Train 001

Preventing Heat Illness - Reference Sheet

Heat Kills

Heat illness includes heat cramps, fainting, heat exhaustion, and heatstroke.

Workers have died or suffered serious health problems from these conditions.

Heat illness can be prevented.

Preventing Heat Illness

Know the symptoms of heat illness
Watch for symptoms in yourself and your coworkers. *If you feel any symptoms, tell your coworkers and supervisor immediately because you may need medical help. Know who to talk to and how to get help before you start each workday.*

Early symptoms
Fatigue
Heavy sweating
Headache
Cramps
Dizziness
High pulse rate
Nausea/vomiting

GET MEDICAL HELP

Life-threatening symptoms
High body temperature
Red, hot, dry skin
Confusion
Convulsions
Fainting

Tell your supervisor if you are new to working in the heat or have had heat illness before.

Stay alert to the weather During a heat wave you are at greater risk of getting sick. You need to watch yourself and coworkers more closely, and may need to drink more water, take more breaks, and use other measures.

Drink enough cool, fresh water
Drink at least one 8-ounce cup (3 cones) every 15 minutes during your entire work shift. *Do not wait until you are thirsty to drink water.*

Do not drink alcohol.
Avoid coffee.
Choose water over soft drinks.

Take rest breaks in the shade to cool down.

Wear proper clothing Loose fitting, light-weight and light-colored cotton clothes, a wide-brimmed hat or cap, and a bandana.

Talk to your doctor if you have illnesses like diabetes, are taking medicines or are on a low salt diet.

Know Your Rights

If you work outdoors, by law, your employer must provide you:

- Enough cool, fresh drinking water throughout the day.
- Access to shade or an equally cool spot for at least 5 minutes at a time.
- Training on how to prevent heat illness and how to call for emergency services.

For more information call the worker hotline at 1-866-924-9757

California Department of Industrial Relations

CAL OSHA

Illustrations by Kate Oliver and Adria Wells

Spanish

El Calor Puede Matar

Las enfermedades causadas por el calor incluyen los calambres musculares, el desmayo, el agotamiento debido al calor y la insolación.

Los trabajadores han muerto o sufrido problemas graves de salud debido a éstas condiciones.

Las enfermedades causadas por el calor pueden ser prevenidas.

Previniendo las Enfermedades Causadas por el Calor

Conozca los síntomas de las enfermedades causadas por el calor.
Esté alerta a estos síntomas en sí mismo y en sus compañeros de trabajo. Si usted siente cualquiera de estos síntomas, informe de inmediato a sus compañeros de trabajo y supervisor porque pede ser que usted necesite atención médica. Antes del comienzo de cada día de trabajo sepa con quien debe hablar y cómo obtener ayuda en caso de emergencia.

Síntomas iniciales
Fatiga
Sudor abundante
Dolor de cabeza
Calambres
Mareos, Pulso alto
Nausea/vómito

BUSCA ATENCIÓN MÉDICA

Síntomas de emergencia
Temperatura de cuerpo alta
Piel seca, enrojecida y caliente
Confusión mental
Convulsiones, Desmayo

Informe a su supervisor si usted está comenzando a trabajar en el calor o si ya ha sufrido de las enfermedades causadas por el calor.

Esté alerta al tiempo. Durante la ola de calor usted está a mayor riesgo de enfermarse. Usted necesita estar muy atento a sí mismo y a sus compañeros de traibajo, necesita beber más agua, tomar más descansos y usar otras medidas preventivas.

Tome suficiente agua fresca
Tome por lo menos una taza de 8 onzas (3 conos) cada 15 minutos durante toda la jornada de trabajo. *No espere hasta sentir con sed para tomar agua.*

No tome bebidas alcohólicas.
Evite el café.
Elija agua en lugar de sodas.

Descanse en la sombra para tomar alivio del calor.

Use ropa apropiada. Ropa de algodón liviana, suelta y de color claro, gorra o sombrero de ala ancha y un pañuelo.

Consulte con su doctor si usted tiene enfermedad como la diabetes, está tomando medicinas o está en una dieta baja de sal.

Conozca sus Derechos

Si trabaja al aire libre, por ley, su patrón debe proveer:

- Suficiente agua fresca para beber durante todo el día
- Acceso a la sombra o un lugar igualmente fresco por un período mínimo de cinco minutos para que pueda refrescarse.
- Entrenamiento sobre cómo prevenir las enfermedades causadas por el calor y cómo llamar a los servicios de emergencia.

