

Hazardous Substances

Professionally Distanced: Ensuring Employee Safety through Remote Monitoring and Social Distancing

Special Interest Articles:

- [Cockpit Safety](#)
- [Respirator Performance](#)
- [Fungicide Exposure](#)
- [Topical NSAIDS](#)
- [Vaccine Trials](#)

Technological advancements in monitoring methods—especially personal monitoring equipment—have presented unintended possibilities for aiding in the fight against COVID-19 in the workplace.

With the focus for many businesses dealing with the ongoing COVID-19 global health crisis beginning to shift to “the new normal” and returning to the workplace, workers and employers alike are asking questions about how workplaces will be made and kept safe.

According to a poll of U.S. employees, 54 percent shared concerns about exposure to COVID-19 in the workplace. Employers can take assurance, however, in the fact that 71 percent of those polled have confidence that their employers can bring them back to work safely.

COVID-19 is a health hazard that will necessitate new ways of working for some time to come, with one of the primary methods to limit the spread of the virus being maintaining social distancing of at least six feet (or two meters) between people. While COVID-19 is a primary



concern and must be consistently monitored in all workplaces, it does not mean that the old hazards of many workplace environments have disappeared

Read more:

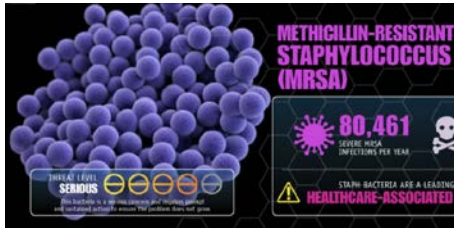
<https://ohsonline.com/articles/2020/09/01/professionally-distanced-ensuring-employee-safety-through-remote-monitoring-and-social-distancing.aspx?admgarea=ht.IndustrialHygiene>

Contents:



Hazardous Substance	1
Radiation	5
Ventilation	6
PPE	7
Noise	9
Preventive Medicine	9
Environmental Health	12
Ergonomics	14
Safety	15
Emergency Preparedness & Response	17
Deployment Health	18
Nanotech	19
Regulatory Research & IH News	19
Training	23

Evaluation of Methods for Sampling of *Staphylococcus aureus* and Other *Staphylococcus* Species from Indoor Surfaces



Objectives
Methicillin-resistant *Staphylococcus aureus* (MRSA) is an increasing public and occupational health concern. As transmission of MRSA can occur via contact with fomites, it is crucial to have sensitive methods for sampling of bacteria. The overall aim of this study was to obtain knowledge about methods and strategies for quantitative sampling *Staphylococcus* species on surfaces.

Methods
The study was designed as a comparative sampling

experiment with different samplers [dipslide (two agar types), swabs (three brands, used wet and dry, and elution from swabs or plate diluted)] on smooth stainless steel surfaces spiked with MRSA and methicillin-sensitive *S. aureus* (MSSA). Furthermore, bacteria sampled from indoor surfaces with frequent or infrequent contact with hands were quantified and identified using matrix-assisted laser desorption-ionization time-of-flight (MALDI-TOF) mass spectrometry (MS).

Read more:

<https://academic.oup.com/annweh/advance-article/doi/10.1093/annweh/wxaa080/5910811?searchresult=1>

Risk A Developing a Health Impact Model for Adult Lead Exposure and Cardiovascular Disease Mortality

Background:

Lead (Pb) is a highly toxic pollutant. Evidence suggests it is associated with cardiovascular disease (CVD)-related mortality.

Objectives:

We present a rigorous approach for identifying concentration–response functions that relate adult Pb exposures to CVD mortality to inform a health impact model (HIM). We then use the model in a proof-of-concept example.

Methods:

Building on previously conducted government literature reviews and a *de novo* supplemental literature review, we compiled and evaluated the available data on Pb and CVD mortality in humans. We applied a set of predefined selection criteria to identify studies that would be most useful in understanding the impact of Pb exposure on CVD mortality risk in adults. Once we identified the studies, we derived a HIM and used each study’s concentration–response function in a proof-of-concept example.



Results:

Our literature search identified 15 studies for full-text review. Of those 15 studies, 4 fit our criteria for use in the HIM. Using population and CVD mortality rates for 40- to 80-y-olds in 2014, we estimated that 34,000–99,000 deaths have been avoided due to the lowering of blood Pb levels from 1999 to 2014. Based on these values we estimated that approximately 16%–46% of the decreased CVD-related death rate from 1999 to 2014 may be attributable to decreased blood Pb levels.

Read more:

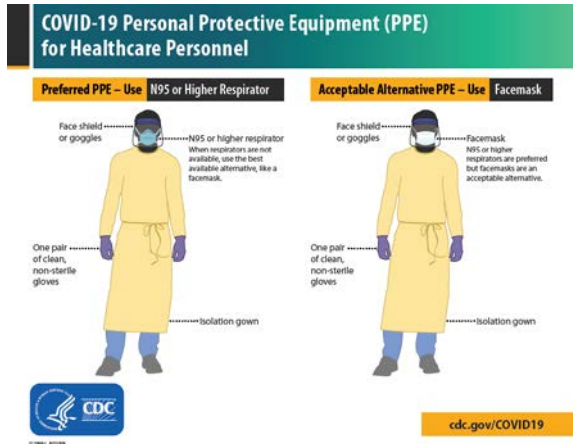
<https://ehp.niehs.nih.gov/doi/10.1289/EHP6552>

Occupational Heat Stress and Practical Cooling Solutions for Healthcare and Industry Workers during the COVID-19 Pandemic

Treatment and management of severe acute respiratory syndrome coronavirus-2, which causes coronavirus disease (COVID-

19), requires increased adoption of personal protective equipment (PPE) to be worn by workers in healthcare and industry.

