

Educating Your Community

About

Occupational Eye Injury



Tips and Tools for
Making Vision a Health Priority



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Eye Institute



Educating Your Community About Occupational Eye Injury

Tips and Tools for Making Vision a Health Priority

This Handbook is for people who want to help promote eye health education in their communities. It contains:

- Facts about occupational eye injury
- Activity suggestions
- Promotional materials
- Reproducible brochure.

This Handbook is part of the Healthy Vision 2010 Toolkit. See the inside back cover for more information about the toolkit.

This Handbook is from the National Eye Institute (NEI), the lead agency for Healthy Vision 2010. The NEI conducts and supports research that leads to sight-saving treatment and plays a key role in reducing visual impairment and blindness. The NEI is part of the National Institutes of Health (NIH), an agency of the U.S. Department of Health and Human Services.

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Welcome to Healthy Vision 2010

Eye injury is a leading cause of monocular blindness (blindness in one eye) in the United States. Eye injuries interfere with people's ability to perform their jobs and carry out normal activities. In 2004, about 37,000 eye injuries occurred in the workplace that resulted in one or more days away from work. The majority of these eye injuries occurred in workers less than 45 years of age (74%). The majority of all eye injuries occur in persons under 30 years of age (57%).

Common causes of occupational eye injury include blunt trauma, chemical burns, corneal abrasions (a scratch on the cornea, the clear dome-shaped surface that covers the front of the eye), and biological contamination (infections). Trade workers in the automotive, construction, and agriculture industries, among others, are at risk. Even office workers are at risk, as staring at a computer monitor for an extended period of time can cause eyestrain.

Reducing occupational eye injury is an objective of Healthy Vision 2010. Healthy Vision 2010 is one component of Healthy People 2010, a comprehensive framework for improving the health of our Nation sponsored by the U.S. Department of Health and Human Services (HHS).

You can play an important role in helping to meet this objective by sharing the messages and materials in this Handbook through your business or organization with people who are at risk for occupational eye injury.

Some suggestions for using the materials in this Handbook include the following:

- ❖ Cut out, copy, and distribute the brochure, newsletter article, and print public service announcement (PSA).
- ❖ Include the newsletter article and PSA in your publications, or on your Intranet or Website.
- ❖ Record the radio PSA and play it on your audio system, on-hold line, or local radio station.
- ❖ Read the suggestions in the “Help Reduce Visual Impairment...” section to find other ways that your organization or business can become part of a community-wide effort to reduce vision loss due to occupational eye injury.

Thank you for giving your time and talents to the important effort of helping to reduce visual impairment due to occupational eye injury. Best wishes for your success.



Help Reduce Visual Impairment Due to Occupational Eye Injury

Millions of Americans are exposed to conditions on the job that can injure their eyes. Eye injuries can interfere with people's ability to perform their jobs and fully participate in the ordinary activities of life, such as reading, preparing meals, driving, and socializing.

Occupational eye injury is an issue for employers. Simple improvements in workplace conditions and the use of the proper safety eyewear can greatly reduce the number of eye injuries. Injuries to workers' eyes may reduce productivity and quality of work, and increase business expenses.

By answering the following questions, you can plan and carry out activities that will promote occupational eye safety in a variety of workplace environments that carry a risk of eye injury.

Who can benefit from information about occupational eye injury?

Eye injuries are prevalent among workers in all industries, but workers in construction, mining, manufacturing, and agriculture have the highest rates of workplace eye injuries.

What does your audience need to know?

Employers and workers need to know the common eye hazards, the types of engineering controls that best eliminate worker exposures, and what protective eyewear is appropriate for specific workplace hazards. Audiences should also know that immediate treatment can limit damage to the eye from occupational eye injuries.

What can I and others in my community do to help?

Healthy People 2010 challenges individuals, communities, and professionals, indeed, all of us, to take specific steps to ensure that good health and long life are enjoyed by all.

People in many professions are at risk for eye injuries. Some risks are more obvious than others. Infections can be transferred to the exposed eyes of health care workers and law enforcement officials from bloodborne pathogens and human waste and remains. Agricultural workers can get infections from animal waste and researchers can get chemical burns to the eye.

