

Hazardous Substances

Special Interest Articles:

- [Climate Change](#)
- [Mini-Baghouse](#)
- [Pool Safety](#)
- [Concussions](#)
- [Combat Readiness](#)

DOEHRS Super Star

10 Jobs You're at Risk of Losing as You Age

Many people want to delay retirement in order to improve their retirement finances. But working during your 60s and even until you're older isn't always possible, especially if your job requires significant physical strength or cognitive abilities that tend to decline with age. A recent study from the Center for Retirement Research at Boston College identifies several jobs in which older workers could have a difficult time remaining productive.

Airline pilots. Piloting an airplane is an intense job that requires physical stamina, excellent vision, concentration for significant periods of time and the ability to react quickly to new information. "For airline pilots there is a mandatory retirement age," says Karen Holden, a professor emerita of consumer science and public affairs at the University of Wisconsin at Madison. "The airline might move you to another job."

Assemblers. Assemblers make the components and products we use every day. The job requires

long periods of sitting or standing and lots of fine motor movements. "Being an assembler requires manual dexterity, finger dexterity, and those are things that tend to decline as you age," says Geoffrey Sanzenbacher, a research economist at the Center for Retirement Research and co-author of the report.



Read more:

<http://money.usnews.com/money/retirement/articles/2016-05-23/10-jobs-youre-at-risk-of-losing-as-you-age?int=a14709>

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Cross-Classified Occupational Exposure Data

We demonstrate the regression analysis of exposure determinants using cross-classified random effects in the context of lead exposures resulting from blasting surfaces in advance of painting. We had three specific objectives for analysis of the lead data, and observed: 1) high within-worker variability in personal lead exposures, explaining 79% of variability, 2) that the lead concentration outside of half-mask respirators was 2.4-fold higher than inside supplied-air blasting helmets, suggesting that the exposure reduction by blasting helmets may be lower than expected by the Assigned Protection Factor, and 3) that lead concentrations at fixed area locations in containment were not associated with personal lead exposures. In addition, we found that, on average, lead exposures among workers performing blasting and other activities was 40% lower than among workers performing only blasting. In the process of obtaining these analyses objectives, we determined that the data were non-hierarchical: Repeated exposure measurements were collected for a worker while the

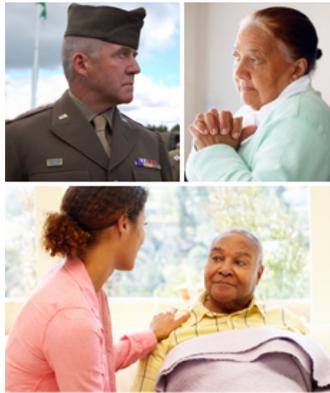


worker was a member of several groups, or cross-classified among groups. Since the worker is a member of multiple groups, the exposure data do not adhere to the traditionally assumed hierarchical structure. Forcing a hierarchical structure on these data led to similar within-group and between-group variability, but of precision in the estimate of effect of work activity on lead exposure. We hope hygienists and exposure assessors will consider non-hierarchical models in the design and analysis of exposure assessments.

Read more: Journal of Occupational and Environmental Health Accepted author version posted online: 30 Mar 2016 (Available with AIHA membership)

Army Industrial Hygiene News and Regulatory Summary

Pesticides, Military Service May Be Tied to ALS Risk



The National
ALS Registry

Be counted.
Fight back.
Make a
difference.
#ALS
#BeCounted



LEARN MORE

People with Lou Gehrig’s disease, or ALS, are more likely to have been exposed to toxic pesticides or to have served in the military than similar people without the condition, according to a new study.

ALS, or amyotrophic lateral sclerosis, is a degenerative disease in which nerve cells break down over time. ALS affects fewer than 20,000 people in the U.S. each year, according to the Mayo Clinic.

The disease is progressive, eventually affecting the ability to chew, swallow, speak and breathe. In 2014, the ALS “Ice Bucket Challenge” went viral on the internet and helped raise \$115 million for research toward a cure.

Read more:

<http://www.reuters.com/article/us-health-als-pesticides-idUSKCN0Y02BQ>

Effect of Station-Specific Alerting and Ramp-Up Tones on Firefighters’ Alarm Time Heart Rates

Background: A number of long-term health effects are suffered by emergency responders, some influenced by psychological stress and fatigue. This study explored if stress and fatigue can be reduced by changing the method by which firefighters are alerted to emergency responses. Methods: Over several months, the method by which responders at a fire department were alerted was altered. Firefighter heart rates were measured first with standard alerting as a control (phase 1: all stations alerted simultaneously, with high-volume tones). The department then implemented station-specific (phase 2) and



gradual volume ramp-up (phase 3) tone alerting, and heart rate increases were compared. The Fatigue Severity Score was used to examine firefighter fatigue, and the

Army Industrial Hygiene News and Regulatory Summary

department administered a follow-up survey on personnel preferences. Results: Individual heart rate increases (Δ bpm) ranged from 2 to 48 bpm. Median increases were 7 bpm (IQR 4-11 bpm) during phase 1 (72.2% of alarms Δ bpm<10), 7 bpm (IQR 5-12 bpm) during phase 2 (60.7% of alarms Δ bpm<10), and 5 bpm (IQR 3-8 bpm) during phase 3 (82.7% of alarms Δ bpm<10). The difference in medians was lower for phases 1 and 2 than for phase 3 ($p = 0.0069$), and more alarms in phase 3 resulted in increases of <10 bpm than in phase 2 ($p = 0.0089$). The Fatigue Severity Scale showed little variability: median scores 7 in phase 1, 8 in phase 2, and 7 in phase 3. Firefighters reported a strong preference for the “ramp-up” tones, and were roughly evenly divided between preferring alerting all stations simultaneously 24/7 (40% rating this 4 or 5

on a five-point Likert scale), station-specific alerting 24/7 (47.5%), or all stations during the day but station-specific at night (40%). Ramp-up tones were perceived as the best method to reduce stress during the day and overnight. Conclusion: Small but significant decreases in the amount of tachycardic response to station alerting are associated with simple alterations in alerting methods. Station-specific and ramp-up tones improve perceived working conditions for emergency responders.

Read more: Journal of Occupational and Environmental Accepted author version posted online: 12 May 2016 (Available with AIHA membership)

Advancing the Framework for Considering the Effects of Climate Change on Worker Safety and Health



In 2009, a preliminary framework for how climate change could affect worker safety and health was described. That framework was based on a literature search from 1988-2008 that supported seven categories of climate-related occupational hazards: (1)

increased ambient temperature; (2) air pollution; (3) ultraviolet exposure; (4) extreme weather; (5) vector-borne diseases and expanded habitats; (6) industrial transitions and emerging industries; and (7) changes in the built environment. This paper reviews the published literature from 2008-2014 in each of the seven categories. Additionally, three new topics related to occupational safety and health are considered: mental health effects, economic burden, and potential work safety and health impacts associated with the nascent field of climate intervention (geoengineering). Beyond updating the literature, the paper also identifies key

priorities for action to better characterize and understand how occupational safety and health may be associated with climate change events and ensure that worker health and safety issues are anticipated, recognized, evaluated, and mitigated. These key priorities include research, surveillance, risk assessment, risk management, and policy development. Strong evidence indicates that climate change will continue to present occupational safety and health

hazards, and this framework may be a useful tool for preventing adverse effects to workers.

