December 2021

Issue 123

Army Industrial Hygiene News and Regulatory Summary

Hazardous Substances

E-Waste Recycling Emits Emerging Synthetic Antioxidants

Special Interest Articles:

Manufacturers add synthetic antioxidants to plastics, rubbers and other polymers to make them last longer. However, the health effects of these compounds, and how readily they migrate into the environment, are largely unknown. Now, researchers reporting in ACS' Environmental Science & Technology Letters have detected a broad range of emerging synthetic antioxidants, called hindered phenol and sulfur antioxidants, in dust from electronic waste (e-waste) recycling workshops, possibly posing risks for the workers inside.

Read more:
https://www.sciencedaily.com/releases/20

21/12/211215082043.htmm/articles/21896-researchers-identify-on-the-job-asthma-triggers-in-office-workers

Contents:

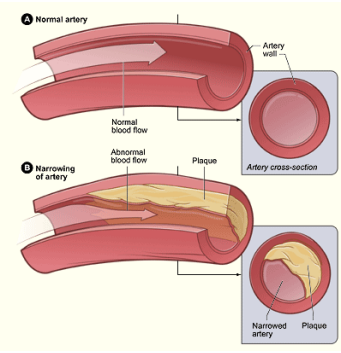
Supposedly Similar Microplastic Particles Show Different Levels of Toxicity

More and more studies worldwide are looking into the effects of microplastics, especially with regard to the environment and health. They often use spherical polystyrene microparticles and have arrived at partly contradictory results. An interdisciplinary research team at the University of Bayreuth has discovered a reason for this. Commercially available, supposedly identical polystyrene particles differ significantly, depending on the manufacturer, in terms of their structure and properties. Therefore, their interactions with living cells have different consequences for cell metabolism. The scientists have presented their study in the Journal of Hazardous Materials.

Read more:
https://phys.org/news/2021-12-supposedly-similar-microplastic-particles-toxicity.html

Exposure to Toxic Metals May Increase Risk of Clogged Arteries

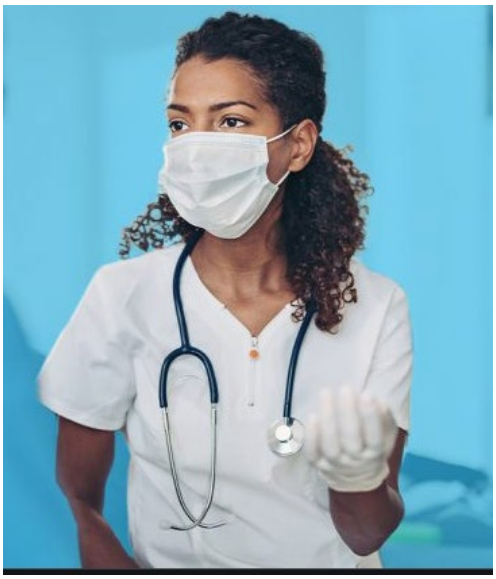
Toxic metals in the environment may increase the risk of atherosclerosis, a buildup of plaque in the arteries that can prevent blood and oxygen from reaching major organs. Arsenic and cadmium, metals that can be found in food, water and



tobacco, plus titanium, which can come from dental and orthopedic implants, cosmetics or auto manufacturing, were associated with a higher likelihood of having clogged arteries in the neck, leg and heart in this study of auto assembly workers in Spain. Current global environmental, occupational and food safety standards may be insufficient to protect people from the adverse effects of metals, according to study authors.

Read more:
https://www.sciencedaily.com/releases/2021/12/211209082606.htm

Jobs With Increased Exposure to COVID-19 Often Filled by Minorities: Study



Certain job characteristics may lead Black and Hispanic workers to be "disproportionately employed in occupations with high COVID-19 exposure risks," according to a recent study from NIOSH.

Researchers examined March and April 2020 data from the agency's Current Population Survey and O*Net – a public occupational database. They found that Black workers were overrepresented in multiple job types with high exposure to infection and decreased ability to maintain physical distancing. These occupations included:

- Occupational and physical therapy
- Health care
- Funeral services
- Law enforcement
- Food preparation and serving
- Social work
- Firefighting and prevention

Read more:
https://www.safetyandhealthmagazine.com/articles/22017-jobs-with-increased-exposure-to-covid-19-often-filled-by-minorities-study

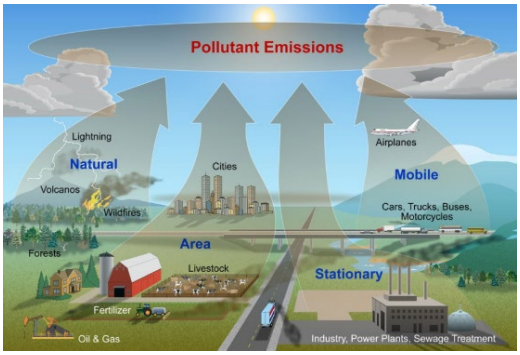
Prenatal Exposure to Phthalates Damages Reproductive Tissue in Female Mice

Phthalates are a ubiquitous family of chemicals that are used every day. In a new study, researchers have investigated how these compounds affect tissue development in the reproductive systems of female mice offspring.

"Phthalates are found everywhere: Building products, personal care products, food and beverage containers, and medical equipment," said Jodi Flaws (EIRH co-leader/MME), a professor of comparative biosciences at University of Illinois Carl R. Woese Institute for Genomic Biology. "My research group focuses on how exposure to these environmental chemicals during pregnancy affect the offspring."

Read more: https://phys.org/news/2021-12-prenatal-exposure-phthalates-reproductive-tissue.html

Specific Components of Air Pollution Identified As More Harmful than Others



Ammonium is one of the specific components of fine particulate matter (PM2.5), that has been linked to a higher risk of death compared to other chemicals found in it, according to a new study in the journal Epidemiology.