Employers are required to provide protective eyewear for their employees, yet some people don't use it. There are also many people who do not have protective eyewear or the right protective eyewear for the job.

Use the ideas in this section and the materials in this Handbook to help increase awareness about occupational eye injury. These messages and materials will help employers and people who are at risk to better understand eye safety issues and prevention strategies, particularly the use of protective eyewear. Additionally, these materials will help people understand the need for immediate and appropriate medical care for eye injuries to minimize vision loss. Use the suggestions individually or as part of a company-wide program. Your efforts, along with those of thousands of other business people and organizations, will help reduce occupational eye injury.

Community eye and health care professionals can take the lead.

- ❖ Develop activities to address current occupational eye health needs in your community.
- ❖ Build on existing efforts by adding occupational eye injury messages to general eye health or employee health activities. Tailor events to target specific industries, companies, work settings, or types of workers.
- ❖ Share your ideas and brainstorm possible activities with eye care professionals and other occupational health- or labor-related organizations.
- ❖ Create a planning group. Identify resources that are available locally, and look for approaches that benefit all participants. Make sure that your planning group represents the full range of groups that have a stake in occupational eye safety in your community.
- ❖ Encourage local businesses to use the messages and materials in this Handbook and/or adapt their company messages to include occupational eye injury. Help identify new ways for employers to reach the target population.
- ❖ Share your goals and your plan for reducing visual impairment due to occupational eye injury. Help others implement activities for their own organization or business:
 - Raising awareness of occupational eye safety issues.
 - Promoting the use of protective eyewear.
 - Improving eye safety practices.
 - Providing vision screenings and correcting visual impairments that can lead to injuries.

- ❖ Help businesses and organizations establish specific timelines for activities and decide upon ways to measure their progress.
- ❖ Find businesses and organizations that can work together to share resources and implement activities to promote occupational eye safety activities.

Community leaders can raise awareness.

- ❖ Know the occupational eye injury statistics in your community and use them in your media materials, speeches, and interviews.
- ❖ Support activities in your community that raise awareness about occupational eye injury by issuing a proclamation, hosting an event, or visiting a workplace where occupational eye injury is a hazard. Wear protective eyewear in appropriate environments.
- ❖ Review legislation to find opportunities for improving or enhancing eye safety requirements in hazardous job situations.
- ❖ Lend your likeness and/or a quote to be used in community eye safety materials.
- ❖ Play the public service announcements in this Handbook on your radio or television station and arrange for spokespersons to appear on your community talk shows.
- ❖ Print the article in this Handbook about occupational eye safety and the need for protective eyewear in your newspaper or newsletter.

Special events can encourage the use of protective eyewear.

- ❖ Set a goal for improving the use of protective eyewear for employees at risk of eye injury and make it the focus of a special event, such as “Take Your Child to Work Day.” Ask a local official to hold a press conference announcing this goal, accompanied by business owners who pledge to help meet this goal.
- ❖ Support Workplace Eye Safety Month (March), Healthy Vision Month (May), North American Occupational Safety and Health Week, National Safety Month (June), or another safety observance event to emphasize eye safety in the workplace. Arrange for eye care professionals or occupational safety experts to address business, professional, or employee groups.
- ❖ Include protective eyewear displays at trade shows, demonstrations of tools and equipment, agricultural fairs, and similar events.

Employers can encourage the use of protective eyewear.

- ❖ Place posters or flyers in agricultural, mechanical, manufacturing, automotive, construction, electrical, and plumbing supply outlets, and other workplaces where there is risk of eye injury.
- ❖ Put inserts in pay envelopes, reminding employees to always use the appropriate protective eyewear that is provided for each task.
- ❖ Sponsor safety education events and include eye safety in other workplace health promotion efforts, such as immunization and blood drives.
- ❖ Display and demonstrate protective eyewear, devices, safety tips, and emergency procedures at your company worksites or your home supply stores. Include a list of protective eyewear providers.

