

CPWR is a nonprofit dedicated to reducing injuries, illnesses, and fatalities in the construction industry. Our research, training, and service programs collaborate with many stakeholders—including workers, contractors, project owners, health and safety professionals, academics, key government agencies, unions, and associations—to fulfill that mission.

Ways our work can help you ...

RESEARCH: As the National Institute for Occupational Safety and Health’s National Construction Center, we conduct research and translate it into tools and resources that contractors and workers can put into practice on job sites.

Contractors can use the new **Safety Climate-Safety Management Information System** to assess their safety climate, select and implement appropriate tools to strengthen it, and engage in continuous safety climate improvement.



cpwr.com/safetyclimate

Hazard Alert Cards describe common hazards and steps to reduce risks and prevent injuries and illnesses. They can be handed out to workers, accompany toolbox talks, and be used as part of training programs. Our 70+ **Toolbox Talks** help contractors of all sizes educate their employees on how to identify and respond to hazards.



cpwr.com/hazardalerts



cpwr.com/toolboxtalks

Our **Data Center’s analysis** informs new research, reveals trends, keeps stakeholders informed, and suggests directions to improve the safety and health of construction workers. Products include the Data Bulletin and the interactive Data Dashboards.



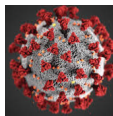
cpwr.com/datacenter

CPWR hosts **regular webinars** focused on current research, new efforts and trends in safety and health, and training programs. In addition to a series on COVID-19, recent topics have included falls, the Small Studies program, and struck-by incidents. Our **Construction Safety & Health podcast** provides information on safer equipment and work practices, emerging hazards and solutions, and other safety and health areas.



cpwr.com/webinars, cpwr.com/podcasts

CPWR continues to develop and collect resources to help construction employers and workers **keep safe during the coronavirus pandemic**. These materials include two websites—the COVID-19 Construction Clearinghouse and the Exposure Control Planning Tool—as well as a webinar series, infographics, a Toolbox Talk, and other guidance.



cpwr.com/covid19

Mental health issues are affecting construction workers at alarming rates. Suicide is now a leading cause of death in our industry, and construction workers are six to seven times more likely than the average worker to die of an opioid overdose. CPWR offers multiple resources to help the industry respond, including an opioids awareness training program.



cpwr.com/mentalhealth

CPWR’s **growing collection of infographics** raise awareness of occupational hazards and solutions by drawing on respected research to create highly visual one-pagers. Topics include extreme weather, falls, manual materials handling, and noise.



cpwr.com/infographics

CPWR’s **Research to Practice (r2p)** program focuses on accelerating wide-spread adoption of research findings and evidence-based solutions that improve worker safety and health. It helps synthesize and translate research findings into practical resources for the industry, establish partnerships, and develop tools to conduct r2p.



cpwr.com/r2p

TRAINING: Our extensive network of highly skilled safety and health trainers is critical for bridging the gap between research and what happens on construction sites. Through our cooperative agreement with the National Institute of Environmental Health Sciences and our National Resource Center’s role as an OSHA Training Institute Education Center, we provide the latest safety and health training programs and respond to the needs of our partner unions and signatory contractors. cpwr.com/training

SERVICE: Funded through a cooperative agreement with the U.S. Department of Energy (DOE), our Building Trades National Medical Screening Program (BTMed) serves as a lifeline for thousands of DOE construction workers. BTMed identifies construction workers who have been employed on DOE nuclear sites, screens them for occupational illnesses, helps connect them with appropriate care, and saves lives. btmed.org

Visit us on **social media!**

CPWR FAMILY OF WEBSITES



cpwr.com – The first stop for information on our research, training, service programs, and related products and resources.



elcosh.org – An online library of safety and health materials for construction workers, employers, researchers, and other stakeholders.



nano.elcosh.org – An inventory of the use of nano-enabled products — those to which nanomaterials have been added or the nano-structure has been altered — in construction. Its goal is to inform workers about these products as a first step to protecting them from hazards.



covid.elcosh.org – The COVID-19 Construction Clearinghouse offers a central resource for construction employers and workers to find the latest research, guidance documents, training and other resources to help prevent the spread of COVID-19.



covidcpwr.org – This free Planning Tool takes you step-by-step through developing your plan to protect employees from and prevent the spread of COVID-19, including what to consider when conducting a job hazard analysis, selecting appropriate controls, screening workers and visitors, training employees, and implementing the plan.



safeconstructionnetwork.org – Use this site to connect with others interested in advancing construction safety and health, uncover new resources or share your own, and identify new research or community partners.



bestbuiltplans.org – Provides contractors and workers with practical tools and information to plan for safe materials handling while staying productive and profitable. Access the jobsite planning tool, training resources, and interactive coaching exercises created to reduce manual materials handling (MMH) and prevent sprain and strain injuries.



ecd.cpwrconstructionsolutions.org – An interactive tool for the construction industry that helps predict exposure to workplace hazards using objective exposure measurements.



stopconstructionfalls.com – Visit our website and join the ongoing Campaign to Prevent Falls in Construction.



silica-safe.org – A one-stop source of information on how to prevent a silica hazard and comply with the standard, including a free online planning tool to create a silica control plan.



sc-smis.org – Use this new site to assess safety climate, select and implement appropriate tools to strengthen it, and engage in continuous safety climate improvement.



cpwrconstructionsolutions.org – Find practical control measures to reduce or eliminate a variety of construction hazards.



safealc.org – Evaluate the financial impact of a safer solution using this free online calculator.



choosehandsafety.org – Find information on the risks and ways to prevent hand injuries, including what to look for when choosing hand tools and gloves.



btmed.org – Learn about the Building Trades National Medical Screening Program and its mission to provide free medical screenings to construction workers who helped build our nation's nuclear defense sites.



esmartmark.org – Contact your international union to access this site created by NABTU to distribute the Smart Mark training curriculum.

Training and Planning Resources

CPWR is a nonprofit dedicated to reducing injuries, illnesses, and fatalities in the construction industry. Our research, training, and service programs collaborate with many stakeholders—including workers, contractors, project owners, health and safety professionals, academics, key government agencies, unions, and associations—to fulfill that mission. The following is a selection of CPWR’s many free resources; visit cpwr.com for more.

Many of these materials, as well as others on our site, are also available in Spanish.



