So, what’s the plan?

By Jenny Mandeville, ADOSH Training Officer

Before a worker goes up in a PFAS harness, employers are required to devise a plan to rescue that worker in a timely and safe manner, in the event of a fall. Our concern? Suspension Trauma (or Orthostatic Intolerance) which by definition is: “the physical effects of immobilization while in a vertical position,” can cause death or serious physical consequences within 5-10 minutes under specific conditions. Those specific conditions include personal risk factors, vertical position, immobility, injury, loss of consciousness, and length of time until rescued. OSHA addresses this in 29 CFR 1926.502(d)(20):

The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

And 29 CFR 1910.140(c)(21):

The employer must provide for prompt rescue of each employee in the event of a fall.

Although “prompt” is not defined in the standards, the hazard it is meant to prevent is Orthostatic Intolerance and we do have some important information that can guide our planning. Further, there is no requirement for the rescue plan to be written, but best practices would encourage documenting the plan, with contingencies, for each worksite or task.

Risk Factors: Personal risk factors of employees should be assessed before using PFAS such as underlying cardiorespiratory disease, fatigue, dehydration, and overall health and ability to self-rescue. Additionally the plan should include the risks of injury, blood loss, shock, trauma, and the position in which the worker will be suspended if the fall is arrested, and if the worker is able to move lower extremities, or if there is a possibility that the worker could experience a loss of consciousness for any amount of time while suspended.

Physiology: The risk of suspension trauma is increased and generally only affects someone who is vertical and immobile, unable to move the leg muscles which causes blood and fluids to pool in the lower part of the body. This pooling of blood can cause a loss of consciousness (LOC), which can compromise the worker’s airway and hinder recovery from the LOC. Poor perfusion to the vital organs, especially the heart and brain can lead to a cardiac event. During this time, the pooled blood can become static and toxic and can cause a condition called “reflow syndrome.”

Rescue Death: When the worker is rescued, the static blood that has become toxic may be released into the system and can lead to sudden cardiac arrest, electrolyte imbalances that can result in dysrhythmia and seizures. These conditions can appear hours or even days after the fall event. So if a worker is caught and suspended, a trip to a physician would be in order to ensure that there are no lingering threats. Provide the physician with all the information from the event, especially the amount of time suspended, consciousness levels, and rescue tactics that were used on the worker.


Counting on calling 911, as your only rescue option, is not advised as the FD may not be available to respond in a timely manner. The time to plan, train and drill is before placing the harness on the employee. Perhaps “prompt” should be defined and measured in seconds.
Prevention of lifting type injuries- Rethinking the concept of lift with your legs  by Anthony Hall , DC, CSCS

The safety world has been telling employees to lift with their legs (knees) for decades. Unfortunately this methodology is flawed in its generality and back injuries continue to plague many employees (1).

Simply telling people to lift with their legs has been the accepted concept for back injury prevention throughout the industrial world and has led to only modest success in decreasing workers low back injuries and claims. For Decades back injury prevention and safety staff have focused on guidance and instructions to lift with your legs and not your back. Though the advice is well intended, it is flawed by one critical factor. We are assuming that everyone knows how to lift perfectly with their legs, when in fact the majority does not. People have developed dysfunctional bending and lifting patterns so this advice means something different to different people. This premise has led employees to perform bending and lifting movements by initiating the movement from the knees and then perform the lifting task by inhibiting the hip muscles and loading the knee joint and surrounding knee tendons. When the individual initiates the movement from the knees they often disengage the powerful hip muscles. (2) This faulty pattern of movement is often already present in the worker and further embedded in their subconscious movements. This makes it almost impossible to generate any significant power to perform even light to moderate lifting and causes nearly instantaneous overloading of the spine and/or knees. In other words, telling someone to lift with their legs and then showing them how to lift with their legs is not necessarily going to produce the desired results that we in safety are looking for.

Many people will not lift correctly even if you show them a hundred times and saturate the workplace with lifting posters. Success will come only when you re-establish proper body movement patterns and breakdown the old ones that developed as you aged. We always want someone to mentally prepare them- selves when making a difficult lift so they are safe, but it is erroneous to expect an individual to be able to consciously plan how to lift something during every single task throughout a busy workday.

Here is what I mean when I say “re-establish proper body movement patterns”. When you were an infant you gradually learned how to roll, crawl, kneel, stand and of course squat against gravity. The child develops a pattern of movement that is biomechanically efficient as well as safe and becomes engrained into their subconscious through thousands of repetitions. The squat technique performed by a toddler is almost always textbook perfect (3). All the while nobody told him/her to bend their legs and lift with their knees. We then develop new (usually bad) movement patterns that become engrained in our subconscious and will be there until we make a concerted effort to re-establish the correct pattern.

Now that I got your attention and told you to quit telling people to lift with their legs..... then what do they do in order to squat perfect like the 2 year old at the playground. The individual must re-learn to initiate the movement from the hips and pelvis. As a result the knees will bend shortly after the hips but not go forward past the toes and thus avoid stress to the knees. Simultaneously you need to stabilize the core (torso) and transfer the force to the large muscles of the hips thus protecting the knees and back (3). The good news is that the proper pattern of squatting is still in our subconscious and we just have to dust off the cobwebs and reinforce the correct pattern.

This is far from a new concept and has been taught in the world of sports and weightlifting for decades if not centuries (4). The caveat man likely spent most of his life squatting before the advent of the lazyboy. In sports training... a proficient lift (squat) is taught with great detail and instruction. The squat is the granddaddy of lifting both in the world of safety and high performance sports. It is imperative to ensure that the movement becomes instinctive and does not require conscious thought when your body is going to demand significant power during a difficult lift when your mind is focusing at the immediate task at hand.

