

Eye

PROTECTION



See the
Whole Picture

Eye Protection: See The Whole Picture

This employee handbook is one of a series of fully-illustrated employee handbooks, informative posters, broadcast-quality video training programs and interactive CD-ROM courses produced by Coastal Training Technologies Corporation. Each product is the result of painstaking analysis, design, development and production by the instructional designers and technical specialists on our staff.

Our catalog is constantly being revised and expanded, so we would appreciate any comments on current titles or suggestions for future ones. For further information on any Coastal product, or to receive a free catalog, call Coastal Training Technologies Corp. (Virginia Beach, VA) at 800-767-7703 or send a FAX to 757-498-3657.

This handbook is for educational purposes only, and is designed to be used in conjunction with a qualified trainer. Nothing herein is to be regarded as indicating approval or disapproval of any specific practice or product.

Copyright © 1999 Coastal Training Technologies Corp.
All Rights Reserved. No part of this handbook may be copied by any means or for any reason without the written permission of Coastal Training Technologies Corporation. Printed in U.S.A.

Contents



Introduction	2
Types of Eyewear	3
Preventing Eye Injuries	4
Impact Injuries	5
Heat Injuries	6
Chemical Injuries	7
Dust Injuries	8
Light Radiation	9
Welding, Cutting, Brazing and Soldering	
Lasers	
Glare	
Joint Responsibility	10
Use and Care	11
Controlling Hazards	12
Handling Emergencies	13
Eye Safety at Home	14
Summary	14
Quiz	15

Introduction



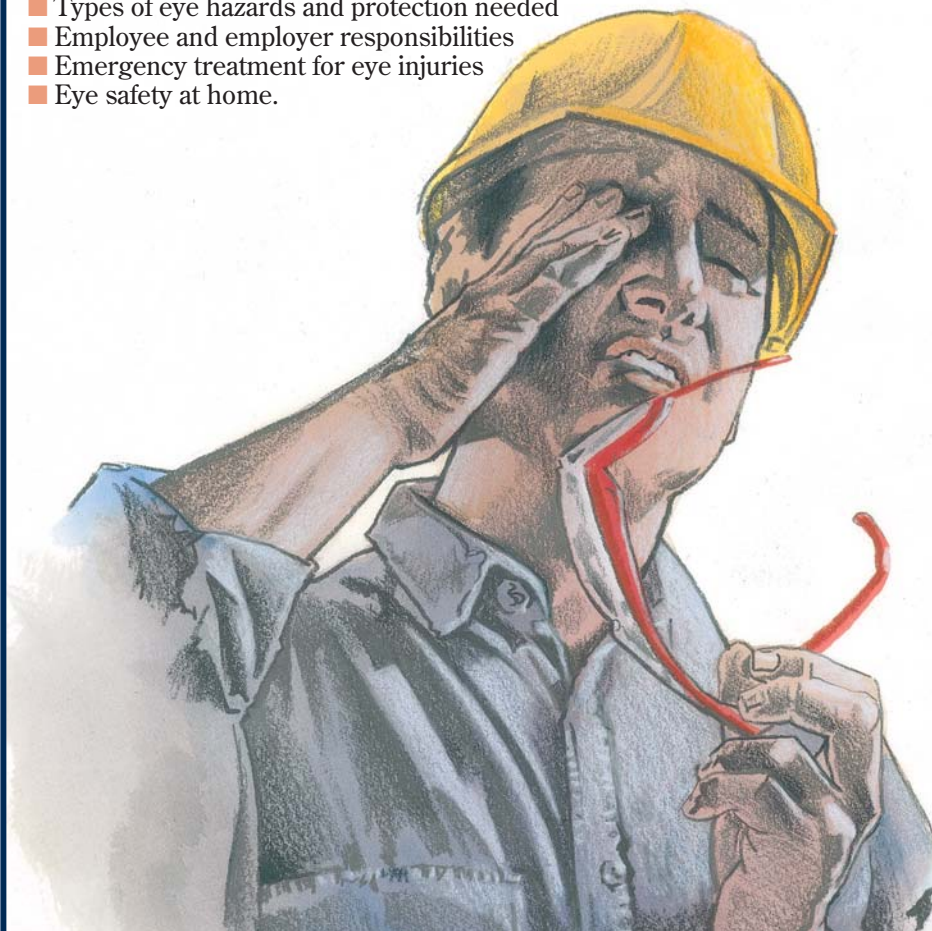
An accident that involves your eyes can change your life forever. It can leave you sightless, unable to keep your job or enjoy your family.