Army Industrial Hygiene News and Regulatory Summary



In warm occupational settings, the added burden of PPE threatens worker health and productivity, a major lesson learned during the West-African Ebola outbreak which ultimately constrained disease control. In this paper, we comment on the link

between COVID-19 PPE and occupational heat strain, cooling solutions available to mitigate occupational heat stress, and practical considerations surrounding their effectiveness and feasibility. While the choice of cooling solution depends on the context of the work and what is practical, mitigating occupational heat stress benefits workers in the healthcare and industrial sectors during the COVID-19 disease outbreak.

Read more:

<https://academic.oup.com/annweh/advance-article/doi/10.1093/annweh/wxaa082/5909438?searchresult=1>

Area Monitoring: Everything You Need to Know

Area monitoring is the use of gas detectors that merge elements from both portable and fixed gas detectors into one solution within a linked network. They are not considered personal protective equipment even though they are made to be transported from location to location. Instead, they are primarily designed to help safeguard groups of workers in a given industrial perimeter.

Area monitoring is frequently used as a temporary solution to help keep workers safe in industrial facilities where mid-term deployment occurs as well as for confined space entry and far-working locations such as oil and gas platforms.

Here is a list of 10 must-haves of in an area-monitoring solution for a successful gas detection program:



Read more:

<https://ohsonline.com/articles/2020/09/16/area-monitoring-everything-you-need-to-know.aspx?admgarea=ht.IndustrialHygiene>

First Evidence that Air Pollution Particles and Metals Are Reaching the Placenta



Pollution particles, including metals, have been found in the placentas of fifteen

women in London, according to research led by Queen Mary University of London.

The study, funded by Barts Charity and published in the journal *Science of The Total Environment*, demonstrate that inhaled particulate matter from air pollution can move from the lungs to distant organs, and that it is taken up by certain cells in the human placenta, and potentially the fetus.

Read more:

<https://medicalxpress.com/news/2020-09-evidence-air-pollution-particles-metals.html>

Radiation

Cockpit Electromagnetic Fields May Be Harming Pilots, the U.S. Military Fears

Are pilots being harmed by radio frequency and electromagnetic fields from all the high-powered electronics in their aircraft? The problem could be making pilots so disoriented that they crash their planes, fears DARPA, the Pentagon's pet research agency.

"Current cockpits are flooded with radio frequency (RF) noise from on-board emissions, communication links, and navigation electronics, including strong electromagnetic (EM) fields from audio



headsets and helmet tracking technologies," warns a new DARPA research project. "Pilots often report minor cognitive performance challenges during flight, and

from 1993 to 2013, spatial disorientation in US Air Force pilots accounted for 72 Class A mishaps, 101 deaths, and 65 aircraft lost.”

Read more:

<https://www.forbes.com/sites/michaelpeck>

[/2020/09/14/cockpit-electromagnetic-fields-are-harming-pilots-the-us-military-fears/#d89e8743d57e](#)

Ventilation

Many Ventilation Systems May Increase Risk of COVID-19 Exposure, Study Suggests



Ventilation systems in many modern office buildings, which are designed to keep temperatures comfortable and increase energy efficiency, may increase the risk of exposure to the coronavirus, particularly during the coming winter, according to research published in the *Journal of Fluid Mechanics*.

A team from the University of Cambridge found that widely-used 'mixing ventilation' systems, which are designed to keep conditions uniform in all parts of the room, disperse airborne contaminants evenly throughout the space. These contaminants may include droplets and aerosols, potentially containing viruses. The research has highlighted the importance of good ventilation and mask-wearing in keeping the contaminant concentration to a minimum level and hence mitigating the risk of transmission of SARS-CoV-2, the virus that causes COVID-19.

Read more:

https://www.eurekalert.org/pub_releases/2020-09/uoc-mvs092920.php

PPE

Impact of Select PPE Design Elements and Repeated Laundering in Firefighter Protection from Smoke Exposure