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 26 Apr 2016 (Available with AIHA membership)

Quartz Dustiness: A Key Factor in Controlling Exposure to Crystalline Silica in the Workplace

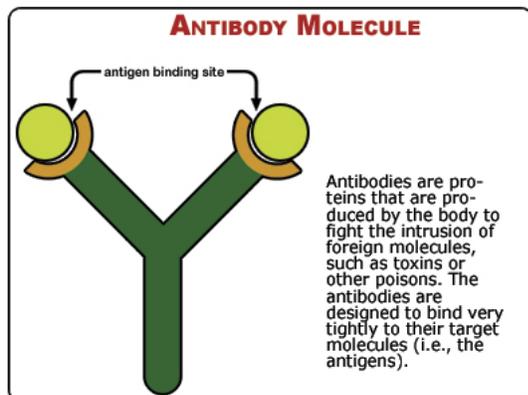
Silica (RCS) as carcinogenic for humans has drawn greater attention to crystalline silica exposure in the workplace in recent years, leading to recommendations by safety and health bodies in Europe and the United States for lower occupational exposure limits. In view of this new scenario, the present study examined quartz dustiness, as quartz handling is a major source of crystalline silica in the workplace. The study was conducted on test samples with different mean particle sizes, prepared from several commercial quartzes. The quartz particle samples were characterised and the influence of certain quartz particle parameters on quartz dustiness was determined. The results indicate that quartz dustiness may be significantly affected by mean particle size, specific surface area, the Hausner ratio, and fine particle content. The study shows that, in order to minimise the adverse health effects associated with the inhalation of crystalline silica, quartz



dustiness may be deemed a key factor in controlling the generation of fugitive quartz emissions during quartz processing, both into the outside atmosphere (air pollution) and inside the facilities (occupational health).

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 02 May 2016 (Available with AIHA membership)

The Influence of Diisocyanate Antigen Preparation Methodology on Monoclonal and Serum Antibody Recognition



Exposure to diisocyanates (dNCOs), such as methylene diphenyl diisocyanate (MDI) can cause occupational asthma (OA). Currently, lab tests for dNCO specific IgE are specific, but not sensitive, which limits their utility in diagnosing dNCO asthma. This may be due to variable preparation and poor characterization of the standard antigens utilized in these assays. The aim of this study was to produce and characterize a panel of antigens prepared using three different commonly employed methods and one novel method. The conjugates were examined for recognition by anti-MDI monoclonal antibodies (mAbs) in varying enzyme linked immunosorbant assay (ELISA) formats, extent of crosslinking, total amount of MDI, the sites of MDI conjugation, relative shape/charge, and reactivity with human serum with antibodies from sensitized, exposed workers. Results indicate that while there are minimal differences in the total amount

of MDI conjugated, the extent of crosslinking, and the conjugation sites, there are significant differences in the recognition of differently prepared conjugates by mAbs. Native and denaturing polyacrylamide gel electrophoresis demonstrate differences in the mobility of different conjugates, indicative of structural changes that are likely important for antigenicity. While mAbs exhibited differential binding to different conjugates, polyclonal serum antibodies from MDI exposed workers exhibited equivalent binding to different conjugates by ELISA. While differences in the recognition of the different conjugates exist by mAb detection, differences in antigenicity could not be detected using human serum from MDI-sensitized individuals. Thus, although dNCO conjugate preparation can, depending on the immunoassay platform, influence binding of specific antibody clones, serologic detection of the dNCO-exposure-induced polyclonal antibody response may be less sensitive to these differences.

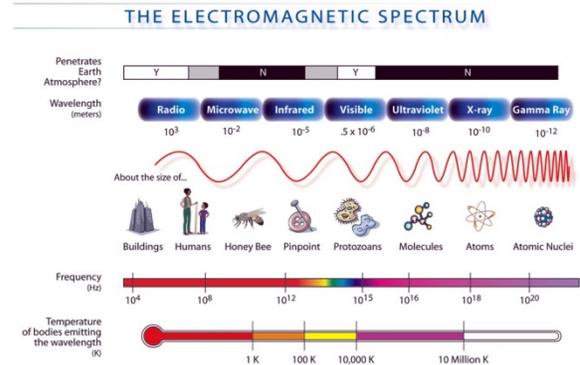
Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 28 Apr 2016 (Available with AIHA membership)

Radiation

Measuring Electromagnetic Radiation Exposure

Society demands continuous implementation of new transmission systems due to ongoing development of communication technologies. These systems work by emitting electromagnetic waves. As a result, population is exposed to a significant increase of environmental radiation levels. Researchers from UPM have developed a portable device that allows continuous monitoring the exposure levels to electromagnetic radiations of a person who wears such device.

A team of researchers from Center for Biomedical Technology (CTB) at Universidad Politécnica de Madrid (UPM) has developed a pocket instrument capable of perceiving radio signals from 50 MHz to 6 MHz and storing this information in a non-volatile memory. After collecting and storing the information, the system assesses the daily



exposure of a person to electromagnetic radiation.

Read more:

<http://www.homelandsecuritynewswire.com/dr20160506-measuring-electromagnetic-radiation-exposure>

Comparison of Hospital Room Surface Disinfection Using a Novel Ultraviolet Germicidal Irradiation (UVGI) Generator

The estimated 721,800 hospital acquired infections per year in the United States have necessitated development of novel environmental decontamination technologies such as ultraviolet germicidal irradiation (UVGI). This study evaluated the efficacy of a novel, portable UVGI generator (the TORCH™, ChlorDiSys Solutions, Inc., Lebanon, NJ) to disinfect surface coupons

composed of plastic from a bedrail, stainless steel, chrome-plated light switch cover, and a porcelain tile that were inoculated with methicillin-resistant *Staphylococcus aureus* (MRSA) or vancomycin-resistant *Enterococcus faecalis* (VRE). Each surface type was placed at 6 different sites within a hospital room and treated by 10-minute ultraviolet-C (UVC)

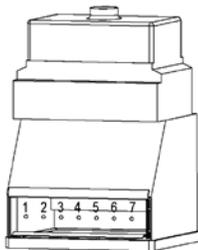
exposures using the TORCH™ with doses ranging from 0 to 688mJ/cm² between sites. Organism reductions were compared with untreated surface coupons as controls. Overall, UVGI significantly reduced MRSA by an average of 4.6 log₁₀ (GSD: 1.7 log₁₀, 77% inactivation, p<0.0001) and VRE by an average of 3.9 log₁₀ (GSD: 1.7 log₁₀, 65% inactivation, p<0.0001). MRSA on bedrail was reduced significantly (p<0.0001) less than on other surfaces, while VRE was reduced significantly less on chrome (p = 0.0004) and stainless steel (p = 0.0012) than porcelain tile. Organisms out of direct line of sight of the UVC generator were reduced

significantly less (p<0.0001) than those directly in line of sight. UVGI was found an effective method to inactivate nosocomial pathogens on surfaces evaluated within the hospital environment in direct line of sight of UVGI treatment with variation between organism and surface types.

*Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 30 Mar 2016
Published online: 30 Mar 2016 (Available with AIHA membership)*

Ventilation

Effects of Boundary-Layer Separation Controllers on a Desk-Top Fume Hood



A desktop fume hood installed with an innovative design of flow boundary-layer separation controllers on the leading edges of the side plates, work surface, and corners was developed and characterized for its flow and containment leakage characteristics. The geometric features of the developed desktop fume hood included a rearward offset suction slot, two side

plates, two side-plate boundary-layer separation controllers on the leading edges of the side plates, a slanted surface on the leading edge of the work surface, and two small triangular plates on the upper left and right corners of the hood face. The flow characteristics were examined using the laser-assisted smoke flow visualization technique. The containment leakages were measured by the tracer gas (sulphur hexafluoride) detection method on the hood face plane with a mannequin installed in front of the hood. The results of flow visualization showed that the smoke dispersions induced by the boundary-layer separations on the leading edges of the side plates and work surface, as well as the three-dimensional complex flows on the

upper left and right corners of the hood face, were effectively alleviated by the boundary-layer separation controllers. The results of the tracer gas detection method with a mannequin standing in front of the hood showed that the leakage levels were negligibly small (≤ 0.003 ppm) at low face velocities (≥ 0.19 m/s).