- ❖ Ask local businesses, media outlets, hospitals, or health organizations to provide financial or in-kind support for occupational eye safety activities or protective eyewear.
- ❖ Encourage employees to have regular eye exams to prevent workplace injuries due to uncorrected vision problems.
- ❖ Build a foundation for occupational eye safety. Include eye safety in job training programs and in the orientation of new employees.
- ❖ Address occupational eye safety in offices, as well as in industrial, construction, and repair settings.

Businesses can support community-wide efforts.

- ❖ Have safety professionals in large businesses assist small businesses in the community with assessing their eye safety needs. Stress the importance that even small businesses must provide safety eyewear to their workers when an eye hazard exists.
- ❖ Donate or subsidize the cost of protective eyewear for small businesses and self-employed or low-income contract workers. These donations can be coordinated through a local eye health organization or community business group.
- ❖ Support occupational eye safety activities conducted by groups that develop programs to reach target audiences.
- ❖ Invite organizations that conduct occupational eye safety activities to participate in your company health and wellness activities, such as health fairs, trainings, and informational seminars.

Share in the Success of Healthy Vision 2010

Others can learn from the activities you develop. Report your activities to your local community organizer, and visit the Healthy Vision 2010 Website at www.healthyvision2010.org to share your efforts and successes. Also use the Website to learn what others are doing to help reduce visual impairment due to occupational eye injury. Thank you for your efforts.

Some Simple Steps

- ❖ Keep track of the following:
 - Number and type of materials distributed.
 - Number of people participating.
 - Numbers and type of inquiries received about occupational eye injury.
 - Reduction of the incidence of occupational eye injury.
 - Media coverage: Where the newsletter or stories about your event appeared.
- ❖ After the activity or event, answer the following questions:
 - What worked?
 - What challenges did you encounter?
 - What suggestions would you give to others who might plan a similar activity or event?



Facts About Occupational Eye Injury

In 2004, about 37,000 eye injuries occurred in the workplace that resulted in one or more days away from work. Workplace injury is a leading cause of eye trauma, vision loss, disability, and blindness. Occupational eye injuries interfere with people's ability to perform their jobs and carry out normal activities. Eye injuries can be prevented with proper protective eyewear and other safety measures.

The proper protective eyewear can help guard workers from chemicals, flying objects, and radiation. Workers' risks for occupational eye injuries and their need for preventive measures depend on their job activities and conditions in their workplaces.

What causes occupational eye injury?

The Bureau of Labor Statistics has found that most eye injury accidents result from flying or falling objects or sparks striking the eye. Here are some common workplace eye injuries and their causes:

- ❖ Scrap materials, waste, and windblown dust: Flying material particles such as grit, plastic bits, or metal flakes can fly into your eye, causing irritation or a scratch on the cornea.
- ❖ Impact: Falling or misdirected objects, or collisions with objects swinging from a fixed position, like tree limbs, ropes, chains, lumber, or tools can damage eyes.
- ❖ Chemicals: Hazardous chemicals can splash into eyes, damaging them.
- ❖ Welding light: Ultraviolet light from welding torches can cause radiation burns to the eyes and surrounding tissue of welders, helpers, and bystanders.

- ❖ Infections: Fertilizers, waste, body fluids, human remains, and bacteria can cause eye infections.
- ❖ Eyestrain: Glare, poor lighting, and inadequate rest can cause eye fatigue, soreness, and headaches.

Who needs to know about occupational eye injury?

Employers and anyone working in manufacturing, construction, agriculture, maintenance, research, and health care need to be aware of the risks to their sight.

What can be done to protect workers from occupational eye injuries?

Create a healthy, vision-safe, working environment. Minimize hazards from falling debris. Put safety features in place such as shields on machines and tools. Be sure workers use tools properly and that tools are in proper working order. Keep bystanders out of work areas. Identify potential hazards such as hanging or protruding objects with caution flags.

Require all employees in hazardous situations to wear protective eyewear. In occupational settings, protective eyewear primarily includes safety glasses, safety goggles, face shields, welding helmets, and full-face respirators.