As the Fire Service becomes more aware of the potential health effects from occupational exposure to hazardous contaminants, personal protective equipment (PPE) manufacturers, and fire departments have responded by developing and implementing improved means of firefighter protection, including more frequent laundering of PPE after exposures. While laboratory testing of new PPE designs and the effect of laundering on PPE fabric provides a useful way to evaluate these approaches, laboratory scale testing does not necessarily translate to full garment protection. Utilizing a fireground smoke exposure simulator, along with air and/or filter-substrate sampling for polycyclic aromatic hydrocarbons (PAHs) and benzene, this pilot study tested the chemical-protective capabilities of firefighting PPE of different designs (knit hood vs. particulate-blocking hood, turnout jacket with zipper closure vs. hook & dee closure), including the impact of repeatedly exposing and cleaning (through laundering or decontamination on-scene) PPE 40 times. Overall, PAH contamination on filters under hoods in the neck region were higher (median PAHs = 14.7 μg) than samples taken under jackets in the chest region (median PAHs = 7.05 μg). PAH levels measured under particulate-blocking hoods were lower than levels found under knit



hoods. Similarly, zippered closures were found to provide a greater reduction in PAHs compared to hook & dee closures. However, neither design element completely eliminated contaminant ingress. Measurements for benzene under turnout jackets were similar to ambient chamber air concentrations, indicating little to no attenuation from the PPE. The effect of laundering or on-scene decontamination on contaminant breakthrough appeared to depend on the type of contaminant. Benzene breakthrough was negatively associated with laundering, while PAH breakthrough was positively associated. More research is needed to identify PPE features that reduce breakthrough, how targeted changes impact exposures, and how fireground exposures relate to biological absorption of contaminants.

Read more: Journal of Occupational and Environmental Hygiene, Published online: 29 Sep 2020 (Available with AIHA membership)

New Respirator Performance Monitor (RePM) For Powered Air-Purifying Respirators

Powered air-purifying respirators (PAPRs) that offer protection from particulates are deployed in different workplace environments. Usage of PAPRs by



healthcare workers is rapidly increasing; these respirators are often considered the best option in healthcare settings, particularly during public health emergency situations, such as outbreaks of pandemic diseases. At the same time, lack of user training and certain vigorous work activities may lead to a decrease in a respirator's performance. There is a critical need for real-time performance monitoring of respiratory protective devices, including PAPRs. In this effort, a new robust and low-cost real-time performance monitor (RePM) capable of evaluating the protection offered by a PAPR against aerosol particles at a workplace was developed. The new device

was evaluated on a manikin and on human subjects against a pair of condensation nuclei counters (P-Trak) used as the reference protection measurement system. The outcome was expressed as a manikin-based protection factor (mPF) and a Simulated Workplace Protection Factor (SWPF) determined while testing on subjects. For the manikin-based testing, the data points collected by the two methods were plotted against each other; a near-perfect correlation was observed with a correlation coefficient of 0.997. This high correlation is particularly remarkable since RePM and condensation particle counter (CPC) measure in different particle size ranges. The data variability increased with increasing mPF. The evaluation on human subjects demonstrated that RePM prototype provided an excellent Sensitivity (96.3% measured on human subjects at a response time of 60 sec) and a Specificity of 100%. The device is believed to be the first of its kind to quantitatively monitor PAPR performance while the wearer is working; it is small, lightweight, and does not interfere with job functions

Read more: Journal of Occupational and Environmental Hygiene, Published online: 17 Sep 2020 (Available with AIHA membership)

Noise

Laboratory Noises and What to Do About Them

Believe it or not, laboratories have noise issues. Often, they are overlooked or ignored. This article alerts you to the unique and potentially significant noise hazards present in laboratory workplaces. What noise sources are we talking about? We are most concerned with conditions and situations that could lead to noise-induced hearing loss. They are usually related to equipment that hinders communication, disturbs concentration, or reduces performance. Our hope is to get you thinking about the not-so-obvious hazards associated with high noise areas.

Take note of noise

Exposure to loud noise for long enough periods can result in permanent loss of hearing. Noise-induced hearing loss (NIHL) is forever and cannot be restored. However, prevention is usually easy and inexpensive. Many areas within laboratories and especially research facilities are inherently



noisy. Excessive noise can result from equipment such as centrifuges, sonicators, compressors, high-pressure air cleaning and supply equipment, vacuum pumps, and wet vacuum systems.

Read more:

<https://www.labmanager.com/lab-health-and-safety/laboratory-noises-and-what-to-do-about-them-23691>

Preventive Medicine

New Army Field Manual Recommends Midday Naps

The Army released a new field manual Thursday that officially embraces midday naps to help improve performance. The new guide focuses on individual wellness rather than the health of whole units, and it updates the branch's health

and fitness recommendations for the first time since 2012.

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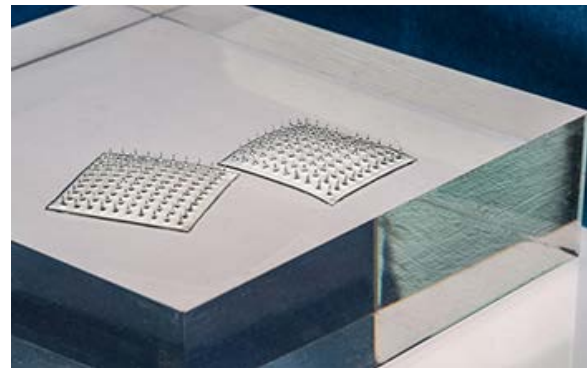
In addition to encouraging afternoon napping, the Army plans to shift its hourlong early-morning training sessions to fitness training regimens tailored to individuals.

