



AMERICAN SOCIETY OF SAFETY PROFESSIONALS NORTH FLORIDA CHAPTER

OCTOBER 2018 NEWSLETTER

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Harvard Study Finds That During Heat Waves, People Can’t Think Straight

Yes, Fall is upon us. But it’s still very hot in Florida and if things progress as usual, the heat will continue into January. With that said, have you felt during one of our recent sweltering days that it’s just so hot you can’t think straight? Well, perhaps you really cannot.

Harvard researchers studied students in dorms with and without air conditioning during a heat wave. They found that the students suffering through the heat performed worse on a series of cognitive tests.

The researchers from the Harvard T.H. Chan School of Public Health published their results recently in the journal *PLOS Medicine*.

A great deal of research on the health effects of heat has focused on vulnerable groups such as the elderly. That may have created the perception

that most people aren’t affected by heat waves, Jose Guillermo Cedeño-Laurent, research fellow at Harvard Chan School and lead author of the study, said in a statement from the university.

Knowing how the heat affects other groups is critical, he said, “considering that in many cities, such as Boston, the number of heat waves is projected to increase due to climate change.”

Extreme heat is the leading cause of death of all meteorological phenomena in the United States, the researchers said. Global temperatures are reported to be on the rise. The National Oceanic and Atmospheric Administration (NOAA) says 2017 was the third-warmest year ever recorded globally, while 2016 was the warmest,



and 2015 was the second-warmest.

Researchers studied 44 students in Boston in their late teens and early 20s. Twenty-four lived in air-conditioned buildings. The other 20 lived in buildings that did not have air conditioning.

The study was conducted over a 12-day period in the summer of 2016. The first five days temperatures were seasonable, then came a five-day heat wave, then a two-day cooldown.

The students were asked to take two tests on their smartphones right after waking up each day. The test results showed that during the heat wave students without air conditioning experienced decreases across five measures of cognitive function. The students, for example, experienced 13.4 percent longer reaction times on a test where they were asked to correctly identify the color of displayed words. They also

had a 13.3 percent lower scores on basic arithmetic questions.

The study has “implications for basically millions of people that could be suffering this detriment to cognitive function,” Cedeño-Laurent said in a telephone interview.

He said he hoped the study results could “drive a change in the way we approach climate change by making it personal.”

During the cooldown period after the heat wave, the differences continued, the researchers said, warning that the effects of a heat wave linger in buildings — and American adults spend 90 percent of their time indoors.

“Indoor temperatures often continue to rise even after outdoor temperatures subside, giving the false impression that the hazard has passed, when in fact the ‘indoor heat wave’ continues,” Joseph Allen, co-director of the Center for Climate, Health, and the Global

Environment at the Chan School.

“In regions of the world with predominantly cold climates, buildings were designed to retain heat. These buildings have a hard time shedding heat during hotter summer days created by the changing climate, giving rise to indoor heat waves,” Allen, one of the study’s senior authors, said in the statement.

So for those of us residing in Florida, it’s business as usual.

Boston Globe

Online Edition

July 10, 2018

[Boston Globe](#)

Vaping Instead of Smoking Still Exposes You to Toxic Metals

Before reading this article, be aware that the ASSP exists to promote safety and health for everyone. In as much as we want to avoid condemning any particular industry, we want to make people aware of things that could be hazardous



to their health and safety and then let them make up their own mind as to the level of hazardousness. Moreover, the information presented in our newsletter articles does not necessarily reflect the views of ASSP members.

With that said, a new study found that people who vape may be inhaling potentially dangerous levels of toxic metals such as lead. Most research suggests vaping is a healthier alternative to smoking, especially for adults who want to quit. But those studies have also revealed some of its potential downsides.

In addition to inhaling burned tobacco and tar, smokers [breathe in toxic metals](#) like cadmium and beryllium, as well as metallic elements such as nickel and chromium. All of these elements accumulate naturally in the leaves of the tobacco plant.

[Most of the available evidence](#) suggests that vaping, which involves puffing on

vaporized liquid nicotine instead of inhaling burned tobacco, is at least somewhat healthier.

In 2015, a group of researchers from medical schools across the globe decided to find out just what was inside the vapors that e-cigarette users were inhaling.

What they discovered is that trapped deep in the aerosol particles that people who vape breathe in were some of the same toxic metals and metallic elements found in conventional cigarettes. The elements include cadmium and nickel. They also found potentially unsafe levels of several other dangerous substances such as arsenic, chromium, and manganese.

So if you know someone who vapes, at least make them aware of the research and let them make up their own mind.

The findings were published in the journal [Environmental Health Perspectives](#).

