

May 2021
Issue 116

Army Industrial Hygiene News and Regulatory Summary

Hazardous Substances



Cleaning Up Hazardous Chemicals, Unexploded Munitions From Military Bases Not Likely to Wrap Up Soon

Special Interest Articles:

- [Methylene Blue](#)
- [Overworked](#)
- [Racism](#)
- [Motorbike Couriers](#)
- [Cyanotoxins](#)

Lawmakers want to know how to budget for environmental clean-ups of military installations, but Defense leaders insist it's going to be a drawn-out process. In a hearing for the Defense Environmental Restoration Program (DERP) this week, officials from the services and the Pentagon told the House Appropriations subcommittee on Defense where DoD stands on removing hazardous Per- and Polyfluoroalkyl Substances (PFAS) chemicals and unexploded ordnances from military bases.

DERP addresses two categories of sites: The Installation Restoration Program manages the cleanup of chemicals released to the environment, including PFAS, while the Military Munitions Response Program addresses former military range sites known or suspected to contain unexploded ordnances, discarded



military munitions, or munitions constituents.

Read more:

<https://federalnewsnetwork.com/defense-main/2021/05/cleaning-up-hazardous-chemicals-unexploded-munitions-from-military-bases-not-likely-to-wrap-up-soon/>

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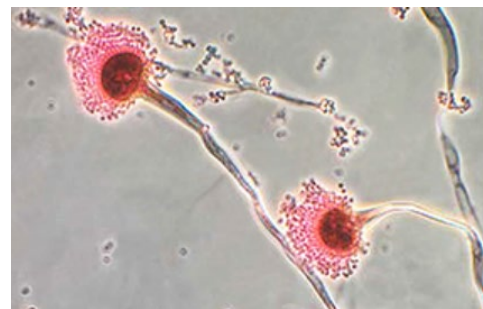


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Trends in Agricultural Triazole Fungicide Use in the United States, 1992–2016 and Possible Implications for Antifungal-Resistant Fungi in Human Disease

Background:

The fungus *Aspergillus fumigatus* (*A. fumigatus*) is the leading cause of invasive mold infections, which cause severe disease and death in immunocompromised people. Use of triazole antifungal medications in recent decades has improved patient survival; however, triazole-resistant infections have become common in parts of Europe and are emerging in the United States. Triazoles are also a class of fungicides used in plant agriculture, and certain triazole-resistant *A. fumigatus* strains found causing disease in humans have been linked to environmental fungicide use.



Objectives:

We examined U.S. temporal and geographic trends in the use of triazole fungicides using U.S. Geological Survey agricultural pesticide use estimates.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7484>

The P-Sufficient Approach: A Strategy for Regulating PFAS as a Class



Because of concerns about their persistence and potential toxicity, certain per- and polyfluoroalkyl substances (PFAS) have been targeted for regulation or removal from commerce.^{1,2} Yet experts worry that regulations aimed at specific PFAS will lead to problems with “regrettable

substitutions” in which a regulated chemical is replaced with an unregulated one that may be equally or even more toxic.¹ In a commentary published in *Environmental Health Perspectives*, members of the Safer Consumer Products Program at the California Department of Toxic Substances Control (DTSC) elucidated the scientific rationale for a novel regulatory approach—regulating PFAS chemicals as a class.³

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP9302>

Long-Term Ambient Air Pollution Exposures and Circulating and Stimulated Inflammatory Mediators in a Cohort of Midlife Adults

Background:

Chronic exposure to air pollution may prime the immune system to be reactive, increasing inflammatory responses to immune stimulation and providing a pathway to increased risk for inflammatory diseases, including asthma and cardiovascular disease. Although long-term exposure to ambient air pollution has been associated with increased circulating markers of inflammation, it is unknown whether it also relates to the magnitude of inflammatory response.

Objectives:



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The aim of this study was to examine associations between chronic ambient pollution exposures and circulating and stimulated levels of inflammatory mediators in a cohort of healthy adults.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7089>

BioFlyte Launches First Field Deployable Airborne COVID-19 Detection System to Improve School and Workplace Safety



BioFlyte, a biodetection company with a new class of fieldable biological threat collection, detection, and identification solutions, today announced the launch of the Sentinel™ Airborne COVID-19 Detection System for real-world surveillance of airborne coronavirus and other respiratory pathogens.

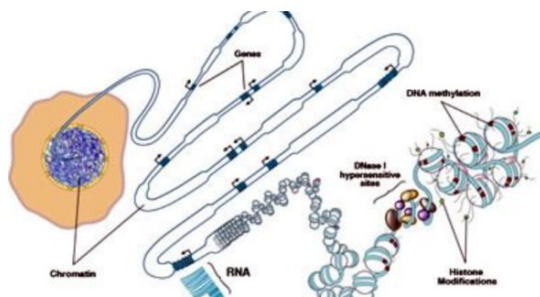
As schools, factories and other workplaces re-open, monitoring for COVID-19 infections will remain a necessary part of safety protocols, especially in schools where many young children have not been vaccinated. While some workplaces have relied thus far upon testing only a random sample of people, that can be unreliable, and frequent testing of every employee or student using a rapid, on-site test is costly and time intensive.