Every year:

- About 300,000 people injure their eyes at work.
- Around 100,000 lose their vision, either permanently or for a while.

Wearing the *correct* eye protection can prevent 90 percent of eye injuries. Wearing the *wrong* protection can be as dangerous as wearing no eye protection at all. This handbook discusses:

- Types of eye hazards and protection needed
- Employee and employer responsibilities
- Emergency treatment for eye injuries
- Eye safety at home.

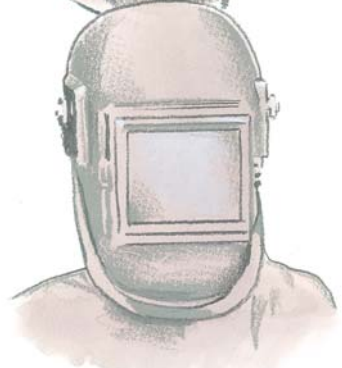


Types of Eyewear



Protective eyewear comes in different forms. All safety eyewear must meet the requirements of the American National Standards Institute (ANSI Z87) and be clearly marked with the manufacturer's name. Common types of safety eyewear:

- **Safety glasses** or spectacles protect you from impacts and may have side shields.
- **Goggles** are designed for specific hazards such as impacts, dusts and chemical splashes and seal the entire eye area.
- **Face shields** protect your eyes and face from dusts, sprays or splashes of chemicals and are worn over safety glasses or goggles.
- **Welding shields** with filtered lenses protect your eyes and face from sparks, burns, infrared or radiant light and debris.
- **Laser safety goggles** protect you from the intense light of lasers and have filtered lenses to suit different lasers.



Preventing Eye Injuries

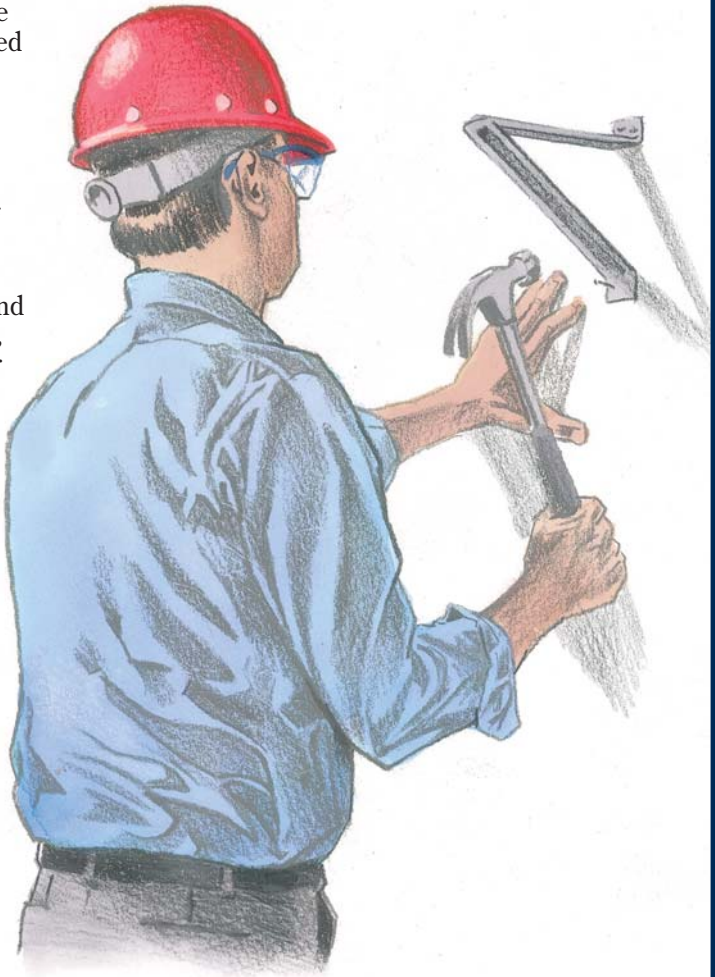


Eye injuries usually fall into one of five categories:

- Impact
- Heat
- Chemicals
- Dust
- Light radiation.

The choice of eye protection is based on the types of hazards in your work area. Different eye hazards require different types of protection.

If you work around multiple hazards, you need to wear eye protection that works for each hazard. Your employer chooses the best kind of eye protection for the work you do and for the areas where you work.