This finding stems from the largest global analysis of its kind, conducted by the London School of Hygiene & Tropical Medicine (LSHTM) as part of the Multi-City

Multi-Country (MCC) Collaborative Research Network.

Particulate matter is one of the most dangerous air pollutants—a complex mixture of extremely small particles and liquid droplets which can be directly emitted from natural sources, such as forest fires, or when gases emitted from power plants, industries and automobiles react in the air.

Read more: https://phys.org/news/2021-12-specific-components-air-pollution.html

Radiation

X-Ray Laser Reveals How Radiation Damage Arises

An international research team has used the X-ray laser European XFEL to gain new insights into how radiation damage occurs in biological tissue. The study reveals in detail how water molecules are broken apart by high-energy radiation, creating potentially hazardous radicals and electrically charged ions, which can go on to trigger harmful reactions in the organism. The team led by Maria Novella Piancastelli and Renaud Guillemin from the Sorbonne in Paris, Ludger Inhester from DESY and Till Jahnke from European XFEL is presenting its observations and analyses in the scientific journal Physical Review X.

Since water is present in every known living organism, the splitting of the water molecule H2O by radiation, called the photolysis of water, is often the starting point for radiation damage. "However, the

chain of reactions that can be triggered in the body by high-energy radiation is still not fully understood," explains Inhester. "For example, even just observing the formation of individual charged ions and reactive radicals in water when high-energy radiation is absorbed is already very difficult."

Read more: https://www.sciencedaily.com/releases/2021/12/211206090617.htm

Ventilation

Plexiglass Can Be 'Counterproductive' to Proper COVID-19 Ventilation, Experts Say

Some health experts are urging establishments and institutions to re-think the use of plexiglass as a measure against COVID-19, arguing the barriers can even be "counterproductive" when they obstruct the ventilation needed to avoid spreading the more transmissible delta variant.

Since the start of the pandemic, plastic barriers have become a common sight in places like stores and schools.

But just as the coronavirus has evolved since then, experts say our understanding of the efficacy of those barriers also has to evolve — especially as colder weather and relaxed pandemic rules means more people are indoors.

Dr. Peter Juni, an epidemiologist at St. Michael's hospital in Toronto and a member of the Ontario COVID-19 Science Advisory Table, wants people to "throw out the plexiglass" in most situations.

Read more:
https://www.cbc.ca/news/health/plexiglass-covid-19-ventilation-1.6259887

PPE

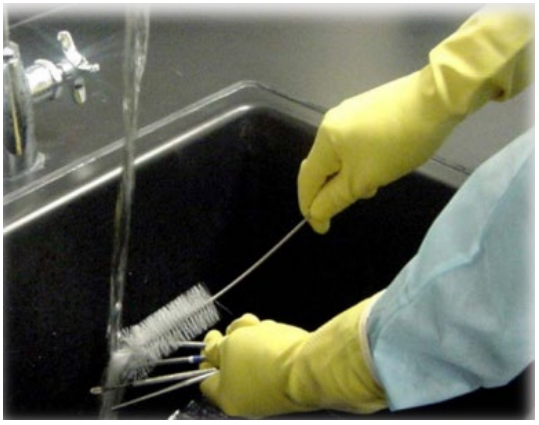
Some Cleaning Methods May Contaminate Health Care Workers and PPE

Routine cleaning methods used to reprocess medical instruments could expose health care professionals to dangerous pathogens due to the splashing in sinks and other areas that it involves. It also matters what kind of personal

protective equipment (PPE) the individuals are wearing. Those are 2 of the findings of a study published in December's American Journal of Infection Control.1

"This hypothesis-generating pilot project found that routine reprocessing activities generated substantial splashing, and currently recommended personal protective equipment did not adequately protect sterile processing personnel from exposure," wrote the investigators, 1 of whom works at St Luke's Hospital in Cedar Rapids, Iowa, and 3 others who work at the medical research firm Ofstead & Associates in St Paul, Minnesota.

Investigators gathered data by covering environmental surfaces and PPE with moisture detection paper. They then



studied the droplet dispersal after health care workers performed routine reprocessing tasks.

Read more:
https://www.infectioncontroltoday.com/view/some-cleaning-methods-may-contaminate-health-care-workers-and-ppe

Noise

How Teachers Can Tackle Noise and Hearing Loss

Teachers are communicators. But they can't communicate what they need to in the classroom if they can't hear what students say. And schools can be noisy places. Not rock concert noisy, but noisy enough to make communication a challenge and potentially impact teachers' hearing. Not to mention, with many schools reopening with mask requirements to help ward off Covid-19, hearing and communicating among teachers and students is even harder — with or without the extra noise.

Studies have shown that noise in classrooms can top 85 decibels, which is the threshold above which prolonged exposure — like an entire school day — can lead to hearing loss. (For reference, a normal conversation occurs at roughly 60 to 70 decibels.) In a frequently cited study, researchers found that 94 percent of teachers they surveyed said their classrooms were too loud and 65 percent complained of hearing issues, including tinnitus, which is that ringing in the ears commonly caused by noise.

Read more:
https://thejournal.com/articles/2021/12/08/how-teachers-can-tackle-noise-and-hearing-loss.aspx

Preventive Medicine

Streamlined Tool Could Help Reduce Airborne Exposure to COVID in Homes

Leveraging ventilation and filtration has been an underutilized strategy for many residents throughout the pandemic because of the technical know-how required to implement these strategies. To help more people use this approach effectively, researchers at the National Institute of Standards and Technology (NIST) have developed a simple interactive webpage featuring the new Virus Particle Exposure in Residences (ViPER) tool.