Best Built Plans – Build Safety into Every Job

This program provides contractors and workers with practical tools and information to plan for safe materials handling while staying productive and profitable. It also includes training and coaching components that give instructors information to raise workers’ awareness of soft tissue injuries and ways to prevent them.

bestbuiltplans.org



Construction Noise and Hearing Loss Prevention Training Program

This comprehensive program provides flexible training options, including modules that can be used on their own or as part of OSHA 10- or 30-hour classes and short exercises that can be used in classroom or hands-on training sessions.

cpwr.com/noise



COVID-19 Exposure Control Planning Tool

The Exposure Control Planning Tool goes step-by-step through developing a plan to protect workers, including what to consider when conducting a job hazard analysis for COVID-19, selecting appropriate controls, screening workers, training employees, and implementing the plan.

cpwr.com/covid19



Foundations for Safety Leadership (FSL)

The FSL training program is an OSHA-approved 30-hour elective module designed to provide construction foremen and other lead workers with the skills to become effective safety leaders. It can also be used as a stand-alone training program.

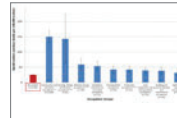
cpwr.com/fsl



Infrastructure Project Resources

The new federal infrastructure spending bill is funding much-needed construction projects nationwide. Building a strong and safe infrastructure begins with protecting the safety and health of the workers on these projects, and CPWR has collected resources to keep workers safe and on the job.

cpwr.com/infrastructure



Opioid Awareness Training Program

Construction workers have been hit particularly hard by opioid overdose deaths, and this training program, which was recently updated, increases awareness of opioid hazards by focusing on primary, secondary, and tertiary prevention and decreasing stigma associated with opioid use.

cpwr.com/opioids



Radiofrequency (RF) Radiation Awareness Program

Workers on roofs, sides of buildings, news trucks, and other structures where cellular antennas and other RF-generating devices are present may be exposed to hazardous levels of RF radiation. This program raises contractors’ and workers’ awareness of risks, helps them identify hazards, and provides steps to working safely.

cpwr.com/rf



Safety Climate - Safety Management Information System (SC-SMIS)

Contractors and Safety Professionals can use the SC-SMIS free of charge to measure jobsite safety climate using valid assessment tools, select and implement safety management resources to strengthen it, and engage in continuous safety climate improvement.

cpwr.com/safetyclimate



Safety Voice for Ergonomics

SAVE (Safety Voice for Ergonomics) teaches masonry brick and block apprentices problem-solving skills and ergonomics, as well as how to speak up or who to go to about a potential hazard. Although developed for brick and block apprentices, SAVE’s materials can be adapted for other trades or audiences.

cpwr.com/save

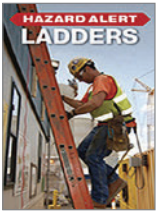


Work Safely with Silica

This website is a one-stop resource for construction contractors and workers covered by OSHA’s construction and general industry standards, including those working in the oil and gas industries. The site includes information on the health risks of silica exposure, methods to prevent it, and a free online planning tool to help contractors comply with the requirement for a written exposure control plan.

silica-safe.com

Other Selected CPWR Resources



Hazard Alert Cards

Each of the 30+ Hazard Alert Cards describes a common hazard and steps to reduce risks, injuries, and illnesses, and can be used in trainings or toolbox talks. Printed, pocket-size versions are available in English (and in Spanish for silica).

cpwr.com/hazardalerts

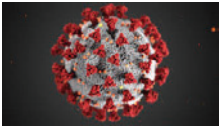


Toolbox Talks

CPWR maintains a collection of more than 70 Toolbox Talks, with new topics added regularly. Each includes a description of a specific hazard, a job site case example and related questions, and steps to work safely.

All are available in English and Spanish.

cpwr.com/toolboxtalks



COVID-19 Resources

CPWR develops and collects resources to help construction employers and workers keep safe during the coronavirus pandemic.

The materials include the COVID-19 Construction Clearinghouse, the Exposure Control Planning Tool, a webinar series, podcasts, infographics, vaccination and ventilation information, and a Toolbox Talk.

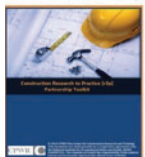
cpwr.com/covid19



Mental Health & Addiction

CPWR offers information to help the construction industry respond to mental health issues, which are affecting construction workers at alarming rates. It includes material on preventing suicide, now a leading cause of death in our industry, and on addressing opioid use.

cpwr.com/mentalhealth



Research to Practice (r2p) Library

Our research to practice (r2p) library includes practical tools, information, and resources for contractors, trainers, workers, and other stakeholders; it also helps researchers plan how their findings will be used to advance construction safety and health.

cpwr.com/r2p



Webinar Series

CPWR's webinars focus on current research, new efforts and trends in safety and health, and training programs. In addition to a series on COVID-19, recent topics have included falls, drones, and safety culture.

cpwr.com/webinars



Research Projects

Our staff and consortium of researchers study existing and emerging hazards, producing

papers, evidence-based technologies, and work practices designed to prevent occupational injuries and illnesses. Our Small Study grants support promising new research initiatives.

cpwr.com/research



Data Center

CPWR's Data Center provides detailed, reliable, and timely data on construction workers' safety and health. It shares its findings through publications, presentations, and other products (such as the six-times-a-year Data Bulletin and interactive online Data Dashboards), as well as in responses to individual requests.

cpwr.com/datacenter



CPWR Update

Our monthly e-newsletter covers the latest research, training, and service activities, plus new publications, online resources, and more. Find the latest issue, access past issues, or sign up for the mailing list.

cpwr.com/update



Podcast, app, games

CPWR now offers the Construction Safety & Health podcast; a smartphone app that gives workers access to a suite of training resources for the Best Built Plans program (see opposite side); and games that encourage proper lifting techniques.

CPWR INFOGRAPHICS — AVAILABLE ONLINE

These infographics, which are based on data from CPWR research and other trusted sources, raise awareness of occupational hazards and solutions. Available for free, they can be downloaded as PDFs or JPEGs for use in social media, presentations, and print materials from cpwr.com/infographics.

COLD WEATHER SAFETY

Protect Yourself from the Cold
You are at risk if you work outside or in cold conditions.

- Dress Warm:** Wear heavy, layered clothing. Use wind-resistant outerwear. Wear hats, gloves, and boots.
- Stay Hydrated:** Drink warm fluids. Avoid alcohol and caffeine.
- Know the Warning Signs:** Hypothermia is a medical emergency. Call 911.

COVID-19

Protect Yourself and Prevent the Spread of COVID-19

- Cover:** Wear a face covering or respirator.
- Wash:** Cleanse your hands frequently with soap and water for 20 seconds.
- Distance:** Stay at least 6 feet from others when possible.

EYE PROTECTION

Protect Your Eyes

Wear the right eye protection. Safety glasses or face shields are required for many jobs. Eye protection is a personal protective equipment (PPE) requirement.

FALLS

HAVE A RESCUE PLAN TO PREVENT SUSPENSION TRAUMA
The longer you hang, the longer it will take to get down.