We are suggesting a new paradigm in safe lifting for workers. This is a system to train the worker to instinctively move by initiating the movement from the hips and engages the core automatically which stabilizes the spine and transfers the load to the pelvic and thigh musculature and thus unloading the spine and knees during the lifting and bending mechanism (3,4). It is imperative that the training be performed in a way that ensures the movement is entirely subconscious and thus second nature for the worker to perform during the hectic work environment.

Now for the good news. All of your employees do not need to become high level power lifters and athletes. In would be great if we lived in a world where every em- ployee would want to go to the gym 5 days a week and workout for 30 minutes a day but that just isn’t reasonable. It isn’t necessary for the employee to have the strength or endurance of an athlete, though it would be nice. What is imperative is that the employees need to learn to move their hips and use their core like a highly trained athlete. This can be accomplished in just a few minutes a day over the course of a few weeks and often times sooner with some individuals. I have trained literally thousands of people anywhere from 10 year old children in sports all the way up to 90 year olds with knee and hip replacements. It is never too late to teach an old dog a new trick. You may already be asking yourself..... Yes you do need to keep practicing to maintain these patterns and decrease the likelihood of the dysfunctional patterns becoming bad habits again.

With the proper training this can be accomplished with any size group of employees. The main focus is not athletic endurance and strength... just athletic body movements. This makes it possible to train a large workforce without completely disrupting operations or be cost prohibitive. You simply need to find the trainer with the right skillset to make these concepts reality.

Now we can quit telling people to bend their knees and instead, show them how to hinge from their hips. Once an individual regains the proper squatting technique with the proper training, you will be amazed how good their knees and back can start to feel. This is much more than just injury prevention. This is about giving the employee back their quality of life as free of joint pain and injuries as much as possible.

About the author  Dr. Hall is the founder and developer of the Instinctive Movement System. He has over 25 years’ experience in sports medicine and rehabilitation and has served as strength coach for many athletes.

Join Dr. Tony Hall at a special training event on April 28, 2017 at the ICA Building in Phoenix. Dr. Hall will be joined by Joshua Lynch from The Working Athlete. This dynamic duo will knock your socks off! See our training calendar for more on this event!

You are cordially invited to attend the “ICA on the Capitol Lawn” Awards Ceremony on March 27, 2017 at 11:00 a.m.—12:00 p.m.

The event will be held at the Arizona State Capitol on the House Lawn, northeast side, 1700 W Jefferson St., Phoenix, AZ 85007.

Join the Industrial Commission and the Arizona Division of Occupational Safety and Health in honoring the 2017 Partners in Safety, those whom have made significant efforts in promoting the mission of ADOSH which is:

“The protection of life, health, safety and welfare of Arizona’s most valuable asset—our workforce.”

To honor our Partners in Safety, awards, certificates and plaques will be presented by ADOSH Director and ICA Executive Director and Industrial Commission Vice-Chairman, Joseph M. Hennely, Jr.

Awards are presented to VPP, SHARP and PEPP sites who have made impressive strides toward safety. Additionally Partners in Training and the prestigious Commissioner’s Award will honor those who have assisted in bring ADOSH training to Arizona.

If you missed last year’s event, see photos below from 2016. We hope you will attend this year and put it on your calendar for each year hereafter!

A Day of Recognition and Honor

ICA Chairman Dale Shultz greets guests on a bright sunny day, on the northeast House Lawn at the Capitol (2016)

Waiting in the wings—ADOSH Director Bill Warren (middle), Assistant Director Jessie Atencio (left) and ICA Commissioner Dale Schultz anticipate presenting the next award at 2016 ceremony.
DERECHOS Y RESPONSABILIDADES DEL EMPLEADO

by Francisco Mendoza, Consultation Supervisor Tucson

El Acta de Seguridad y Salud Ocupacional del Estado de Arizona fue creada para permitir que haga su trabajo en un lugar de empleo seguro y saludable. La División de Seguridad y Salud Ocupacional del Estado De Arizona (ADOSH) es responsable de que se cumplan los requisitos del Acta. Sin embargo, es usted con quien nosotros contamos para conseguir la meta de trabajar con seguridad. A continuación, le proporcionamos información que le puede ayudar a desarrollar su labor en una forma segura.

Conosca y cumpla con todas las reglas establecidas por:
- Su empleador
- El Acta de Seguridad y Salud Ocupacional
- La División de Seguridad y Ocupacional de Arizona

Puede obtener copias de las normas de seguridad y salud establecidas en el Estado de Arizona por parte de la sección de Entrenamiento y Consulta de ADOSH. Los numeros telefonicos y direcciones se encuentran en este folleto.

Si su empleador requiere que usted utilice equipo personal protective, así como cascos de seguridad, zapatos de seguridad, lentes de seguridad, mascara respiradora, o protección de oídos, es su deber y responsabilidad de usarlos apropiadamente.

No remueva o altere ninguna medida de seguridad o guardia de maquinaria en su trabajo. Estas medida de seguridad fueron implementadas para su protección. Si usted duda de la eficacia de una guardia de maquinaria, avisele a su empleador.

Si no sabe como utilizar con seguridad las herramientas, un equipo, la maquinaria, o como desarrrollar su trabajo en una manera segura, avisele a su supervisor para que le de dirección.