With ViPER — and some basic knowledge about their homes — homeowners and renters can learn how much certain actions, such as upgrading air filters or opening a window, may lower their risk of exposure to

particles in the air that could potentially transmit COVID-19.

Read more:
https://globalbiodefense.com/2021/12/04/streamlined-tool-could-help-reduce-airborne-exposure-to-covid-in-homes/

Eating Daytime Meals May Reduce Health Risks Linked to Night Shift Work

A small clinical trial supported by the National Institutes of Health has found that eating during the nighttime—like many shift workers do—can increase glucose levels, while eating only during the daytime might prevent the higher glucose levels now linked with a nocturnal work life.

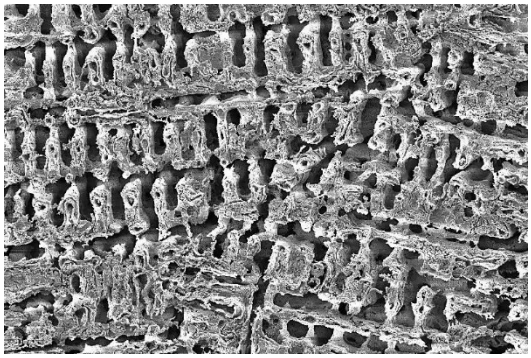
The findings, the study authors said, could lead to novel behavioral interventions aimed at improving the health of shift workers – grocery stockers, hotel workers, truck drivers, first responders, and others – who past studies show may be at an increased risk for diabetes, heart disease, and obesity.

The new study, which the researchers noted is the first to demonstrate the beneficial effect of this type of meal timing intervention in humans, appears online in the journal Science Advances. It was funded primarily by the National Heart, Lung, and Blood Institute (NHLBI), part of NIH.

Read more:
https://scitechdaily.com/eating-daytime-meals-may-reduce-health-risks-linked-to-night-shift-work/

A New Copper Surface Eliminates Bacteria in Just Two Minutes

A new copper surface that kills bacteria more than 100 times faster and more effectively than standard copper could help combat the growing threat of antibiotic-resistant superbugs.
The new copper product is the result of a collaborative research project with RMIT University and Australia's national science agency, CSIRO, with findings just published in Biomaterials.



Copper has long been used to fight different strains of bacteria, including the commonly found golden staph, because the ions released from the metal's surface are toxic to bacterial cells.

Read more: https://phys.org/news/2021-12-copper-surface-bacteria-minutes.html

Cannabis Use Could Cause Harmful Drug Interactions

Using cannabis alongside other drugs may come with a significant risk of harmful drug-drug interactions, new research by scientists at Washington State University suggests.
The researchers looked at cannabinoids—a group of substances found in the cannabis plant—and their major metabolites found in cannabis users' blood and found that they interfere with two families of enzymes that help metabolize a wide range of drugs prescribed for a variety of conditions. As a result, either the drugs' positive effects might decrease or their negative effects might increase with too much building up in the body, causing unintended side effects such as toxicity or accidental overdose.

Read more: https://medicalxpress.com/news/2021-12-cannabis-drug-interactions.html

Black Bears Could Play Important Role in Dispersal of Pathogen-Carrying Ticks

The spread of the blacklegged tick, the primary vector for the pathogen that causes Lyme disease, may be facilitated in Pennsylvania by animals that people rarely associate with it—black bears, according to researchers in Penn State's College of Agricultural Sciences.
In a recently published study, the researchers reported on the presence

abundance and spatial distribution of ticks on black bears, with an eye toward better understanding the bears' role in tick ecology and dispersal and improving on-host surveillance techniques for ticks.

Read more: https://phys.org/news/2021-12-black-important-role-dispersal-pathogen-carrying.html

BPA Use in Doubt As Europe Proposes Vastly More Protective Health Limits

European regulators on Thursday took sharp aim at the common plastic additive BPA, slashing the recommended daily dose by 100,000 and all but ensuring the chemical cannot be used in any product coming into contact with food.

The decision, if it stands, promises to revolutionize the food contact materials industry—particularly food packaging and processing equipment—and bring BPA regulations in line with health concerns that scientists have been warning about for decades.

BPA is a key ingredient in polycarbonate plastic and epoxy resins—added to everything from Tupperware to food can liners. Scientists have long known that BPA leaches out of plastic and into food; virtually every human tested on the planet has some BPA in their blood.

Read more https://www.ehn.org/bpa-canned-food-2656056495/bpa-no-safe-dose

Environmental Health

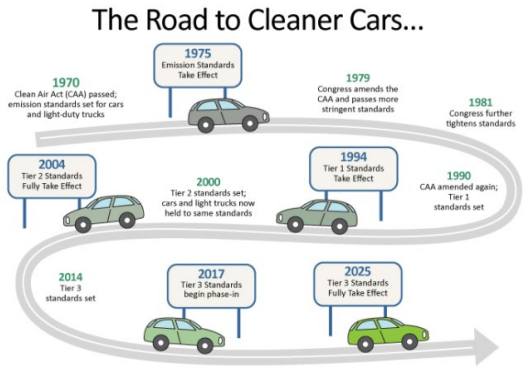
'Forever Chemicals' Latch Onto Sea Spray to Become Airborne

When ocean waves break, microscopic particles break free into the air. For beachgoers, aerosolized sea salts contribute to the tousled "beach hair" look. But other compounds found in seawater, including perfluoroalkyl substances (PFASs), could become airborne as bubbles pop at the

water's surface. Now, researchers reporting in ACS' Environmental Science & Technology have observed in a thorough field study that sea spray pollutes the air in coastal areas with these potentially harmful chemicals.

Read more:
https://www.sciencedaily.com/releases/2021/12/211215082014.htm

Decreased Vehicle Emissions Linked With Significant Drop in Deaths Attributable to Air Pollution



Decreasing vehicle emissions since 2008 have reduced by thousands the number of deaths attributable to air pollution, yielding billions of dollars in benefits to society, according to a new study led by researchers at Harvard T.H. Chan School of Public Health.