- Plan:** Identify work locations and potential rescue equipment.
- Prepare:** After a fall, initiate the rescue plan.
- Practice:** Conduct rescue drills.

HEAD PROTECTION

Protect Your Head

Always wear head protection. Helmets protect against falling objects, licks, bumps, bruises, and other injuries. They also protect against head death.

HEAT EXPOSURE

Protect Yourself Against Heat Exposure

You are at risk if you:

- Work in hot conditions.
- Drink water to stay hydrated.
- Know the warning signs.
- Seek medical attention.

LIGHTNING PROTECTION

What should you do if you hear THUNDER?

- Get Informed:** Know the signs and symptoms of lightning.
- Get Undercover:** Find a safe place to take shelter.
- Get Away:** Avoid open areas and tall objects.

MATERIALS HANDLING

If it's over 100 lbs., find a safer workaround.

Any material that weighs more than 100 lbs. should be moved with equipment or a team.

NAIL GUN SAFETY

NAIL SAFETY!
Avoid Nail Gun Injuries

Wear Protective Gear

- Always wear a hard hat, safety glasses, and earplugs.
- Safety glasses should be marked with a Z87+.

NANOMATERIALS

What are Nanomaterials?

Current: Nanomaterials are used in many products, including electronics, medicine, and consumer goods.

NOISE

Did you know that hearing loss is one of the most common work-related illnesses in the United States?

50% of construction workers have hearing loss.

OPIOID AWARENESS

Don't be a statistic. Protect yourself from an opioid overdose.

Know the Signs and Symptoms

- Slurred speech, loss of consciousness, slow breathing.

RF RADIATION

Radio Frequency (RF) Radiation

Know the Basics

- RF radiation is invisible.
- It can cause health effects.

SOLVENTS

Solvents

What's the Risk?

- Health effects: dizziness, headaches, nausea.

STRUCK-BY HAZARDS

Stay Alert in Work Zones!

Stay alert in work zones. Stay alert in work zones. Stay alert in work zones.

SUICIDE PREVENTION

Together we can help prevent suicide in construction.

Prevent Suicide in Construction

You are not alone.

TRENCH SAFETY

Practice Trench Safety. It Saves Lives.

Know the Signs and Symptoms

- Slumped posture, dizziness, nausea.

YOUNG WORKERS

A Friend is Injured at Work

Stay alert in work zones. Stay alert in work zones. Stay alert in work zones.

INFOGRAFÍAS DE CPWR – DISPONIBLE EN LÍNEA

Estas infografías, que se basan en datos de la investigación de CPWR y otras fuentes de confianza, crean conciencia sobre los riesgos y soluciones ocupacionales. Disponibles de forma gratuita, se pueden descargar como archivos PDF o JPEG para su uso en redes sociales, presentaciones y materiales impresos de cpwr.com/infographics.

CAÍDAS

TERMINA UN PLAN DE RESERVA PARA PREVENIR LOS TRAMPAZOS SI EL TRABAJADOR CUEBA SUSSENUDO

Antes de que comience el trabajo, asegúrese de tener un plan de reserva en caso de una emergencia. Esto puede salvar vidas.

• **PREVENIR:** Evite el uso de herramientas que puedan ser atrapadas o que puedan ser atrapadas por el trabajador.

• **PREVENIR:** Evite el uso de herramientas que puedan ser atrapadas o que puedan ser atrapadas por el trabajador.

• **PREVENIR:** Evite el uso de herramientas que puedan ser atrapadas o que puedan ser atrapadas por el trabajador.

CPWR

COVID-19

Protéjase y evite la propagación de COVID-19

CUBRE: Use una mascarilla facial que cubra la boca y la nariz o un respirador.

LAVA: Lávese las manos con agua y jabón durante al menos 20 segundos para matar los virus que se propagan.

DISTANCIA: Mantenga una distancia de al menos 6 pies (2 metros) de las personas que totern con COVID-19.

CPWR

CONCIENCIA SOBRE LOS OPIOIDES

¿Qué es un opioide?

Los opioides son medicamentos que se usan para tratar el dolor. Pueden ser peligrosos si se usan incorrectamente.

¿Por qué es un problema?

El uso de opioides ha aumentado drásticamente en los últimos años, lo que ha llevado a un aumento de las adicciones y las muertes.

¿Cómo puedo protegerme?

• No tome opioides sin receta médica.

• No tome opioides con alcohol u otros medicamentos.

• No tome opioides por un tiempo más largo del que se le indicó.

CPWR

DISOLVENTES

¿Cuál es el riesgo?

Los disolventes pueden causar problemas de salud, como problemas respiratorios, problemas de piel y problemas de visión.

Disolventes:

- Acetona
- Benceno
- Hexano
- Tolueno
- Xileno

CPWR

MANIPULACIÓN DE MATERIALES

Si es más de 50 libras, busque una alternativa más segura.

Cualquier material que pese más debe moverse con equipo o ser levantado por un equipo de personas.

CPWR

NANOMATERIALES

¿Qué son los nanomateriales?

Los nanomateriales son materiales que tienen al menos una dimensión que mide entre 1 y 100 nanómetros.

¿Dónde se encuentran los nanomateriales?

• En productos de consumo como pinturas, plásticos y textiles.

• En productos médicos como vacunas y medicamentos.

• En productos electrónicos como chips de computadora.

CPWR

PELIGROS DE GOLPE

MANTÉNGASE ALERTA EN LAS ZONAS DE TRABAJO

Los golpes pueden ser muy peligrosos y causar lesiones graves.

¿Cómo puedo protegerme?

• Mantenga una zona de trabajo despejada.

• No trabaje bajo cargas suspendidas.

• Use cinturón de seguridad cuando trabaje en altura.

CPWR

PREVENCIÓN DEL SUICIDIO

Prevenir el Suicidio en la Construcción

La industria de la construcción tiene una de las tasas de suicidio más altas.

¿Cómo puedo prevenir el suicidio?

• Conozca los signos de advertencia.

• Busque ayuda si usted o alguien que conoce está experimentando problemas.

CPWR

PROTECCIÓN PARA LOS OJOS

Protege tus ojos

Los ojos son uno de los órganos más vulnerables del cuerpo humano.

¿Cómo puedo proteger mis ojos?

• Use gafas de seguridad cuando trabaje en un entorno de construcción.

• Evite mirar directamente al sol.

CPWR

RUIDO

¿Sabía usted que la pérdida auditiva es una de las enfermedades relacionadas con el trabajo que ocurren en los Estados Unidos?

El ruido puede causar pérdida auditiva y otros problemas de salud.

¿Cómo puedo proteger mis oídos?

• Use tapones para los oídos o protectores auditivos cuando trabaje en un entorno ruidoso.

