

eNews: Volume 19, Number 7 (November 2021)

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Director's
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Volume 19, Number 7 (November 2021)

From the Director's Desk

John Howard, M.D. Director, NIOSH

Keeping Delivery Workers Safe During the Holiday Season

The approach of the holiday season brings with it thoughts of celebration, good food, and time spent with friends and family. But for workers who drive for a living, it means increased driving caused in part by online shopping. Delivery and transportation companies and their workers face other unique challenges this year. These result from high demand from shoppers, worker shortages causing the need to hire temporary workers, and supply chain issues related to COVID-19.

Employers can use [journey management](#) principles to keep these workers safe while still doing their best to supply holiday shoppers with their gift giving needs. Journey management is an approach that guides how a company manages transportation risk. It has clear safety benefits and cost savings, including minimizing risks associated with necessary trips, reducing fuel costs, increasing efficiency, and more. Employers can apply journey management by assessing risks on regularly traveled routes (including road conditions, construction, and closures), combining trips and loads, and setting work schedules that allow workers to obey speed limits and follow federal regulations that limit hours of driving. Another important part of journey management is communication between the driver and supervisor to ensure that the driver reaches the destination safely. These practices are particularly relevant this holiday shopping season as delivery and transportation drivers work long hours to meet high demand.

Employers can also set policies that allow drivers to consult with their supervisors to adjust driving hours if they have trouble seeing at night, if road conditions are too hazardous, or if they are fatigued. Long work hours, inadequate sleep, and job stress can all contribute to fatigue. Fatigue affects the ability to drive safely, and with increased traffic during the holidays, a fatigued worker behind the wheel is a danger on the road. Employers can educate supervisors and workers about the [symptoms of fatigue](#) and encourage self-reporting. Research shows that if a



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worker feels fatigued while driving, they can pull over, drink a cup of coffee, and nap for 15 to 30 minutes before continuing. It's also important for those who drive for work to be aware that during the holiday season, other drivers may be more likely to be impaired, fatigued, or rushed to reach their destinations.

With the seasonal increase in demand for drivers, many employers may be hiring temporary drivers for the holiday season. If you hire temporary drivers, plan ahead to check their qualifications just as you would for any new employee.

The bottom line is to ensure that your employees, your most important asset, get from point A to point B in the safest way possible. Don't let safety take a holiday.

Learn more and find additional resources to share with your employees on the [NIOSH motor vehicle safety at work webpage](#).

- [Save the Date—Protecting the Mental Health of Health Workers Webinar](#)
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Research Rounds

For the NIOSH 50th Anniversary, please enjoy this limited time series of "NIOSH Now" and "NIOSH Then" where we look back at research efforts inside & outside of NIOSH from the past 50 years.

NIOSH Now:

Lung Inflammation in Poultry Farm Workers Linked to Dust Bacteria

Can dust from poultry farms cause sickness in agricultural workers? The answer is yes, and the problem may be linked to bacteria particles, according to a study in the [American Journal of Physiology: Lung Cellular and Molecular Physiology](#) .


On modern livestock farms, the air in animal feeding operations has high levels of dust. The dust includes animal dander, feathers, food particles and endotoxin, and gases such as ammonia, methane, and hydrogen sulfide as well as bacteria and other microorganisms. Research shows dust exposure is linked to short-term and chronic respiratory symptoms and diseases in agricultural workers. This includes problems with the lower and upper respiratory tract, bronchitis, and chronic obstructive pulmonary disease (COPD). Poultry farm workers, specifically, have frequent and severe respiratory symptoms. However, while dust has been linked to lung inflammation, little is known about what parts of the dust contribute to this problem.

To learn more, the NIOSH-funded Southwest Center for Agricultural Health, Injury Prevention and Education investigated whether poultry dust contains bacteria-derived extracellular vesicles and if these particles, which are shed from bacteria, are linked to lung inflammation. Researchers collected dust samples from two East Texas poultry farms and separated out bacteria-derived extracellular vesicles. They then exposed three different cell types from humans and mouse lungs to the vesicles and observed whether inflammation occurred.

This study is the first to show that bacteria-derived extracellular vesicles are in poultry dust and induce lung inflammation. These findings are important because poultry farm dust contains high levels of bacteria. However, because this is the first time these vesicles were identified in agricultural dust, researchers say more studies on other types of agricultural dust are needed to further understand the link between extracellular vesicles and lung


to further understand the link between extracellular vesicles and lung inflammation. More studies are also needed on poultry workers' exposure to the vesicles.