Si observa algo que es peligroso, reportelo inmediatamente a su supervisor. Eso es parte de su trabajo. Dele la oportunidad a su empleador de arreglar el problema. Si piensa que la condicion peligrosa todavía existe, es su derecho presentar una queja con la sección de cumplimientos de ADOSH. Si desea, la División no dara su nombre a su empleador.

Existen leyes que lo proteje en caso de que sea castigado o despedido de su trabajo por ver presentado una queja sobre la seguridad y salud ocupacional. Si usted cree que ha sido tratado injustamente por haber presentado una queja con nuestra oficina, tiene 30 días a partir del día en que fue castigado para poder solicitar una investigación con relación a los hechos. Recuerde, aunque su empleador no puede legalmente tomar represalias en su contra por haber presentado una queja, puede ser disciplinado por no seguir las reglas de seguridad en el lugar de empleo.

Usted tiene el derecho de revisar copias de las infracciones recibida por el empleador a consecuencia de una inspeccion hecha por nuestra oficina. Su empleador tiene el deber de fijar las infracciones en el lugar mas cerca en donde se cometio la violacion de las normas.

Usted puede obtener copias de sus expedientes medicos o archivos de su exposicion a materiales toxicos o condiciones peligrosas.

Se requiere que su empleador tenga seguro de compensacion para cubrir cuentas medicas o gastos relativos si un empleado se lastima en el trabajo. Si se lastima durante su trabajo, su empleador tiene que proveer tratamiento medico razonable sin ningun costo a usted.

Si requiere mas information, o quiera copias de las normas o reglamentos, o si tiene alguna otra pregunta a cerca de la seguridad y salud ocupacional, pongase en contacto a la siguiente direccion:

ADOSH Phoenix Seccion de Consulta y Entrenamiento
800 W. Washington St. Phoenix, Arizona 85007 602-542-1769

ADOSH Tucson Seccion de Consulta y Entrenamiento
2675 E. Broadway Blvd., Suite #239 Tucson, Arizona 85716 520-628-5478

Si quiere presentar una queja con relacion a la seguridad y salud, o una queja de discriminacion, pongase en contacto al la siguiente direccion:

ADOSH Phoenix Seccion de Cumplimiento—620-542-5795
ADOSH Tucson Seccion de Cumplimiento—520-628-5478

Administration de ADOSH (620) 542-1693
Bill Warren - Director
Larry Gast - Director Asistente de Cumplimientos
Jessie Atencio—Director Asistente de Consulta e Entrenamiento

Para obtener informacion acerca de lastimaduras o lesiones ocurridas en el trabajo, o para llenar una solicitud de reclamación, pongase en contacto con el Departamento de Reclamaciones de la Comision Industrial de Arizona, llamando al 602-542-4661. P ara presentar una queja con respecto a no ver recibido pago de salario del empleador, o para obtener informacion de las leyes laborales de Arizona o del empleado para la juventud, pongase en contacto con el Departamento de Trabajo de la Comision Industrial de Arizona, llamando al 602-542-4515.
Arizona Division of Occupational Safety and Health presents the

2017 Safety Summits

“EMPLOYEE SAFETY - IS IT MINDLESS OR MINDFUL?”

Keynote Address:

The Psychology of Employee Risk-taking

Quinten J. Harvey, Ph.D.
Licensed Clinical Psychologist

What can we expect from the next generation of America’s workers?

5 Summits at 5 Locations!

Save the Dates 2017

One - day Summits in
Fort Huachuca - May 24
Prescott Valley - July 19
Yuma - October 18

Two - day Summits in
Tucson - September 13 –14
Phoenix - November 15-16

Registration for each Summit begins 6 weeks prior to the event on www.ezregister.com/promoters/1607
Trainers Corner

BBP/OPI M Precaution Levels and Emerging Diseases

by Jenny Mandeville ADOSH Training Officer

This article reflects best practices and consensus standards for infection control in healthcare. It should not be taken to imply that the OSHA Standard for Bloodborne Pathogens (29 CFR 1910.1030) Exposure Control is being revised at this time, rather the aim is to suggest that further consideration may need to be given, in light of recent disease events, for protection of employees as recommended by the CDC.

On December 6, 1991, the Occupational Safety and Health Administration (OSHA) promulgated the Bloodborne Pathogens standard. This standard is designed to protect workers from the risk of exposure to bloodborne pathogens, such as the Human Immunodeficiency Virus (HIV) and the Hepatitis B Virus (HBV). The standard was revised by the Needlestick Safety and Prevention Act of 2000. The BBP Standard is undergoing a scheduled review at this time.

The standard applies to all employees who have occupational exposure to blood or other potentially infectious materials (OPIM). Occupational exposure is defined as reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee’s duties.

Blood is defined as human blood, human blood components, and products made from human blood.

“Other potentially infectious materials” is defined as the following: saliva in dental procedures; semen; vaginal secretions; cerebrospinal, synovial, pleural, pericardial, peritoneal, and amniotic fluids; body fluids visibly contaminated with blood; along with all body fluids in situations where it is difficult or impossible to differentiate between body fluids; unixed human tissues or organs (other than intact skin); HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture media or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Recent emergence of new or reassorted viruses and multiple drug resistant bacteria (MRSA, Acinetobacter, Campylobacter, VRE, Salmonella, Salmonella Typhi, Shigella, TB, etc.) and even fungal infections (fluconazole-resistant Candida) that may be found in urine, feces, and saliva, (even sweat, breast milk and tears are suspect) may prompt the need to expand the list of OPIM potential exposures and look at levels of precautions to ensure adequate protection for employees. Employers can research transmission routes and the potential for employee exposure on the CDC website.