CPWR

SEGURIDAD CON LAS PISTOLAS DE CLAVOS

¡SEGURIDAD! EVITE LAS LESIONES CON PISTOLAS DE CLAVOS

Use equipo de protección personal cuando trabaje con herramientas eléctricas.

¿Cómo puedo protegerme?

• Use gafas de seguridad.

• Use guantes resistentes a los cortes.

• Use ropa que no sea holgada.

CPWR

SEGURIDAD CONTRA RAYOS

¿Qué debe hacer si escucha truenos?

Los rayos pueden ser muy peligrosos y causar lesiones graves.

¿Cómo puedo protegerme?

• Busque refugio inmediato cuando escuche truenos.

• Evite usar teléfonos móviles al aire libre.

CPWR

SEGURIDAD DE LA RADIACIÓN RF

UN PELIGRO INVISIBLE

La radiación de radiofrecuencia (RF) puede causar problemas de salud.

¿Cómo puedo protegerme?

• Mantenga una distancia de seguridad de los dispositivos inalámbricos.

• No use dispositivos inalámbricos en áreas restringidas.

CPWR

SEGURIDAD EN EL CALOR

Protejase contra la exposición al calor.

El calor puede causar problemas de salud, como golpe de calor y deshidratación.

¿Cómo puedo protegerme?

• Beba agua frecuentemente.

• Use ropa ligera y protector solar.

• Evite trabajar durante las horas más calientes del día.

CPWR

SEGURIDAD EN LAS ZANJAS

Practique la seguridad en las zanjas. Porque salva vidas.

Las zanjas pueden ser muy peligrosas y causar lesiones graves.

¿Cómo puedo protegerme?

• Use una escalera o un andamio cuando trabaje en una zanja.

• Evite trabajar en zanjas profundas.

CPWR

SEGURIDAD EN LOS AMBIENTES FRÍOS

Protéjase del Frio

Los ambientes fríos pueden causar problemas de salud, como congelación y hipotermia.

¿Cómo puedo protegerme?

• Use ropa adecuada para el frío.

• Beba agua y evite alcohol.

• Evite trabajar durante las horas más frías del día.


CPWR

Publications Order Form

CPWR offers a wide variety of free materials (many available in Spanish) to improve the safety and health of construction workers. They include Hazard Alert Cards, a Toolbox Talk series, Infographics, and planning resources, all of which can be found at www.cpwr.com/hazard-specific-resources. Many of these materials are also available in print— see below and opposite side. To order them, complete and submit this form to news@cpwr.com.*

SPECIAL PUBLICATIONS, REPORTS, ETC.


CPWR Highlights 2021
 Our annual report details our continued response to COVID-19 and the other work of our research, training, and service programs.



Reaching Higher: Recommendations for the Safe Use of Mast Climbing Work Platforms
 Tips for using critical modern building industry technology safely.



CPWR IMPACT Cards
 Brief case studies that describe how CPWR research findings are benefiting the construction industry.



- CPWR Data Center
- Day Laborers
- Don't Fall For It!
- Dust Exposure Reduction
- eLCOSH
- Foundations for Safety Leadership
- Masonry
- Mast Climbing Work Platforms
- Nail Guns
- Overhead Drilling
- Smart Mark
- Spray Foam Exposure

COMPANY/ORGANIZATION ADDRESS:

NAME:		TITLE:	
EMAIL:			<input type="checkbox"/> CHECK TO BE ADDED TO OUR EMAIL LIST
COMPANY/ORGANIZATION:			
STREET ADDRESS:			
CITY:		STATE:	ZIP CODE:
PHONE NUMBER:		DATE PUBLICATIONS ARE NEEDED BY:	

SHIPPING ADDRESS (IF DIFFERENT THAN COMPANY/ORGANIZATION ADDRESS):

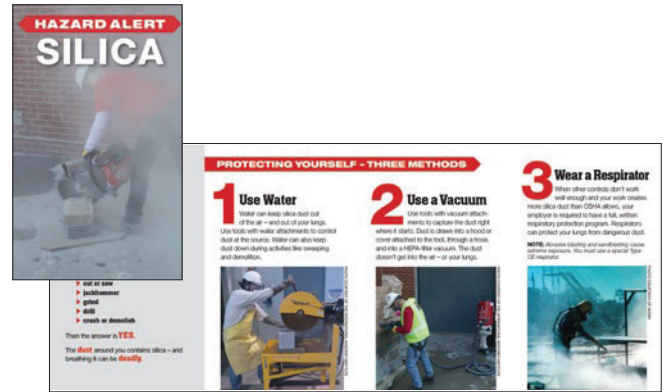
RECIPIENT NAME:		
STREET ADDRESS:		
CITY:	STATE:	ZIP CODE:

***How to submit:** scan and e-mail this completed form to: news@cpwr.com
OR mail it to: CPWR, 8484 Georgia Ave., Suite 1000, Silver Spring, MD 20910, ATTN: Communications

HAZARD ALERT CARDS

Hazard Alert cards describe common hazards and steps to reduce risks and prevent injuries and illnesses. They can be used as handouts and to reinforce messages in training classes or toolbox talks, and new topics are added regularly. Pocket-size versions are available in print in English (and in Spanish for Silica), and all are available to download in English and Spanish.

Check cpwr.com/hazardalerts to download pdf versions and to see new topics.



Topics	Quantity
Aerial Lifts	
Asbestos	
Avoiding Hazards During Healthcare Construction	
Back Injuries	
Carbon Monoxide	
Confined Spaces	
Electrical Safety for Non-Electricians	
Eye Injuries	
Fall-Protection Harnesses	
Fumes and Gases	
Hand Tools	
Hazard Communication	

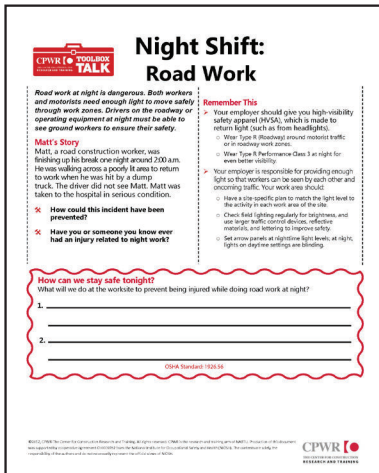
Topics	Quantity
Isocyanates	
Ladder Safety	
Lead Poisoning	
Lightning	
Lockout/Tagout	
Methylene Chloride	
Nail Guns	
Nanomaterials	
Noise and Hearing Loss	
Opioid Deaths in Construction	
Preventing Head Injuries	
RF Radiation	

Topics	Quantity
Scaffolds	
Silica	
Silice	
Silica Dust: Working in an Enclosed Cab	
Skin Cancer	
Skin Problems	
Solvents	
Suicide Prevention	
Trenches	
Working in Cold Weather	
Working in Hot Weather	

These and CPWR's other products are available **FREE of charge.**

Turn the page to view more.