The study also found that although the public health burden of large trucks has been greatly reduced, passenger light-duty vehicles, such as SUVs and pickup trucks, continue to contribute a significant amount of air pollution in major metropolitan areas.

The study will be published online on December 13, 2021 in the journal PNAS.

"Recent reductions in vehicle emissions have yielded major health benefits, even though only small progress has been made on reducing their climate impact," said first author Ernani Choma, a research fellow in Harvard Chan School's Department of Environmental Health. "Our results indicate that to achieve further public health and climate gains, even more stringent policies will be required."

Read more:
https://medicalxpress.com/news/2021-12-decreased-vehicle-emissions-linked-significant.html

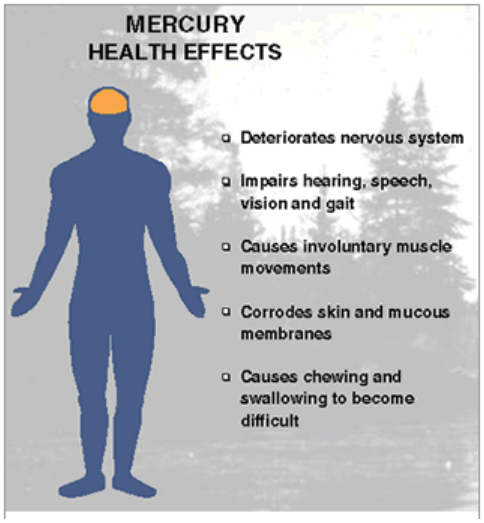
New Research Uncovers Mercury's Long-Term Health Effects

Methylmercury (MeHg) is a well-known neurotoxin that can impact brain development, particularly in utero. A series of new studies from researchers at the University of Rochester Medical Center (URMC) indicate that exposure may disrupt

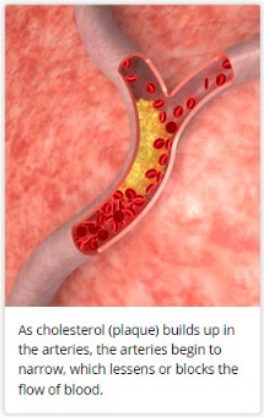
the early development of the connections between muscles and the brain, which could lead to motor control problems later in life.

MeHg enters in the environment in the form of industrial pollution and natural sources, settles in the oceans and is eventually absorbed in plants and other small organisms like plankton. Mercury bio-accumulates as it moves up the food chain and eventually reaches humans in the form of fish consumption, which is a major food source in many parts of the world.

Read more: https://medicalxpress.com/news/2021-12-uncovers-mercury-long-term-health-effects.html



Study Links High Cholesterol, Cardiovascular Disease to Plastics


As cholesterol (plaque) builds up in the arteries, the arteries begin to narrow, which lessens or blocks the flow of blood.

Plastics, part of modern life, are useful but can pose a significant challenge to the environment and may also constitute a health concern. Indeed, exposure to plastic-associated chemicals, such as base chemical bisphenol A and phthalate plasticizers, can increase the risk of human cardiovascular disease. What underlying mechanisms cause this, however, remain elusive.

A team led by Changcheng Zhou, a biomedical scientist at the University of California, Riverside, now raises the hopes of solving the mystery. In a mouse study, the researchers found a phthalate—a chemical used to make plastics more durable—led to increased plasma cholesterol levels.

Read more: https://medicalxpress.com/news/2021-12-links-high-cholesterol-cardiovascular-disease.html

Irish MP Seeks to Give Workers Legal Right to Clean Air

An opposition MP in the Republic of Ireland is pushing for the right to breathe clean air in the workplace to be enshrined in law.

Paul Murphy, who is a member of the People Before Profit socialist party has introduced the Workplace Ventilation private members bill, which recently passed its second reading.

Speaking to Forbes, Mr Murphy said there is "buy in" among the other opposition groups for the proposed legislation, but "there's not much indication that the government may implement it".

He said the bill introduces a legal standard of air quality, which all employees would be

entitled to, including those working in schools.

Read more:
https://www.forbes.com/sites/jamiehailstone/2021/12/14/irish-mp-seeks-to-give-workers-legal-right-to-clean-air/?sh=730788c06bf5

Ergonomics

Soft Tissue Destruction and Lower Back Pain

Back pain affects many people at some point in their lives, and a common cause is damage to the squishy discs or flexible, rubbery tissues of the spine. However, observing this damage at an early stage is difficult with current imaging methods. Now, researchers reporting in ACS Nano can see microscopic soft tissue destruction in animal spines by targeting denatured collagen with fluorescent molecules.

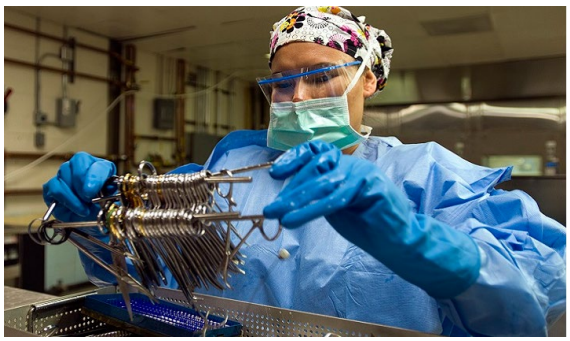
Anywhere along the spine, from the neck to tail bone, can become uncomfortable when its soft and protective tissues, including the cartilage and jelly-like intervertebral discs, become damaged and lose their structure. Daily wear-and-tear, as well as some disorders, such as facet joint osteoarthritis or ankylosing spondylitis, can degrade and unfurl the collagen proteins that give these tissues their bounce and flexibility.