In 1996, the CDC replaced “Universal Precautions,” used by OSHA with “Standard Precautions” which integrate and expand Universal Precautions to include organisms spread by: Blood and all body fluids, secretions, and excretions (except sweat) regardless of whether they contain blood; non-intact skin and mucous membranes. Standard Precautions should be considered to protect healthcare personnel and all other exposed employees from infectious disease transmission, including Zika virus.

Body fluids, including blood, vaginal secretions, and semen, have been implicated in transmission of Zika virus. (Current information about Zika virus transmission and risks can be found on CDC’s Zika Transmission webpage) (https://www.cdc.gov/zika/transmission/index.html). Zika virus appears to cause serious eye infections or lesions on some infected individuals and recent studies suggest that eyes of a Zika patient may harbor the virus making tears a OPIM consideration.

Transmission-Based Precautions (i.e., Airborne Precautions, Droplet Precautions, and Contact Precautions), are recommended to provide additional precautions beyond Standard Precautions to interrupt transmission of pathogens in hospitals.

Transmission-based precautions can be used for patients with known or suspected to be infected or colonized with epidemiologically important pathogens that can be transmitted by airborne or droplet transmission or by contact with dry skin or contaminated surfaces. These precautions should be used in addition to standard precautions.

- Airborne Precautions used for infections spread in small particles in the air such as chicken pox.
- Droplet Precautions used for infections spread in large droplets by coughing, talking, or sneezing such as influenza.
- Contact Precautions used for infections spread by skin to skin contact or contact with other surfaces such as herpes simplex virus.

These listed precautions may be combined for diseases that have multiple routes of transmission, and are to be used in addition to Standard Precautions. https://www.osha.gov/SLTC/etools/hospital/hazards/univprec/univ.html

Carbapenem-resistant Enterobacteriaceae, or CREs, are a family of germs that are difficult to treat because they have high levels of resistance to antibiotics. CRE are an important merging threat to public health. Some CRE bacteria have become resistant to most available antibiotics. Infections with these germs are very difficult to treat, and can be deadly—one report cites they can contribute to death in up to 50% of patients who become infected. CRE germs are usually spread person to person through contact with infected or colonized people, particularly contact with wounds or stool. CRE can cause infections when they enter the body, often through medical devices like ventilators, intravenous catheters, urinary catheters, or wounds caused by injury or surgery.

Housekeeping workers in healthcare facilities may have occupational exposure, as defined by the standard. Individuals who perform housekeeping duties, particularly in patient care and laboratory areas, may perform tasks, such as cleaning blood spills and handling regulated wastes, which cause occupational exposure.

While OSHA does not generally consider all maintenance personnel and janitorial staff employed in non-healthcare facilities to have occupational exposure, it is the employer's responsibility to determine which job classifications or specific tasks and procedures involve occupational exposure. For example, OSHA expects products such as discarded sanitary napkins to be discarded into waste containers which are lined in such a way as to prevent contact with the contents. At the same time, the employer must determine if employees can come into contact with blood during the normal handling of such products from initial pick-up through disposal in the outgoing trash. If OSHA determines, on a case-by-case basis, that sufficient evidence of reasonably anticipated exposure exists, the employer will be held responsible for providing the protections of 29 CFR 1910.1030 to the employees with occupational exposure.
## ADOSH Education and Training Calendar Apr—Jun 2017

Registration for each class begins 30 days prior to the date of the class. Most classes are free of charge but are subject to change or cancellation with out notice. Some classes or seminars listed are not exclusively sponsored by ADOSH and may carry a nominal fee to cover the costs of course materials, space or equipment rental, etc. **NOTE:** The phone number or web address listed for each class is the number that participants need to call for class questions and are not direct numbers to the ADOSH trainer. Registration Problems? Call the number listed for each class.

<table>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Class Title</th>
<th>Location</th>
<th>City</th>
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<tr>
<td>4/4/2017</td>
<td>9:00-12:00</td>
<td>Bloodborne Pathogens Exposure Control</td>
<td>2675 E Broadway Blvd</td>
<td>Tucson</td>
<td>85716</td>
<td>Ornelas</td>
<td>520-628-5478</td>
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<td>9:00-12:00</td>
<td>Safety &amp; Health Management Systems w/ Dan Morelos</td>
<td>2675 E Broadway Blvd</td>
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<td>520-628-5478</td>
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<td>6/20/2017</td>
<td>9:00-12:00</td>
<td>Optimizing Hydration for Working Athletes w/ Joshua Lynch</td>
<td>800 W Washington St</td>
<td>Phoenix</td>
<td>85007</td>
<td>Mandeville</td>
<td>602-542-1769</td>
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</tbody>
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*WEBINAR ONLY*
Register online at www.ezregister.com/promoters/1607

ADOSH Education and Training News Apr—June 2017

Partnering Guest Trainers for this Quarter—Don’t miss these Experts!