CPWR maintains a collection of free Toolbox Talks that are available in **English** and **Spanish** at cpwr.com/toolboxtalks. New topics are added on an ongoing basis. To learn more about this series or suggest additional topics, please contact news@cpwr.com.



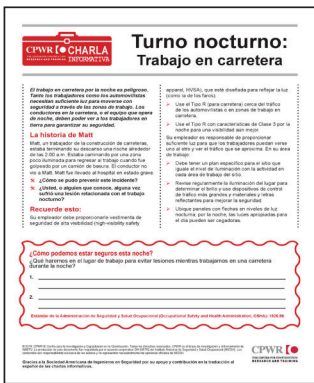
*** New Toolbox Talk**

Scan this QR code to access the Toolbox Talks online.



- Aerial Lifts
- Aerogel Nanoporous Insulation Products
- Airborne Exposures When Working with Nano-Enabled Concrete
- Arc Welding and Fire Safety
- Arc Welding and Electrical Safety
- Asphalt Fumes: Roofing Operations
- Biohazard Safety
- Boom Truck Safety
- Buried Utilities
- Carbon Monoxide Poisoning
- Carpal Tunnel Syndrome
- Cold Weather
- Confined Spaces
- COVID-19
- Cranes: Stability & Tipping
- Electric Power
- Electric Wiring Safety
- Equipment Maintenance
- Equipment: Falling Objects
- Equipment: Getting on & off
- Extension Cord Safety
- Eye Protection
- Falls from Heavy Equipment
- Falls: Extension Ladders
- Fire Safety
- Forklift Safety
- Guardrails: General Fall Protection and Awareness
- Hammer Safety
- Head Protection
- Histoplasmosis
- Hot Weather
- Housekeeping
- Identifying Nano-Enabled Construction Materials
- Introduction: Nano-Enabled Construction Materials
- Isocyanates
- Lead Exposure
- Lifting & Carrying Materials
- Lift Zone Safety*
- Lightning
- Lockout/Tagout: Electrically Powered Equipment
- Lyme Disease
- Materials Handling: Drywall
- Nail Gun Safety
- Nano-Enabled Cement Materials with Titanium Dioxide
- Nano-Enabled Wood Coatings and Stains
- Night Shift: Road Work
- Noise and Hearing Protection
- Opioid Deaths in Construction
- Overhead Power Lines
- Power Saw Safety
- Prevent Exposure: Nano-Enabled Construction Materials
- Prevent Exposure: Silica Dust in Enclosed Cabs
- Preventing Falls from Rooftops
- Preventing Falls from Scaffolding
- Preventing Falls Through Holes
- Radiofrequency (RF) Radiation
- Respiratory Protection*
- Right to Know About Chemical Hazards: Nanomaterials
- Roof Collapse
- Shiftwork, Long Work Hours, and Fatigue
- Silica
- Skid Steer Loaders
- Skin Cancer
- Solvents
- Spray Painting and Cutting Concrete Block Coated with Nano-Enabled Silver Paint*
- Spray Painting and Sanding Nano-Enabled Paint
- Step Ladders
- Suicide Prevention*
- Tower Crane Safety*
- Traffic Safety
- Trench Safety
- Vibration: Hand and Arm
- Wet Concrete
- Workplace Stress
- Work Zone Safety: Vehicle Operators
- Work Zone Safety: Working Around Vehicles

CPWR mantiene una colección de Charlas informativas gratuitas que están disponibles en **inglés** y **español** en cpwr.com/toolboxtalks. Se agregan nuevos temas de manera continua. Para obtener más información sobre esta serie o sugerir nuevos temas, comuníquese con news@cpwr.com.



- Ambientes Calientes
- Ambientes Fríos
- Bloqueo Etiquetado
- Cableados Eléctricos
- Cables de Tendido Eléctrico
- Caídas desde Equipos Pesados
- Caídas: Escaleras Extensibles
- Caídas por Agujeros Y Aberturas
- Caídas: Protección General y Concientización
- Cáncer de Piel
- Cargadores de Dirección Deslizante
- Cemento Habilitado por Nano-materiales con Dioxido de Titano
- Colapso de Plumas
- Colapso de Techo
- Dioxido de Titano
- Covid-19
- Disolventes
- El derecho a conocer los peligros químicos: Nanomateriales
- Energía Eléctrica
- Enfermedad de Lyme
- Escaleras de Tijeras
- Espacios Confinados
- Estrés en el Trabajo
- Evite Exposición: Materiales de construcción Cabilitados por Nano
- Exposición al Plomo
- Grúas: Estabilidad y Volcamientos
- Exposiciones Aerotransportadas Cuando trabajas con concreto nano-habilitado
- Histoplasmosis
- Humos de Asfalto
- Identificando Materiales de Construcción Habilitados por Nano
- Intoxicación por Monóxido de Carbono
- Introducción: Materiales de construcción habilitados por nano
- Isocianatos
- Jirafas
- Levantar y Cargar Materiales
- Líneas Subterráneas de Servicios Públicos
- Manejo de Materiales: Paneles de Yeso
- Mantenimiento de Equipo
- Maquinarias: Caída de Objetos
- Maquinarias: Cómo Subirse y Bajarse
- Montacargas
- Muertes por Opioides en la Construcción
- Pintando con pistola pulverizadora y lijando con pintura habilitada por nano
- Pintar y cortar bloques de concreto recubiertos con pintura plateada con nanopartículas*
- Pistola de Clavos
- PPE: Cemento Húmedo
- Prevención de Caídas Desde Andamios
- Prevención de Caídas Desde Techos
- Prevención de la exposición: Polvo de sílice en cabinas cerradas
- Prevención del suicidio en el sector construcción*
- Productos de aislamiento nanoporoso de aerogel
- Protección Auditiva
- Protección de la Cabeza
- Protección de los Ojos
- Protección Respiratoria*
- Radiación RF
- Relámpagos
- Seguridad con Cables de Extensión
- Seguridad Contra Incendios
- Seguridad Contra Riesgos Biológicos
- Seguridad en Grúas Torre*
- Seguridad en la Zona de Izaje: Planeando un Izaje de Carga*
- Seguridad en la Zona de Trabajo: Trabajar Alrededor de Vehículos
- Seguridad en Zanjas
- Seguridad en Zonas de Trabajo: Operadores de Vehículos
- Seguridad Vial
- Sierras Eléctricas
- Sílice
- Síndrome del Túnel Carpiano
- Soldadura al Arco y Peligros Eléctrico
- Soldadura al Arco y Seguridad Contra Incendios
- Tintes y Barnices Habilitados con Nano-materiales para Madera
- Turnos de Noche
- Turnos de Trabajo
- Uso de Martillo
- Vibración

*** Nueva Charla informativa**

Escanea este código QR para acceder a las Charlas informativas online.