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 22 Apr 2016 (Available with AIHA membership)

The Development and Testing of a Prototype Mini-Baghouse to Control the Release of Respirable Crystalline Silica from Sand Movers

Inhalation of respirable crystalline silica (RCS) is a significant risk to worker health during well completions operations (which include hydraulic fracturing) at conventional and unconventional oil and gas extraction sites. RCS is generated by pneumatic transfer of quartz-containing sand during hydraulic fracturing operations. National Institute for Occupational Safety and Health (NIOSH) researchers identified concentrations of RCS at hydraulic fracturing sites that exceed 10 times the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) and up to 50 times the NIOSH Recommended Exposure Limit (REL). NIOSH research identified at least seven point sources of dust release at contemporary oil and gas extraction sites where RCS aerosols were generated.

NIOSH researchers recommend the use of engineering controls wherever they can be implemented to limit the RCS released. A control developed to address one of the largest sources of RCS aerosol generation is the NIOSH mini-baghouse assembly, mounted on the thief hatches on top of the



sand mover. This article details the results of a trial of the NIOSH mini-baghouse at a sand mine in Arkansas from November 18–21, 2013.

During the trial, area air samples were collected at 12 locations on and around a sand mover with and without the mini-baghouse control installed. Analytical results for respirable dust and RCS indicate the use of the mini-baghouse effectively reduced both respirable dust and RCS downwind of the thief hatches. Reduction of airborne respirable dust ranged from 85–98%; reductions in airborne RCS ranged from 79–99%. A bulk sample of dust collected by the baghouse assembly showed the likely presence of freshly

fractured quartz, a particularly hazardous form of RCS.

Planned future design enhancements will increase the performance and durability of the mini-baghouse, including an improved bag clamp mechanism and upgraded filter fabric with a modified air-to-cloth ratio. Future trials are planned to determine additional respirable dust and RCS

concentration reductions achieved through these design changes.

*Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 22 Mar 2016
Published online: 21 May 2016 (Available with AIHA membership)*

PPE

Effect of Multiple Alcohol-Based Hand Rub Applications on the Tensile Properties of Thirteen Brands of Medical Exam Nitrile and Latex Gloves



Current CDC guidance for the disinfection of gloved hands during the doffing of personal protective equipment (PPE) following the care of a patient with Ebola recommends for multiple applications of alcohol-based hand rub (ABHR) on medical exam gloves. To evaluate possible effects of ABHR applications on glove integrity, thirteen brands of nitrile and latex medical exam gloves from five manufacturers and two

different ABHRs were included in this study. A pair of gloves were worn by a test operator and the outside surfaces of the gloves were separately treated with an ABHR for 1 to 6 applications. Tensile strength and ultimate elongation of the gloves without any ABHR treatments (control gloves) and gloves after 1 to 6 ABHR applications were measured based on the ASTM D412 standard method. In general, tensile strength decreased with each ABHR application. ABHRs had more effect on the tensile strength of the tested nitrile than latex gloves; while ethanol based ABHR (EBHR) resulted in lesser changes in tensile strength compared to isopropanol based ABHR (IBHR). The results show that multiple EBHR applications on the latex gloves and some of the nitrile gloves tested should be safe for Ebola PPE doffing based on the CDC guidance. Appropriate hospital staff practice using

ABHR treatment and doffing gloves is recommended to become more familiar with changes in glove properties.

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 25 May 2016 (Available with AIHA membership)

Advanced Testing Method to Evaluate the Performance of Respirator Filter Media

Filter media for respirator applications are typically exposed to the cyclic flow condition, which is different from the constant flow condition adopted in filter testing standards. To understand the real performance of respirator filter media in the field it is required to investigate the penetration of particles through respirator filters under cyclic flow conditions representing breathing flow patterns of human beings. This article reports a new testing method for studying the individual effect of breathing frequency (BF) and peak inhalation flow rate (PIFR) on the particle penetration through respirator filter media. The new method includes the use of DMA (Differential Mobility Analyzer)-classified particles having the most penetrating particle size, MPPS (at the constant flowrate of equivalent mean inhalation flow rate, MIFR) as test aerosol. Two condensation particle counters (CPCs) are applied to measure the particle concentrations at the upstream and downstream of test filter media at the same time. Given the 10Hz sampling time of CPCs, close-to-instantaneous particle penetration could be

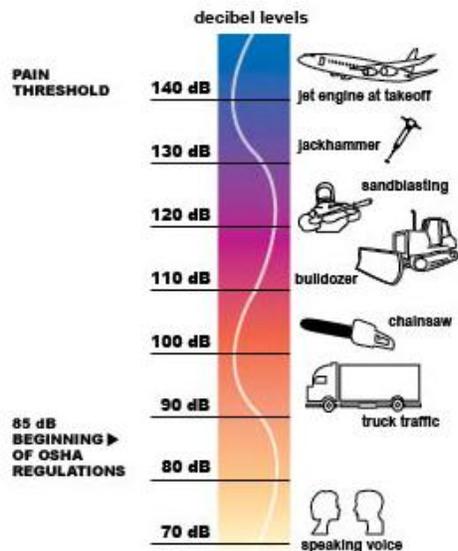


measured. A pilot study was performed to demonstrate the new testing method. It is found that the effect of BF on the particle penetration of test respirator filter media is of importance at all the tested peak inhalation flow rates (PIFRs), which is different from those reported in the previous work.

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 22 Apr 2016 (Available with AIHA membership)

Noise

NIOSH Releases Study on Work-Related Hearing Loss



a prevalence of 13 percent hearing loss (mild to complete) among 1.4 million audiograms studied. This study confirms and quantifies the prevalence of hearing loss among employees of nine major industry sectors. The mining, construction and manufacturing industries had the highest prevalence of workers with any hearing impairment or moderate to severe hearing impairment. Occupational hearing loss, primarily caused by high noise exposure, is the most common U.S. work-related illness. NIOSH estimates that 22 million U.S. workers are exposed to hazardous occupational noise.

The National Institute for Occupational Safety and Health released a study last month in its Morbidity and Mortality Weekly Report on hearing impairment among noise-exposed workers in the United States from 2003 to 2012. This study found

Read more:

<https://www.osha.gov/as/opa/quicktakes/qt050116.html#top> (scroll down)

An Exploratory Study of Noise Exposures in Educational and Private Dental Clinics

Exposures to noise and resulting noise-induced hearing loss (NIHL) are not well understood in the dental profession. Previous studies have focused primarily on practicing dental professionals, and have often evaluated hearing loss in the absence of adequate noise exposure assessment. This study was conducted to evaluate

exposures among students and staff working in four clinics within a major US university dental school, and to compare these exposures to those among dental professionals in a private general-practice clinic. We measured equivalent continuous average (L_{EQ}) noise exposure levels at 3.75-minute intervals across a variety of

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procedures in the evaluated clinics, and also had participants complete a brief survey with questions on their experience and perceptions of noise exposure. We collected 79 partial- or full-shift Time-Weighted Average (TWA) dosimetry measurements on 46 individuals. The mean 3.75-min interval L_{EQ} level was 63.6 ± 13.3 dBA, while the highest 3.75-min interval L_{EQ} was 103.5 dBA. Students from the dental school clinics had the highest variability in average exposure levels, while the pediatric clinic evaluated had the highest average and maximum exposures. Nearly 4% of standardized 8-hr TWA measurements exceeded the 85 dBA Recommended Exposure Limit established by the National Institute for Occupational Safety and Health. Concerns about the potential effects of dental noise on participants'

Read more: Journal of Occupational and Environmental Hygiene Accepted author version posted online: 14 Apr 2016 (Available with AIHA membership)

hearing were significantly correlated with metrics of TWA noise exposure, as well as variability of exposure (as assessed by the SD of the 3.75-min L_{EQ} levels). Our results suggest that dental students and staff may have some risk of developing noise-induced hearing loss, particularly in pediatric clinical settings.