4/5/2017  8:00 - 12:00  (Tucson) Scaffold Safety with Action Scaffold’s Safety Manager John Royer
4/28/2017  9:00 - 10:30  (Phoenix) Injury Prevention Training for the Industrial Athlete with Dr. Tony Hall DC, CSCS and
4/28/2017  10:30 - 12:00  (Phoenix) Optimizing Hydration with Working Athletes with Joshua Lynch of the Working Athlete
5/3/2017  1:00 - 4:00  (Yuma) 3M Respirator Fit Tester Certification Training with Jerry Warren and Lynn Fisher from 3M
6/2/2017  9:00 - 12:00  (Phoenix) ABCs of Fall Protection and Fall Protection Rescue with Cordy Berg from 3M / DBI
6/8/2017  9:00 - 12:00  (Tucson) ABCs of Fall Protection and Fall Protection Rescue with Cordy Berg from 3M / DBI
6/14/2017  9:00 - 12:00  (Phoenix) Confined Spaces: General Industry & Construction Mark Delima American Rescue Concepts
6/15/2017  9:00 - 12:00  (Tucson) Confined Spaces: General Industry& Construction Mark Delima American Rescue Concepts
6/16/2017  9:00 - 12:00  (Yuma) Confined Spaces: General Industry& Construction Mark Delima American Rescue Concepts
6/21/2017  1:30 - 4:30  (Phoenix) Medical Clinic Safety— with ARCpoint Labs of Scottsdale Owner Tim Terrill

NOTES: EZRegister Instructions: TYPE in www.ezregister.com/promoters/1607 in your URL address bar and enter. All of ADOSH’s classes will be listed and you can click on the class you want to attend. Fill in the form and save it to your calendar! Simple and time-saving. If there are any changes we will let you know via email. Webinars are scheduled and when you sign up for the class, a return email will include materials for the class and log-on information. Please register early for training classes and leave contact information. Some classrooms may be limited in size and will require us to limit enrollment. If there are not enough enrolled for the class (10 or more) or if there is an unexpected emergency or illness, the class may be cancelled. While ADOSH tries to contact each student in the event of a cancellation via, if you are traveling a distance, we encourage you to call the day before the class to confirm that the class will still be held as scheduled. Call the number listed on the roster. Finally, please be courteous during cold and flu seasons and do not attend the class if you are suffering symptoms of illness. Viruses are highly contagious and we want to keep all students and instructors healthy during all times of the year. See you in class!
2017 Summit News! It’s all about Employees!

This year we will be holding three one-day Mini-Summits in Sierra Vista / Ft Huachuca, Yuma and Prescott Valley. Two-day Summits will be held in Tucson and Phoenix. (See the flyer in this issue to mark your calendar and save the dates!) Our theme this year is “Employee Safety - Is It Mindless or Mindful?” Clinical Psychologist Quinten Harvey, PhD will be addressing “The Psychology of Employee Risk-taking.” Other top level classes will include a Summit favorite Mark Norton speaking on “The Supervisor’s Role in Employee Safety Management.” Dr. Tony Hall DC, CSCS will instruct on the physical condition of employees, with emphasis on musculo-skeletal injuries in “Injury Prevention Training for the Industrial Athlete.” Other topics presented will be “Effective Training for Employee Engagement;” “Different Strokes for Different Folks—Generational Learning Types;” “Working with Autism Spectrum Employees;” and much, much more! Attend the Summit in your area and also come to Phoenix or Tucson for the additional classes. You CAN have it all!

If you are interested in a free vendor space at the Summit call 602-542-1769! Meet safety professionals and business owners from all over the state and demonstrate your newest product lines!

STAIRS AND RAILS

**Question:** What is the difference between a stair rail, handrail and guardrail system?

**Answer:** A stair rail or stair rail system means a barrier erected along the exposed or open side of stairways to prevent employees from falling to a lower level. The height of stair rail systems installed on or after January 17, 2017 is not less than 42 inches (107 cm) from the leading edge of the stair tread to the top surface of the top rail.

A handrail means a rail used to provide employees with a handhold for support. 29 CFR 1910.28(b)(11)(ii) Table D-2 gives specifics about handrails on stairs having at least 3 treads and at least 4 risers.

A guardrail system means a barrier erected along an unprotected or exposed side, edge, or other area of a walking/working surface to prevent employees from falling to a lower level. Guardrails are erected at 42” high with a mid-rail at 21” (+/- 3”).

**Reminders:**
- Remember that vertical clearance above any stair tread to any overhead obstruction is at least 6 feet, 8 inches (203 cm), as measured from the leading edge of the tread.
- Ensure that stairway landings and platforms are at least the width of the stair and at least 30 inches (76 cm) in depth, as measured in the direction of travel.
- Handrails and stair rail systems must be smooth-surfaced to protect employees from injury, such as punctures or lacerations, and to prevent catching or snagging of clothing.
- Handrails and the top rails of stair rail systems must be capable of withstanding, without failure, a force of at least 200 pounds (890 N) applied in any downward or outward direction within 2 inches (5 cm) of any point along the top edge of the rail.
This article reflects best practices and consensus standards for

NORMAS DE COMUNICACIÓN DE PELIGROS (O RIESGOS) QUÍMICOS

Las normas de comunicación de peligros químicos (Hazard Communication Standards en Inglés), 29 CFR 1910.1200 (Industria General) o 29 CFR 1926.59 (Construcción), son quizás unas de las normas de la administración de seguridad y salud ocupacional (OSHA) que son más violadas por los empleadores de Arizona y de todos los Estados Unidos. Esto es reiterado año tras año, como ha ocurrido una vez más en el año 2016. En octubre de 2016, OSHA publicó una lista preliminar de las 10 violaciones de seguridad y salud más citadas para el año fiscal, compilado de casi 32000 inspecciones de puestos de trabajo por el personal de OSHA federal. En el año 2016, la comunicación de peligros químicos apareció una vez más en el segundo lugar de las regulaciones de OSHA citadas con mayor frecuencia en los lugares de trabajo de los Estados Unidos, incluyendo Arizona.