Read more: <https://www.upi.com/Defense-News/2020/10/01/New-Army-field-manual-recommends-midday-naps/7091601595659/>

Velcro-Like Food Sensor Detects Spoilage and Contamination

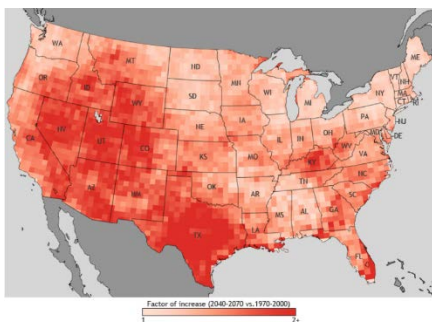
Engineers have designed a Velcro-like food sensor, made from an array of silk microneedles, that pierces packaging to sample food for signs of spoilage and bacterial contamination.

The sensor's microneedles are molded from proteins found in silk cocoons, and are designed to draw fluid into the back of the sensor, which is printed with two types of specialized ink. One of these "bioinks" changes color when in contact with fluid of a certain pH range, indicating that the food has spoiled; the other turns color when it senses contaminating bacteria such as pathogenic *E. coli*.



Read more: https://nsf.gov/discoveries/disc_summ.jsp?cntn_id=301271&org=NSF&from=news

Climate Change Is Taking a Toll on the Human Body



During a July heatwave, Dr. Neelu Tummala treated a grandmother who was caring for her infant grandchild.

Flustered and late for her appointment, the woman explained that she didn't have air conditioning at her house, Tummala says. To keep her grandchild cool, the

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grandmother walked around inside of a train station until it closed because she feared the child could overheat.

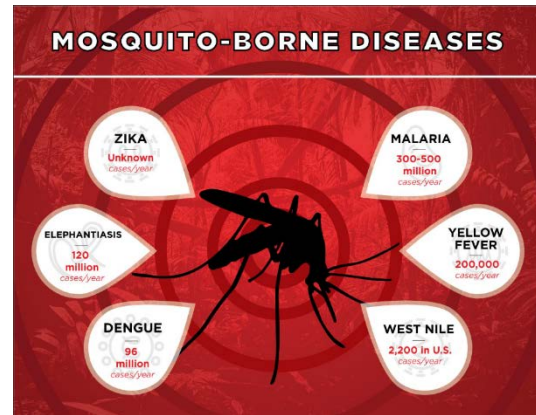
Read more:

<https://www.wbur.org/hereandnow/2020/09/23/climate-change-human-health-impacts>

Researchers Anticipate Rise of Some Mosquito-Borne Diseases

All mosquitoes are not created equal. Different species of the flying pest thrive at various temperature ranges and transmit different diseases. From this starting point, Stanford-led research predicts for the first time how, when and where malaria will ebb -- and that other mosquito-borne diseases, such as dengue fever, will rise dramatically in Sub-Saharan Africa.

The U.S. National Science Foundation-funded research, published in *Lancet Planetary Health*, warns of a public health disaster if the region fails to expand its focus on malaria to include other mosquito-borne diseases.



Read more:

https://nsf.gov/discoveries/disc_summ.jsp?cntn_id=301252&org=NSF&from=news

Workplace Design: Bringing the Indoors Out



A few years ago, workplace design started to prioritize the idea of bringing the

outdoors in. This was done through the use of plants, green walls, outdoor terraces, natural materials, textures, and access to natural light, to name a few.

The benefits of biophilia in built environments have been widely documented throughout the years. These include improved productivity, as well as improved physical and mental health.

However, with the onset of the coronavirus, people are flocking outdoors rather than

indoors. Some designers believe this will impact workplace design, forecasting that now more than ever, we need to be creative and rather than bringing the outdoors in, we need to focus on being within nature itself.

This has given rise to a new trend: the outdoor office.

Read more:

<https://www.workdesign.com/2020/10/workplace-design-bringing-the-outdoors-out/>

Environmental Health

Planaria Flatworms Can Be Alternative Screening Tool to Avoid Rabbit Skin Testing

Tests for skin treatments could be screened using flatworms rather than other animals such as rabbits, according to new research. A team at the University of Reading and Newcastle University have found that planaria, a type of flatworm, can be used as a reliable alternative for testing topical skin products used to treat human tissues such as the eyes, nose or vagina to ensure that they are not harmful.

The paper, published in *Toxicology in Vitro*, shows how the use of a fluorescent dye mixed with a potential skin product is absorbed through the outer layers of skin in the planaria.



Read more:

https://www.eurekalert.org/pub_releases/2020-10/uor-pfc092920.php

Fungicide Exposure and Amyloid Plaques in Mice: Further Evidence of an Environmental Risk Factor for Alzheimer's Disease



For more than a decade, researchers have recognized pesticide exposure as a risk factor for Parkinson's disease.¹ However,

these and other environmental risk factors have received limited attention in the study of Alzheimer's disease (AD),^{2,3} despite shared disease features. Now, an analysis published in *Environmental Health Perspectives*⁴ reports that chronic exposure to very low doses of certain fungicides promoted pathological changes in a transgenic mouse model of AD.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7021>

Associations of a Metal Mixture Measured in Multiple Biomarkers with IQ: Evidence from Italian Adolescents Living near Ferroalloy Industry

Background:

Research on the health effects of chemical mixtures has focused mainly on early life rather than adolescence, a potentially important developmental life stage.