Read more:
https://www.sciencedaily.com/releases/2021/12/211208123103.htm

Safety

Medical Instrument Processing Personnel May Be Exposed to Tissue, Blood, and Patient Fluids: Study

New data published today suggest that personnel who process reusable medical instruments and equipment may be frequently exposed to tissue, blood, and patient fluids even when wearing recommended personal protective equipment (PPE). The findings, which appear in the American Journal of Infection Control, the journal of the Association for Professionals in Infection Control and Epidemiology (APIC), detail the results of a pilot project evaluating splash generation during processing activities in equipment decontamination areas.



Read more: https://apic.org/news/new-research-suggests-medical-instrument-processing-personnel-may-be-exposed-to-tissue-blood-and-patient-fluids-despite-the-use-of-personal-protective-equipment/

Efficacy of Detergent-Based Cleaning Methods against Coronavirus MHV-A59 on Porous and Non-Porous Surfaces

This study evaluated the efficacy of detergent-based surface cleaning methods against Murine Hepatitis Virus A59 (MHV) as a surrogate coronavirus for SARS-CoV-2. MHV (5% soil load in culture medium or simulated saliva) was inoculated onto four different high-touch materials [stainless steel (SS), Acrylonitrile Butadiene Styrene plastic (ABS), Formica, seat fabric (SF)].

Immediately and two-hours post-inoculation, coupons were cleaned (damp wipe wiping) with and without pre-treatment with detergent solution or 375 ppm hard water. Results identified that physical removal (no pre-treatment) removed >2.3 log10 MHV on ABS, SS, and Formica when surfaces were cleaned immediately. Pre-treatment with detergent or hard water increased effectiveness over wet wiping two-hours post-inoculation; pre-treatment with detergent significantly increased ($p \leq 0.05$) removal of MHV in simulated saliva, but not in culture media, over hard water pre-treatment (Formica and ABS). Detergent and hard water cleaning methods were ineffective on SF under all conditions. Overall, efficacy of cleaning methods against coronaviruses are material- and matrix-dependent; pre-wetting surfaces with detergent solutions increased efficacy against coronavirus suspended in simulated saliva. This study provides data highlighting the importance of incorporating a pre-wetting step prior to detergent cleaning and can inform cleaning strategies to reducing coronavirus surface transmission.

Read more: Journal of Occupational and Environmental Hygiene, Accepted author version posted online: 08 Dec 2021 (Available with AIHA membership)

Beer Garden Water Misting Systems Revealed As Potential Health Hazards

They make summer afternoons far more bearable, but new research has revealed water misting systems are a breeding ground for potentially lethal disease causing bacteria—and there are no health regulations in place to protect the public.

Edith Cowan University (ECU) researchers examined 10 water misting systems in Western Australia and found the presence of opportunistic premise plumbing pathogens (OPPPs).
Lead researcher Dr. Edmore Masaka said OPPPs could be inhaled and posed major public health risks, including the spread of Legionnaires' Disease and other potentially fatal conditions.

Read more:
https://medicalxpress.com/news/2021-11-beer-garden-misting-revealed-potential.html

First Responders Need Training to Safely Deal With Automated Vehicles, GHSA Says

A new report from the Governors Highway Safety Association explores what training is needed to keep first responders and crash scene investigators safe when reporting to crash sites involving cars equipped with automated technologies.

Law Enforcement, First Responder and Crash Investigation Preparation for Automated Vehicle Technology, produced by the Virginia Tech Transportation Institute for GHSA, is based off interviews with government administrators, first responders, law enforcement officials, automakers, crash reconstruction experts, insurance professionals and safety advocates.

As the presence of vehicles with a wide variety of automation and driver assistance technologies continues to increase, key

questions facing first responders – including law enforcement officers, firefighters, emergency medical technicians and public safety responders – are:

Read more:
https://www.safetyandhealthmagazine.com/articles/21989-first-responders-need-training-to-safely-deal-with-automated-vehicles-ghsa-says

Experts Offer a Potted Guide to the Hazards of Festive Foliage

Before you merrily deck your halls, researchers in the Christmas issue of The BMJ offer a guide to the potential dangers of plants traditionally associated with the festive season.

To help readers navigate this prickly subject, they first compiled a list of greenery for investigation. This involved speaking to friends and colleagues about the plants they associated with Christmas, checking aisles of shops, garden centers and

florists, and immersing themselves in Yuletide songs, films, and stories.

They then examined each plant against the National Poisons Information Service (ToxBase) database and those listed as toxic were investigated further for evidence of harm.

Read more: https://medicalxpress.com/news/2021-12-experts-potted-hazards-festive-foliage.html

As Earth Warms, Safe Times For Outdoor Work Will Shrink

As heat and humidity levels rise throughout the day because of climate change, options for moving outdoor labor to cooler hours will dramatically shrink, leading to significant worldwide labor losses, a new study led by Duke University researchers finds.

Economic losses associated with this lost productivity could reach up to $1.6 trillion annually if warming exceeds an additional 2 degrees Celsius relative to the present.

Workers in tropical and subtropical regions, particularly in Asia, the Middle East, Africa and the western Pacific, will bear the worst impacts, the study projects.

Read more: https://phys.org/news/2021-12-earth-safe-outdoor.html

Emergency Preparedness

DoD Readies 1,000 Troops to Aid in COVID-19 Response Nationwide

The Biden administration has directed the Defense Department to ready 1,000 military medical professionals for deployment to U.S. hospitals as the Omicron variant of COVID-19 takes hold across the country.

According to the White House, military doctors, nurses, paramedics and other medical personnel will prepare for

mobilization as needed in January and February.