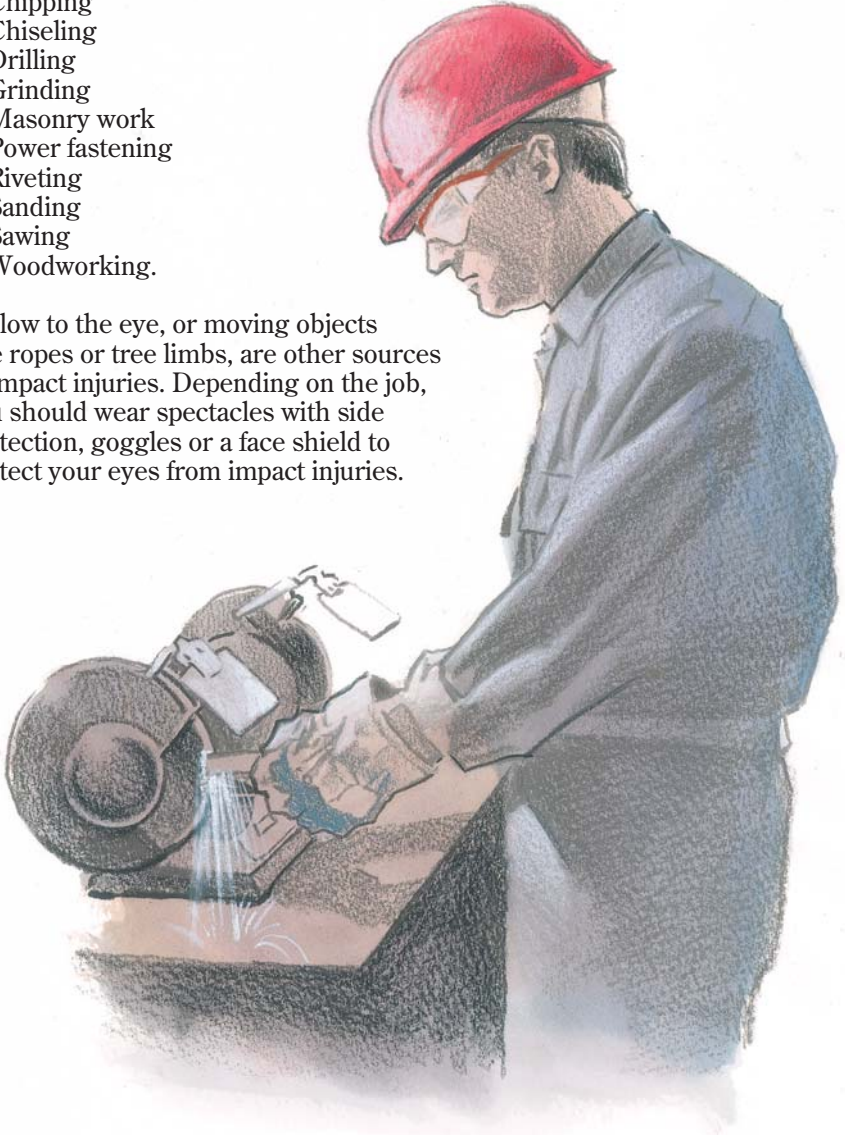
Impact Injuries



Impact injuries occur when flying fragments, objects, large chips or particles enter your eye. Most impact injuries happen during:

- Chipping
- Chiseling
- Drilling
- Grinding
- Masonry work
- Power fastening
- Riveting
- Sanding
- Sawing
- Woodworking.

A blow to the eye, or moving objects like ropes or tree limbs, are other sources of impact injuries. Depending on the job, you should wear spectacles with side protection, goggles or a face shield to protect your eyes from impact injuries.



Heat Injuries



Heat injuries occur when your eyes are exposed to hot sparks, splashes of molten metal or high temperatures. Protect your eyes from heat if your work involves:

- Furnace operations
- Pouring
- Casting
- Hot dipping.

The source and intensity of the heat and the type of splashes you might be exposed to could make any of the following eye protection necessary:

- A face shield
- Goggles
- Safety glasses with side shields
- A face shield over your goggles
- A screen shield
- A reflective face shield.