Para más Información llame gratis al 1-866-924-9757
(Oprima el "1" para escuchar los mensajes en español)

Departamento de Relaciones Laborales de California

CAL OSHA

OSHA Heat Standard - English

OSHA® QUICK CARD™

Protecting Workers from Heat Stress

Heat Illness

Exposure to heat can cause illness and death. The most serious heat illness is heat stroke. Other heat illnesses, such as heat exhaustion, heat cramps and heat rash, should also be avoided.

There are precautions your employer should take any time temperatures are high and the job involves physical work.

Risk Factors for Heat Illness

- High temperature and humidity, direct sun exposure, no breeze or wind
- Low liquid intake; previous heat illnesses
- Heavy physical labor
- Waterproof clothing
- No recent exposure to hot workplaces

Symptoms of Heat Exhaustion

- Headache, dizziness, or fainting
- Weakness and wet skin
- Irritability or confusion
- Thirst, nausea, or vomiting

Symptoms of Heat Stroke

- May be confused, unable to think clearly, pass out, collapse, or have seizures (fits)
- May stop sweating

To Prevent Heat Illness, Your Employer Should

- Provide training about the hazards leading to heat stress and how to prevent them.
- Provide a lot of cool water to workers close to the work area. At least one pint of water per hour is needed.

For more complete information:

OSHA® Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA 3154-08-10R v2

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OSHA Heat Standard - English

OSHA® QUICK CARD™

- Schedule frequent rest periods with water breaks in shaded or air-conditioned areas.
- Routinely check workers who are at risk of heat stress due to protective clothing and high temperature.
- Consider protective clothing that provides cooling.

How You Can Protect Yourself and Others

- Know signs/symptoms of heat illnesses; monitor yourself; use a buddy system.
- Block out direct sun and other heat sources.
- Drink plenty of fluids. Drink often and BEFORE you are thirsty.
- Avoid beverages containing alcohol or caffeine.
- Wear lightweight, light colored, loose-fitting clothes.

- Be aware that poor physical condition, some health problems (such as high blood pressure or diabetes), pregnancy, colds and flu, and some medications can increase your personal risk. If you are under treatment, ask your healthcare provider.

What to Do When a Worker is Ill from the Heat

- Call a supervisor for help. If the supervisor is not available, call 911.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Remove outer clothing.
- Fan and mist the worker with water; apply ice (ice bags or ice towels).
- Provide cool drinking water, if able to drink.

IF THE WORKER IS NOT ALERT or seems confused, this may be a heat stroke. CALL 911 IMMEDIATELY and apply ice as soon as possible.

If you have any questions or concerns, call OSHA at 1-800-321-OSHA.

For more complete information:

OSHA® Occupational Safety and Health Administration

U.S. Department of Labor

www.osha.gov (800) 321 OSHA

OSHA Heat Standard - Spanish

OSHA DATOS RÁPIDOS

Protéjase del Estrés por calor

Cuando el cuerpo no puede bajar su temperatura mediante el sudor, pueden ocurrir varias enfermedades debido al calor, tales como estrés o agotamiento por calor e insolación o golpe de calor, las cuales pueden resultar en la muerte.

Factores que llevan al estrés por calor

Alta temperatura y humedad, calor o sol directo, movimiento limitado de aire, esfuerzo físico, pobre condición física, algunas medicinas y tolerancia inadecuada para lugares de trabajo calurosos.

Síntomas de agotamiento por calor

- Dolores de cabeza, mareos, vértigo o desmayo.
- Debilidad y piel húmeda.
- Cambios de humor como irritabilidad o confusión.
- Nauseas o vómitos.

Síntomas de insolación

- Piel seca y caliente sin sudor.
- Confusion mental o pérdida de conocimiento.
- Convulsiones o ataques.

Evita el estrés por calor

- Conozca las señales y los síntomas de las enfermedades relacionadas al calor; obsérvese a si mismo y a sus colegas.
- Bloquee el sol directo u otras fuentes de calor.
- Utilice ventiladores (abanicos) o aire acondicionado; descanse con regularidad.
- Beba mucha agua, como 1 taza cada 15 minutos.
- Vístase con ropa ligera, de colores claros y no ajustada.
- Evite el alcohol, bebidas con cafeína o comidas pesadas.

Qué hacer en caso de enfermedades relacionadas al calor

- Llame al 911 (u otro número local para emergencias) inmediatamente.

Mientras espera por ayuda:

- Mueva a la persona a un lugar fresco y sombreado.
- Suéltele o quítele la ropa pesada.
- Ofrézcale agua fresca para beber.
- Abanique y rocíe con agua a la persona.