Read more:

<https://www.tmcnet.com/usubmit/-bioflyte-launches-first-field-deployable-airborne-covid-19-/2021/05/26/9378385.htm>

Epigenetic Mechanism Can Explain How Chemicals in Plastic May Cause Lower IQ Levels

The chemical bisphenol F (found in plastics) can induce changes in a gene that is vital for neurological development. This discovery was made by researchers at the universities of Uppsala and Karlstad, Sweden. The mechanism could explain why exposure to this chemical during the fetal stage may be connected with a lower IQ at seven years of



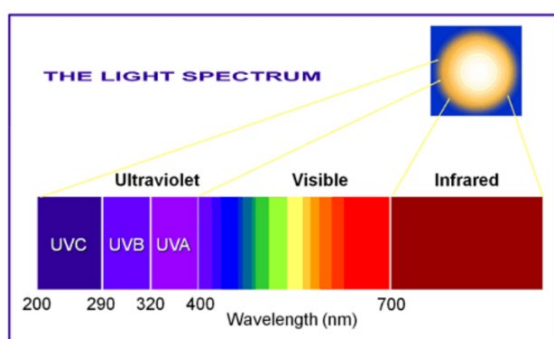
age -- an association previously seen by the same research group. The study is published in the scientific journal *Environment International*.

Read more:

<https://www.sciencedaily.com/releases/2021/05/210520133732.htm>

Radiation

Ultraviolet Radiation Protection Potentials of Methylene Blue for Human Skin and Coral Reef Health



Methylene blue (MB) is a century-old medicine, a laboratory dye, and recently shown as a premier antioxidant that combats ROS-induced cellular aging in human skins. Given MB's molecular structure and light absorption properties, we hypothesize that MB has the potential to be considered as a sunscreen active for UV radiation protection. In this study, we tested the effects of MB on UVB ray-induced DNA double-strand breaks in primary human keratinocytes.

We found that MB treatment reduced DNA damages caused by UVB irradiation and

subsequent cell death. Next, we compared MB with Oxybenzone, which is the most commonly used chemical active ingredient in sunscreens but recently proven to be hazardous to aquatic ecosystems, in particular to coral reefs. At the same concentrations, MB showed more effective UVB absorption ability than Oxybenzone and significantly outperformed Oxybenzone in the prevention of UVB-induced DNA damage and the clearance of UVA-induced cellular ROS. Furthermore, unlike Oxybenzone, MB-containing seawater did not affect the growth of the coral species *Xenia umbellata*. Altogether, our study suggests that MB has the potential to be a coral reef-friendly sunscreen active ingredient that can provide broad-spectrum protection against UVA and UVB.

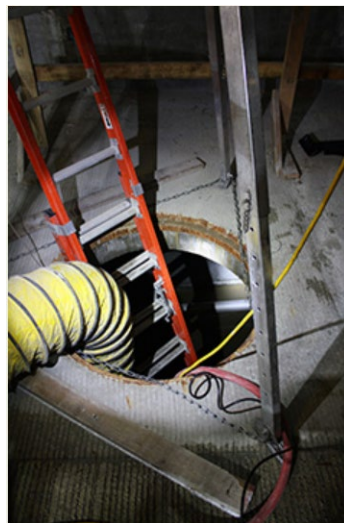
Read more:

<https://www.nature.com/articles/s41598-021-89970-2>

Ventilation

Clearing the Air on Confined Space Ventilation

For all of the attention that confined spaces receive, many safety managers are still uncertain about ventilation requirements. They may not understand how much airflow is needed to properly ventilate a given space. They may overlook ventilation principles allowing them to eliminate pockets of bad air or dead spots where workers are positioned, or they may fail to monitor air quality before and during employee entry into a confined space. To help clear the air on this subject, here is some advice for selecting a proper ventilation blower for a confined space, as well as some tips on proper usage.



[/clearing-the-air-on-confined-space-ventilation.aspx](https://ohsonline.com/articles/2021/05/01/clearing-the-air-on-confined-space-ventilation.aspx)

Read more:

<https://ohsonline.com/articles/2021/05/01>

PPE

Evaluation of Total Inward Leakage for NIOSH-Approved Elastomeric Half-Facepiece, Full-Facepiece, and Powered Air-Purifying Respirators Using Sodium Chloride and Corn Oil Aerosols



The Centers for Disease Control and Prevention (CDC) has updated its guidance documents aimed primarily at

healthcare industry employers in regard to N95 masks, ending changes it had made during the period when the masks were in short supply last year.

Last year, the CDC worked with the National Institute for Occupational Safety and Health

(NIOSH) to allow usage of some kinds of masks exceeding the manufacturer-designated shelf life in times of increased demand and decreased supply, so long as appropriate storage practices were followed.

