

What are our priorities?

The National Institute for Occupational Safety and Health (NIOSH) Manufacturing Program works with partners in industry, labor, trade associations, professional organizations, and academia. The program focuses on these areas among manufacturing workers:

- Preventing injuries and fatalities from contact with objects and equipment
- Preventing work-related illnesses such as musculoskeletal disorders and respiratory disease
- Reducing exposure to occupational safety and health hazards
- Evaluating new and emerging technologies, both for potential risks to workers and for ways these technologies might protect workers

What do we do?

- Promote research findings, practical guidance and technologies to manufacturers, stakeholders and the public in general.
- Conduct research and provide recommendations to manufacturers on new technologies including nanomaterials, robotics, wearable sensors, safe equipment design and operation to prevent injuries to workers.
- Evaluate the effectiveness of occupational safety and health interventions through research, [systematic reviews](#) and outreach activities.
- Develop mechanisms for effective translation of research into practice in the manufacturing sector.

What have we accomplished?

- Sponsored a [Mini-Symposium on Cumulative Risk Assessment \(CRA\)](#) with experts from government, academia, and consulting to identify steps for its implementation in the workplace. CRA is defined as the process of identifying and evaluating the combined effects of multiple exposures.
- Published studies on the characteristics and burden of respiratory abnormalities among [microwave popcorn](#) and [flavoring manufacturing](#) workers.
- Published papers on the assessment of emissions and exposures from [welding](#) and their possible health effects, directed to researchers, practitioners and policy makers.
- Published a [web-based dashboard](#) and a [study](#) that created a causation-specific injury surveillance system by leveraging a state workers' compensation claims database. These findings are being used to focus prevention resources on specific occupational injury types in specific industry groups, especially in Ohio. The study received the Kammer Award for Authorship for the most outstanding article of 2018 published by the Journal of Occupational and Environmental Medicine.
- Published three [Workplace Design Solutions](#) on protecting workers from exposures that occur during additive manufacturing processes. These publications are relevant to workers, researchers, practitioners and policy makers.

What's next?

- Create an online workplace safety and health training for use in schools and apprenticeship programs. This training will build on [Youth@Work—Talking Safety](#), a foundational curriculum developed by NIOSH and partners for middle and high school students.
- Publish an analysis of the burden of respiratory abnormalities among coffee roasting and packaging workers identified through NIOSH's Health Hazard Evaluation Program.
- Publish study on workers' compensation claims from workers employed by temporary agencies by general industry sectors.
- Publish study on specific exposure conditions, potential risks from welding and the effectiveness of proposed interventions.
- Develop tools, technologies, and strategies for employers to use in risk management.

At-A-Glance

The Manufacturing Program provides leadership to reduce occupational diseases, injuries, and fatalities among workers in manufacturing industries. This snapshot shows recent accomplishments and upcoming work.

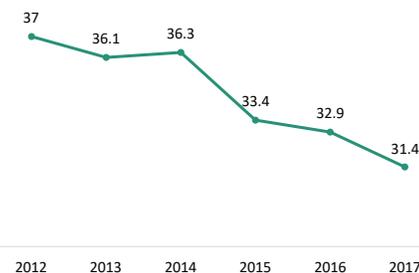
Incidence Rate of Workplace Injuries by Contact with Objects & Equipment in Manufacturing* (per 10,000 full-time workers)



Source: U.S. Bureau of Labor Statistics

* Non-fatal cases involving days away from work.

Incidence Rate of Musculoskeletal Disorders in Manufacturing* (per 10,000 full-time workers)



Source: U.S. Bureau of Labor Statistics

*Non-fatal cases involving days away from work.

Incidence Rate of Hearing Loss in Manufacturing* (per 10,000 full-time workers)



Source: U.S. Bureau of Labor Statistics

* Non-fatal occupational illnesses involving hearing loss.