Preventive Medicine

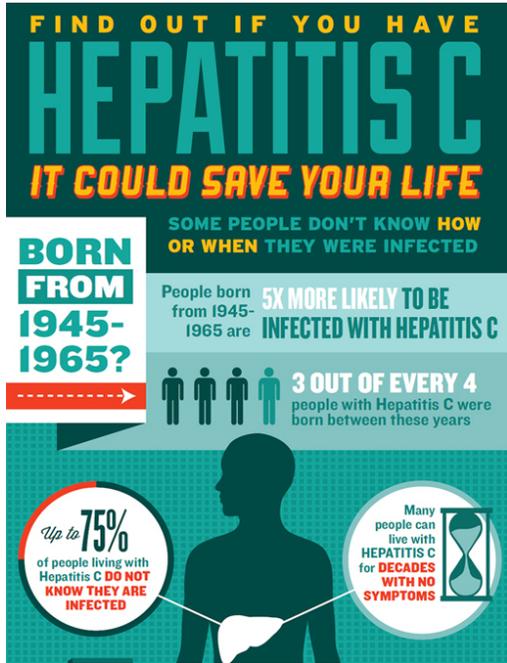
Hepatitis C Kills More Americans than Any Other Infectious Disease

Deaths associated with hepatitis C reached an all-time high of 19,659 in 2014, according to new surveillance data released today by the Centers for Disease Control and Prevention (CDC).

A second CDC study, published online today in *Clinical Infectious Diseases*, shows that annual hepatitis C-related mortality in 2013

surpassed the total combined number of deaths from 60 other infectious diseases reported to CDC, including HIV, pneumococcal disease, and tuberculosis. Further, both studies use data from death certificates, which often underreport hepatitis C, so there likely were even more hepatitis C-related deaths than these numbers suggest.

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1965 – many of whom have unknowingly been living with the infection for many years. According to a study published in *The Lancet Infectious Diseases* earlier this year, many baby boomers were infected during medical procedures in the years after World War II, when injection and blood transfusion technologies were not as safe as they are today. Without diagnosis and treatment, they increasingly develop liver cancer and other life-threatening hepatitis C-related diseases, and they may unknowingly transmit the disease to others.

Read more:
<http://www.cdc.gov/media/releases/2016/p0504-hepc-mortality.html>

The greatest hepatitis C burden falls on baby boomers – those born from 1945 to

SPIROLA: Spirometry Longitudinal Data Analysis Software (Fact Sheet)

The Spirometry Longitudinal Data Analysis (SPIROLA) software is an integrated visual and quantitative tool that aids in monitoring lung function in individuals over time. To identify individuals with excessive decline in lung function accurately and in a timely manner, it is important to maintain acceptable quality of the spirometry tests and precision of the longitudinal spirometry data. Additionally, identification of excessive decline followed by appropriate interventions may help to preserve an individual's lung function.



Read more

<http://www.cdc.gov/niosh/docs/2016-117/default.html>

Medical Error—The Third Leading Cause of Death in The US



The annual list of the most common causes of death in the United States, compiled by the Centers for Disease Control and Prevention (CDC), informs public awareness and national research priorities each year. The list is created using death certificates filled out by physicians, funeral directors, medical examiners, and coroners. However, a major limitation of the death certificate is

that it relies on assigning an International Classification of Disease (ICD) code to the cause of death.¹ As a result, causes of death not associated with an ICD code, such as human and system factors, are not captured. The science of safety has matured to describe how communication breakdowns, diagnostic errors, poor judgment, and inadequate skill can directly result in patient harm and death. We analyzed the scientific literature on medical error to identify its contribution to US deaths in relation to causes listed by the CDC.²

Read more:

<http://www.bmj.com/content/353/bmj.i2139>

Another Nail in the Antibiotic Coffin

Over the last week, there has been a flurry of focus on antibiotic resistance. The attention stems from a recent article reporting the discovery of an antibiotic-resistant bacterium in the United States. While at first glance, this may not seem to be a reason for panic, the actual target of resistance--a class of antibiotics known as colistins--has led some to suggest the end of antibiotics is near.



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The report involved a woman in Pennsylvania who was being treated for a urinary tract infection. As per usual in today's world of in-depth diagnostics, the bacteria were sent to a lab for testing. As expected, the bacterial species was *Escherichia coli*, a normal cause of UTI. Yet, this isolate, known simply as MRSN 388634,

was a little more trouble than expected thanks to antibiotic resistance.

Read more:

<http://www.popsci.com/another-nail-in-antibiotic-coffin>

CDC Expanding Groundbreaking Disease Identification Tool



Everyone has heard of common germs like *E.coli* or influenza, but what about *Streptobacillus moniliformis* or *Capnocytophaga*? If not treated quickly, both can kill people within days. But they are so rare that doctors and labs probably have never seen them and may mistake them for more common diseases like meningitis. Enter MicrobeNet, an innovative online tool designed by the Centers for Disease Control and Prevention (CDC) that, since 2013, has helped laboratorians and doctors get the information they need to

accurately diagnose causes of disease faster and save lives.

MicrobeNet provides laboratorians with unprecedented access to CDC's virtual microbe library of more than 2,400 rare and emerging infectious bacteria and fungi at no cost. The recent multi-state outbreak of *Elizabethkingia* in Wisconsin, Illinois and Michigan underscores the need for a tool like MicrobeNet in diagnostic laboratories. Hospitals and health departments using MicrobeNet can identify rare bacteria like *Elizabethkingia* quicker, and know they're comparing their results to the most comprehensive and accurate disease database available.

Read more:

<http://www.cdc.gov/media/releases/2016/p0518-microbenet.html>

Environmental Health

New Study Tallies Environmental and Public Health Benefits of Solar Power

Solar power could deliver \$400 billion in environmental and public health benefits throughout the United States by 2050, according to a study from the U.S. Department of Energy (DOE)'s Lawrence Berkeley National Laboratory (Berkeley Lab) and National Renewable Energy Laboratory (NREL).

We find that a U.S. electric system in which solar plays a major role—supplying 14% of demand in 2030, and 27% in 2050—would result in enduring environmental and health benefits. Moreover, we find that the existing fleet of solar plants is already offering a down-payment towards those benefits, and that there are sizable regional differences in the benefits," said Ryan Wiser of Berkeley Lab's Energy Technologies Area.



Read more <http://phys.org/news/2016-05-tallies-environmental-health-benefits-solar.html>

Arsenic in New England Well Water Tied to Bladder Cancer Risk

Low to moderate levels of arsenic in New England well water may be responsible for an increased risk of bladder cancer in that region, suggests a new study.

"It's an important disease to be concerned about," said senior author Debra Silverman, of the National Cancer Institute in Bethesda, Maryland. "If people are drinking from these wells, I think it's important for people to get their water tested."

Silverman and her colleagues wrote online May 2 in the Journal of the National Cancer Institute that bladder cancer death rates



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have been elevated in New England compared to the rest of the country for the last five decades. Bladder cancer diagnoses were also found to be about 20% higher in New England.