Objectives:

We examined associations of a metal mixture with general cognition in a cross-sectional study of adolescents residing near ferromanganese industry, a source of airborne metals emissions.

Methods:

We measured manganese (Mn), lead (Pb), copper (Cu), and chromium (Cr) in hair,



blood, urine, nails, and saliva from 635 Italian adolescents 10–14 years of age. Full-scale, verbal, and performance intelligence quotient (FSIQ, VIQ, PIQ) scores were assessed using the Wechsler Intelligence Scale for Children-III.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP6803>

Chemical Characterization of a Legacy Aqueous Film-Forming Foam Sample and Developmental Toxicity in Zebrafish (*Danio rerio*)



Background:

Drinking water contamination related to the use of aqueous film-forming foam (AFFF) has been documented at hundreds of military bases, airports, and firefighter training facilities. AFFF has historically contained high levels of long-chain per- and polyfluoroalkyl substances (PFAS), which pose serious health concerns. However, the

composition and toxicity of legacy AFFF mixtures are unknown, presenting great uncertainties in risk assessment and affected communities.

Objectives:

This study aimed to determine the fluorinated and nonfluorinated chemical composition of a legacy AFFF sample and its toxicity in zebrafish embryos.

Read more:

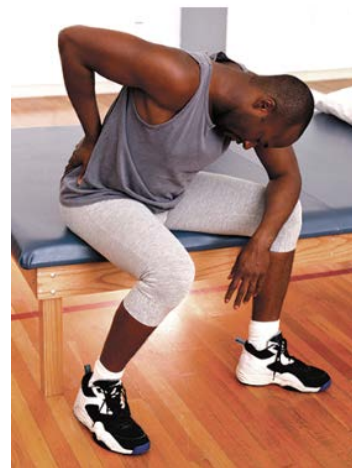
<https://ehp.niehs.nih.gov/doi/10.1289/EHP6470>

Ergonomics

New Guidelines Recommend Topical NSAIDs as First-Line Treatment for Musculoskeletal Pain

Two physician groups are recommending topical nonsteroidal anti-inflammatory drugs – with or without menthol gel – as a non-opioid “first-line therapy” for treating acute pain from non-low-back musculoskeletal injuries.

In recently released clinical guidelines, the American College of Physicians and the American Academy of Family Physicians cite research showing that topical NSAIDs are among the “most effective for pain reduction, physical function, treatment



satisfaction and symptom relief, and were not associated with any significant harms.”

Read more:

<https://www.safetyandhealthmagazine.co>

[m/articles/20270-new-guidelines-recommend-topical-nsaids-as-first-line-treatment-for-musculoskeletal-pain](https://www.safetyandhealthmagazine.co/articles/20270-new-guidelines-recommend-topical-nsaids-as-first-line-treatment-for-musculoskeletal-pain)

Safety

Mapping Human Vulnerability to Extreme Heat: A Critical Assessment of Heat Vulnerability Indices Created Using Principal Components Analysis



Background:

Extreme heat poses current and future risks to human health. Heat vulnerability indices (HVIs), commonly developed using principal components analysis (PCA), are mapped to identify populations vulnerable to extreme heat. Few studies critically assess implications of analytic choices made when employing this methodology for fine-scale vulnerability mapping.

Objective:

We investigated sensitivity of HVIs created by applying PCA to input variables and

whether training input variables on heat-health data produced HVIs with similar spatial vulnerability patterns for Detroit, Michigan, USA.

Methods:

We acquired 2010 Census tract and block group level data, land cover data, daily ambient apparent temperature, and all-cause mortality during May–September, 2000–2009. We used PCA to construct HVIs using: *a*) “unsupervised”—PCA applied to variables selected *a priori* as risk factors for heat-related health outcomes; *b*) “supervised”—PCA applied only to variables significantly correlated with proportion of all-cause mortality occurring on extreme heat days (i.e., days with 2-d mean apparent temperature above month-specific 95th percentiles).

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP4030>

Lasting Effects for Those Returning to Work After Permanent Work-related Injury

Workplace and workers' compensation-based programs are needed for workers with permanent injuries to assist them in returning to work and prevent them from getting hurt again, according to a recent study from NIOSH-funded researchers at the University of Washington.

There are nearly three million nonfatal work-related injuries and illnesses in the United States each year. Of these, roughly 10% (300,000) result in permanent injury and ongoing partial disability. Certain workers' compensation awards pay workers with work injuries or illnesses that prevent them from working at full capacity but may not keep them from returning to work. Researchers surveyed workers from Washington State with relevant workers' compensation claims to learn about their first year of going back to work. The aim of



the survey was to describe outcomes for workers with permanent injury who had returned to work within a year of when their workers' compensation claim closed. Workers with a higher degree of injury were more likely to report poorer health status, poorer work-related ability, and problems getting or keeping a job compared to workers with a lower degree of injury.

Read more:

<https://www.cdc.gov/niosh/enevs/enevsv18n5.html#research-out>

'Disturbing Trend': Positive Drug Tests For U.S. Workers at 16-Year High



U.S. workers in 2019 tested positive for illicit drugs at the highest rate in 16 years – an uptick that could continue this year as a symptom of the COVID-19 pandemic, according to an annual analysis by lab services provider Quest Diagnostics. Researchers examined the results of more than 9 million samples taken last year for Quest Diagnostics' Drug Testing Index from the combined U.S. workforce – both the general workforce and employees in safety-sensitive jobs who undergo federally

mandated drug testing. Overall, 4.5% of the samples were positive – the highest percentage since 2003 (also 4.5%) and an increase from 4.4% in 2018.