HAZARD ALERT

CPWR
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

Lockout/Tagout



What is Lockout/Tagout?

Lockout/Tagout (or LOTO) makes sure that equipment does not start up or move without warning during maintenance and service work.

▶ A lockout device is a key or combination lock that prevents equipment from turning on or moving unexpectedly.



A machine being locked and tagged out.

PHOTO COURTESY OF POWER DESIGN, INC.

▶ A tagout device is a tag securely attached to the equipment using, for example, a self-locking nylon cable. The tags say "Do not start" or "Do not operate." Tags should be used along with a lockout device unless the equipment cannot be locked out.

The person who puts the lock or tag on the equipment is the only one who can take it off.

Why is LOTO important?

When LOTO procedures are **not followed**, workers that clean, service, repair, install, set up, erect, adjust, inspect, un-jam, test, or dismantle equipment are at risk for serious injuries or death from:

- ▶ Electrocution,
- ▶ Burns,
- ▶ Being crushed, or
- ▶ Amputation (e.g., loss of a finger).

For example, a 30-year-old elevator repairman was crushed and died while working in an elevator shaft because the power to the elevator had not been locked out.¹

Following LOTO procedures prevents roughly 120 deaths and 50,000 injuries each year.²

Learn more about how to work safely:

Scan this QR code to learn about OSHA's **LOTO requirements**:



PHOTO COURTESY OF POWER DESIGN, INC.

Safety director checking to make sure lockout procedures were followed.

Scan this QR code to access life-saving **LOTO procedures**:



Before Work Begins:

1 Your employer should...

- ▶ Explain the LOTO procedures. Every employer should have a LOTO program.³
- ▶ Show you how to shut down and restart the equipment.
- ▶ Provide training on how to use LOTO devices.



Examples of LOTO devices

2 Recognize the hazard...

Energy comes in many forms, and almost all types can be found on a construction worksite. LOTO prevents the unexpected release of energy. Identify all of the energy sources for the equipment you are working on or around.

Energy Types:	Examples:
Chemical	Gasoline-powered heavy equipment, propane, wet and dry cell batteries
Electrical	Electrical circuits, temporary power
Gravitational	Objects supported by cranes and hoists
Hydraulic	Hoses on excavators, backhoes, rough terrain forklifts
Mechanical	Tools with blades and moving parts
Pneumatic	Compressed air-powered rammers, rock drills, jackhammers and nailers

Source: Oregon OSHA Guide to Controlling Hazardous Energy: <https://osha.oregon.gov/OSHA-Pubs/3326.pdf>

3 Follow procedures...

ALWAYS:

- ▶ Disconnect equipment from energy sources.
- ▶ Prevent equipment parts or materials from moving due to gravity.
- ▶ Lock out and/or tag out equipment that needs to be serviced.
- ▶ Test to make sure the energy is off.
- ▶ Tell other employees when you are about to shut down or restart a machine.



Worker testing a circuit to ensure that it is de-energized

PHOTO COURTESY OF POWER DESIGN, INC.

NEVER:

- ▶ Perform maintenance or service on equipment or electrical circuits unless they have been locked out and/or tagged out.

If you think you are in danger:

Contact your supervisor.
Contact your union.
Call OSHA
1-800-321-6742

Find out more about construction hazards.

To receive copies of this Hazard Alert and cards on other topics call

301-578-8500 or visit www.cpw.com

CPWR
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

8484 Georgia Avenue
Suite 1000
Silver Spring, MD 20910
301-578-8500
www.cpw.com

Sources:

1) Mechanic crushed to death by elevator: <http://mypost.com/2015/01/09/mechanic-crushed-to-death-by-elevator/>

2) OSHA Fact Sheet: Lockout/Tagout: https://www.osha.gov/OshDoc/data_General_Facts/factsheet-lockout-tagout.pdf

3) OSHA requires employers to implement programs to protect workers. Although the detailed OSHA LOTO Standard does not apply to construction, it includes important steps that employers in construction should take, including having a written LOTO program: https://www.osha.gov/pls/osahweb/owadisp.show_document?p_table=STANDARDS&p_id=9804

Bloqueo y Etiquetado de Seguridad



¿En qué consiste el bloqueo y etiquetado de seguridad?

El bloqueo y etiquetado de seguridad (Lockout/Tagout o LOTO) asegura que los equipos no se activen ni se muevan sin previo aviso durante el trabajo de mantenimiento y servicio.

▶ Un dispositivo de bloqueo es una llave o cerradura de combinación que evita que el equipo se encienda o se mueva de forma imprevista.



Una máquina bloqueada y etiquetada.

▶ Un dispositivo de etiquetado es una etiqueta que se fija firmemente al equipo utilizado, por ejemplo, un cable de nylon que se bloquea automáticamente. Las etiquetas tienen indicaciones como "No encender" o "No operar." Las etiquetas deben usarse junto con un dispositivo de bloqueo a menos que el equipo no pueda bloquearse.

La persona encargada de colocar el dispositivo de bloqueo o la etiqueta en el equipo es la única que puede quitárselo.

¿Por qué es importante el LOTO?

Cuando **no se cumplen** los procedimientos de LOTO, los trabajadores que limpian, hacen mantenimiento, reparan, instalan, configuran, montan, ajustan, inspeccionan, destraban, prueban o desarmen equipos corren el riesgo de sufrir lesiones graves o fallecer por:

- ▶ Electrocución,
- ▶ Quemaduras,
- ▶ Aplastamientos, o
- ▶ Amputación (por ejemplo, pérdida de un dedo).

Por ejemplo, un hombre de 30 años de edad encargado de la reparación de un ascensor fue aplastado y murió mientras trabajaba en el hueco de un ascensor porque no se había bloqueado el suministro eléctrico al ascensor.¹

El cumplimiento de los procedimientos de LOTO evita aproximadamente 120 muertes y 50,000 lesiones cada año.²

Aprenda más sobre cómo trabajar de manera segura:

Escanee este código QR para conocer los **requisitos de LOTO** de OSHA:



Director de seguridad que revisa para asegurarse de que se siguieron los procedimientos de bloqueo.

Escanee este código QR para acceder **procedimientos de LOTO** que puede salvar vidas:



Antes de comenzar el trabajo:

Su empleador debe...

1

- ▶ Explicar los procedimientos de LOTO. Todo empleador debe contar con un programa de LOTO.³
- ▶ Enseñarle como apagar y reiniciar el equipo.
- ▶ Proveer entrenamiento sobre el uso de los dispositivos de LOTO.