They will be joining roughly 240 personnel already deployed in seven states. Teams of 20 Army, Navy and Air Force members are working in 12 hospitals in Indiana, Wisconsin, Colorado, Michigan, Minnesota, Montana and New Mexico.

Read more:
https://www.military.com/daily-news/2021/12/21/dod-readies-1000-troops-aid-covid-19-response-nationwide.html

Deployment Health

Active Army Achieves 98 Percent Vaccination Rate with Less than One Percent Refusal Rate

The United States Army announced today that 468,459 active-component Soldiers have been vaccinated against COVID-19, fewer than 120 days after a vaccination mandate went into effect for all U.S. service members. That number represents 98 percent of the active-duty force who have received at least one dose of the vaccine, while 96 percent – a total of 461,209 Soldiers – are fully vaccinated. The Army is still processing thousands of exemption requests for those seeking medical or administrative exemptions, including religious exemptions.

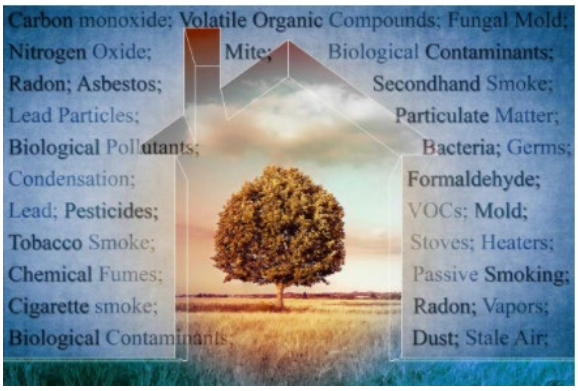
The service established Dec. 15 as the goal for all Soldiers in active-duty Army units to be vaccinated.

Read more:
https://www.army.mil/article/252821/active_army_achieves_98_percent_vaccination_rate_with_less_than_one_percent_refusal_rate

Nanotechnology

Nanocomposites Sensors with Enhanced Sensitivity to Pollutant Gases

Breakthrough research from the journal Nano-structures and Nano-objects has developed composite nanoparticles with WO3 crystallite dimensions of 13–17 nm using a modified sol–gel technique.
The produced nanomaterials were found to have an improved sensing sensitivity to CO, NO2, and acetone.



Having Good Quality Indoor Air
Controlling the quality of indoor air and detecting toxic gases as well as volatile organic compounds are essential priorities for improving workplace and home environments. This necessitates the development of specific gas sensors materials with higher sensing abilities.

Toxic, harmful gases and volatile organic compounds are risky particulate pollution that harms many living things and ecosystems. These gases diverge in their chemical composition, electrical characteristics, and secure concentration limits, and they are frequently found in gas mixtures. As a result, sensor components that can detect various types of gases in a wide range of concentrations and have distinguishable patterns for their electrical parameters that vary based on the atmosphere are in short supply for a wide range of industrial, agricultural, and scientific purposes.

Read more:
https://www.azonano.com/news.aspx?newsID=38390

Regulatory Research & Industrial Hygiene Professional News

Executive Order

President Biden Signs Executive Order Catalyzing America's Clean Energy Economy through Federal Sustainability

President Biden will sign an executive order that demonstrates how the United States will leverage its scale and procurement power to lead by example in tackling the climate crisis. The executive order will reduce emissions across federal operations, invest in American clean energy industries and manufacturing, and create clean, healthy, and resilient communities. The President is building on his whole-of-government effort to tackle the climate crisis in a way that creates well-paying jobs, grows industries, and makes the country more economically competitive.

Read more:
https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/08/fact-sheet-president-biden-signs-executive-order-catalyzing-americas-clean-energy-economy-through-federal-sustainability/

FDA

FDA Issues Draft Device Guidance in Preparation for the End of the Public Health Emergency

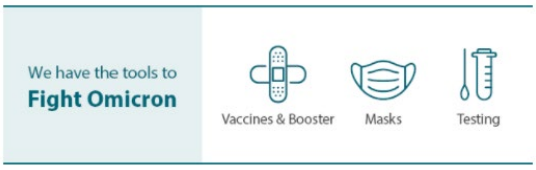
We recently published a post describing FDA's recent actions to roll back enforcement policies implemented in response to the COVID-19 pandemic. On December 22, 2021, FDA took another step in that process by publishing guidance

documents describing the regulatory requirements for devices that were authorized under the emergency use authorization (EUA) process (EUA Devices) and those under temporary FDA policies implementing specific enforcement discretion during the pandemic (Enforcement Policy Devices) once the Public Health Emergency for COVID-19 (PHE) ends.

Read more: https://www.natlawreview.com/article/fda-issues-draft-device-guidance-preparation-end-public-health-emergency

CDC

CDC Updates and Shortens Recommended Isolation and Quarantine Period for General Population



Given what we currently know about COVID-19 and the Omicron variant, CDC is shortening the recommended time for isolation for the public. People with COVID-19 should isolate for 5 days and if they are asymptomatic or their symptoms are resolving (without fever for 24 hours), follow that by 5 days of wearing a mask when around others to minimize the risk of infecting people they encounter. The change is motivated by science demonstrating that the majority of SARS-CoV-2 transmission occurs early in the course of illness, generally in the 1-2 days prior to onset of symptoms and the 2-3 days after.