Read more:

<https://www.safetyandhealthmagazine.com/articles/20356-disturbing-trend-positive-drug-tests-for-us-workers-at-16-year-high>

COVID-19 Pandemic: Design Tweaks Extend Shelf Life of N95 Facemasks, Researchers Claim

Researchers from Purdue University have developed new designs for N95 facemasks they say will extend the shelf life of the respiratory protection commonly used by health care workers.

As demand for N95s has risen during the COVID-19 pandemic, shortages have occurred, making stockpiling and long-term storage of the respirators a standard practice among health care employers. The researchers note, however, that the longevity of the masks is largely affected by the rubber, which deteriorates over time, in the elastic band that secures the mask to the user's face.



Read more:

<https://www.safetyandhealthmagazine.com/articles/20282-covid-19-pandemic-design-tweaks-extend-shelf-life-of-n95-facemasks-researchers-claim>

Emergency Preparedness

The Lessons of National Preparedness Month Continue All Year Long

National Preparedness Month is ending, but the relevance of this annual event continues beyond September. The active hurricane season and devastating series of wildfires out west, both during a global pandemic, are proof that all Americans need to plan for emergencies in their communities.



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The 2020 preparedness month theme – “Disasters don’t wait. Make your plan today.” – is especially fitting for our nation right now. The actions of ordinary citizens can make a tremendous impact on the response to and mitigation of disasters everywhere.

In support of this initiative, FEMA shares tips and toolkits at our comprehensive Ready.gov portal with guidance to help you create a plan, build an emergency toolkit, and prepare yourself and your family for

almost every type of disaster imaginable. This year we also added COVID-19 pandemic safety tips to all disaster guides due to this additional threat we all must consider during this time.

Read more:

<https://www.hstoday.us/subject-matter-areas/emergency-preparedness/the-lessons-of-national-preparedness-month-continue-all-year-long/>

Deployment Health

These 5 Military Hospitals Will Support COVID-19 Vaccine Trials



Five Defense Department medical facilities have been named to participate in research for the newest COVID-19 vaccine candidate to enter Phase III clinical trials.

The Pentagon announced Thursday that the military hospitals will support testing of a COVID-19 vaccine developed by AstraZeneca, which announced Aug. 31 that it was beginning widespread testing after receiving favorable results from efficacy and safety research.

Read more:

<https://www.military.com/daily-news/2020/09/04/these-5-military-hospitals-will-support-covid-19-vaccine-trials.html>

Nanotechnology

Direct Printing of Wearable Health Sensors onto Skin

Skin-interfaced, wearable electronics have attracted significant attention due to their unique roles in preventative monitoring, diagnostic confirmation, and convenient therapeutic options. The ultimate application of these bio-integrated devices for practical and convenient applications hinges on the seamless integration of on-body sensors with wireless transmission modules.

Multifunctional on-body sensors can precisely and continuously monitor the health conditions of the human body, whereas wireless transmission modules can wirelessly power up the sensors and transmit the data generated from them to the cloud for the healthcare professionals.

Read more:

<https://www.nanowerk.com/spotlight/spotid=56145.php>

Regulatory Research & Industrial Hygiene Professional News

Congress

House Passes Pregnant Workers Fairness Act

After numerous attempts over the past eight years, the House on Sept. 17 passed the Pregnant Workers Fairness Act by a 329-73 vote. Rep. Jerry Nadler (D-NY) has introduced five versions of the bill (H.R. 2694) since May 2012.

“This victory belongs to the hundreds of pregnant workers who’ve tirelessly fought for their rights, demanded the accommodations they need and continued



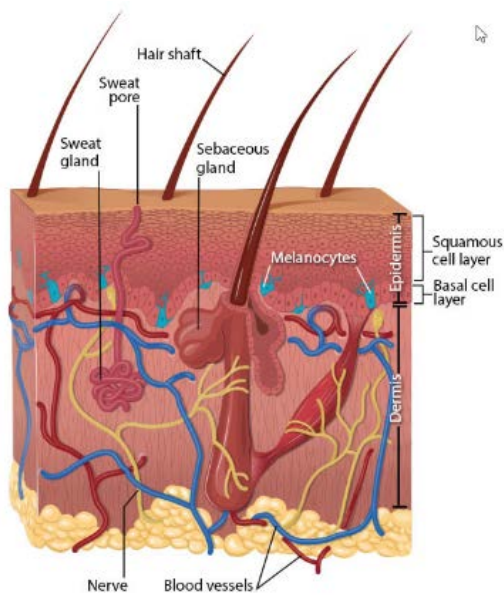
supporting their families,” Nadler wrote in a Twitter post.

Read more:

<https://www.safetyandhealthmagazine.com/articles/20339-house-passes-pregnant-workers-fairness-act>

HHS

HHS Releases Guidelines for Use of Hair Samples in Federal Worker Drug Testing



proposed guidelines on the use of hair samples as a method for drug testing federal employees and safety-sensitive employees in federally regulated industries, including commercial motor vehicle operators.