Para información más completa:

OSHA Administración de Seguridad y Salud Ocupacional
Departamento del Trabajo de EE.UU.
www.osha.gov (800) 321-OSHA

Train 002

TRAIN 002

Occupational Hearing Loss

Of hearing difficulty among U.S. workers is caused by occupational exposure.

1 in 4 U.S. adults who report excellent to good hearing already have hearing damage.

Hearing Loss is Irreversible.

OSHA says,

"the employer shall administrator a continuing, effective hearing conservation program... whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level of 85 decibels."

8% of all workers have tinnitus or ringing of the ear — **8%**

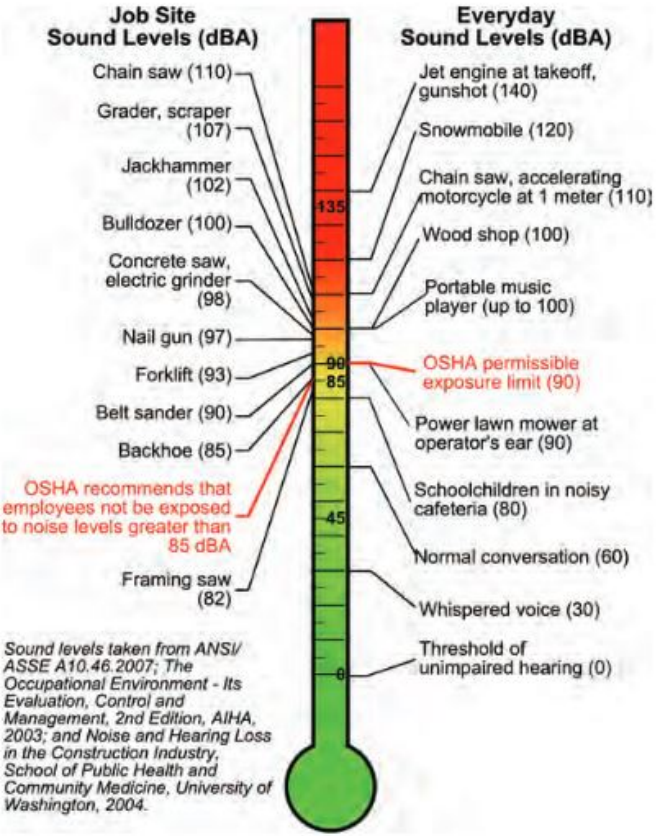
53% of noise exposed workers report not wearing hearing protection — **53%**

12% of the U.S. Working Population have difficulty hearing — **12%**

What You Can Do

- Ensure you and your employees wear proper fitting hearing protection devices.
- Test you and your employees hearing multiple times a year
- Limit the amount of time you are exposed to loud noise during the day. Take breaks.
- Wear noise-canceling headsets and earplugs with a high enough NRR rating to reduce the sound level by 90 decibels.

Learn more at www.wvbandcoms.com Statistics from www.cdc.gov


Job Site
Sound Levels (dBA)
Chain saw (110)
Grader, scraper (107)
Jackhammer (102)
Bulldozer (100)
Concrete saw, electric grinder (98)
Nail gun (97)
Forklift (93)
Belt sander (90)
Backhoe (85)
OSHA recommends that employees not be exposed to noise levels greater than 85 dBA
Framing saw (82)
Sound levels taken from ANSI/ ASSE A10.46.2007; The Occupational Environment - Its Evaluation, Control and Management, 2nd Edition, AIHA, 2003; and Noise and Hearing Loss in the Construction Industry, School of Public Health and Community Medicine, University of Washington, 2004.
135
90
85
45
0
Everyday
Sound Levels (dBA)
Jet engine at takeoff, gunshot (140)
Snowmobile (120)
Chain saw, accelerating motorcycle at 1 meter (110)
Wood shop (100)
Portable music player (up to 100)
OSHA permissible exposure limit (90)
Power lawn mower at operator's ear (90)
Schoolchildren in noisy cafeteria (80)
Normal conversation (60)
Whispered voice (30)
Threshold of unimpaired hearing (0)

TRAIN 002

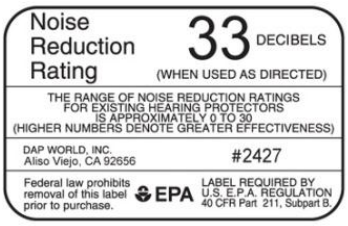
TEXAS
The University of Texas at Austin
Environmental Health & Safety

HealthPoint
Balance & Well-Being in Work & Life
Occupational Health Program

Hearing Protection

Hearing protection is required when noise levels are at or exceed 85 decibels on an A scale (dBA). The best way to reduce noise is to design it out. This means eliminating the excessive noise either through acoustical enclosures and barriers, installing sound absorbing material, Installing vibration mounts and providing proper lubrication are some examples.