Read more: CDC Updates and Shortens Recommended Isolation and Quarantine Period for General Population | CDC Online Newsroom | CDC

OSHA

OSHA's Vaccine-or-Testing Rule Is Back, Unless Supreme Court Says Otherwise

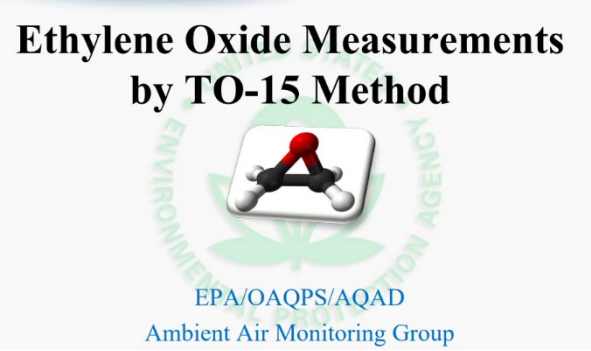
Businesses with at least 100 employees will soon need to determine the COVID-19 vaccination status of their employees and develop a written vaccine-or-testing policy under a revived Occupational Safety and Health Administration (OSHA) rule. Be aware, though, that the U.S. Supreme Court could decide to block the directive again.

On Dec. 17, the 6th U.S. Circuit Court of Appeals lifted the stay on the federal government's rule requiring covered employers to ensure workers are vaccinated against the coronavirus or undergo weekly COVID-19 testing.

Read more:
https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/sixth-circuit-osha-ets.aspx

EPA

Ethylene Oxide Emissions – New EPA Regulations



As previously discussed in our recent reports, the Biden administration and the EPA have been emphasizing environmental justice, which includes a focus on Ethylene Oxide (EtO), an industrial solvent widely used as a sterilizing agent for medical equipment that cannot otherwise be sterilized by heat/steam. EtO may also be used as a component for producing other chemicals, including glycol and polyglycol ethers, emulsifiers, detergents, and

solvents. Allegations that exposure to ethylene oxide emissions may increase the risk of certain cancers will increasingly subject certain companies and industries to governmental regulation and/or private tort actions. In particular, the chemical and healthcare industries must take notice of the increased attention paid to EtO emissions.

Read more:
https://www.natlawreview.com/article/ethylene-oxide-emissions-new-epa-regulations#:~:text=Ethylene%20Oxide%20Emissions%20%E2%80%93%20Recent%20EPA%20Action%20Ending,not%20currently%20obligated%20to%20report%20on%20EtO%20releases

EPA Publishes Draft Scope of the Risk Evaluation for Asbestos Part 2: Supplemental Evaluation Including Legacy Uses and Associated Disposals of Asbestos

The U.S. Environmental Protection Agency (EPA) announced on December 29, 2021, the availability of the Draft Scope of the Risk Evaluation for Asbestos Part 2: Supplemental Evaluation Including Legacy Uses and Associated Disposals of Asbestos (Draft Scope). 86 Fed. Reg. 74088. In the Part 2 risk evaluation, EPA will evaluate the conditions of use of asbestos (including other types of asbestos fibers in addition to chrysotile) that EPA had excluded from Part 1 as legacy uses and associated disposals, as well as any conditions of use of asbestos in talc and talc-containing products. The Draft Scope includes the conditions of use, hazards, exposures, and the potentially exposed or susceptible subpopulations

(PESS) that EPA plans to consider in conducting the risk evaluation for this chemical substance.

Read more:
https://www.jdsupra.com/legalnews/epa-publishes-draft-scope-of-the-risk-6075140/

APHC

Training

As we continue to combat the COVID-19 virus, we are making our best efforts to provide you with Blueprint, Design Review, and Ventilation lessons that otherwise you'd travel to acquire.

Due to the changing MS TEAMS and DCS environments, and the ability to host a live event with hundreds of participants, we've been providing "Pre-recorded" webinar events.

All handouts are made available, and can be downloaded from your Blackboard webinar course shell with recorded material for you to view ad-hoc, and participation certificates awarded for each lesson survey/evaluation completed.

You may ask yourself "what's the difference between a live webinar and a pre-recorded webinar?"

Not only does a pre-recorded webinar allow you to view in your own time zone at a time most convenient for you, it allows us to edit and re-record segments, swap out segments that didn't work so well, add effects, graphics, and more in the post-production stage.

Pre-recorded webinars give a more polished effect than a live webinar. Right now, we're all adjusting to having more remote meetings, watching broadcasts instead of attending live events, and spending a little more time on our computers than doing surveys.

It is our goal to connect with you, getting you the relevant and emerging information you need to help your clients. Our sustainment webinars, whether live or pre-recorded, can help you achieve those goals.

How to participate in a "pre-recorded" webinar:

1. Navigate to your "Army Industrial Hygiene Webinar" shell on our Blackboard site https://aiph-dohs.ellc.learn.army.mil
2. Use the left navigation tile to locate SPECIAL EDITION WEBINARS
3. Select each webinar link to view
4. Record case sensitive code words while viewing
5. Use the left navigation tile to locate COLLECT CERTIFICATES
6. Select the link for your webinar and use code word to initiate certificate

NOTE: Our classroom space is not allowing traditional classroom courses due to the pandemic. We continue our efforts to provide relevant content that aligns with these courses via our webinars.


DOCUMENT LIBRARY
COLLECT CERTIFICATES
NEW WEBINARS
ASK THE SME RECORDINGS
MANAGE YOUR IH MONSTER RECORDINGS
ARMY IH FEILD OP MANUAL RECORDINGS
IH LEADER RECORDINGS
SPECIAL EDITION WEBINAR RECORDINGS
All slide handouts are here
Most recent recordings here
SME recording archive
MONSTER recording archive
FOM recording archive
LEADER recording archive
Special Edition archive