According to a notice published in the Sept. 10 *Federal Register*, agencies in the federal executive branch and employers in industries regulated by the federal government would be permitted – but not required – to use hair samples for preemployment and random drug testing, although not as a sole method.

Read more:

<https://www.safetyandhealthmagazine.com/articles/20351-hhs-releases-guidelines-for-use-of-hair-samples-in-federal-worker-drug-testing>

The Substance Abuse and Mental Health Services Administration, part of the Department of Health and Human Services, is seeking public comment on long-awaited

NIOSH

**Rising to the Challenges and Opportunities Presented by the Future of
Work: NIOSH introduces its Future of Work Initiative**

The future of work is influenced by many changes to workplace, work, and workforce factors such as organizational design, work arrangements, technological job displacement, artificial intelligence, robotics, technologies, demographics, economic security, and skills. Advances in the future of work offer many opportunities, but they also create challenges for the workplace and work, with consequences for the safety, health, and well-being of the workforce.

Holistic workplace and work programs, policies, and practices to ensure the safety, health, and well-being of the workforce and the employers who employ them are not new (1, 2). The scientific literature is filled with evidence on the importance of future of work issues such as paid leave (3-7), job flexibility (8), adequate living wages (9-11), job stability (12, 13), and healthy leadership (14) to not only meet workers' basic needs, but also that of their families, communities,



and society. What is new, however, is awareness of the significance and necessity of these issues and their impact on the ability of the workplace, work, and workforce to thrive, simply subsist, or vanish in today's world.

Read more: <https://blogs.cdc.gov/niosh-science-blog/2020/09/25/future-of-work/>

OSHA

OSHA Releases Employer Injury, Illness Data for 2016-2018



OSHA has released work-related injury and illness data from a three-year period of electronic submissions of Form 300A.

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Announced in a Sept. 4 press release, the release of the electronic injury and illness annual summaries from 2016 to 2018 comes after two June court decisions involving Freedom of Information Act cases: *Center for Investigative Reporting v. U.S. Department of Labor* and *Public Citizen Foundation v. U.S. Department of Labor*.

Read more:

<https://www.safetyandhealthmagazine.com/articles/20278-osa-releases-employers-injury-illness-data-for-2016-2018>

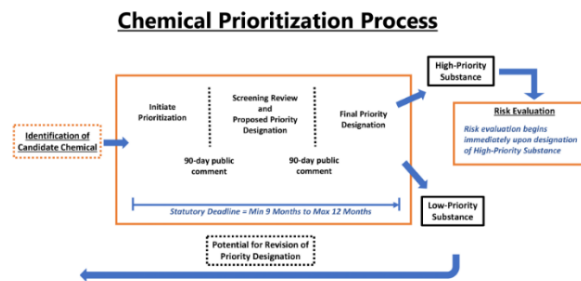
EPA

EPA Releases Final Draft Scope Documents For 20 ‘High Priority’ Chemical Risk Evaluations

The Environmental Protection Agency has finalized draft scope documents for 20 additional chemicals the agency has designated as high-priority substances for risk evaluation under the Frank R. Lautenberg Chemical Safety for the 21st Century Act, according to a notice published in the Sept. 4. *Federal Register*.

The Lautenberg Act, which amended the Toxic Substances Control Act, requires EPA to release a scope document for each chemical, outlining hazards, exposures, conditions of use, and potentially exposed or susceptible subpopulations.

A notice published in the Dec. 30 *Federal Register* states that a chemical identified as high priority is required to undergo a three-year evaluation for potential health and



environmental risks. Such a designation, however, “is not a finding of unreasonable risk.”

Read more:

<https://www.safetyandhealthmagazine.com/articles/20355-epa-releases-final-draft-scope-documents-for-20-high-priority-chemical-risk-evaluations>

Army Industrial Hygiene News and Regulatory Summary

APHC

Training

2020 SPECIAL EDITION WEBINAR DAY

[HTTPS://CONFERENCE.APPS.MIL/WEBCONF/MANAGEYOURIHMONSTER](https://conference.apps.mil/webconf/manageyourihmonster)

10/21/2020 SME COVID Ventilation

10/21/2020 SME COVID PPE

10/21/2020 SME COVID UV

2021 QUARTERLY ARMY IH WEBINAR DAY

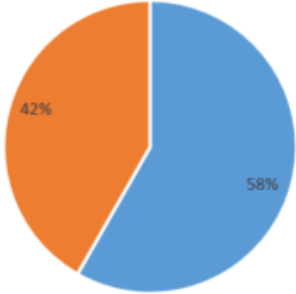
[HTTPS://CONFERENCE.APPS.MIL/WEBCONF/MANAGEYOURIHMONSTER](https://conference.apps.mil/webconf/manageyourihmonster)