More information is available:

- [NIOSH | Centers for Agricultural Safety and Health](#)
- [Southwest Center for Agricultural Health, Injury Prevention, and Education at the University of Texas Health Science Center at Tyler](#) 

NIOSH Then:

Back Belts Do Not Prevent Low Back Pain or Injury


More than two decades ago, an influential study found that back belt use did not reduce low back pain or workers' compensation claims for back injury. One of the largest of its kind, this 2000 study, published in the *Journal of the American Medical Association* , highlighted the importance of preventing low back pain and injury through other means.

Back injury is one of the most common types of workplace injuries and a leading cause of missed workdays, lost productivity, and workers' compensation claims. A back belt is a wide, lightweight belt designed to support the low back and protect it from injury during strenuous tasks such as heavy lifting. Before the study, the effectiveness of back belts in preventing low back pain and injury was unknown, even as their use increased.

Conducted from April 1996 through December 1998, study participants included 6,311 material-handling workers. On average, they were in their mid-30s, and slightly more than half were women. They represented 160 retail stores in 30 states, with 89 stores requiring back belt use, and 71 allowing voluntary use. Participants completed an initial questionnaire about their use of back belts. They did a follow-up questionnaire about 6 months later about their experience of low back pain in those past 6 months.

Using payroll records and workers' compensation claims, the researchers compared back injury frequency between stores with mandatory versus voluntary back belt policies and between workers who used them and those who did not. Overall, the likelihood of low back pain was comparable, with nearly one out of five workers reporting four or more episodes during the study period, regardless of back belt use. Similarly, the frequency of workers' compensation claims for back injury was comparable between all of the study participants. NIOSH continues to study the prevention of low back pain and injury through the design of safer workplaces and tasks.

More information is available:

- [NIOSH | Ergonomics and Musculoskeletal Disorders](#)
- [NIOSH | Ergonomic Guidelines for Manual Material Handling](#) 

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[What's this?](#)

Highlights

COVID-19 Update

As part of NIOSH's efforts to keep our stakeholders up to date on the CDC and NIOSH COVID-19 response, here is a summary of new information available.


- **New Tool Helps to Identify COVID-19 Patterns and Outbreaks Among Industries and Occupation**

NIOSH researchers recently participated in the development and review of an updated version of the [document](#)  [document](#)  that introduces the SARS-CoV-2 (the virus that causes COVID-19) Occupational Exposure Matrix (SOEM) tool. This tool can be used to identify patterns of COVID-19 cases and outbreaks to better understand if a person's job contributes to the spread of COVID-19. It also helps to see if there are racial and economic inequalities in states or jurisdictions. The tool development was led by the Council of State and Territorial Epidemiologist (CSTE). The tool and other related resources can also be found in the [NIOSH Clearinghouse](#) and [CSTE publications](#)  pages.


- **Real Life Examples of NIOSH Coding System Use in Identifying COVID-19 Outbreaks by Industry and Occupation**

The Wisconsin Department of Health Services (DHS) recently linked its Electronic Disease Surveillance System (WEDSS) to the [NIOSH Industry and Occupation Computerized Coding System \(NIOCCS\)](#) allowing the Wisconsin DHS to obtain industry and occupation codes much faster than before. The DHS has used this new system to identify COVID-19 outbreaks by industry and occupations.

Save the Date—Protecting the Mental Health of Health Workers Webinar

Dr. Vivek Murthy, Surgeon General of the United States, will join NIOSH Director Dr. John Howard and other national experts from labor and medicine to discuss the mental health of the health workforce on November 18, at 2:30 p.m. (EDT). [Register](#)  to attend!

Funding Available for Occupational Safety and Health Training Project Grants

NIOSH recently published a [funding announcement](#)  for the [Occupational Safety and Health Training Project Grants \(TPGs\)](#). NIOSH supports training in occupational safety and health through the TPGs, which include academic training programs that support undergraduate, graduate, and post-graduate training, along with programs that respond to the unique training needs of specialty groups. The deadline to apply is December 17.




Study Finds Over Half of Noise-Exposed Workers Do Not Use Hearing Protection When Exposed to Noise on the Job

A new NIOSH study estimates that over half of noise-exposed workers didn't use hearing protection "always" or "usually" when exposed to hazardous occupational noise. Hearing protection device non-use was only measured in workers who reported exposure to noise on the job. Read the [full NIOSH update](#).



NIOSH Congratulates: Former NIOSH Researcher Awarded American Public Health Association Award

Dr. Eileen Storey was awarded the [2021 Alice Hamilton Award](#)  from the American Public Health Association's Occupational Health and Safety Section during its annual awards ceremony (virtual) on October 27. This award recognizes the life-long contributions of individuals who have distinguished themselves through a career of hard work and dedication to improve the lives of workers. Before her retirement from NIOSH, Dr. Storey served as the Chief of the Surveillance Branch in the NIOSH Respiratory Health Division in Morgantown, West Virginia. In that position, she led a number of initiatives, including to improve health surveillance for coal miners and for workers exposed to isocyanates and to improve collection and use of work information in electronic health records. Dr. Storey passed away in September and her husband accepted the award on her behalf.