Chemical Injuries



Chemical injuries to your eyes usually involve splashes or irritating mists. Even mildly irritating substances can cause serious eye damage. When pain makes you close your eyelids, it keeps the chemical in contact with your eyes for a longer period. Chemical injuries happen most often in jobs that involve:

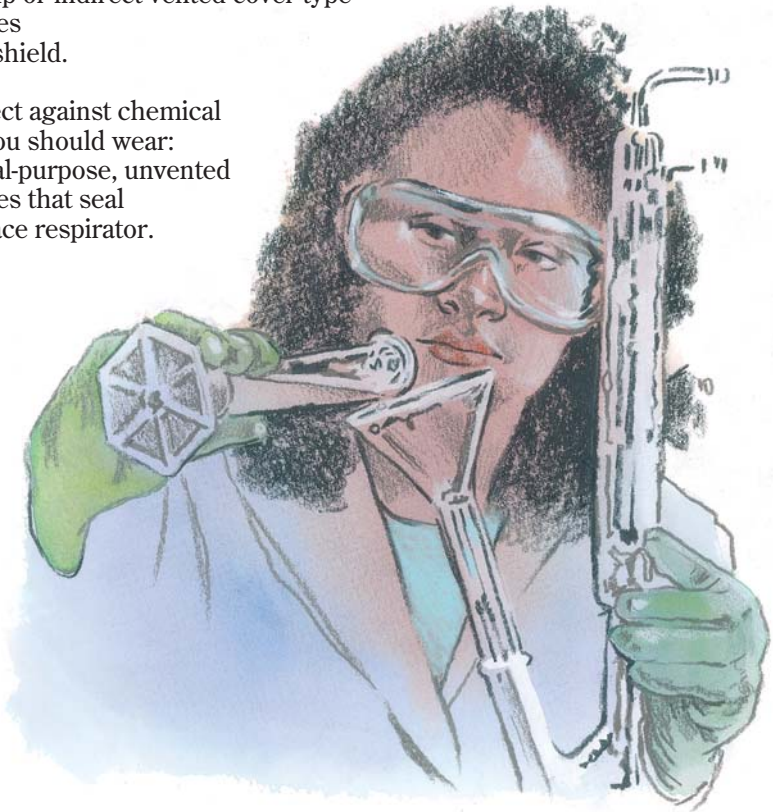
- Mixing chemicals
- Pouring chemicals
- Chemical processing
- Degreasing
- Plating operations.

To protect against chemical splashes, you should wear:

- Eyecup or indirect vented cover-type goggles
- Face shield.

To protect against chemical mists, you should wear:

- Special-purpose, unvented goggles that seal
- Full-face respirator.