Read more:

<https://www.ehstoday.com/standards/article/21161425/cdc-tightens-its-n95-guidances>

Noise

Some Nerves: How Loud Noise May Change Hearing

Our modern world is loud. Just sitting in a car, or an airplane, or watching movie previews, we are bombarded with sound. Even when those noises aren't damaging to the sensitive microphone that is our ear, our auditory system is constantly activated. What are the consequences of this? One reason noise is a problem is that it is associated with tinnitus. Tinnitus, or ringing in the ears, is very common, affecting about 10 percent of the population. For some people, it can be severe enough to interfere with everyday life.



Read more:

<https://news.yahoo.com/nerves-loud-noise-may-change-170632623.html>

Preventive Medicine

Long-Term Data from Smartwatches Can Help Estimate Clinical Blood Test Results

Smartwatches and other wearable devices may be used to sense illness, dehydration and even changes to the red blood cell count, according to biomedical engineers and genomics researchers at Duke

University and the Stanford University School of Medicine.

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The researchers say that, with the help of machine learning, wearable device data on heart rate, body temperature and daily

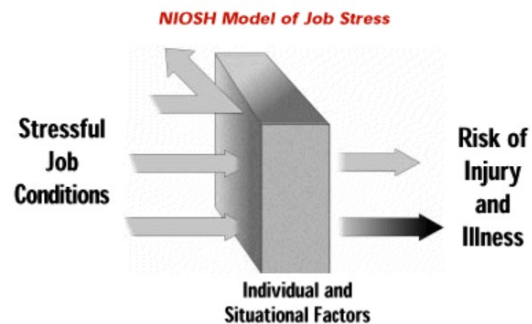
activities may be used to predict health measurements that are typically observed during a clinical blood test. The study appears in *Nature Medicine* on May 24, 2021.

Read more: <https://www.news-medical.net/news/20210526/Long-term-data-from-smartwatches-can-help-estimate-clinical-blood-test-results.aspx>

WHO Warns 'Overworking' Increases Chances of Serious Health Conditions like Stroke or Heart Disease

The World Health Organization (WHO) has discovered that an overworking employee that renders more than 55 hours per week for their companies has an increased chance of suffering from a fatal disease. These diseases include common health conditions like stroke and heart diseases and are alarming cases during the COVID-19 pandemic.

People may not die from COVID-19 infections, but they may suffer from a stroke or a progressive heart disease now or sooner than later if they keep overworking themselves more than 8 hours a day. COVID-19 may only infect people and deal with severe effects by going out, but staying in and pouring all energy and effort into work may lead to a fatal end as well.



Read more: <https://www.techtimes.com/articles/260388/20210518/who-warns-overworking-increase-chances-serious-health-conditions-stroke-heart-disease.htm>

Pain Monitoring Technology Can Reduce Intraoperative Opioid Consumption



A new study has shown that effective opioid-sparing anesthesia with dexmedetomidine can be guided with NOL pain monitoring technology (Medasense, Israel). The study showed that the NOL monitor is able to detect the effect of

dexmedetomidine on the patient's pain response and enable administration of less intraoperative opioids.

Patients undergoing anaesthesia for surgical procedures are traditionally treated with opioids (e.g., remifentanyl) to manage intraoperative pain. But clinicians are progressively seeking to reduce opioid use by introducing multimodal analgesia, a technique that involves a combination of medications that often includes a central alpha agonist, such as dexmedetomidine.

Read more: <https://www.news-medical.net/news/20210526/Pain-monitoring-technology-can-reduce-intraoperative-opioid-consumption.aspx>

Arizona and Many Other States Begin Legislative Process to Protect Employees against Discrimination Based on COVID-19 Vaccine Choices

Currently pending before the Arizona legislature, Senate Bill 1648 would prohibit discrimination in the workplace (and elsewhere) against individuals who have not received or who refuse to receive a COVID-19 vaccine. As proposed, the bill would prohibit any employer from requiring a person to receive or disclose whether they have received a COVID-19 vaccine as a condition of being hired or remaining employed. The bill additionally would



amend not only Arizona's state statutes devoted to employment matters, but also would prohibit nearly any business or public space from limiting access to a person on the basis of their receipt or non-receipt of a COVID-19 vaccine to any indoor or outdoor spaces or buildings, places of public accommodation (as defined by A.R.S. § 41-1491), spaces that are owned, leased, operated, occupied, or otherwise used by a public body (as defined by A.R.S. § 39-121.01), and places that are generally open

to the public. This partisan bill, sponsored by seven Republican Senators, is not yet set for a vote.

Read more:

<https://www.natlawreview.com/article/arizona-and-many-other-states-begin-legislative-process-to-protect-employees-against>

Trends in Agricultural Triazole Fungicide Use in the United States, 1992–2016 and Possible Implications for Antifungal-Resistant Fungi in Human Disease



Background:

The fungus *Aspergillus fumigatus* (*A. fumigatus*) is the leading cause of invasive mold infections, which cause severe disease and death in immunocompromised people. Use of triazole antifungal medications in recent decades has improved patient survival; however, triazole-resistant

infections have become common in parts of Europe and are emerging in the United States. Triazoles are also a class of fungicides used in plant agriculture, and certain triazole-resistant *A. fumigatus* strains found causing disease in humans have been linked to environmental fungicide use.