Monthly Features

New Communication Products & Reports

New Communication Products & Reports



FACE Report

- [Machine Operator Fatally Struck By Safety Block Ejected From Mechanical Power Press—New York](#)

Fire Fighter Fatality Investigation and Prevention Program Report

- [Firefighter Suffers Fatal Cardiac Event while Assisting With a Medical Call—Illinois](#)

Health Hazard Evaluation Reports

- [Evaluation of Occupational Exposure to Opioids in a City Police Department](#) 
- [Evaluation of Occupational Exposures to Opioids, Mental Health Symptoms, Exposure to Traumatic Events, and Job Stress in a City Fire Department](#) 

Program Performance One-Pager (PPOP)

- [Respiratory Health Program](#)

Technical Report

- [A Guide to the Collection of Occupational Data for Health: Tips for Health IT System Developers](#)

Workplace Solutions

- [Conducting a Daily Inspection of Powered Industrial Trucks \(Forklift, Narrow-Aisle Reach Truck, Walkie Pallet Lift, and Tow Tractor/Tug\)](#)

NIOSH Science Blog

Please see the following new blogs from August. [Sign up](#) to have notifications about new NIOSH Science Blogs delivered directly to your inbox!

- [Understanding Workplace Ageism](#)
- [Where Health Literacy Meets Inclusion](#)
- [NIOSH “L” Building Marks 25 Years of Innovative Research](#)
- [National Nanotechnology Day: A Big Day for Small Things](#)
- [Using CPWR’s Small Study Program to Explore Emerging and Persistent Health and Safety Hazards and Innovative Solutions in the Construction Industry](#)
- [Supportive Leaders Drive Organizational Improvements and Employee Health and Well-being](#)
- [Digital Version of the Impactful Revised NIOSH Lifting Equation Applications Manual Now Available](#)
- [10 Steps Employers Can Take to Keep Young Drivers Safe](#)
- [From Brick and Mortar to Beyond: Protecting Workers in the Wholesale and Retail Trade Industries](#)
- [The Role of Demographics in the Future of Work](#)
- [Advanced Sensor Technologies and the Future of Work](#)
- [The Rise and Fall of Lead in the Workplace](#)
- [A Way Forward: The Translational Impacts of World Trade Center Health Program Research](#)
- [50 Years of NIOSH and 30 Years of NIOSH in Alaska](#)
- [Transformation of H&S Real-time Sensors Data Into Information and Knowledge: Experiences, Future Needs, and Applied Processes](#)
- [Exploring the Future of Worker Health and Safety in the Post-Pandemic World](#)

Federal Register Notice

Proposed Data Collection Submitted for Public Comment and Recommendations: Coal Workers' Health Surveillance Program (CWHSP)

The [notice](#) was posted on September 14. Comments must be received by November 15.

Proposed Data Collection Submitted for Public Comment and Recommendations: Reducing Fatigue Among Taxi Drivers

The [notice](#) was posted on September 17. Comments must be received by November 16.

Interventions To Prevent Work-related Stress and Support Health Worker Mental Health: Request for Information

The [notice](#) was posted on September 27. Comments must be received by November 26.

Mine Safety and Health Research Advisory Committee (MSHRAC) Meeting

The [notice](#) was posted on October 13. The meeting will be held on December 8–9.

NORA

Webinar: Stress and Cardiovascular Disease Among First Responders

The NORA Chronic Disease Council is sponsoring a webinar titled “Stress and Cardiovascular Disease Among First Responders: Data From the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS) Study” on November 19, from 12:30–2:00 p.m. (EDT). Study investigators will give presentations highlighting the current findings of the BCOPS study along with suggestions for potential intervention strategies to reduce stress in first responders. The presentations will be followed by a live question and answer session. [Register](#) to attend!

NORA Agriculture, Forestry, and Fishing Sector Council Announces New Co-chair and Meeting Dates

The NORA Agriculture, Forestry, and Fishing (AgFF) Sector Council has asked Mr. Jess McCluer to be its new Sector Council co-chair. Mr. McCluer is vice president of Safety and Regulatory Affairs for the National Grain and Feed Association, as well as the chair of the Agricultural Safety and Health Council of America. The next NORA AgFF Sector Council meeting will be held virtually from 1–3 p.m. on November 16 and 17. For more information about the NORA AgFF Sector Council or to become a member, please email the [NIOSH AgFF](#).