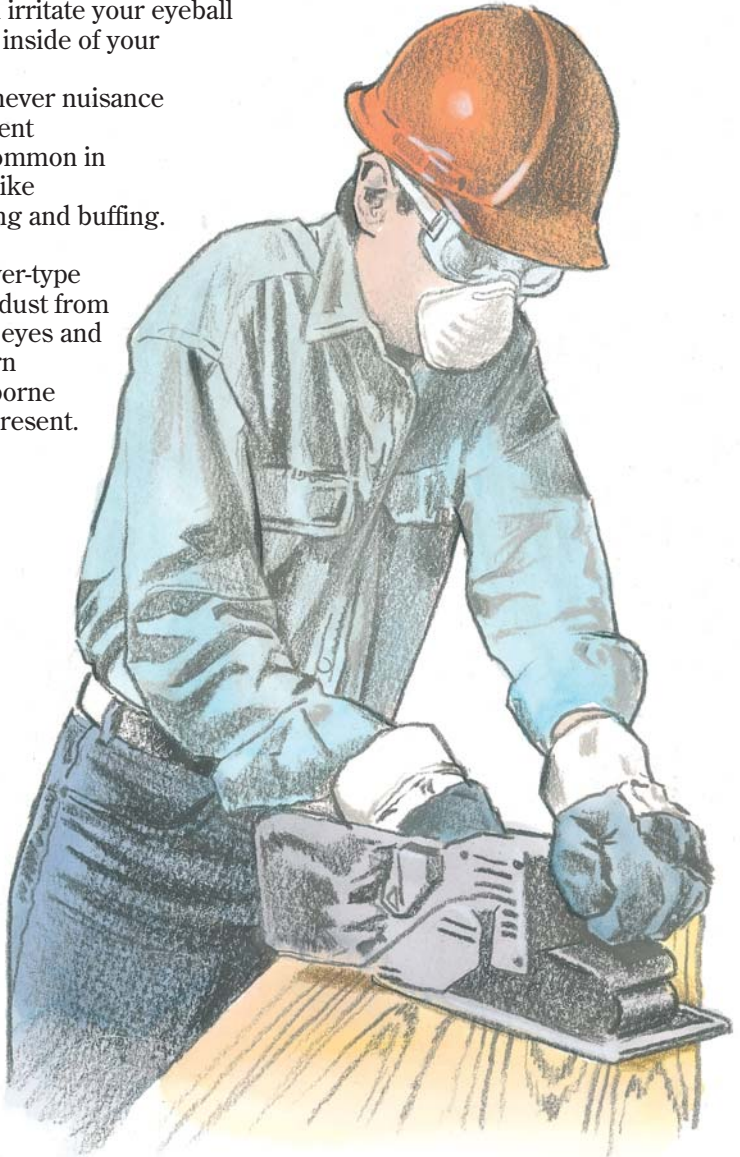
Dust Injuries



Dust injures:

- Scratch and irritate your eyeball
- Scratch the inside of your eyelids
- Occur whenever nuisance dust is present
- Are most common in operations like woodworking and buffing.

Eyecup or cover-type goggles keep dust from entering your eyes and should be worn whenever airborne particles are present.



Light Radiation



Exposure to light radiation may involve:

- Welding
- Cutting
- Brazing
- Soldering
- Lasers
- Glare.

Welding, Cutting, Brazing and Soldering

For hotwork, always wear the proper goggles or shields with the correct filter shade number to protect your eyes from burns. Wear the darkest shade that still allows you to do your work.

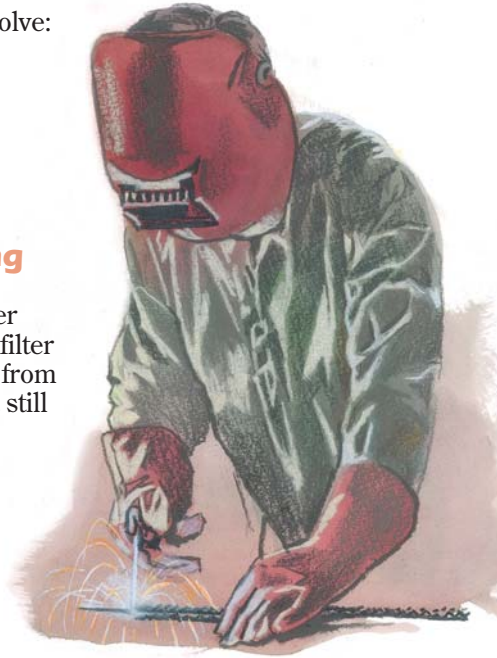
Lasers

When working with lasers and similar high-tech operations, eye protection must be carefully matched to the laser's wavelength and power. If lasers emit invisible ultraviolet radiation, both employees and visitors must protect their eyes at all times. You also may need to remove all highly reflective surfaces to control the risk that laser light may bounce to an unprotected individual.

Glare

Prolonged exposure to glare, another kind of light radiation, can damage your vision by straining your eyes. Control glare with:

- Spectacles with shaded or special-purpose lenses
- Changes in your work area or lighting
- An anti-glare screen on your computer monitor
- Tinted eyeglass lenses or a visor-type shade
- Special computer glasses with custom, job-related shading.