Read more:

<http://www.reuters.com/article/us-health-cancer-water-arsenic-idUSKCN0XV2OP>

New Paper Filter Removes Viruses from Water



especially in children under age of five, and viruses are among the most notorious water-borne infectious microorganisms. They can be both extremely resistant to disinfection and difficult to remove by filtration due to their small size. Scientists have developed a simple paper sheet which can improve the quality of life for millions of people by removing resistant viruses from water.

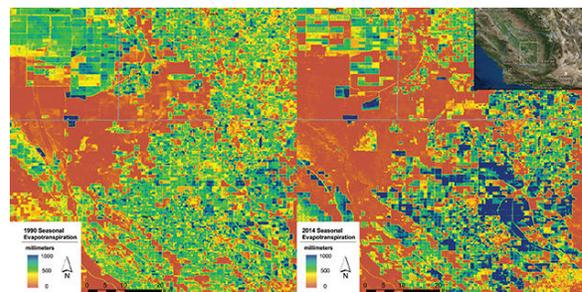
Read more:

<http://www.homelandsecuritynewswire.com/dr20160527-new-paper-filter-removes-viruses-from-water>

More than 748 million people around the world lack access to safe drinking water and basic sanitation. Water-borne infections are among the global causes for mortality,

Mapping Water Use of America's Water Resources

Water is one of our nation's most important natural resources, one that is long been considered inexhaustible. Yet changes in land use, climate, and population demographics are placing unprecedented demands on America's water supplies. As droughts rage and aquifers dwindle, people may wonder: Is there enough water to meet all our needs?



Water use mapping

USGS says that scientists with the U.S. Geological Survey (USGS), using Landsat

Landsat satellites are helping to answer that question.

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satellite data, have helped to refine a technique called evapotranspiration (ET) water-use mapping to measure how much water crops are using across landscapes and through time. These ET water-use maps are created using a computer model that integrates Landsat and weather data.

Read more:

<http://www.homelandsecuritynewswire.com/dr20160510-mapping-water-use-of-america-s-water-resources>

Ergonomics

Increased Physical Activity Associated With Lower Risk of 13 Types of Cancer



A new study of the relationship between physical activity and cancer has shown that greater levels of leisure-time physical activity were associated with a lower risk of developing 13 different types of cancer. The risk of developing seven cancer types was 20 percent (or more) lower among the most active participants (90th percentile of

activity) as compared with the least active participants (10th percentile of activity). These findings, from researchers at the National Cancer Institute (NCI), part of the National Institutes of Health, and the American Cancer Society, confirm and extend the evidence for a benefit of physical activity on cancer risk and support its role as a key component of population-wide cancer prevention and control efforts. The study, by Steven C. Moore, Ph.D., NCI, and colleagues, appeared May 16, 2016, in JAMA Internal Medicine.

Read more: <https://www.nih.gov/news-events/news-releases/increased-physical-activity-associated-lower-risk-13-types-cancer>

How the Fitwel Rating Could Impact Flexible Workspaces in 2017

Fitwel is a certification standard developed by the General Services Administration (GSA) and the Centers for Disease Control and Prevention (CDC) that seeks to transform workplace environments by supporting buildings that contribute to occupants' health and wellbeing. Although currently available only to a few buildings, the Fitwel certification program is expected to be fully launched in 2017 and although the rating can be used for any type of building, the developers will be focusing the certification process in workplaces.

Their goal is to promote workplaces that support the wellbeing of its occupants and support healthy communities; a goal that many flexible workspace operators share and an important aspect of the work revolution that we're witnessing today. Wellness and wellbeing are among the top drivers behind new work strategies and models. Professionals around the globe have increasingly become more preoccupied with their wellbeing and they're constantly searching for work and workspaces that support their wellness goals.



Read more:

<https://www.officingtoday.com/2016/05/how-the-fitwel-rating-could-impact-flexible-workspaces-in-2017/>

Safety

CDC: Violation Found In 80 Percent of Pool Inspections



A government survey has found at least one violation in nearly 80 percent of public pool and hot tub inspections from 2013 in five states.

The Centers for Disease Control says it analyzed more than 84,000 inspections of nearly 49,000 public venues in Arizona,

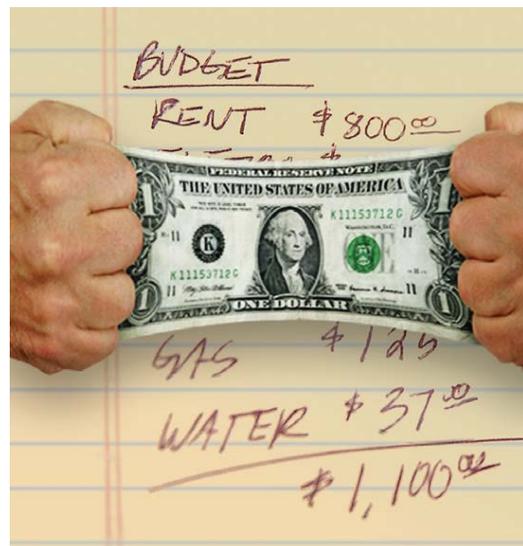
California, Florida, New York and Texas, the five states with the most public pools. The CDC says 1 in 8 inspections resulted in immediate closure because of serious health and safety violations. It says 1 in 5 kiddie pools were shut down. The CDC says the most common violations involved improper pH levels, safety equipment and disinfectant concentration.

Read more:

<http://www.wtae.com/news/cdc-violation-found-in-80-percent-of-pool-inspections/39703070>

Are Low Wages an Occupational Health Hazard?

Workers earning low wages may be at greater risk for disease and injury than workers earning high wages," write J. Paul Leigh, PhD, and Roberto De Vogli, PhD, MPH, of University of California Davis School of Medicine. They believe that low wages should be considered among the psychosocial factors -- such as long work hours and high job strain -- identified as occupational risks to health. While the reasons for the link between low wages and adverse health outcomes aren't clear, most hypotheses suggest that "[A]t least part of the correlation between wages and health can be attributed to low wages



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resulting in poor health or health behaviors rather than vice versa," the researchers write. Low wages may also have indirect health effects -- for example, if workers are forced to choose between essentials such as rent or healthy food.

Read more:

<https://www.sciencedaily.com/releases/2016/05/160503153029.htm>

New Fact Sheets Available on Hazards Related to Scaffolds, Marine Terminals and Confined Spaces



Three new fact sheets are available for free downloading from OSHA's Publications webpage. A ladder jack scaffolds fact sheet illustrates how to prevent injuries from falls when using work platforms supported by portable ladders. A confined spaces fact sheet emphasizes the OSHA requirement for employers to develop and implement procedures for summoning rescue or

emergency services in permit-required confined spaces. Lastly, a fact sheet on longshoring in marine terminals describes how to prevent semi-tractor driver injuries during container lifting operations.

Read more:

<https://www.osha.gov/as/opa/quicktakes/qt050116.html#top> (scroll down)

Partnering to Promote Workplace Safety and Health in Tribal Communities

Over 5.2 million American Indians and Alaska Natives (AI/AN) live across the United States. In 2013, approximately 1,319,000 AI/AN workers were employed in the U.S. workforce^{1,2}. AI/AN workers are 42 percent more likely to be employed in a high-risk occupation (defined as an occupation where the injury and illness rate is more than twice the national average) as compared to non-Hispanic Whites.³ National data on occupational injuries, illnesses and fatalities among AI/AN are scarce and there is limited research on



worker safety and health in tribal communities.