Fall NORA Construction Sector Council (Virtual) Meeting

The NORA Construction Council will hold its next meeting November 16-17. The meeting will include the latest construction health and safety updates from NIOSH, OSHA, and the NIOSH-funded National Construction Center, CPWR—The Center for Construction Research and Training, as well as other NORA partners. Learn about the latest research and interventions on fall prevention, struck-by prevention, mental health (including topics such as opioid misuse prevention, suicide prevention), robotics, COVID-19, silica, and small business outreach. If interested in joining, please contact [G. Scott Earnest](#), Director, NIOSH Office of Construction Safety and Health.

News from Our Partners

OSHA Seeking Public Comments on Heat-Specific Standard Proposal

OSHA is initiating the [rulemaking process](#) to consider a heat-specific standard to [prevent heat injury and illness in outdoor and indoor work settings](#). OSHA is seeking public comments on topics such as heat stress thresholds, acclimatization planning, exposure monitoring, and the nature, types, and effectiveness of controls. [Comments](#) must be submitted by December 27

Study Looks at the Effects of New Seat Suspension System on Whole Body Vibration, Low Back Pain, and Disability Among Truck Drivers

For truck drivers, exposure to whole body vibration while on the road is a key risk factor for their high incidence of musculoskeletal disorders, including low back pain. The journal *Applied Ergonomics* recently featured a NIOSH-funded [study](#) at Northeastern University that evaluated a new seat suspension technology in trucks—an electro-magnetic active seat suspension—to determine its effectiveness in reducing exposure to whole body vibration, low back pain, and disability. NIOSH funds this research through an [Occupational Safety and Health Research grant](#).

Brief Updates From NIOSH-Supported Centers

Centers of Excellence for Total Worker Health®: The most recent [newsletter](#) from the Center for Health, Work & Environment at the Colorado School of Public Health is now available. The center is one of 10 NIOSH-funded [Centers of Excellence](#).

Education and Research Centers: According to a study by the Harvard Education and Research Center (ERC), [air quality may affect workers' cognition and productivity](#). This research was recently published in the journal *Environmental Research Letters*. The Harvard ERC is one of [18 centers](#) funded by NIOSH to address the burden of occupational safety and health (OSH) through interdisciplinary training for OSH practitioners and researchers.

Ag Centers: Several [Centers for Agricultural Safety and Health \(Ag Centers\)](#) recently announced the following publications and events:

- [New Online Community Links Child Farm Safety Advocates](#)
- [MRASH Conference to Highlight Safety and Health of Vulnerable Farmworkers](#)
- [Drought Can Lead to More than the Summertime Blues in Farmers](#)
- [Women New to Farming May Falsely Believe Their Farms Safer—Study](#)

- [What About the Rest of Them? Fatal Injuries Related to Production Agriculture Not Captured by the Bureau of Labor Statistics \(BLS\) Census of Fatal Occupational Injuries \(CFOI\)](#)

The Center for Construction Research and Training:

- **Data Dashboard Examines Hispanic Construction Workers:** CPWR recently announced a new interactive [Data Dashboard](#) that focuses on the large and fast-growing population of Hispanic construction workers. The dashboard covers data from 2011 through 2019 and offers a new feature that brings together three data categories—employment trends, demographics, and foreign-born Hispanics.
- **Podcast on Safety Climate:** A new [podcast](#) on CPWR's tools and resources to improve company safety climate has been added to the center's Construction Safety and Health podcast series. The podcast features a conversation between Andrew Levinson, acting director of the Occupational Safety and Health Administration Directorate of Standards and Guidance, and Dr. Linda M. Goldenhar, CPWR's director of Research and Evaluation.
- **Toolbox Talks on Struck-By and Nanomaterials:** CPWR recently posted several new [Toolbox Talks](#). One is titled "Spray Painting and Cutting Concrete Block Coated with Nano-Enabled Silver Paint." Spanish versions of two existing Toolbox Talks designed to reduce struck-by incidents, titled "Planning a Lift and Tower Crane Safety," have also been posted.
- **New Research Key Finding:** CPWR has published a new [Key Findings](#) document on risks to tradespeople from spraying biocidal paint with silver nanoparticles. Key Findings are one-page, accessible summaries of reports and peer-reviewed journal articles produced by CPWR researchers.

Funding Opportunity Available Related to Emotional Well Being Research

The Network for Emotional Wellbeing and Brain Aging ([NEW Brain Aging](#)) announced a funding opportunity for pilot projects to expand the quality, quantity, and translational impact of research into the mechanistic relationships between brain structure and function and emotional wellbeing (EWB) in older adults. NEW Brain Aging is a research center funded by the National Institute on Aging. Although [applications](#) are due December 1, a brief Letter of Intent is encouraged, and it is due November 10.



Conferences, Meetings, Webinars, & Events

This page provides a list of publicly available occupational safety and health-related [conferences, meetings, webinars, and events](#) sponsored by NIOSH as well as other government agencies, and nongovernment agencies, such as universities, professional societies, and organizations.

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