Select the eye protection appropriate to the hazard. Keep protective eyewear in good condition. Be sure it fits properly to be comfortable and stay in place. Use protective barriers between the worker and the hazard for the best protection.

How should eye injuries be treated?

- ❖ See an eye care professional for all eye injuries
- ❖ Know basic eye injury first aid
- ❖ Wash out minor dust in the eye at the eyewash station
- ❖ Flush chemical splashes immediately and continue while the injured worker is transported to medical help
- ❖ Leave nails, wire, slivers, and other fragments in the eye alone and call an ambulance immediately
- ❖ Seek immediate medical treatment for severe blows to the eye.

Prepare for eye injuries. Eye safety should receive continuing attention in workplace educational programs regarding safe work practices and safety rules. Establish and reinforce procedures for handling eye injuries. Have emergency sterile eyewash solutions/stations close at hand. Post instructions about what to do and what not to do for particular injuries. For example, rubbing the eyes with debris in them can cause corneal abrasions.

Although maintaining good vision is important to avoiding workplace injuries, be aware that ordinary prescription glasses, reading glasses, sunglasses, and contact lenses are not protective eyewear.



Here is an article that you can put in your company or organization newsletter or post on your company bulletin board or intranet.

Prevent Injury. Use Protective Eyewear.

In 2004, about 37,000 eye injuries occurred in the workplace that resulted in one or more days away from work.

Many eye injuries caused by workplace hazards can be prevented with proper eyewear to guard against chemical splashes, flying objects, radiation or burns, collision, eyestrain, and infection. Yet, many injuries occur when workers are not wearing the appropriate eye protection for the job, or are not wearing any protection at all.

Create a healthy, vision-safe, working environment. Minimize hazards from falling debris. Put safety features in place such as shields on machines and tools. Be sure workers use tools properly and that tools are in proper working order. Keep bystanders out of work areas. Identify potential hazards such as hanging or protruding objects with caution flags.

Require all employees in hazardous situations to wear appropriate safety glasses, goggles, face shields, or other safety eye protection. Safety glasses or goggles should be worn under face shields and welding helmets. Keep protective eyewear in good condition, and be sure that it fits properly to be comfortable and stay in place.

Eye safety should receive continuing attention in workplace educational programs. Procedures for handling eye injuries should be established and reinforced.

Comprehensive dilated eye examinations can often detect vision problems before they lead to vision loss. They can also help identify vision problems that can interfere with your safety so that they can be corrected. Having sharp vision is important to preventing occupational eye injuries.

Provide emergency sterile eyewash solutions/stations near hazards. Post instructions about what to do and what not to do for particular injuries. For example, rubbing the eyes with debris in them can cause corneal abrasions.

Don't let your workplace be an occupational eye injury statistic. Make vision a health priority.

Reducing occupational eye injury is one of the Healthy Vision 2010 objectives sponsored by the National Eye Institute within the U.S. Department of Health and Human Services (HHS). Healthy Vision 2010 is one component of Healthy People 2010, a comprehensive framework for improving the health of our Nation, sponsored by HHS.

For more information on occupational eye injury, visit the Healthy Vision 2010 Website at www.healthyvision2010.org, sponsored by the National Eye Institute (NEI) and the Healthy Vision Consortium.

The NEI conducts and supports research that leads to sight-saving treatment and plays a key role in reducing visual impairment and blindness. The NEI is part of the National Institutes of Health (NIH), an agency of the U.S. Department of Health and Human Services.



Radio Public Service Announcement

Occupational Eye Injury

Radio PSA: 30-second spot

“Use the right eyewear for the job”

Station announcer:

Thousands of people are injured each year from work-related eye injuries. Many of these eye injuries could be prevented through the use of properly fitted protective eyewear on the job.

Don't let an eye injury cost you your vision.

Make your vision a health priority. Have your vision checked regularly and follow eye safety rules.

A message from [insert the name of the sponsoring organization].

Print Public Service Announcement

Protective Eyewear—



Protect your sight.
Protect your job.
Protect your lifestyle.