Lesiones graves y hasta letales:

Una cosa notable acerca de la lista es que raramente cambia. Año tras año, los inspectores de OSHA ven miles de los mismos riesgos que se repiten en el trabajo. Aunque los peligros químicos podrían ser considerados por algunos empleadores como imposible que resulten en muerte o lesiones graves, en realidad esa creencia es incorrecta ya que algunos químicos peligrosos trabajan lentamente cuando los empleados son expuestos crónicamente, y con suficiente tiempo de exposición, al final pueden causar lesiones o enfermedades graves y hasta fatales, como puede suceder en los casos de la exposición a carcinógenos. Igualmente, algunos químicos inflamables pueden tener resultados más rápidos, severos, y algunas veces hasta fatales, como cuando esta clase de químicos explotan accidentalmente.

Reciente Evolución de las Regulaciones 29 CFR 1910.1200:

El primero de junio de 2016 fue la fecha designada por OSHA federal como el día que todos los empleadores debían obligatoriamente actualizar sus programas existentes para la comunicación de peligros químicos en el trabajo. Aunque los peligros químicos podrían ser considerados por algunos empleadores como imposible que resulten en muerte o lesiones graves, en realidad esa creencia es incorrecta ya que algunos químicos peligrosos trabajan lentamente cuando los empleados son expuestos crónicamente, y con suficiente tiempo de exposición, al final pueden causar lesiones o enfermedades graves y hasta fatales, como puede suceder en los casos de la exposición a carcinógenos. Igualmente, algunos químicos inflamables pueden tener resultados más rápidos, severos, y algunas veces hasta fatales, como cuando esta clase de químicos explotan accidentalmente.

NORMAS DE COMUNICACIÓN DE PELIGROS (O RIESGOS) QUÍMICOS

Los principales elementos del SGA (GHS por sus iniciales en Inglés) están resumidos en esta sección y pueden añadirse a los programas escritos existentes. Actualizando los programas para la comunicación de peligros químicos en los lugares de trabajo, los empleadores cumplirán con las nuevas regulaciones de 29 CFR 1910.1200.

Las normas de comunicación de peligros químicos (Hazard Communication Standards en Inglés), 29 CFR 1910.1200 (Industria General) o 29 CFR 1926.59 (Construcción), son quizás unas de las normas de la administración de seguridad y salud ocupacional (OSHA) que son más violadas por los empleadores de Arizona y de todos los Estados Unidos. Esto es reiterado año tras año, como ha ocurrido una vez más en el año 2016. En octubre de 2016, OSHA publicó una lista preliminar de las 10 violaciones de seguridad y salud más citadas para el año fiscal, compilado de casi 32000 inspecciones de puestos de trabajo por el personal de OSHA federal. En el año 2016, la comunicación de peligros químicos apareció una vez más en el segundo lugar de las regulaciones de OSHA citadas con mayor frecuencia en los lugares de trabajo de los Estados Unidos, incluyendo Arizona.

Lesiones graves y hasta letales:

Una cosa notable acerca de la lista es que raramente cambia. Año tras año, los inspectores de OSHA ven miles de los mismos riesgos que se repiten en el trabajo. Aunque los peligros químicos podrían ser considerados por algunos empleadores como imposible que resulten en muerte o lesiones graves, en realidad esa creencia es incorrecta ya que algunos químicos peligrosos trabajan lentamente cuando los empleados son expuestos crónicamente, y con suficiente tiempo de exposición, al final pueden causar lesiones o enfermedades graves y hasta fatales, como puede suceder en los casos de la exposición a carcinógenos. Igualmente, algunos químicos inflamables pueden tener resultados más rápidos, severos, y algunas veces hasta fatales, como cuando esta clase de químicos explotan accidentalmente.
Trainers Corner

By Luis Lopez ADOSH IH Consultant

NORMAS DE COMUNICACIÓN DE PELIGROS (O RIESGOS) QUÍMICOS

Clasificación de Peligros a la Salud

<table>
<thead>
<tr>
<th>Peligro</th>
<th>Clasificación</th>
<th>Pictograma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicidad aguda</td>
<td>Corrosión / irritación cutánea (piel)</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Corrosiva</td>
<td>Lesiones oculares graves / irritación ocular</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Peligro respiratorio</td>
<td>Sensibilización respiratoria o cutánea</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Peligro cutáneo</td>
<td>Mutagenicidad en células germinales</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Carcinogenicidad</td>
<td>Toxicidad para la reproducción</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Peligro por aspiración</td>
<td>Toxicidad específica de órganos blanco - exposición única y exposición repetida</td>
<td>![Icono de peligro]</td>
</tr>
</tbody>
</table>

Clasificación de Peligros Físicos

<table>
<thead>
<tr>
<th>Peligro</th>
<th>Clasificación</th>
<th>Pictograma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosivos</td>
<td>Gases inflamables</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Aerosoles inflamables</td>
<td>Gases combustibles</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Gases combustibles</td>
<td>Gases a presión</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Líquidos inflamables</td>
<td>Líquidos combustibles</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Corrosivo para metales</td>
<td>Sustancias y metales Auto-reativos</td>
<td>![Icono de peligro]</td>
</tr>
<tr>
<td>Sustancias y mezclas que experimentan calentamiento espontáneo</td>
<td>![Icono de peligro]</td>
<td></td>
</tr>
<tr>
<td>Sustancias y mezclas que, en contacto con el agua desprenden gases inflamables</td>
<td>![Icono de peligro]</td>
<td></td>
</tr>
<tr>
<td>Peróxidos orgánicos</td>
<td></td>
<td>![Icono de peligro]</td>
</tr>
</tbody>
</table>

Etiquetado de envases:

(Añada el nombre y título de la persona) es responsable de etiquetar los envases, revisarlos y ponerlos al día. El sistema de etiquetado utilizado en (Añada el nombre del empleador) es el siguiente: (Describa el sistema de etiquetado, incluyendo las etiquetas u otras formas de advertencia utilizadas y si las hay, otras alternativas por escrito para etiquetar).