When engineering controls cannot be employed, personal protective equipment (PPE) will be used, ear plugs or ear muffs. How much the hearing protector reduces the noise is contingent on the noise reduction rating (NRR).



NRR Explanation

NRR stands for noise reduction rating. It is defined as the estimated amount that the hearing protector will reduce noise, in dBA. The NRR is printed on the packaging for both ear muffs and ear plugs. It does not reduce the noise by the number printed. It is less than half of the actually NRR factor.

There are advantages and disadvantages to both kinds of hearing protection.

How to properly wear ear plugs.

1. With clean hands, roll the plug in between thumb and first two fingers.
2. Reach over head and pull top of your ear open to open ear canal.
3. While holding the ear open, quickly push the rolled end of the plug into your ear as far as possible. Keeping finger on plug for **60 seconds**, to allow it to fully expand.

Ear plugs when inserted properly and allowed to full expand typically offer greater hearing protection. Ear plugs **should not** be worn if you have an ear infection.

Before you put on your earmuffs, it is important to inspect them for cracks, tears or other signs of wear. Never wear damaged hearing protection. Many ear muffs can't be worn with safety glasses. If you must wear safety glasses make sure your ear muffs are compatible or wear ear plugs.

This handout is an annual supplement to the Hearing Conservation Program training that is required initially and every three years. This training is available on line through TXClass.

512-471-4647 **HEALTHPOINT – OCCUPATIONAL HEALTH**
512-471-3511 **ENVIRONMENTAL HEALTH AND SAFETY**

DRAKE INDUSTRIES

Reclamation & Environmental Services

Train 003

Tool Safety Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 004

Ladder Safety Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 005

Heavy Machinery and Forklift Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 006

Hearing Conservation Program Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 007

Fire Protection and Prevention Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 008

Environmental Exposure Training Log

Training Date	Name of Employee	Name of Trainer / Training

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Train 009

Confined Spaces Safety Training Log

Training Date	Name of Employee	Name of Trainer / Training

Train 010

Bloodborne Pathogen Training Record

Training Date	Name of Employee	Name of Trainer / Training

DRAKE INDUSTRIES

Reclamation & Environmental Services

Train 011

Filtering out Confusion: Frequently Asked Questions about Respiratory Protection

Fit Testing

Over 3 million United States employees, in approximately 1.3 million workplaces, are required to wear respiratory protection. The Occupational Safety and Health Administration (OSHA) (29 CFR 1910.134) requires an annual respirator fit test to confirm the fit of any respirator that forms a tight seal on the wearer's face before it is used in the workplace. This ensures that users are receiving the expected level of protection by minimizing any contaminant leakage into the facepiece. The following are some frequently asked questions about respiratory protection and fit testing.

What is a Respirator Fit Test?

A fit test is conducted to verify that a respirator is both comfortable and correctly fits the user. Fit test methods are classified as either qualitative or quantitative. A **qualitative** fit test is a pass/fail test that relies on the individual's sensory detection of a test agent, such as taste, smell, or involuntary cough (a reaction to irritant smoke*). A **quantitative** fit test uses an instrument to numerically measure the effectiveness of the respirator.

The benefits of a fit test include better protection for the employee and verification that the employee is wearing a correctly-fitting model and size of respirator.[1] Higher than expected levels of exposure to a contaminant may occur if the respirator has a poor face seal against the user's skin, which can result in leakage.

How Often Must Fit Testing Be Conducted?

In addition to fit testing upon initially selecting a model of respirator, OSHA requires that fit testing be conducted annually, and repeated "whenever an employee reports, or the employer or the physician or other licensed health care professional makes visual observations of changes in the employee's physical condition that could affect respirator fit (e.g., facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight)."[2]

The appropriate length of time between respirator fit tests has been a point of debate and discussion for many years due to its use of workplace time and resources, especially in reference to the commonly-used filtering facepiece respirator (FFR).[3] In response to these concerns, NIOSH completed a study that confirmed the necessity of the current OSHA respirator fit testing requirement, both annually and when physical changes have occurred.[2]

CDC NIOSH
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health