Objectives:

We examined U.S. temporal and geographic trends in the use of triazole fungicides using U.S. Geological Survey agricultural pesticide use estimates.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7484>

Environmental Health

Confronting Racism in Environmental Health Sciences: Moving the Science Forward for Eliminating Racial Inequities

Background:

The twin pandemics of COVID-19 and systemic racism during 2020 have forced a conversation across many segments of our society, including the environmental health sciences (EHS) research community. We have seen the proliferation of statements of solidarity with the Black Lives Matter movement and commitments to fight racism and health inequities from academia, nonprofit organizations, governmental agencies, and private corporations. Actions must now arise from these promises. As public health and EHS scientists, we must examine the systems that produce and perpetuate inequities in exposure to environmental pollutants and associated health effects.



Objectives:

We outline five recommendations the EHS research community can implement to confront racism and move our science forward for eliminating racial inequities in environmental health.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP8186>

Metal-Mixtures in Toenails of Children Living Near an Active Industrial Facility in Los Angeles County, California



Background

Children residing in communities near metalworking industries are vulnerable to multiple toxic metal exposures. Understanding biomarkers of exposure to multiple toxic metals is important to characterize cumulative burden and to distinguish potential exposure sources in such environmental justice neighborhoods

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impacted by industrial operations. Exposure to metal mixtures has not been well-characterized among children residing in the United States, and is understudied in communities of color.

Methods

In this study we used toenail clippings, a noninvasive biomarker, to assess exposure to arsenic (As), cadmium (Cd), mercury (Hg), manganese (Mn), lead (Pb), antimony (Sb), selenium (Se), and vanadium (V). We used nonnegative matrix factorization (NMF) to identify “source” signatures and patterns of

exposure among predominantly working class Latinx children residing near an industrial corridor in Southeast Los Angeles County. Additionally, we investigated the association between participant demographic, spatial, and dietary characteristics with identified metal signatures.

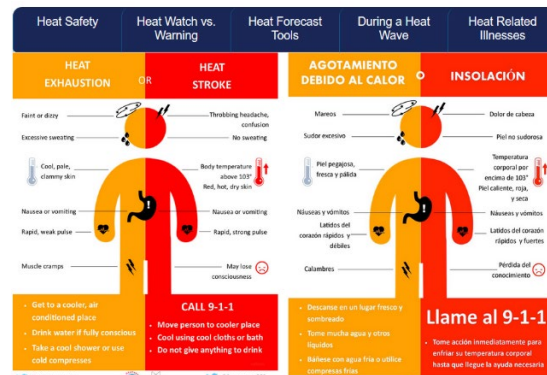
Read more:

<https://www.nature.com/articles/s41370-021-00330-8>

Global Warming Already Responsible for One in Three Heat-Related Deaths

Between 1991 and 2018, more than a third of all deaths in which heat played a role were attributable to human-induced global warming, according to a new article in *Nature Climate Change*.

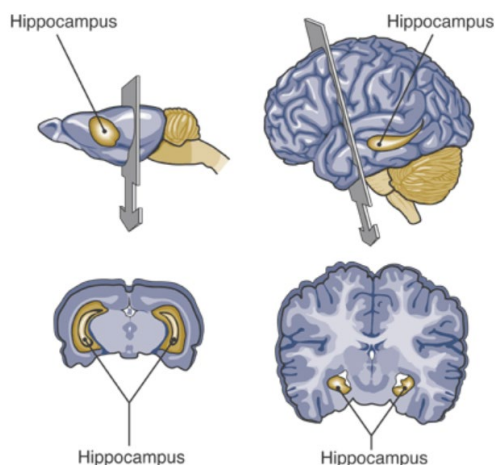
The study, the largest of its kind, was led by the London School of Hygiene & Tropical Medicine (LSHTM) and the University of Bern within the Multi-Country Multi-City (MCC) Collaborative Research Network. Using data from 732 locations in 43 countries around the world it shows for the first time the actual contribution of human-made climate change in increasing mortality risks due to heat.



Read more:

<https://www.sciencedaily.com/releases/2021/05/210531120932.htm>

Effects of Low-Dose Gestational TCDD Exposure on Behavior and on Hippocampal Neuron Morphology and Gene Expression in Mice



Background:

2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) is a persistent and toxic environmental pollutant. Gestational exposure to TCDD has been linked to cognitive and motor deficits, and increased incidence of autism

spectrum disorder (ASD) traits in children. Most animal studies of these neurodevelopmental effects involve acute TCDD exposure, which does not model typical exposure in humans.

Objectives:

The aim of the study was to establish a dietary low-dose gestational TCDD exposure protocol and performed an initial characterization of the effects on offspring behavior, neurodevelopmental phenotypes, and gene expression.