Read more: <http://blogs.cdc.gov/niosh-science-blog/2016/04/21/ai-an-partnership/>

The Dental Curing Light: A Potential Health Risk



Powerful blue-light emitting dental curing lights are used in dental offices to photocure resins in the mouth. In addition, many dental personnel use magnification loupes. This study measured the effect of magnification loupes on the “blue light hazard” when the light from a dental curing light was reflected off a human tooth. Loupes with 3.5x magnification (Design for Vision, Carl Zeiss, and Quality Aspirator) and 2.5x magnification (Design for Vision and Quality Aspirator) were placed at the entrance of an integrating sphere connected to a spectrometer (USB 4000, Ocean Optics). A model with human teeth was placed 40 cm away and in line with this sphere. The light guide tip of a broad-spectrum Sapphire Plus (Den-Mat) curing light was positioned at a 45° angle from the facial surface of the central incisor. The spectral radiant power reflected from the teeth was recorded five times with the loupes over the entrance into the sphere.

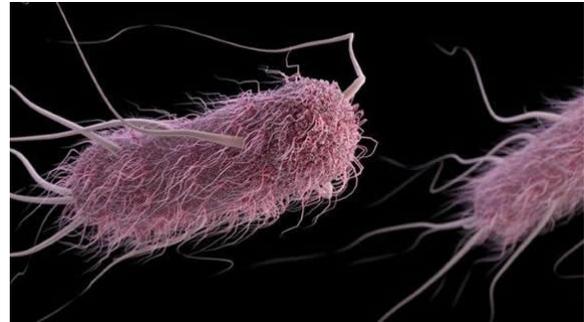
The maximum permissible cumulative exposure times in an 8-hr day were calculated using guidelines set by the ACGIH. It was concluded that at a 40 cm distance, the maximum permissible cumulative daily exposure time to light reflected from the tooth was approximately 11 min without loupes. The weighted blue irradiance values were significantly different for each brand of loupe (Fisher's PLSD $p < 0.05$) and were up to eight times greater at the pupil than when loupes were not used. However, since the linear dimensions of the resulting images would be 2.5 to 3.5x larger on the retina, the image area was increased by the square of the magnification and the effective blue light hazard was reduced compared to without the loupes. Thus, although using magnification loupes increased the irradiance received at the pupil, the maximum cumulative daily exposure time to reflected light was increased up to 28 min. Further studies are required to determine the ocular hazards of a focused stare when using magnification loupes and the effects of other curing lights used in the dental office.

Read more: *Journal of Occupational and Environmental Hygiene* Accepted author version posted online: 22 Mar 2016
Published online: 25 May 2016 (Available with AIHA membership)

Highly Resistant MCR-1 'Superbug' Found In US for First Time

Bacteria carrying the very worrisome MCR-1 resistance gene—which makes the last-line antibiotic colistin useless against them—have been found in human and animal samples for the first time in the United States, according to a report in *Antimicrobial Agents and Chemotherapy* and a statement by federal health officials.

A Chinese team first described the MCR-1 gene last November, after finding it in pigs, pork, and humans. Since then scientists in several countries have found the gene, sometimes alongside other resistance genes, after examining their sample collections. The gene can be transferred to



other organisms, compounding the concern.

Read more:

<http://www.cidrap.umn.edu/news-perspective/2016/05/highly-resistant-mcr-1-superbug-found-us-first-time>

Are Hospital Cleaning Staff at Risk When Using a One-Step Cleaner?



Workers' health and safety is an important consideration when choosing cleaning and disinfectant products. In health care settings, disinfection products help minimize healthcare-acquired infections. In January 2015, NIOSH, received a request to conduct a health hazard evaluation at a Pennsylvania hospital using a new surface cleaning product consisting of hydrogen peroxide (HP), peroxyacetic acid (PAA), and acetic acid (AA). The request cited concerns about exposure of hospital environmental services staff to the cleaning product and reported symptoms including burning eyes, nose, and throat; cough; headache; asthma exacerbations; and skin burns. A summary of the NIOSH evaluation was recently

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published in the Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report.

Read more: <http://blogs.cdc.gov/niosh-science-blog/2016/04/29/hospital-cleaning-staff/>.

CDC Labs Repeatedly Faced Secret Sanctions for Mishandling Bioterror Germs

A laboratory operated by the Centers for Disease Control and Prevention is among the handful of facilities that have secretly had their permits suspended in recent years for serious safety violations while working with bioterror pathogens, according to documents obtained by USA TODAY after winning a Freedom of Information Act appeal.

The CDC's own labs also have been referred for additional secret federal enforcement actions six times because of serious or repeated violations in how they've handled certain viruses, bacteria and toxins that are heavily regulated because of their potential use as bioweapons, the CDC admitted for the first time on Tuesday. Before USA TODAY won access to records of the lab suspension, the CDC had repeatedly refused to answer questions about its own labs' enforcement histories.

Read more:

<http://www.usatoday.com/story/news/2016/05/10/cdc-lab-secret-sanctions/84163590/>



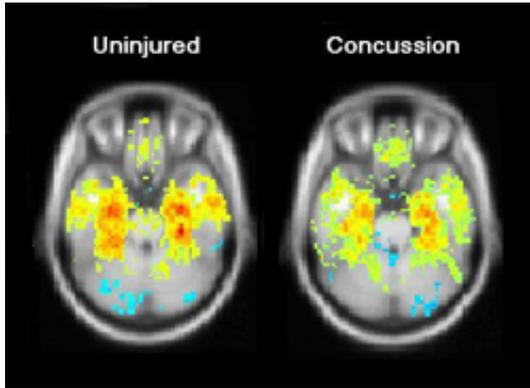
[6/05/10/cdc-lab-secret-sanctions/84163590/](http://www.usatoday.com/story/news/2016/05/10/cdc-lab-secret-sanctions/84163590/)

Repeated Sub-Concussion Head Impacts May Affect Eye Function

For U.S. college football players, head impacts that don't cause concussion symptoms do still cause subtle and lingering

changes in the eyes' ability to focus, according to a new study.

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The results might provide a new tool for measuring the severity of the “sub-

concussive” brain impacts that athletes and others, like soldiers, experience regularly, researchers say.

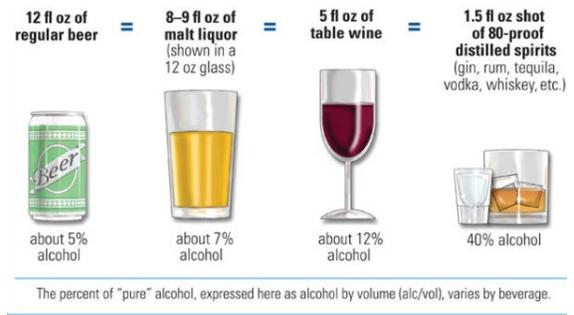
“We believe that it is possible that there may be long-term effects, but we have no conclusive evidence currently,” said lead author Dianne Langford of Temple University in Philadelphia.

Read more:

<http://www.reuters.com/article/us-health-headtrauma-eye-function-idUSKCN0Y92PF>

US Military Court Addresses 'Incapable of Consent' to Sex Issue

How drunk is too drunk to consent to sex? According to military training aimed at preventing sexual harassment and assault, the answer has been: barely tipsy. For years, Sexual Harassment and Assault Response and Prevention training informed troops that even one drink made a person incapable of giving consent. In legal terms, that wasn't true. The issue has been at the heart of many cases in military courtrooms over the past decade. How many drinks an alleged victim consumed and how much alcohol rendered him or her “incapable of consenting” is frequently disputed at trial. Now, for the first time, a military court decision has defined the term “incapable of consenting” while overturning a sailor's



conviction for sexually assaulting two subordinates under the influence of “significant amounts of alcohol.”