Componentes de una Etiqueta:

* Identificación del Producto -Tal como aparece en las HDS (Hojas de datos de seguridad)
* Identificación del Proveedor -Nombre y dirección del fabricante del químico
* Identidad Química
* Indicaciones de Precaución o Peligro -Obligatorio
* Pictogramas de peligro -Estandarizados
* Palabras de advertencia -basado en los apéndices

El proceso para etiquetar todos los envases correctamente y para revisar y poner al día las advertencias en las etiquetas es el siguiente: (Describa el proceso para etiquetar aquí abajo.) (También incluya una descripción de los procedimientos para etiquetar los envases secundarios utilizados, asegurándose de que estos tengan la identificación apropiada y la advertencia de peligro, etc., descripción de los procesos para revisar y poner al día las etiquetas de advertencia, frecuencia en que se revisan y el nombre y posición de la persona responsable de revisar y actualizar las etiquetas de advertencia).
Pictogramas del SGA (GHS en Inglés)

De estos 9 pictogramas, solo 8 están incluidos en la comunicación de peligros químicos. El uso del pictograma “Peligro ambiental” (centro de los últimos cuadros aquí abajo) no es obligatorio de acuerdo a las regulaciones (HCS) de OSHA. Solamente se usa para identificar peligros relacionados con los ambientes acuáticos.

Hojas de Datos de Seguridad (HDS o SDS por sus iniciales en Inglés)

(Añada el nombre y título de la persona) es responsable de establecer y monitorear el programa de HDS del empleador. Esta persona se asegurará de que se desarrollen procedimientos para obtener las HDS necesarias y revisará las que estén llegando con información nueva y relevante de salud y seguridad. Esta persona se encargará de que cualquier nueva información se le comunique a los empleados afectados. La Norma de Comunicación de Peligros o Riesgos (HCS en Inglés) exige que los fabricantes, distribuidores o importadores de productos químicos proporcionen hojas de datos de seguridad (HDS) (conocidas anteriormente como hojas de información sobre la seguridad de los materiales o MSDS) para comunicar los riesgos de los productos químicos peligrosos. A partir del 1 de junio de 2015, la HCS exige que las nuevas HDS sigan un formato uniforme e incluyan los números de sección, los encabezados y la información pertinente bajo los encabezados siguientes:

1. **Identificación**, incluye el identificador del producto; nombre, dirección y número de teléfono del fabricante o distribuidor; número de teléfono de emergencia; uso recomendado; y restricciones del uso.
2. **Identificación de peligro**, describe todos los peligros relacionados con el producto químico y los elementos obligatorios de la etiqueta.
3. **Composición e información sobre los componentes**, incluye los datos acerca de ingredientes químicos y las declaraciones de secretos de fabricación.
4. **Medidas de primeros auxilios**, describe los síntomas y efectos agudos y crónicos relacionados, y las medidas numéricas de la toxicidad.
5. **Información relativa a la eliminación**, enumera las vías de exposición, los síntomas y efectos agudos y crónicos relacionados, y las medidas numéricas de la toxicidad.
6. **Información sobre la reglamentación**
7. **Otra información**, incluye la fecha de preparación o de la última modificación.

**Nota:** debido a que otros organismos regulan esta información, la OSHA no exige el cumplimiento de las secciones número 12 hasta 15 (norma 29 CFR 1910.1200(g)(2)).

Favor de consultar la descripción detallada del contenido de las HDS (SDS por sus iniciales en Inglés) en el Apéndice D de la norma 29 CFR 1910.1200. También, no olviden que los empleadores deben comprobar que los empleados afectados tengan acceso a las HDS fácil y sin restricciones.
(Left) ADOSH Trainer Joe Ornelas was in Yuma on February 22 and 23 conducting training about PPE Hazard Assessment and Walking /Working Surfaces. Classes meet at the Main Library, hosted by Diane Robinson of Yuma County’s HR Department.

(Lower left) ADOSH and Borders Construction Specialties teamed up to bring Yuma, Phoenix and Tucson Aerial Lift and Ladder Safety. A demonstration of the forces placed on the human body during a fall, with harness and lanyard, took place outside of the Main Library in the parking lot. James Harrald taught students about the fall protection used with Aerial Lifts and general Aerial Lift Safety. Dan Naegele introduced new ladders and safety features that are being built-in. Additionally Dan brought some tool-tethering devices and demonstrated their attributes. The bucket in the photo below has a sealable liner that prevents items from falling out while being carried.
ADOSH OUT AND ABOUT

(Above) Fall Protection for Aerial lift Training and Ladder Safety in Phoenix at the ICA Auditorium by Border Construction Specialties and ADOSH  (Above and below right) Joe Ornelas greets attendees at the ADOSH booth during the Yuma Area Ammonia Safety Day (Below) New Silica Standard Training in ...you guessed it, YUMA! Standing Room Only for this class!