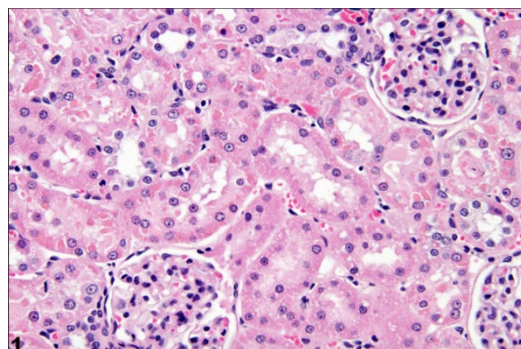
Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7352>

The Kidney-Related Effects of Polystyrene Microplastics on Human Kidney Proximal Tubular Epithelial Cells HK-2 and Male C57BL/6 Mice

Background:

Understanding the epidemic of chronic kidney disease of uncertain etiology may be critical for health policies and public health responses. Recent studies have shown that microplastics (MPs) contaminate our food chain and accumulate in the gut, liver, kidney, muscle, and so on. Humans manufacture many plastics-related products. Previous studies have indicated that particles of these products have several effects on the gut and liver.



Polystyrene (PS)-MPs (PS-MPs) induce several responses, such as oxidative stress, and affect living organisms.

Objectives:

The aim of this study was to investigate the effects of PS-MPs in kidney cells *in vitro* and *in vivo*.

Read more:

<https://ehp.niehs.nih.gov/doi/10.1289/EHP7612>

Ergonomics

Bad Vibrations for Motorbike Couriers



The e-commerce sector has led to a massive increase in the number of motorcycle couriers criss-crossing our city streets every day delivering packages and food to countless destinations. A new experimental investigation into the ergonomics of riding a motorcycle has now been published in the *International Journal of Human Factors and Ergonomics*.

Read more:

<https://medicalxpress.com/news/2021-05-bad-vibrations-motorbike-couriers.html>

Safety

Over Half of Workplace Electrical Fatalities are Attributed to Non-Electrical Occupations]

While investigating the recovery of electrical burn victims, researchers discovered a distressing truth about their

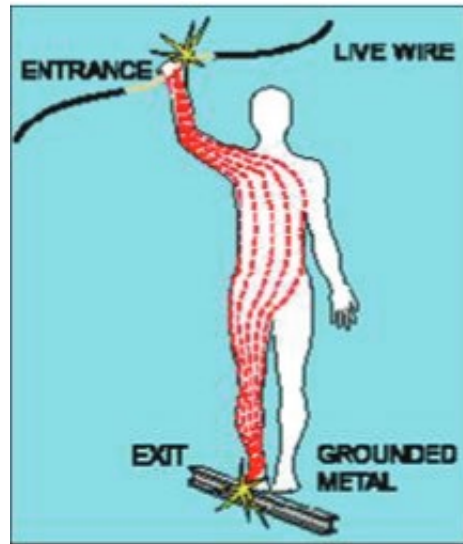
data: the use of safety equipment, such as PPE and insulated tools, was alarmingly low.

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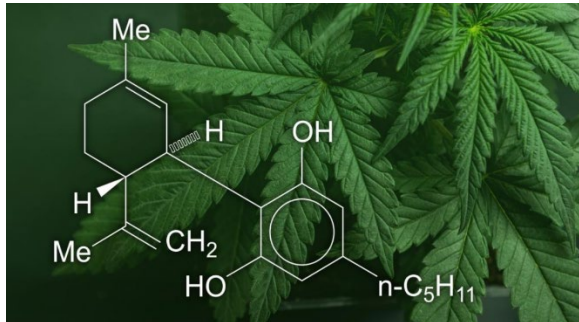
In fact, every electrical burn patient in the study had failed to follow all appropriate safety measures, but the problem isn't limited to electrical work. ESFi reports that between 2011 and 2019, 68 percent of workplace electrical fatalities were attributed to non-electrical occupations. Electrical hazards exist throughout the workplace and impact workers who aren't trained electricians or electrical contractors for a number of logical reasons.

Read more:

<https://ohsonline.com/articles/2021/06/01/over-half-of-workplace-electrical-fatalities-are-attributed-to-nonelectrical-occupations.aspx>



FMCSA Issues Reminder to CDL Drivers Regarding Use of CBD Products



The U.S. Department of Transportation Federal Motor Carrier Safety Administration issued a "Clearinghouse Update" on May 27, 2021 reminding commercial motor vehicle drivers who are regulated by the FMCSA that they should exercise caution when considering whether to use hemp and cannabidiol (CBD) products. Specifically,

the update stated that it is important for all employees who perform safety-sensitive functions, including CDL drivers, to know:

1. The U.S. Department of Transportation requires testing for marijuana and not CBD.
2. The labeling of many CBD products may be misleading because the products could contain higher levels of tetrahydrocannabinol (THC) than what's stated on the product label.