ABOUT THE "ASK THE SME" WEBINARS
These "Ask the SME" Webinars are about communicating freely with subject matter experts.
Most of the subject matter experts have lead in slides to spark conversation, and then take questions from the live a
If you are here, then you probably missed the live event. That's OKAY. This is why we provide recordings.
If you have questions for the subject matter experts that
ot addressed during the live event, we encourage yo
Description
SLIDE HANOUTS: Ask the SME Webinars
Enabled: Statistics Tracking
Attached Files:
11/4/2016 Monster: All About ANOVA (1.918 MB)
11/14/2018 SME: Hexavalent Chromium 48min (451.598 KB)
2/27/2019 SME: Ergonomics 51min (402.939 KB)
8/6/2019 SME: Pharmacy Hazardous Drug Samples 28min (1.569 MB)
3/4/2020 SME: APHC Analytical Lab (1.425 MB)
6/17/20 SME: IH Contract Technical Monitors (1.0hr) (773.407 KB)
OWAS Table.doc (90.5 KB)
Liberty Mutual Tables.pdf (874.9 KB)
OWAS Postures.pdf (135.149 KB)
12/2/20 SME: DOEHRS-IH Report Standardization 90min
Example Standardized Ergo Survey (4.361 MB)
Handouts
Download Handouts
Recordings
12/2/20 SME: DOEHRS-IH Report Standardization 90min
Enabled: Statistics Tracking
Look for slide handouts and a copy of the Army DOEHRS IH Buddy v0.7 in the SLIDE HANDOUTS above, or the DOCUMENT LIBRARY section of this course
12/2/20 SME: Downdraft Ventilation Q/A 7min
Enabled: Statistics Tracking

Downdraft Day	
12/2/20 Monster: Building Downdraft Tables in DOEHRS-IH (52min)	THEME: CONTROLING AIR CONTAMINANTS
12/2/20 Leader: Measuring Downdraft Tables (42min)	THEME: CONTROLING AIR CONTAMINANTS
12/2/20 SME: Downdraft Ventilation Q/A	THEME: CONTROLING AIR CONTAMINANTS
12/2/20 SME: DOEHRS-IH Report Standardization (30min)	THEME: MANAGING ARMY IH
12/2/20 Leader: Compressed Air use with Heavy Metals (30min)	THEME: CONTROLING AIR CONTAMINANTS

Vehicle Maintenance Day	
3/3/21 Monster: Building Vehicle Exhaust Ventilation in DOEHRS-IH (72min)	THEME: CONTROLING AIR CONTAMINANTS
3/3/21 Leader: Measuring Vehicle Exhaust Ventilation (50min)	THEME: CONTROLING AIR CONTAMINANTS
3/3/21 Leader: Vehicle Design Review (2hr)	THEME: CONTROLING AIR CONTAMINANTS
3/3/21 SME: Vehicle Exhaust Ototoxins (40min)	THEME: CONTROLING AIR CONTAMINANTS
3/3/21 SME: IH Manpower Study Survey (14min)	THEME: MANAGING ARMY IH

Coating/Painting Day	
6/2/2021 Monster: Building Paint Booths in DOEHRS-IH (60min)	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 Leader: Measuring Paint Booths (37min)	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 Leader: Paint Spray Design (65min)	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 SME: Data Mining DOEHRS-IH (Paintbooth Accident Investigation) (17min)	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 SME: DOEHRS Cadmium Data/Protecting Against Cadmium 49min	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 SME: Protecting Against Cadmium (combined with Cadmium Data)	THEME: CONTROLING AIR CONTAMINANTS
6/2/2021 Leader: Particle Size Selective Sampling 35min	THEME: SAMPLING
6/2/2021 Leader: IH Professional Sampling Kit 20min	THEME: SAMPLING
6/2/2021 SME: Surface Sampling 18min	THEME: SAMPLING

Laboratory/Healthcare Day	
9/1/2021 Monster: Building Lab Hood Ventilation in DOEHRS-IH (64min)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 Monster: Building Dilution Ventilation in DOEHRS-IH (93min)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 Leader: IH Value Strategy Laboratory Engineering Controls (17min)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 SME: Sampling Qualifiers (15min)	THEME: SAMPLING
9/1/2021 Leader: Laboratory Design (2hr)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 Leader: Methylene Chloride (Workplace, Data Mining, Virtual Tour) (2hr)	THEME: SAMPLING
9/1/2021 Leader: Healthcare Ventilation and Design (3hr)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 Leader: OHS for Laboratory/Healthcare (Overview, Risk Management, IH Role, Virtual Tours) (3hr)	THEME: SAMPLING
9/1/2021 Leader: Modeling Laboratory/Healthcare Exposures in DOEHRS-IH (60min)	THEME: CONTROLING AIR CONTAMINANTS
9/1/2021 Leader: Laboratory/Healthcare Compliance Survey Tour (2hr)	THEME: SURVEY
9/1/2021 SME: Ergonomic Patient Handling (28min)	THEME: HAZARD EVALUATION AND CONTROL

REVIEW	*Recommended Healthcare/Laboratory lessons if you have not already viewed these previously)*
Leader	Adventures in Ventilation at Natick Laboratories (68min)
Monster	Pathology, Grossing, Morgue, Tissue, and Death Care (1.5hr)
SME	Pharmacy Hazardous Drug Samples (28min)
Leader	Audiometric Booth Testing and Certification (17min)

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

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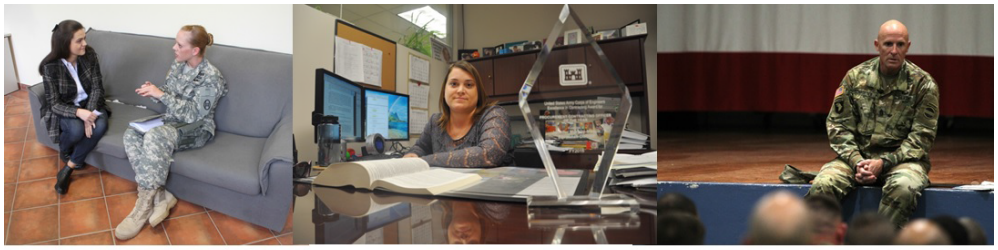
http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/default.aspx



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.