Our Newest PEPP Program Partners who signed the agreement with ADOSH Consultant Brandon Stowell (far right) on February 14, 2017!

Congratulations Navajo County!
Heat-related illnesses can be deadly. Thousands become sick every year and many die due to preventable heat-related illnesses. With summer temperatures rising, now is the best time to prepare for working outdoors in excessive heat by following a few simple steps.

**HEAT-RELATED ILLNESS: KNOW THE SIGNS**

It's important to know the signs of heat-related illness—acting quickly can prevent more serious medical conditions and may even save lives.

- **Heat Stroke** is the most serious heat-related illness and requires immediate medical attention. Symptoms include: confusion, fainting, seizures, very high body temperature and hot, dry skin or profuse sweating. **CALL 911** if a coworker shows signs of heat stroke.

- **Heat Exhaustion** is also a serious illness. Symptoms include: headache, nausea, dizziness, weakness, thirst and heavy sweating. **Heat fatigue, and heat rash** are less serious, but they are still signs of too much heat exposure.

If you or a coworker has symptoms of heat-related illness, **tell your supervisor right away**. If a supervisor is not available, call 911. While you are waiting for response, if you can, move the person to a shaded area, loosen his/her clothing, if conscious and able to drink without vomiting, give him/her water (a little at a time), and cool him/her down with ice packs or cool water.

**TO PREVENT HEAT ILLNESS: WATER.REST.SHADE.**

- Drink water every 15 minutes, even if you are not thirsty.
- Rest in the shade to cool down.
- Wear a hat and light-colored clothing.
- Learn the signs of heat illness and what to do in an emergency.
- Keep an eye on fellow workers.
- Acclimate — "easy does it" on your first days of work; be sure to get used to the heat and allow yourself to build up a tolerance. Not being used to the heat is a big problem. Many of the people who died from heat stress were either new to working in the heat or returning from a break. If a worker has not worked in hot weather for a week or more, their body needs time to adjust.

Under OSHA law, employers are responsible for providing workplaces free of known safety hazards. This includes protecting workers from extreme heat. An employer with workers exposed to high temperatures should establish a complete heat illness prevention program.

- Provide workers with water, rest and shade.
- Allow new or returning workers to gradually increase workloads and take more frequent breaks as they acclimatize, or build a tolerance for working in the heat.
- Plan for emergencies and train workers on prevention.
- Monitor workers for signs of illness.

Working in full sunlight can increase heat index values by 15 degrees Fahrenheit. Keep this in mind and plan additional precautions for working in these conditions.

**Who is affected?**

Any worker exposed to hot and humid conditions is at risk of heat illness, especially those doing heavy work tasks or using bulky protective clothing and equipment. Some workers might be at greater risk than others if they have not built up a tolerance to hot conditions, including new workers, temporary workers, or those returning to work after a week or more off. All workers are at risk during a heat wave.

Industries most affected by heat-related illness are: construction; trade, transportation and utilities; agriculture; building, grounds maintenance; landscaping services; and support activities for oil and gas operations.

**What to do if a worker becomes ill?**

- Call 911. Heat exhaustion can change to heat stroke in a matter of minutes. This is a true medical emergency.
- Have someone stay with the worker until help arrives.
- Assess all exposed workers for signs and symptoms of heat illness. Take preventative actions as described above.

Check the training calendar for classes on heat prevention and hydration!
Planning a STAND-DOWN Event in Arizona? Let us know and take some photos for our next edition of the Advocate! If you would like a representative from ADOSH at your Event, email Assistant Director Jessie Atencio at Jessie.atencio@azdosh.gov and let us know all about it! To read more about the STAND DOWN and “free-for-the-download” resources you can visit https://www.osha.gov/StopFallsStandDown/resources.html

Arizona Employers! Plan now to Participate in the National Safety STAND-DOWN TO PREVENT FALLS IN CONSTRUCTION MAY 8-12, 2017

Stop Falls Stand-Down
- Plan a toolbox talk or other safety activity
- Take a break to talk about how to prevent falls
- Provide training for all workers

The U.S. Department of Labor’s Occupational Safety and Health Administration launched its “Safe and Sound Campaign” recently, calling on employers to review their safety and health programs to protect workers, and reduce workplace injuries and deaths. While there are different approaches to ensuring worker safety and health, all effective programs share three core elements:

Management leadership. Top management commits to establishing, maintaining and improving the program continually, and provides any necessary resources.

Worker participation. Employers invite workers to identify solutions. Improved worker engagement can lead to better productivity, higher job satisfaction and worker retention - lowering turnover and recruitment costs.

A systematic “find and fix” approach. Employers and workers examine their workplaces, proactively and routinely, to identify and address hazards before they can cause injury or illness.

Employers seeking to create a safety and health program should know that the process doesn’t have to be complicated or demand outside consultants be employed; there are some simple, do-it-yourself steps to get started. OSHA’s “Recommended Practices for Safety and Health Programs” page offers practical advice on how any organization can integrate safety and health programs. Go to: https://www.osha.gov/shpguidelines/

ADOSH has a Consultation Section that stands ready to help businesses assess and address health and safety programs. The service is free, and no citations are issued. We don’t want businesses, especially small ones, to believe they cannot afford to protect their workers. ADOSH provides good safety information and will work with employers to help them comply with safety and health standards. Call the number below today to speak with ADOSH Consultation closest to you!

Bill Warren, ADOSH Director
Toll Free: 855-268-5251