Read more:

<https://www.natlawreview.com/article/fmcsa-issues-reminder-to-cdl-drivers-regarding-use-cbd-products>

EFSA Panel Concludes that Titanium Dioxide Cannot Be Considered Safe as a Food Additive

On May 6, 2021, the European Food Safety Association (EFSA) announced that E171 is no longer considered safe when used as a food additive. The European Commission (EC) asked EFSA to update its safety assessment of the food additive titanium dioxide (E171). EFSA states: “Taking into account all available scientific studies and data, the Panel [on Food Additives and Flavorings] concluded that titanium dioxide can no longer be considered safe as a food additive. A critical element in reaching this conclusion is that we could not exclude genotoxicity concerns after consumption of titanium dioxide particles.



Read more:

<https://www.natlawreview.com/article/efsa-panel-concludes-titanium-dioxide-cannot-be-considered-safe-food-additive>

Wearable Devices and Lone Workers: The Importance of Connectivity



When working on site, workers need to be able to rely on the equipment they have on hand. Many wearable devices have connectivity features designed to share information. This can be helpful in the event of a hazardous situation. When a

worker can carry this equipment on them, they are able to stay in touch with other co-workers, managers and the safety team. Wearable devices are exactly what they sound like: devices that you wear on your person. Wearing a device, such as a gas monitor on your body, means you attach it and don't have to constantly think about the device. Because of this, it is especially important for these devices to be in excellent working order on the job. Since a worker isn't always thinking about the device, they need to be able to trust that it's working as planned. Wearable devices offer an extra layer of protection between workers and potentially harmful gases. They

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also allow you to stay “in the know” when it comes to your team in the field.

[/wearable-devices-and-lone-workers-the-importance-of-connectivity.aspx](#)

Read more:

<https://ohsonline.com/articles/2021/05/01>

Similarity of Legs, Wheels, Tracks Suggests Target for Energy-Efficient Robots

A new formula from Army scientists is leading to new insights on how to build an energy-efficient legged teammate for dismounted warfighters.

In a recent peer-reviewed PLOSE One paper, the U.S. Army Combat Capabilities Development Command, known as DEVCOM, Army Research Laboratory’s Drs. Alexander Kott, Sean Gart and Jason Pusey offer new insights on building autonomous military robotic legged platforms to operate as efficiently as any other ground mobile systems.

Its use could lead to potentially important changes to Army vehicle development. Scientists said they may not know exactly why legged, wheeled and tracked systems



fit the same curve yet, but they are convinced their findings drive further inquiry.

Read more:

<https://www.army.mil/article/246628/similarity-of-legs-wheels-tracks-suggests-target-for-energy-efficient-robot>

Preparation & Prevention: Top 5 Workplace Summertime Injuries



Summer brings with it some welcome things, such as more sunlight in the evenings, increased travel, vacations and warmer days. If you are a safety director, however, and I know

most of you are, you know that summertime could mean an increase in serious injuries on the job.

Additional guidance from a new global standard looks set to be introduced this June.

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According to a Bureau of Labor Statistics study, there is an increase in injuries and fatalities during the summer months. This could be due to several things, such as higher temperatures, congested roadways and inexperienced seasonal workers on the job.

Read more:

<https://ohsonline.com/articles/2021/05/31/preparation-prevention-top-5-workplace-summertime-injuries.aspx>

Emergency Preparedness

Specially Configured Chemical Biological Protective Shelter Enhances USAMRICD Training Capabilities

The U.S. Army Medical Research Institute of Chemical Defense (USAMRICD), a direct reporting unit of the U.S. Army Medical Research and Development Command, added a unique asset to its training mission capabilities with the recent installation of a specially configured Chemical Biological Protective Shelter (CBPS). Installation of the CBPS marks the completion of a multi-year endeavor to equip USAMRICD's Chemical Casualty Care Division (CCCD) with this training-specific system. The USAMRICD is the first of what will eventually be only two locations to have a system designed for training purposes.

The CBPS was installed at CCCD's field training center and will be used to train medical professionals, combat medic specialists, and first responders attending



the institute's Medical Management and Field Management of Chemical and Biological Casualties (MCBC and FCBC) courses.

Read more: [USAMRDC: Specially configured Chemical Biological Protective Shelter enhances USAMRICD training capabilities \(army.mil\)](https://www.army.mil/USAMRDC/Specially-configured-Chemical-Biological-Protective-Shelter-enhances-USAMRICD-training-capabilities)

Deployment Health

Frequent Military Funeral Duty May Increase Soldiers' Risk of Suicide, Officer Warns



Army Capt. Kristen Bell stunned XVIII Airborne Corps leaders at a forum on preventing suicides in the ranks with her warning that soldiers assigned frequently to military funeral details are at risk of taking their own lives.

"Capt. Bell presented eye-opening statistics regarding the volume of soldier suicides following duty on military funeral details. Everyone in the room was surprised," said Col. Joe Buccino, spokesman for the XVIII Airborne Corps at Fort Bragg, North Carolina.