12/2/2020	Monster	Building Downdraft Tables in DOEHRs-IH	Steven
12/2/2020	Leader	Measuring Downdraft Ventilation	Belden
12/2/2020	SME	Downdraft Ventilation Q/A	Belden
12/2/2020	SME	DOEHRs-IH Report Standardization	Delk
12/2/2020	Leader	Compressed Air use with Heavy Metals	Hueth
3/3/2021	Monster	Building Vehicle Exhaust in DOEHRs-IH	Steven
3/3/2021	Leader	Measuring Vehicle Exhaust	Parks
3/3/2021	SME	Vehicle Exhaust Q/A	Parks
3/3/2021	SME	Vehicle Exhaust Ototoxins Q/A	Merkley
6/2/2021	Monster	Building Drive-in/Drive-through Paint Booths in DOEHRs-IH	Steven
6/2/2021	Leader	Measuring Drive-in/Drive-through Paint Booths	Belden
6/2/2021	SME	Drive-in/Drive-through Paint Booth Q/A	Belden
6/2/2021	SME	Letterkenny Paint booth incident/accident	Wisniewski
9/1/2021	Monster	Building Dilution Ventilation in DOEHRs-IH	Steven
9/1/2021	Leader	Measuring Dilution Ventilation	Parks
9/1/2021	SME	Dilution Ventilation Q/A	Parks
9/1/2021	SME	Sampling Qualifiers	Secrest

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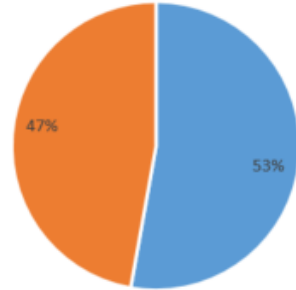
DOEHRS-IH Quarterly Sustainment Webinar Participation

PHC-A Participation



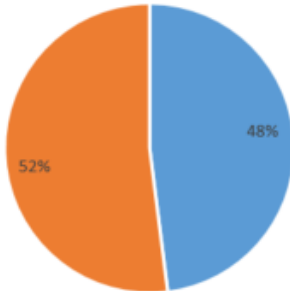
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PHC-C Participation



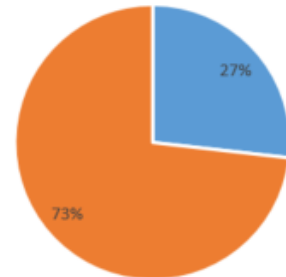
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PHC-E Participation



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PHC-P Participation



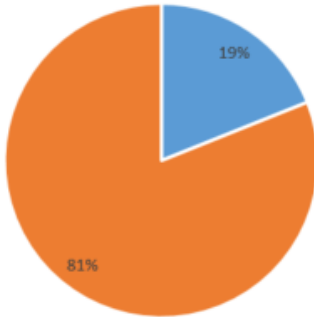
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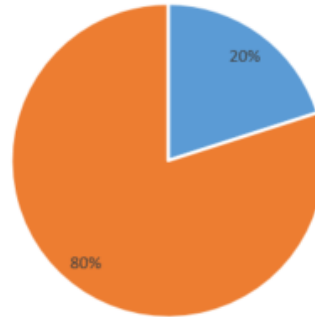
DOEHRS-IH Quarterly Sustainment Webinar Completion

PHC-A Completion



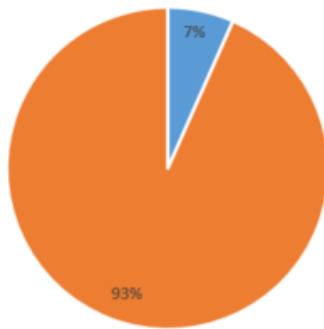
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PHC-C Completion



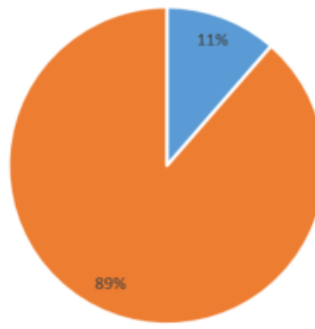
■ total certs collected ■ remaining

PHC-E Completion



■ total certs collected ■ remaining

PHC-P Completion



■ total certs collected ■ remaining



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This monthly summary is published by the Industrial Hygiene Program Management Division for the Army Public Health Center.

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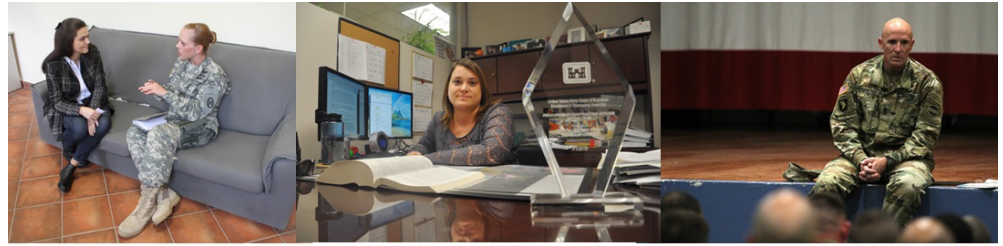
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<http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/default.aspx>



Professional Development and Career Programs

For Army Industrial Hygienists and Industrial Hygiene Technicians, Professional Development is through the Army Safety and Occupational Health (SOH) Career Program, known as Career Program 12 (CP-12).

Career Programs were established to ensure there is an adequate base of qualified and trained professional, technical, and administrative personnel to meet the Army's current and future needs.

Planned training and development are essential elements to building a successful career.

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