Ejemplos de dispositivos de LOTO

2

Identificar el riesgo...

La energía se presenta de diversas maneras, y casi todos los tipos se pueden encontrar en un sitio de trabajo de construcción. El LOTO evita la emisión inesperada de energía. Identifique todas las fuentes de energía para el equipo en el que está trabajando o alrededor de usted.

Tipos de energía: Ejemplos:

Química	Maquinaria pesada que funciona con gasolina, gas propano o baterías de celda húmeda y seca
Eléctrica	Circuitos eléctricos, energía provisional
Gravitacional	Objetos suspendidos por grúas y elevadores
Hidráulica	Mangueras de excavadoras, retroexcavadoras o montacargas todo terreno
Mecánica	Herramientas con láminas y piezas móviles
Neumática	Herramientas que funcionan con aire comprimido, tales como pisones, taladros para piedra, martillos neumáticos y pistolas de clavos

Fuente: Manual de la OSHA de Oregon para el Control de Energía Peligrosa: <https://osha.oregon.gov/OSHAPubs/3326.pdf>

3

Siga los procedimientos...

SIEMPRE:

- ▶ Desconecte el equipo de las fuentes de energía.
- ▶ Evite que las piezas o materiales del equipo se muevan debido a la gravedad.
- ▶ Bloquee y/o etiquete el equipo que necesita ser reparado.
- ▶ Pruebe para asegurarse de que la energía está apagada.
- ▶ Informe a otros empleados cuando esté a punto de apagar o reiniciar una máquina.

NUNCA:

- ▶ Realice mantenimiento o servicio en equipos o circuitos eléctricos a menos que hayan sido bloqueados y / o etiquetados.

Si cree que está en peligro:

Contacte a su supervisor
Contacte a su sindicato.

Llame OSHA

1-800-321-OSHA

Infórmese más sobre los peligros en la construcción.
Consiga más de esta advertencia de peligro y tarjetas en otros temas. Llame

301-578-8500 o visite
www.cpwr.com

CPWR [O]
THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING
8484 Georgia Avenue
Suite 1000
Silver Spring, MD 20910
301-578-8500
www.cpwr.com

Fuentes:

1) Mecánico murió aplastado por un elevador: <http://mypost.com/2015/01/09/mechanic-crushed-to-death-by-elevator/>

2) Ficha técnica de la OSHA: Lockout/Tagout: <https://www.osha.gov/OSHA-Data-General/Factsheets/lockout-tagout.pdf>

3) La Administración de Seguridad y Salud Ocupacional (Occupational Safety and Health Administration, OSHA) le exige a los empleadores implementar programas para proteger a los trabajadores, pero el Estándar LOTO de la OSHA detallado no aplica al área de la construcción. Sin embargo, incluye medidas importantes que los empleadores de la construcción deben tomar, tales como contar con un programa escrito de LOTO: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9804



Respiratory Protection

Construction jobs can expose workers to unsafe airborne contaminants (e.g., dust, fumes) that can harm health and lead to serious diseases. To prevent exposure to airborne contaminants, employers should prioritize eliminating the hazard, replacing the hazard, or implementing [engineering controls](#) (e.g., local exhaust ventilation) or administrative controls (e.g., rotating workers between hazardous tasks). However, when these controls are not feasible or are insufficient to reduce harmful exposures, workers should wear appropriate respiratory protection. To be effective, respirators must be properly selected and the user fit tested. Workers must be trained and follow employer and manufacturer's instructions for the [proper use](#), inspection, maintenance, and storage of respirators. This includes proper donning (putting on) and doffing (taking off) procedures.

Different types of respirators, such as filtering facepiece respirators (FFRs), elastomeric half-mask respirators (EHMRs), elastomeric full-facepiece respirators (EFFRs), and half-mask, full-facepiece, and hood or helmet powered air-purifying respirators (PAPRs), can be used to protect workers from airborne contaminants. Your employer should provide respirators that are approved by the National Institute for Occupational Safety and Health (NIOSH) for use under the direction of a [written respiratory protection program](#) as required by the Occupational Safety and Health Administration (OSHA).

Andrea's Story

Andrea spent the day on a renovation project sawing concrete with a handheld masonry saw. Andrea did not wear a respirator because she used water to suppress the dust. However, due to the direction of the wind that day, the water suppression was less effective than usual, and she was still exposed to airborne contaminants. After completing the project, Andrea noticed her chronic bronchitis worsened.

- ✘ What should Andrea have done to protect herself from the airborne contaminants?
- ✘ Have you or someone you know ever suffered from an occupational lung disease?

Remember This

- NIOSH sets [Recommended Exposure Limits \(RELs\)](#) for airborne contaminants such as silica dust. OSHA mandates legally enforceable [Permissible Exposure Limits \(PELs\)](#) with which employers must comply.
- As required by OSHA, employers are responsible for providing a NIOSH-approved respirator to each employee whenever such equipment is necessary to protect the health of the employee (29 CFR [1926.103/29 CFR 1910.134](#)).
- The equipment provided must have the words "NIOSH Approved" on the packaging to provide the expected level of protection for the job at hand. The respirator's [approval label](#) will help you identify the protection level (e.g., N95). If you have a question about whether a respirator is needed for a specific task or which type to use, talk to your supervisor or foreperson. Follow the manufacturer's instructions for each specific respirator model.
- The [NIOSH Trusted-Source web page](#) provides information to help employers select the correct respirator.
 - FFRs are disposable respirators comprised of a filter material that removes particles.
 - Reusable EHMRs and EFFRs use replaceable filters/cartridges to remove gases, vapors, or particles. EFFRs also provide eye and face protection.
 - PAPRs use a battery-powered blower and filter/cartridge to remove gases, vapors, or particles.

When using respirators, always do so as part of an OSHA-compliant respiratory protection program, which includes medical evaluations, fit testing, and training. Fit testing is required to make sure tight-fitting respirators provide the expected protection.

Perform the manufacturer-recommended maintenance on EHMRs, EFFRs, and PAPRs. Replace filters/cartridges when they are damaged, soiled, causing noticeably increased breathing resistance, or airflow rates fall below minimum requirements for PAPRs.

How can we stay safe today?

What will we do at the worksite to promote respirator use and prevent respiratory-related illnesses?



Respiratory Protection



- ☑ If engineering and administrative controls are not in place or are insufficient and workers are exposed to hazards at levels above OSHA's PELs, respiratory protection is required.
- ☑ Employers must implement an OSHA-compliant respiratory protection program, which includes medical evaluations, fit testing, and training.
- ☑ If respiratory protection is required at the worksite, respirators must be properly selected and the user fit tested. Respirators should be stored and made available when needed. Users must put them on and take them off according to the manufacturer's instructions.

