

# Occupationally-Induced Hearing Loss

*Employers and employees in Manufacturing need your help*

## **NORA**

The National Occupational Research Agenda (NORA) is a partnership program to stimulate innovative research and improve workplace practices. Unveiled in 1996, NORA has become a framework for guiding Occupational Safety and Health research in the nation. Diverse parties collaborate to identify the most critical issues in the workplace. Partners then work together to develop goals, objectives, and an implementation plan for addressing these issues.

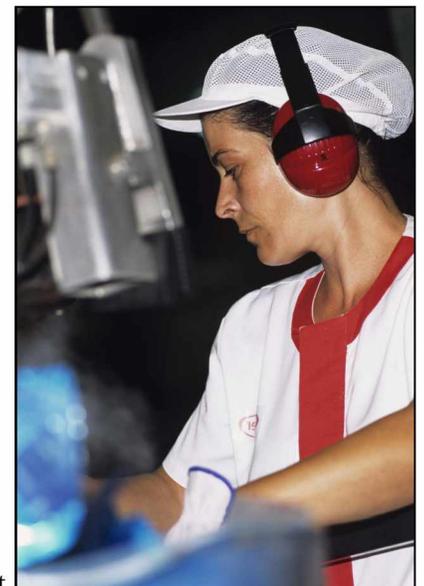
## **Manufacturing**

The Manufacturing Sector consists of industries that have been assigned a North American Industry Classification System (NAICS) number between 31 and 33, as defined by the U.S. Census Bureau. This sector represents one of the largest workforces and includes a diverse group of manufacturing industries such as Beverage and Tobacco, Food, Wood Products, Primary Metals, Fabricated Metal Products, Transportation Equipment, Furniture, and Chemical Manufacturers.

## **Hearing Loss in the Manufacturing Sector**

There are an estimated 16 million people working in the Manufacturing Sector, which accounts for approximately 13% of the U.S. workforce. According to the Bureau of Labor Statistics, occupational hearing loss is the most commonly recorded occupational illness in manufacturing (17,700 cases out of 59,100 cases), accounting for 1 in 9 recordable illnesses. More than 72% of these occur among workers in Manufacturing. These numbers are particularly disturbing considering that a person's hearing loss must be determined to be work-related *and* the hearing loss must be severe enough that the worker has become hearing impaired, in order to be OSHA-recordable. Many more workers would have measurable occupational hearing loss but would not yet have become hearing impaired.

Although a traumatic noise exposure may cause an immediate hearing loss in some cases, most occupational hearing losses occur so gradually that workers are unaware they are losing their hearing. The rate of hearing loss growth is greatest during the first 10 years of exposure. This means hearing loss prevention is especially important for new workers. However, with continued exposure, the hearing loss spreads into those frequencies most needed to understand speech. This means that preventing occupational hearing loss is also important for workers in their mid and late careers.



NIOSH is the federal agency responsible for conducting research and making recommendations to prevent work-related injury, illness, and death. Its mission is to generate new occupational safety and health knowledge and to transfer that knowledge into practice.

## Strategic Goal: Hearing Loss Prevention

The NORA Manufacturing Sector Council has developed goals to guide research related to Hearing Loss Prevention in this sector. These goals can be found on the NORA Web site <http://www.cdc.gov/niosh/nora> under Strategic Goal 4 of the National Manufacturing Agenda. Comments are accepted any time.

### How You Can Help

#### *Apply research findings:*

- Publicize proven effective noise control measures
- Develop and distribute worker and employer education materials specific to the use of engineering controls to reduce noise exposure
- Develop business cases for adopting interventions
- Disseminate information regarding risk factors to workers and employers

#### *Share data:*

- Use existing databases to analyze the scope of hearing loss in various settings
- Develop selection and usage surveillance data on hearing protection devices in manufacturing

#### *Partner with researchers:*

- Identify and inventory sources of exposure resulting in risk of hearing loss
- Determine the contribution of individual, behavioral, and exposure factors on the development of hearing loss
- Develop cost effective interventions or engineering controls
- Conduct research to evaluate the effectiveness of interventions
- Identify ototoxic factors and develop interventions to reduce exposure
- Determine the role that impact noise plays in inducing hearing loss

The NORA Manufacturing Sector Council consists of individuals from areas such as industry, academia, labor, and government. The Council meets face-to-face twice a year. Additional communication occurs through email, conference calls, and web-based meetings. The National Institute for Occupational Safety and Health (NIOSH) facilitates the work of the Council. The Council's Hearing Loss Prevention workgroup relies on Corresponding Members for additional expert input and feedback on the hearing loss prevention-related goals. Members and Corresponding Members primarily meet via conference calls and web-based meetings.

**For further information or to discuss opportunities for involvement, please contact:**

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**For more information about NORA or the NORA Manufacturing Sector, please visit:**

**NORA Website:** <http://www.cdc.gov/niosh/nora>

**NIOSH Manufacturing Program Portfolio:**  
<http://www.cdc.gov/niosh/programs/manuf/>