ISHN

Online Edition

August 13, 2018

[ISHN](#)

University of Copenhagen researchers have discovered a surprising tactic of pathogenic bacteria when being attacked by antibiotics: hibernation

Almost all pathogenic bacteria develop a small number of antibiotic-tolerant variants. This means that a significant fraction of bacteria survive courses of antibiotics. While it is no secret that pathogenic bacteria are able to develop antibiotic resistant variants, a less well-appreciated fact is that a small number of bacteria, including some of nature's nastiest pathogens, can resist antibiotics and escape antibiotic treatments without relying on variants.

How's that, you might ask? Well, researchers at the University of Copenhagen now think that they have an answer for you. They have found



examples of a small portion of pathogenic bacteria hiding out in a dormant, hibernation-like state, until the danger posed to them by antibiotics has passed. When safe, they awaken and resume their normal pathogenic functions.

"We studied *E. coli* bacteria from urinary tract infections that had been treated with antibiotics and were supposedly under control. In time, the bacteria re-awoke and began to spread once again," explains Professor Kenn Gerdes of the University of Copenhagen's Department of Biology.

The study, led by Professor Gerdes of UCPH, and Boris Macek of the University of Tübingen, has just been published in the latest edition of the journal *Science Signaling*.

The bacterium's stop growth mechanism

Antibiotics usually target a bacteria cell's ability to grow, which means that a hibernating bacterium is exempt from attack.

"A bacterium in hibernation is not resistant. It is temporarily tolerant because it stops growing, which allows it to survive the effects of an antibiotic," says Professor Gerdes.

Genetically, hibernating bacteria share the same characteristics as other bacteria in a given population, an *E. coli* population for example. So, for now, there are no clear rules as to why certain bacteria survive antibiotics by going dormant while others do not.

Enzyme catalyzes hibernation

The researchers found an enzyme in dormant bacteria that is responsible for catalyzing hibernation, which allows the bacteria to avoid being attacked. "The discovery of this enzyme is a good foundation for the future development of a substance capable of combatting dormant bacteria cells," says Professor Gerdes.

The road ahead will not be easy and will require many years of hard work, expertise

and research funding to develop new antibiotics.

For Gerdes, it is obvious that Denmark ought to play a leading role in this area of research. "The enzyme triggers a 'survival program' that almost all disease-causing bacteria deploy to survive in the wild and resist antibiotics in the body. Developing an antibiotic that targets this general programme would be a major advance," he says.

Science Daily

Online Edition

September 20, 2018

[Science Daily](#)

EPA Rule May Expand Asbestos Use

The [Environmental Protection Agency](#) has a proposal on the drawing board that critics say could expand the use of [asbestos](#). Since the health hazards of asbestos, an industrial material known to cause cancer and lung disease, emerged 40 years ago, use of the material has dropped dramatically across



the globe. By 2013, [more than 60 countries](#) had implemented partial or full bans of asbestos. However, critics and news reports tell us that the proposed rule would open the door for asbestos to make a comeback.

Many people think that asbestos is banned in the U.S., but they're wrong, Thomas Burke, an environmental epidemiologist at Johns Hopkins University Bloomberg School of Public Health told *Science* magazine. Today, you can find asbestos in brake liners, [potting soil](#), [chlorine](#), factories and firefighters' clothing.

Meanwhile, homeowners and communities continue to deal with the fallout of having used asbestos for [clothing](#) and [building material](#) for thousands of years, most recently as a flame retardant, wall insulation and liner for cement pipes.

"Unfortunately, we all have asbestos fibers in our lungs — whether it's from the subway stations of New York, to the

brakes on cars to background exposure from the historical use in insulation of pipes in our grade schools," said Burke, who chairs Health Risk and Society program at the Bloomberg School of Public Health. "These asbestos fibers are tiny, and they get in your lungs. They're like needles, and they stick there forever."

If the new EPA proposed regulation is certified, here are the products where asbestos could possibly resurface.

- Adhesives, sealants, and roof and non-roof coatings
- Arc chutes
- Beater-add gaskets
- Extruded sealant tape and other tape
- Filler for acetylene cylinders
- High-grade electrical paper
- Millboard
- Missile liner
- Pipeline wrap
- Reinforced plastics
- Roofing felt
- Separators in fuel cells and batteries
- Vinyl-asbestos floor tile

- And any other building material (other than cement).

Comfortingly, most people don't encounter enough asbestos to suffer health problems; but high exposure has been linked to lung cancer, lung scarring and tumors in the linings of internal organs - a cancer known as mesothelioma.

The EPA began outlawing asbestos for building materials in 1975, starting with pipe insulation. By 1989, the agency had issued a final rule for a near-total ban of the mineral, under the authority of the Toxic Substances Control Act.