U.S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES
National Institutes of Health
National Eye Institute

Add your logo and copy this brochure to hand out at your events, or add an address on the back and mail it out.



For more information about occupational eye injury, visit the Healthy Vision Website at www.healthylvision2010.org/.

Prevent Injury. Use Protective Eyewear.

Are you at risk for occupational eye injury?

Hundreds of thousands of workers sustain eye injuries each year that threaten their vision.

Dust; bits of wood, metal, or plastic; industrial chemicals; extreme heat or light; and hanging or swinging objects are just some of the things that can injure your eyes at work. Your risk of eye

injury is increased if you work with power tools, machines, chemicals, and/or welding torches.



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Who should be concerned about occupational eye safety?

Employers and those working in manufacturing, construction, agriculture, maintenance, research, and health care need to be aware of the risks to their sight.

What can employers do about occupational eye injury?

Make your work environment as safe as possible.

- ❖ Conduct a hazard assessment to identify potential eye hazards such as hanging or protruding objects.
- ❖ Remove eye hazards from the worksite.
- ❖ Provide the appropriate protective eyewear for your employees and require them to wear it.
- ❖ See an eye care professional for all eye injuries.
- ❖ Know basic eye injury first aid.
- ❖ Wash out minor dust in the eye at the eyewash station.

- ❖ Flush chemical splashes immediately and continue while the injured worker is transported to medical help.

- ❖ Leave nails, wire, slivers, and other fragments in the eye alone and call an ambulance immediately.

- ❖ Seek immediate medical treatment for severe blows to the eye.

How can you protect yourself against occupational eye injury?

Know the risks. Be aware of eye safety hazards in your workplace. Wear protective eyewear. Many eye injuries happen to workers who are not wearing protective eyewear. Others are injured when they wear the wrong kind of eyewear for their jobs. Work safely. Have your vision checked regularly and follow work safety rules.

Don't let an eye injury cost you your vision. Make vision a health priority.

Healthy Vision 2010 Toolkit

The Healthy Vision 2010 Toolkit is an interactive CD-ROM that includes Handbooks, the Community Action Guide, and the Speaker's Guide. These resources also are available on the Web at www.healthyvision2010.org/, and are targeted to those who want to make vision a health priority in their communities.

- **The Handbooks** each focus on a different Healthy Vision 2010 objective. They include community-based activity suggestions, newspaper/newsletter articles, public service announcements, and brochures to copy and to hand out.
- **The Community Action Guide** includes a planning timeline, media materials, tips for involving your community, and more.
- **The Speaker's Guide** contains presentations to engage and inform communities about eye health. PowerPoint, Word, and Acrobat versions of each presentation, along with speaker's notes, are included. Topics include injury and safety, eye disease, vision rehabilitation, and others.

Healthy Vision 2010 Objectives

Healthy People 2010, the prevention framework of the Nation, challenges individuals, communities, and professionals to take specific steps to ensure that good health and long life are enjoyed by all. Healthy Vision 2010 refers to the vision objectives in Focus Area 28 of Healthy People 2010.

Following are the 10 vision objectives:

- 28-1 Increase the proportion of persons who have a dilated eye examination at appropriate intervals.
- 28-2 Increase the proportion of preschool children aged 5 years and under who receive vision screening.
- 28-3 Reduce uncorrected visual impairment due to refractive errors.
- 28-4 Reduce blindness and visual impairment in children and adolescents aged 17 years and under.
- 28-5 Reduce visual impairment due to diabetic retinopathy.
- 28-6 Reduce visual impairment due to glaucoma.
- 28-7 Reduce visual impairment due to cataract.
- 28-8 Reduce occupational eye injury.
- 28-9 Increase the use of appropriate personal protective eyewear in recreational activities and hazardous situations around the home.
- 28-10 Increase vision rehabilitation.
 - 28-10a Increase the use of rehabilitation services by persons with visual impairments.
 - 28-10b Increase the use of visual and adaptive devices by persons with visual impairments.

For copies and information, please visit www.healthyvision2010.org.