Read more:

<http://www.stripes.com/news/us-military-court-addresses-incapable-of-consent-to-sex-issue-1.409974>

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Read more:

<http://www.gao.gov/products/GAO-16-476>

New Drug to Combat the Effects of Nerve Agents

Sarin is a colorless, odorless liquid fatal even at very low concentrations. Serious sarin poisoning causes visual disturbance, vomiting, breathing difficulties and, finally, death. A ground-breaking study describes the development of a new drug which counteracts the effects of sarin gas.

The nerve agent sarin causes a deadly overstimulation of the nervous system that can be stopped if treated with an antidote within minutes of poisoning. A ground-breaking study has been published in *PNAS*, which describes in detail how such a drug



works. Researchers at the Swedish Defense Research Agency (FOI), Umeå University, and in Germany are behind the study.

Read more:

<http://www.homelandsecuritynewswire.com/dr20160504-new-drug-to-combat-the-effects-of-nerve-agents>

Deployment Health

Army Takes a Hard Look at Creating a Combat Readiness Test



As the Army rolls out a new physical assessment for its newest soldiers, the service also is studying the possibility of creating a combat readiness test for troops already in the

ranks.

The test, if senior Army leaders decide to pursue one, will be one way to assess soldiers' abilities to meet the demands of their jobs after leaving the training environment, said Command Sgt. Maj. David Davenport, the senior enlisted soldier of Training and Doctrine Command.

Read more:

<http://www.armytimes.com/story/military/2016/05/11/army-takes-hard-look-creating-combat-readiness-test/83980166/>

A Call to Armor: Army Explores Stronger, Lighter, Cheaper Protection

Rocky Research didn't set out to create a new type of armor—far from it. When the new material first slid out of the company's production oven, it caused considerable consternation. A worker responsible for cutting the material into usable shapes for a high-tech heat dissipation system found that it couldn't be cut with ordinary tools. Wondering just how strong this new material was, he took it to a shooting range and discovered that bullets couldn't pierce it, either. The material proved so durable that "we had to laser-cut it," said Uwe Rockenfeller, president and CEO of Nevada-based Rocky Research. "That's when the concept of using it as armor came about." -

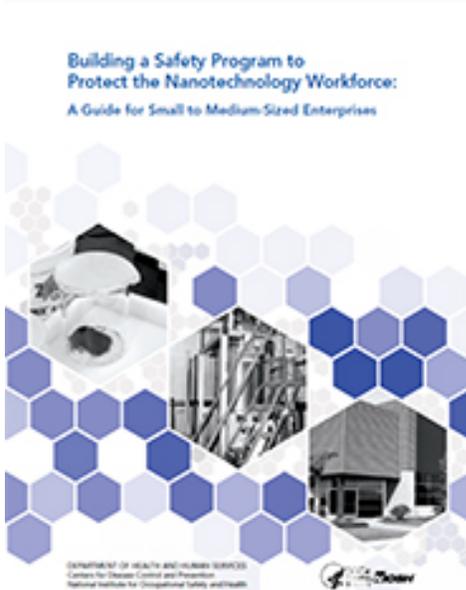


Read more:

<http://www.armymagazine.org/2016/05/13/a-call-to-armor-army-explores-stronger-lighter-cheaper-protection/>

Nanotechnology

Building a Safety Program to Protect the Nanotechnology Workforce: a Guide for Small to Medium-Sized Enterprises



A new study shows that a swarm of hundreds of thousands of tiny microbots, each smaller than the width of a human hair, can be deployed into industrial wastewater to absorb and remove toxic heavy metals. The researchers found that the microbots can remove 95% of the lead in polluted water in one hour, and can be reused multiple times, potentially offering a more effective and economical way to remove heavy metals than previous methods. The National Institute for Occupational Safety and Health (NIOSH) is pleased to present *Building a Safety*

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Program to Protect the Nanotechnology Workforce: A Guide for Small to Medium-Sized Enterprises. Responsible development of nanotechnologies includes considering and managing the potential, unintended consequences to human health and the environment that might accompany development and use of the technology. This guide will demonstrate that the key to

ensuring the safety of your business, particularly when resources are limited, is to prevent occupational exposures and incidents before they happen.

Read more:

<http://www.cdc.gov/niosh/docs/2016-102/default.html>

Regulatory Research & Industrial Hygiene Professional News

Congress

Senators Back 1.6% Troop Pay Raise, Women in Draft, Health Care Reform

A key Senate panel voted to approve a 1.6 percent pay raise for troops, requiring women to register for the draft and overhauling the military health care system.

The Senate Armed Services Committee on Thursday approved the proposals as part of the fiscal 2017 defense authorization bill, known as the National Defense Authorization Act, or NDAA, which sets policy goals and spending targets for the fiscal year beginning Oct. 1.

The panel, headed by Sen. John McCain, a Republican from Arizona, voted 23-3 in favor of the legislation, which would authorize \$602 billion in funding for the Defense Department and national security programs at the Energy Department.



Read more: <http://www.military.com/daily-news/2016/05/13/senators-back-16-troop-pay-raise-women-draft-health-care-reform.html>

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CDC

CDC Intends to Create Lab Network to Test for Antibiotic-Resistant Bacteria

Beginning in fall 2016, CDC's Antibiotic Resistance Lab Network will provide the infrastructure and lab capacity for seven to



Vitalsigns™

www.cdc.gov/vitalsigns/protect-patients



eight regional labs, and labs in all states and seven major cities/territories, to detect and respond to resistant organisms recovered

OSHA

OSHA Issues Final Rule to Make Employers, Public Better Informed About Workplace Injuries, Illnesses

OSHA issued a final rule to modernize injury data collection to better inform workers, employers, the public, and OSHA about workplace hazards. With this new rule, OSHA is applying the insights of behavioral economics to improve workplace safety and prevent injuries and illnesses.

OSHA requires many employers to keep a record of injuries and illnesses to help these

from human samples. "What we have to do is detect faster, strengthen our prevention strategies, and be very quick at controlling outbreaks when they're identified". Dr. Beth Bell, the CDC's lead on antibiotic resistance, says the E. coli bacteria found in the PA patient had a gene mutation that made one antibiotic of last resort ineffective...but the gene is NOT resistant to all antibiotics.

Read more:

<http://bsccomment.com/2016/06/01/cdc-intends-to-create-lab-network-to-test-for-antibiotic.html>



employers and their employees identify

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hazards, fix problems and prevent additional injuries and illnesses. The Bureau of Labor Statistics reports more than three million workers suffer a workplace injury or illness every year. Currently, little or no information about worker injuries and illnesses at individual employers is made public or available to OSHA. Under the new rule, employers in high-hazard industries

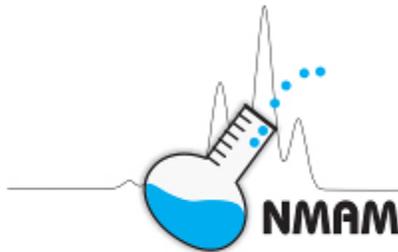
will send OSHA injury and illness data that the employers are already required to collect, for posting on the agency's website.

Read more:

<https://www.osha.gov/as/opa/quicktakes/qt051116.html>

NIOSH

NIOSH Manual of Analytical Methods (NMAM) 5th Edition



NMAM is a collection of methods for sampling and analysis of contaminants in workplace air, surfaces, and in the blood and urine of workers who are occupationally exposed. These methods have been developed or adapted by NIOSH or its partners and have been evaluated according to established experimental protocols and performance criteria. NMAM also includes chapters on quality assurance, sampling, portable instrumentation, etc.