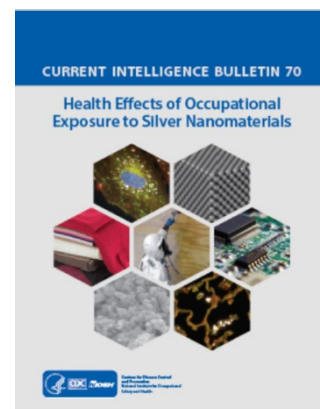
Read more:

<https://www.military.com/daily-news/2021/05/30/frequent-military-funeral-duty-may-increase-soldiers-risk-of-suicide-officer-warns.html>

Nanotechnology

NIOSH CIB on Health Effect of Occupational Exposure to Silver Nanomaterials Includes REL for Silver Nanomaterials

The National Institute for Occupational Safety and Health (NIOSH) has published *Current Intelligence Bulletin 70: Health Effects of Occupational Exposure to Silver Nanomaterials*. According to the Current Intelligence Bulletin (CIB), NIOSH assessed potential health risk from exposure to silver nanomaterials by evaluating more than 100 studies of silver nanomaterials in animals or cells. The CIB states that recent studies in



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animals have demonstrated that biologic activity and potential adverse health effects are related to particle size. Adverse health effects of nanoscale silver particles, including early stage lung inflammation and liver hyperplasia, have been observed in rats following inhalation exposure. NIOSH considers these responses relevant to workers and estimated the risks to workers based on these animal data. NIOSH derived a recommended exposure limit (REL) for

silver nanomaterials (<100 nanometers (nm) primary particle size) of 0.9 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as an airborne respirable eight-hour time-weighted average (TWA) concentration.

Read more:

<https://www.natlawreview.com/article/nio-sh-cib-health-effect-occupational-exposure-to-silver-nanomaterials-includes-rel>

Regulatory Research & Industrial Hygiene Professional News

State Law

New York Codifies Workplace Standards Designed to Reduce the Spread of Airborne Infectious Diseases



As states across the country begin to ease workplace restrictions responding to COVID-19, New York will require employers to take steps, almost immediately, to avert another pandemic. The New York legislature recently enacted the Health and Essential Rights Act (the “HERO Act”), which

requires all private New York state employers – regardless of industry or size – to comply with broad safety standards designed to reduce the spread of not just COVID-19 but all airborne infectious diseases. In addition, the HERO Act requires all employers with at least 10 employees to permit the creation of joint employer-employee workplace safety committees.

Read more:

<https://www.natlawreview.com/article/new-york-codifies-workplace-standards-designed-to-reduce-spread-airborne-infectious>

CDC

CDC Begins New Study on the Health Effects of Cyanotoxins in South Florida

The Centers for Disease Control and Prevention (CDC) will start a new study in south Florida during the 2021 algal bloom season to assess the health effects of exposure to cyanotoxins in the air. This study, called the Cyanotoxins in Air Study (CAST), will look at exposures to cyanotoxins among people who live or work near the following areas:

- Lake Okeechobee
- St. Lucie River
- Caloosahatchee River
- Cape Coral Canals



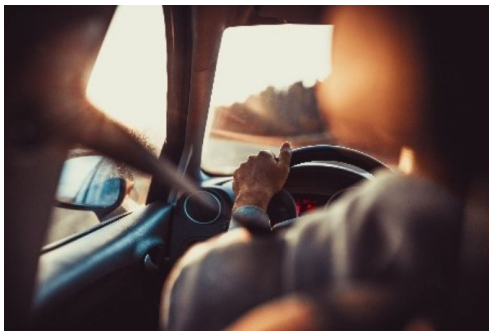
[1/CDC-Begins-New-Study-on-the-Health-Effects-of-Cyanotoxins-in-South-Florida.html](https://www.cdc.gov/nceh/pressroom/2021/CDC-Begins-New-Study-on-the-Health-Effects-of-Cyanotoxins-in-South-Florida.html)

Read more:

<https://www.cdc.gov/nceh/pressroom/2021/CDC-Begins-New-Study-on-the-Health-Effects-of-Cyanotoxins-in-South-Florida.html>

NIOSH

The Who, What, How and When of Implementing Fatigue Monitoring and Detection Technologies



Worker fatigue can result from a variety of sources, such as insufficient sleep, long work hours, physical exertion and stress. Fatigue can slow down reaction times, reduce attention or concentration, limit short-term memory, and impair judgment, affecting the health and safety of workers and their co-workers^{1,2}. Worker fatigue has

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contributed to catastrophic industrial events with loss of life. Predicting or detecting fatigue can allow for the prevention of fatigue-related safety critical events. Employers who have prioritized this issue are turning to fatigue monitoring and detection technologies (FMDT) so that steps

can be taken to ensure their workers' health and safety.

