

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
- Reducing hearing loss.
- Reducing musculoskeletal disorders (MSDs).
- Identifying and preventing hazardous exposures to nanomaterials.

What do we do?

- Promote scientific research findings, practical guidance and technologies to manufacturers, stakeholders and the public in general.
- Conduct research and provide guidance to manufacturers on safe equipment design and operation related to machine guarding and the control of hazardous energy.
- Evaluate the effectiveness of interventions to reduce noise and prevent hearing loss, through research, Cochrane Systematic Reviews and the Safe-in-Sound Excellence in Hearing Loss Prevention Award™, which compiles real-world success stories.
- Evaluate the effectiveness of the NIOSH-developed Well-Fit™ system and other systems which measure the real-world attenuation and fit of hearing protector devices.
- Evaluate the effectiveness of interventions to prevent MSDs.
- Conduct research to describe exposure and risks from nanomaterials among manufacturing workers and to evaluate the effectiveness of interventions.

What have we accomplished?

- Published study of saw-related injuries and their causes and compared with national data from the Bureau of Labor Statistics.
- The National Institute of Standards and Technology adopted NIOSH-recommended hearing loss prevention practices.
- The Occupational Safety and Health Administration (OSHA) began using NIOSH recommendations for hearing loss prevention in the training of their field inspectors. The Dept. of Defense's new regulation (DODI 1474E) and the National Academy of Engineering Technology for a Quieter America both expressed support for NIOSH recommendations.
- Published study of smartphone sound measurement apps, which became most read article in the past year from the Acoustical Society of America journal and the most visited NIOSH Science Blog, with over 109,000 visits, from April 2014 to February 2016.
- Published a NIOSH Science Blog with resources for preventing MSDs. It became one of the top ten most visited NIOSH Blogs of 2015.
- Published and promoted a report on the best practices for engineering controls to reduce exposure to nanomaterials at the source.
- Posted a video on YouTube for manufacturers on the benefits of a Buy Quiet program to reduce noise exposure for their employees. Published intervention descriptions, updates and testimonials from the 2016 Safe-in-Sound Excellence in Hearing Loss Prevention Award™ recipients.

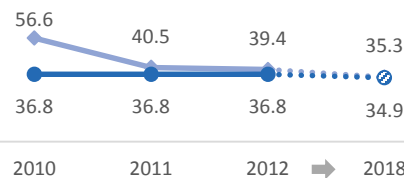
What's next?

- Publish new step-by-step guidance on control of hazardous energy on the NIOSH website. Sometimes machines can unexpectedly release stored energy and injure workers during service and maintenance of equipment. The new guidance will help prevent those kinds of injuries.
- Report results from a multi-laboratory study comparing a NIOSH-developed hearing protection system to two other hearing protector fit-test systems.
- Evaluate the effectiveness of workers' compensation-sponsored programs to reduce MSDs, in collaboration with the NIOSH Center for Workers' Compensation Studies.
- Publish guidance on controlling exposure to nanomaterials in small manufacturing businesses using information from NIOSH field studies.

At-A-Glance

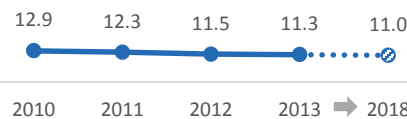
The Manufacturing Program provides leadership to reduce occupational diseases, injuries, and fatalities among workers in manufacturing industries. This snapshot shows recent accomplishments and upcoming work.

Incidence rate of workplace injuries by contact with objects & equipment in manufacturing (per full-time worker): Fatal ● and Non-Fatal ◆



Source: U.S. Bureau of Labor Statistics

Incidence rate of hearing loss in manufacturing (per 10,000 full-time workers)



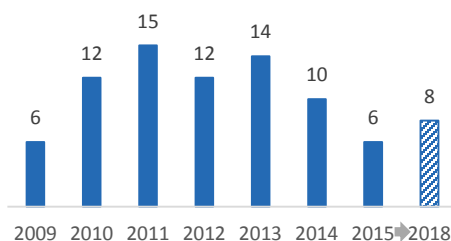
Source: U.S. Bureau of Labor Statistics

Incidence rate of musculoskeletal disorders in manufacturing (per 10,000 full-time workers)



Source: U.S. Bureau of Labor Statistics

Number of field assessments in nanomaterial manufacturer and user facilities



Source: NIOSH program records