NIOSH recommends that the best method available be used for making each measurement. Methods published by

others, such as OSHA, MSHA, EPA, ASTM, ISO or commercial suppliers of sampling and analytical equipment, may have advantages over NIOSH methods for a given sampling situation. (An Industrial Hygienist should determine the sampling protocol, considering analytical accuracy, cost, and optimum sample number.) Every method should undergo an initial evaluation to demonstrate performance. When a method is used in a laboratory that did not perform the initial evaluation, that laboratory should verify that comparable results can be obtained. NIOSH methods may need to be modified, and if modified, should be re-evaluated. Various OSHA regulations (e.g. benzene) mention performance criteria for evaluating whatever method is used.

Read more:

<http://www.cdc.gov/niosh/nmam/>

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Training

APHC

Something is Wrong, I Can't Get My Blackboard Certificate

AKO EMAIL CHANGES

Want to receive e-mails from ATSC-ELLC at another e-mail address?

Users can now update their ATSC-ELLC Online profile to direct course communications to ANY email, whether .mil, .com or other. By updating their user profile email address, users can direct where course announcements, notifications, and course communication are delivered.

To enable, update the e-mail field located [here](#). Upon doing so, all e-mails sent from ATSC-ELLC Online will be sent to the address in your profile. **This WILL NOT impact messages sent from other systems.**

Non-Army AKO Holders: This change impacts the ATSC-ELLC profile only. To maintain AKO sponsorship, your AKO external email addresses will remain the same, and must remain populated with a .mil (non-AKO) email address.

AKO email addresses will no longer be valid as of March 31, 2015. Please update your Blackboard profile by changing your email address from AKO (@us.army.mil) address to the preferred military Enterprise address (@mail.mil).

If you have any questions or concerns, please contact the Army Training Help Desk at 1-800-275-2872 (option 2) or Email-athd@mailds01.csd.disa.mil, Subject: Blackboard.

Thank you,
ATSC-Blackboard Team

Instructors are happy to issue students a certificate upon successfully completing a course in Blackboard. However, Blackboard can no longer send mail and certificates to your Army Knowledge Online (AKO) email address.

The Blackboard Administrator requested almost a year ago that all users change their email address from the outdated AKO format ([your.name@us.army.mil](#)) and replace it with the new enterprise format ([your.name.civ@mail.mil](#)). When students register for courses in Blackboard, the outdated AKO email automatically becomes the default email. If you don't update your email

address using the new enterprise format ([your.name.civ@mail.mil](#)) BEFORE you begin to take a course and take the exam, you will not receive emails and certificates. In order to get credit for your hard work and receive CEUs, you must change your email address in Blackboard to [your.name.civ@mail.mil](#) or [your.name.ctr@mail.mil](#), for contractors. You and only you have the capability to change your email address in Blackboard.

Once you have changed your email address to the proper format ([your.name.civ@mail.mil](#) or [your.name.ctr@mail.mil](#)), it can take up to 48 hours before it is registered in Blackboard. Wait 2 days, then log back into Blackboard and confirm the changes before proceeding to complete the course work and exam.

Please follow the instructions on the Blackboard website! Remember Blackboard no longer uses AKO email. To ensure that you can receive your Blackboard certificates and emails, change your email address to the new enterprise format. For more information about updates and changes, go to <https://amsc.ellc.learn.army.mil> and log into Blackboard.

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Upcoming Training

May 2016



May 16-20 DOEHRS-IH Initial Course Bldg 6008 at APG, MD (APG Campus-28 seats)

May 31 - DOEHRS-IH June 3 Bldg E1930 at APG, MD (Edgewood Campus- 16 seats)

June 2016



June 20-21 DOEHRS-IH for Safety Professionals Bldg 6008 at APG, MD (APG Campus- 28 seats)

July 2016



July 12 & 13 Manage Your IH Monster Webinar "Taming That Monster - The SEG Bubble"

July 25-29 DOEHRS-IH Initial Course - COE ONLY Sacramento, CA

Aug/Sept 2016



Aug 1-5 DOEHRS-IH Initial Course - COE ONLY Bldg 6008 at APG, MD (APG Campus - 28 seats)

Sept 13 & 14 Manage Your IH Monster Webinar "De-Mystifying the Metrics"

Oct/Nov 2016



Oct 24-28 DOEHRS-IH Initial Course Bldg 6008 at APG, MD (APG Campus- 28 seats)

Nov 1 & 2 Manage Your IH Monster Webinar " All About ANOVA"

Jan/Mar 2016



Jan 11 & 12, 2017 Manage Your IH Monster Webinar " Business Objects at Its Best"

Mar 14 & 15, 2017 Manage Your IH Monster Webinar " Mysteries of Medical Surveillance"

May 2017



May 8-12, 2017 Blueprint Reading and Design Review APG, MD (Edgewood Campus-30 seats)

May 15-19, 2017 Intermediate Industrial Hygiene Topics Course Phase 2 Dates- Phase 1 open on Blackboard NOW! at APG, MD (Edgewood Campus - 28 seats)

May 22-26, 2017 Industrial Ventilation 40hr Course at APG, MD (Edgewood Campus - 28 seats)

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This monthly summary is published by the Industrial Hygiene and Medical Safety Management Program (IHMSMP) for the Army Public Health Center (Provisional).



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On the Web:

<http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/default.aspx>



New Army IH Training Opportunities

We've moved the IH Training calendar from the homepage to its new location on the IH Training page. Information on mandatory training and self-development can be found at

<http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/ArmyIHTrain.aspx>.

We are offering new live DOEHS-IH webinars titled "Manage Your IH Monster", for topics, dates and times visit

<http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/DOEHS-IH.aspx>.

Live Web Conference Training
Allow us to help you "Tame your DOEHS-IH Monster".
Use the link below to join our regularly scheduled "Manage Your IH Monster" webinars. The DCS conference window will open for participants 15 minutes prior to the scheduled webinar time. Click on the below link to access the webinar.
<https://conference.apps.mil/webconf/ManageYourIHmonster>
This is a series of webinars held every other month. The target audience is IH program managers, senior staff, chiefs, super-users, and other dedicated DOEHS-IH superheroes.

Manage Your IH Monster Webinars
1800 Eastern Time iteration target audience: Central & Pacific Regions
0900 Eastern Time iteration target audience: EUR & Atlantic Regions

May 3rd 1800 & 4th 0900 Eastern Time
Taming That Monster (Part 1 Shop Monster)
Dial-In Number:
Commercial, (210) 249-4234
DSN, 421-3272, (312) for Overseas DSN
Conference Access Code: 21060#

July 12th 1800 & 13th 0900 Eastern Time
Taming That Monster (Part 2 SEG Monster)
Dial-In Number:
Commercial, (210) 249-4234
DSN, 421-3272, (312) for Overseas DSN
Conference Access Code: 83627#

Sept 13th 1800 & 14th 0900 Eastern Time
De-Mystifying the Metrics
Dial-In Number:
Commercial, (210) 249-4234
DSN, 421-3272, (312) for Overseas DSN
Conference Access Code: 68461#

Nov 1st 1800 & 2nd 0900 Eastern Time
All About ANOVA
Dial-In Number:
Commercial, (210) 249-4234
DSN, 421-3272, (312) for Overseas DSN
Conference Access Code: 14338#

Jan (2017) 11th 1800 & 12th 0900 Eastern Time
Business Objects At Its Best

Mar (2017) 14th 1800 & 15th 0900 Eastern Time
Logic of Medical Surveillance

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