powell in the Division of Risk Management / Loss Prevention:  
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## REFERENCES AND RESOURCES

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