GET INFORMATION

CDC/NIOSH INFO: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-800-232-6348 | [cdc.gov/info](https://www.cdc.gov/info) | [cdc.gov/niosh](https://www.cdc.gov/niosh)

CPWR: Contact 301-578-8500 | cpwr-r2p@cpwr.com | www.cpwr.com/toolbox-talks

DHHS (NIOSH) Publication No. 2022-102 | DOI: <https://doi.org/10.26616/NIOSHPUB2022102> | December 2021



Protección respiratoria

Los trabajos de construcción pueden exponer a los trabajadores a contaminantes peligrosos transportados por el aire (p. ej., polvo, humos) que pueden perjudicar la salud y provocar enfermedades graves. Para prevenir la exposición a contaminantes transportados por el aire, los empleadores deben dar prioridad a la eliminación del peligro, a la sustitución del mismo o a la aplicación de **controles técnicos** (p. ej., ventilación de escape local) o administrativos (p. ej., rotación de trabajadores entre las diferentes tareas peligrosas). Sin embargo, cuando estos controles no son posibles o son insuficientes para reducir las exposiciones peligrosas, los trabajadores deben usar una protección respiratoria adecuada. Para que sean eficaces, los respiradores deben seleccionarse adecuadamente y el usuario debe someterse a una prueba de ajuste. Los trabajadores deben recibir formación y seguir las instrucciones del empleador y del fabricante para **el uso adecuado**, la inspección, el mantenimiento y el almacenamiento de los respiradores. Esto incluye aprender sobre los procedimientos adecuados para ponerse y quitarse el respirador.

Para proteger a los trabajadores de los contaminantes transportados por el aire se pueden utilizar diferentes tipos de respiradores, como los respiradores con máscara filtrante (FFR), los respiradores con media máscara elastomérica (EHMR), los respiradores con máscara completa elastomérica y los respiradores purificadores de aire con capucha o casco (PAPR). Su empleador debe proporcionarle respiradores aprobados por el Instituto Nacional de Seguridad y Salud Ocupacional (NIOSH) para su uso bajo la dirección de **un programa escrito de protección respiratoria**, como lo requiere la Administración de Seguridad y Salud Ocupacional (OSHA).

La historia de Andrea's

Andrea pasó el día en un proyecto de renovación aserrando hormigón con una sierra de mano para mampostería. No llevaba un respirador porque utilizaba agua para suprimir el polvo. Sin embargo, debido a la dirección del viento ese día, la supresión del agua fue menos eficaz de lo habitual, por lo que estuvo expuesta a contaminantes transportados por el aire. Tras completar el proyecto, Andrea notó que su bronquitis crónica empeoraba.

- ✂ ¿Qué debió haber hecho Andrea para protegerse de los contaminantes transportados por el aire?
- ✂ ¿Usted o alguien que conoce ha sufrido alguna vez una enfermedad pulmonar por trabajo?

¿Cómo podemos protegernos?

¿Qué haremos para promover el uso de respiradores y prevenir las enfermedades respiratorias en el lugar de trabajo?

Recuerde esto

- El NIOSH establece los **límites de exposición recomendados** (RELs) para los contaminantes transportados por el aire, como el polvo de sílice. La OSHA impone **límites de exposición admisibles** (PELs) legalmente exigibles que los empleadores deben cumplir.
- Como exige la OSHA, los empleadores son responsables de proporcionar un respirador aprobado por el NIOSH a cada empleado, siempre que dicho equipo sea necesario para proteger la salud del empleado (29 CFR 1926.103/29 CFR 1910.134).
- El equipo suministrado debe ser un respirador aprobado por el NIOSH adecuado para el trabajo. Si tiene alguna duda sobre si es necesario un respirador para una tarea específica, o sobre qué tipo de respirador debe utilizar, hable con su supervisor o capataz. La **etiqueta de aprobación** del respirador indica que está aprobado y lo ayudará a identificar el nivel de protección (por ejemplo, N95). Siga las instrucciones del fabricante para cada modelo específico de respirador.
- Para encontrar un respirador aprobado por el NIOSH, consulte la **lista de equipos certificados del NIOSH**. Puede encontrar más información sobre los respiradores en la **página web de NIOSH Trusted-Source**.
 - Los FFR son respiradores desechables compuestos de un material filtrante que elimina las partículas.
 - Los EHMR y los respiradores con máscara completa elastomérica reutilizables utilizan filtros o cartuchos reemplazables para eliminar gases, vapores o partículas. Los de máscara completa también proporcionan protección para los ojos y la cara.
 - Los PAPR utilizan un soplador a pilas y un filtro o cartucho para eliminar gases, vapores o partículas.

Cuando utilice respiradores, hágalo siempre como parte de un programa de protección respiratoria que cumpla con las normas de la OSHA, que incluye evaluaciones médicas, pruebas de ajuste y formación. Las pruebas de ajuste son necesarias para asegurarse de que los respiradores ajustados proporcionan la protección esperada.

Realice el mantenimiento recomendado por el fabricante en los EHMR, los respiradores con máscara completa elastomérica y PAPR. Sustituya los filtros o cartuchos cuando estén dañados, sucios, causen un aumento notable de la resistencia a la respiración o los caudales de aire sean inferiores a los requisitos mínimos de los PAPR.



Respiratory Protection



- ✓ Si los controles técnicos y administrativos no están definidos o son insuficientes y los trabajadores están expuestos a peligros superiores a los niveles de los PEL de la OSHA, se requiere protección respiratoria.
- ✓ Los empleadores deben implantar un programa de protección respiratoria conforme a la OSHA, que incluya evaluaciones médicas, pruebas de ajuste y formación.
- ✓ Si se requiere protección respiratoria en el lugar de trabajo, los respiradores deben seleccionarse adecuadamente y el usuario debe someterse a una prueba de ajuste. Los respiradores deben almacenarse y estar disponibles cuando se necesiten. Los usuarios deben ponérselos y quitárselos según las instrucciones del fabricante.

**OBTENER
INFORMACIÓN**

INFORMACIÓN sobre CDC/NIOSH: 1-800-CDC-INFO (1-800-232-4636) | TTY: 1-800-232-6348 | [cdc.gov/info](https://www.cdc.gov/info) | [cdc.gov/niosh](https://www.cdc.gov/niosh)

Centro de Investigación y Capacitación en Construcción: Contacto : Contact 301-578-8500 | cpwr-r2p@cpwr.com |

www.cpwr.com/toolbox-talks

DHHS (NIOSH) Publicación No. 2022-102 (revisado 02/2022) | DOI: <https://doi.org/10.26616/NIOSH PUB2022102revised2022> |

Febrero 2022