Yet in 1991, the 5th U.S. Circuit Court of Appeals vacated the EPA's rule, leaving the door open for the importing and manufacturing of asbestos-containing products. The rule calls on manufacturers to alert the EPA if they try to use asbestos in an array of products, including adhesives, sealants, and roof and non-roof coatings;



separators in fuel cells and batteries; vinyl-asbestos floor tile; and any other building material (other than cement).

Will the proposed rule trigger an increase in asbestos use? No one will know for sure until the rule is confirmed, and the EPA begins reviewing new applications for the material's use.

ISHN

Online Edition

August 13, 2018

[ISHN](#)

OSHA NEWS

U.S. Department of Labor Updates National Emphasis Program on Trenching and Excavation Safety

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) has updated the National Emphasis Program (NEP) on preventing trenching and excavation collapses in

response to a recent spike in trenching fatalities.

OSHA's [NEP](#) will increase education and enforcement efforts while its inspectors will record trenching and excavation inspections in a national reporting system, and each area OSHA office will develop outreach programs.

"Removing workers from and helping workers identify trenching hazards is critical," said Deputy Assistant Secretary of Labor for Occupational Safety and Health Loren Sweatt. "OSHA will concentrate the full force of enforcement and compliance assistance resources to help ensure that employers are addressing these serious hazards."

The emphasis program began October 1, 2018, with a three-month period of education and prevention outreach. During this period, OSHA will continue to respond to complaints, referrals, hospitalizations, and fatalities. Enforcement activities will begin after the outreach

period and remain in effect until canceled. OSHA-approved State Plans are expected to have enforcement procedures that are at least as effective as those in this instruction.

To complement this [NEP](#), OSHA has developed a series of [compliance assistance resources](#) to help keep workers safe from trenching and excavation hazards. The [trenching and excavation webpage](#) provides information on trenching hazards and solutions.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to help ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance.

OSHA Trade Release

Online Edition

October 2, 2018

[OSHA.Gov](#)



Job Market Links

[ASSE](#)

[BCSP General Safety Jobs](#)

[BCSP Construction Safety Jobs](#)

[BCSP Industrial Hygiene Jobs](#)

[EHS Careers](#)

ASSE Chapter Links

Find us on the web at:

[ASSP NFL](#)

Find us on Facebook at:

[ASSP NFL](#)

Local Chapter Officers and Chairs

Elected Officers

- President - Steve Brown
- President Elect - Bob Dooley
- Secretary - Steve Wilson
- Treasurer - Yaniv Zagagi
- Delegate - Dave Bedsole

Appointed Chairs

- Membership Chair - Eric Gray
- Program Chair - Tom Drygas
- Newsletter Chair – Bob Dooley
- Social Chair – Ben Yancy

- SPY Awards Chair – Ben Yancy
- Social Media Chair - Vernon Adams
- Past President - Dan Hemsall

Local Chapter Information

The North Florida Chapter of the American Society of Safety Professionals, formerly the American Society of Safety Engineers, was chartered in 1952 and currently has more than 165 members.

Professional meetings are held nine times per year in the Jacksonville area.

Meeting notices are distributed and RSVP's are returned by email. If you are a member of ASSP and are not receiving notices by email, please email the [Chapter Secretary](#).

Local Chapter

Meeting Schedule

Date: October 17, 2018

Topic: Smith Driving System

Speaker: David Gonzalez

Time: 11:30 Lunch & Networking

12 Noon Meeting and Technical Session

Location: Northeast Florida Safety Council

1725 Art Museum Drive
Building B, Classroom D
Jacksonville, FL 32207
904-399-319

Future Meeting Dates and Topics

- November 21, 2018 – Hazardous Waste / RCRA
- December 2018 - Winter Social
- January 16, 2019 - Zoo Safety
- February 20, 2019 - Fire Academy
- March 20, 2019 - Annual OSHA Update
- April 17, 2019 KAMAN Aerospace Facility Tour
- April – Worker's Memorial Date and Time TBA
- May 15, 2019 - Construction Safety Topic



Local Chapter Member Recognition

Each year at this time, the ASSP recognizes members who have been a part of the organization for long periods of time. This year, the ASSP and local chapter is proud to recognize Francis R. Kuerzi, CSP, CSHM for 25 years of membership and service. Thank you Francis and congratulations.

we most-certainly appreciate your help.

Help Wanted – We Need Leadership Volunteers

Local Chapter elections are coming soon, and volunteers are needed to support the various functions of the chapter. If you are interested and able to devote time to the local chapter, please contact [Dan Hempsall](#) (Nominations Chair) or [Steve Brown](#) (President) for details. We believe that you will enjoy the experience and comradery and