Read more: https://blogs.cdc.gov/niosh-science-blog/2021/05/21/fmdt_implementation/

OSHA

OSHA Revokes Guidance on Recordability of COVID-19 Vaccine Reactions

On May 21, 2021, the Occupational Safety and Health Administration (OSHA) revoked recent enforcement guidance issued to clarify the recordability of situations where employees suffered adverse side effects from a COVID-19 vaccination. The original guidance, in a nutshell, states that if an employer requires its employees to be vaccinated as a condition of employment, the adverse reaction is recordable, if it meets the definition of a "new case" under 29 C.F.R. 1904.6 and otherwise meets the general recording criteria set out in 29 C.F.R. 1904.7. If the employer does not require vaccinations as a condition of employment (or merely encourages them), then the adverse reaction is not recordable



Read more: <https://www.natlawreview.com/article/osh-a-revokes-guidance-recordability-covid-19-vaccine-reactions>

Mask Guidelines Pose Challenge to OSHA's 'Grave Danger' Mandate



OSHA will face a hard time justifying its Covid-19 emergency temporary standard following the CDC's decision last week to allow fully vaccinated people to not wear masks, employer-side attorneys are saying. The Occupational Safety and Health Administration must prove that Covid-19

poses a "grave danger" to workers that a regulation can prevent. The White House's regulatory office has been reviewing an OSHA standard, granting dozens of meetings with union and business groups, even as the pandemic begins to show signs of subsiding. OSHA instructed employers May 17 to follow the new CDC mask guidance for people fully vaccinated against Covid-19.

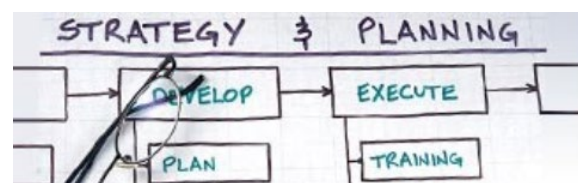
Read more:

<https://news.bloomberglaw.com/safety/mask-guidelines-pose-challenge-to-oshas-grave-danger-mandate>

EPA

EPA OPPT Strategic Plan for FYs 2021-2023 Outlines Six Priority Areas

The U.S. Environmental Protection Agency (EPA) has prepared a strategic plan for the Office of Pollution Prevention and Toxics (OPPT) for fiscal years (FY) 2021-2023. The strategic plan outlines how OPPT intends to fulfill its obligations under the Toxic Substances Control Act (TSCA), the Emergency Planning and Community Right-to-Know Act (EPCRA), the Pollution Prevention Act (PPA), and related EPA policies and procedures "in ways that value science, protect people and the



environment, and increase transparency for stakeholders and the general public."

Read more:

<https://www.natlawreview.com/article/epa-oppt-strategic-plan-fys-2021-2023-outlines-six-priority-areas>

APHC

Training

DEFENSE COLLABORATION SERVICES HAS UPGRADED (HTML5)

ARMY IH WEBINAR DAY HAS A NEW LINK

- [HTTPS://CONFERENCE.APPS.MIL/WEBCONF/ARMYIHWEBINARDAY](https://conference.apps.mil/webconf/armyihwebinarday)
- CHROME OR FIREFOX REQUIRED TO JOIN
- WEB CONF PIN REMAINS THE SAME 170750506
- WEB CONF DIAL IN REMAINS THE SAME 410-874-6300 OR DSN: 312-874-6300
- AUDIO/MIC FUNCTIONALITY WITHIN MEETING (NO CALL IN REQUIRED)
- ADDED FUNCTIONALITY (BETTER SHARE SCREEN, RECORDING, MORE MODERN FEATURES, POLLING, PRESENTER TOOLS, SWIFT CHAT, WEBCAM, ETC.)

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2021 QUARTERLY ARMY IH WEBINAR DAY

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

12/2/2020	Monster	Building Downdraft Tables in DOEHS-IH	Steven
12/2/2020	Leader	Measuring Downdraft Ventilation	Belden
12/2/2020	SME	Downdraft Ventilation Q/A	Belden
12/2/2020	SME	DOEHS-IH Report Standardization	Delk
12/2/2020	Leader	Compressed Air use with Heavy Metals	Hueth
3/3/2021	Leader	Vehicle Maintenance Shop Design Reviews	Parks
3/3/2021	Monster	Building Vehicle Exhaust in DOEHS-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 DOEHS-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 DOEHS-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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This monthly summary is published by the Industrial Hygiene Program Management Division for the Army Public Health Center.

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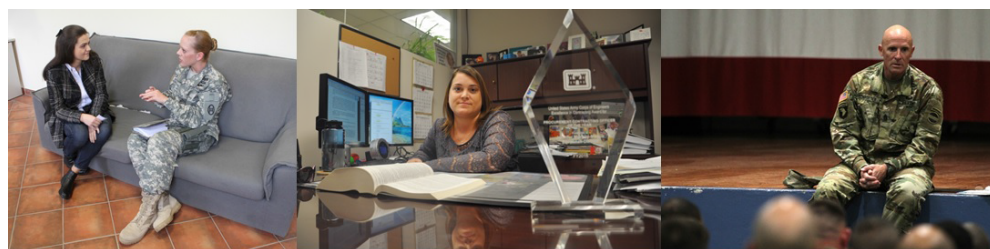
By Phone or FAX:

Office: (410)436-3161

FAX: (410)436-8795

On the Web:

<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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