Joint Responsibility



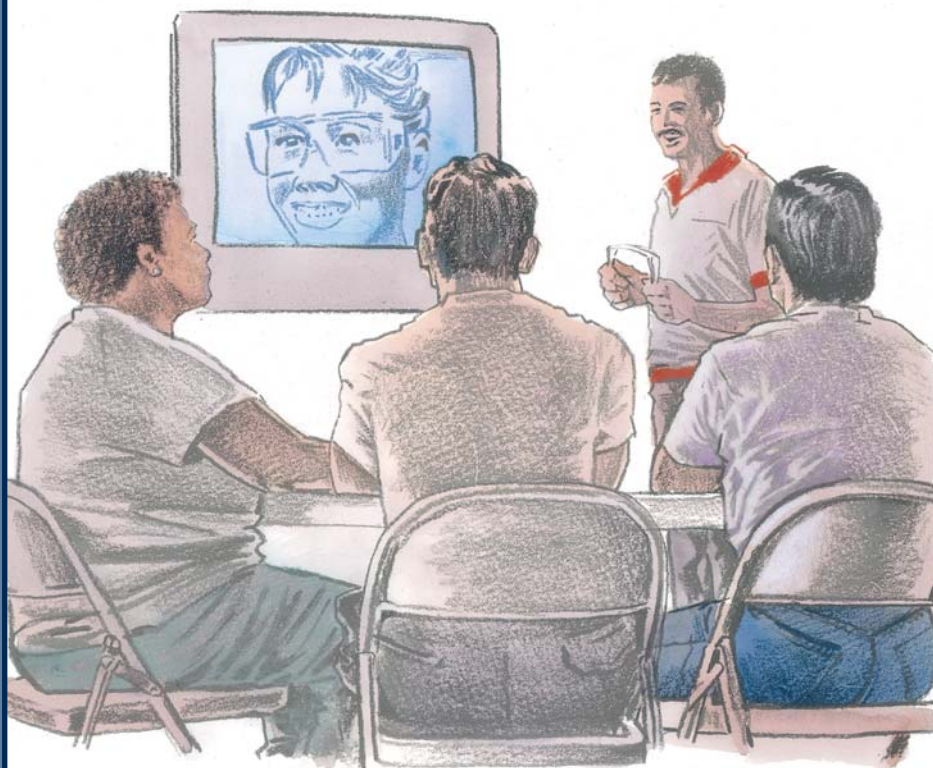
Protecting your eyes takes commitment from both employees and employers.

Employees:

- Wear all required eye protection.
- Inform your employer of changes in vision or new eyeglass prescription.
- Tell your employer if you wear contact lenses.
- Observe company policy on use of contacts.

Employers:

- Survey the workplace to identify eye hazards.
- Choose and provide the correct protection.
- Train employees on use and care of protective equipment.
- Provide retraining when work or hazards change, or when an employee's actions indicate that more training is needed.



Use and Care



- Put on required eye protection whenever you enter the work area.
- Stay out of other areas of the facility until you put on the proper eye protection.
- Don't begin work that creates an eye hazard when unprotected employees or visitors are nearby.
- Encourage other employees and visitors to leave the area or wear proper eye protection.



- Be sure your eye protection fits properly and is the right kind for the hazards.
- Keep your eyewear clean.
- Inspect frames, straps and other parts for wear and damage before each use.
- Replace eyewear with scratched or pitted lenses or damaged frames.
- Clean your eye protection following manufacturer's instructions after each use and store it carefully.

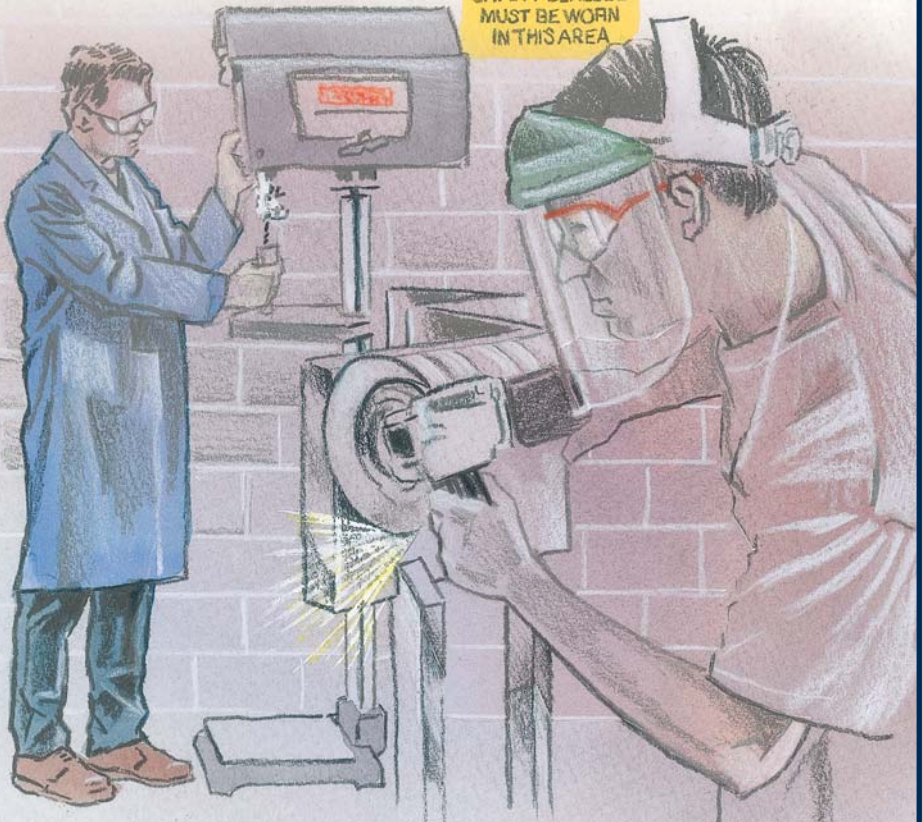
Controlling Hazards



You can also protect your eyes by controlling potential hazards in your work area:

- Keep your tools and equipment in good condition.
- Use the right tool for the job.
- Avoid roughhousing and joking around.
- Never point a nail gun or other powered fastener at another person.
- Read warnings and other information before using new tools or machinery.
- Listen for unusual sounds that could indicate equipment malfunction.
- Be alert for glare or unusual lighting conditions.
- Before you do any task, ask yourself if it could harm your eyes.

CAUTION
SAFETY GLASSES
MUST BE WORN
IN THIS AREA



Handling Emergencies



If an eye injury occurs, quick action on your part can prevent a permanent disability. Know where the closest eyewash station is and how to get there with limited vision.

If you get a splash or a foreign object in your eye:

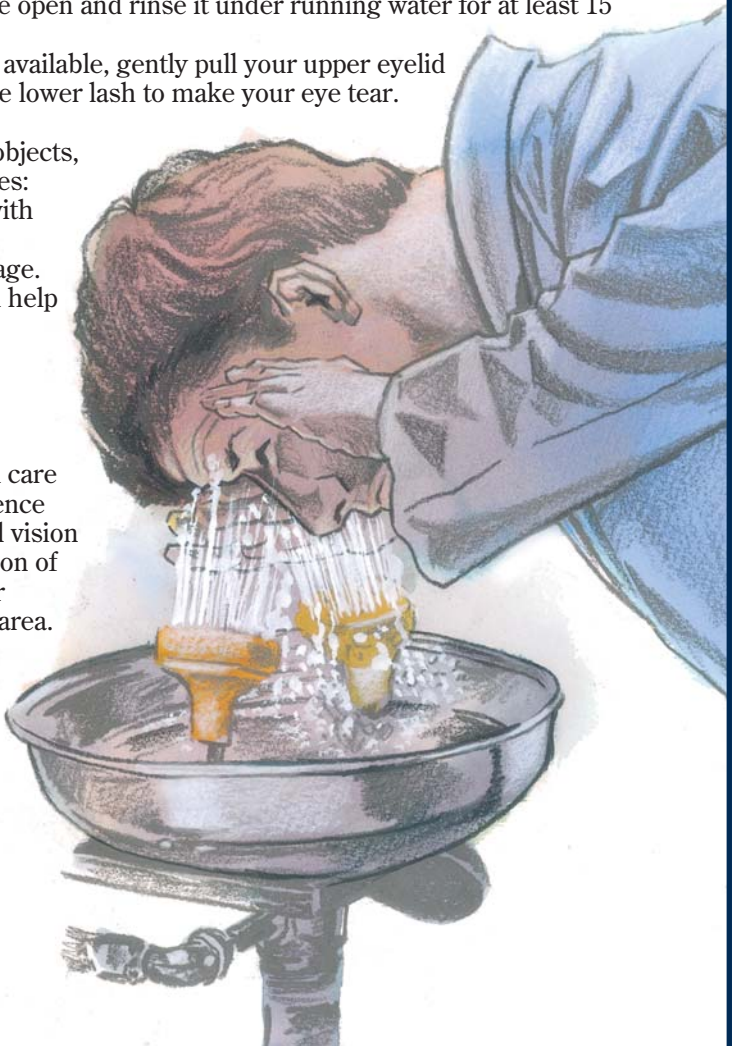
- Don't rub it!
- Hold your eye open and rinse it under running water for at least 15 minutes.
- If no water is available, gently pull your upper eyelid down over the lower lash to make your eye tear.

For imbedded objects, cuts or punctures:

- Don't wash with water.
- Lightly bandage.
- Seek medical help immediately.

For blows:

- Apply cold compresses.
- Seek medical care if you experience pain, reduced vision or discoloration of the eyeball or surrounding area.



Eye Safety at Home



Many tasks create eye hazards at home. Some include:

- Battery charging
- Cleaning and painting
- Sawing and sanding
- Yard and garden work.

To protect your family's eyes:

- Buy safety eyewear for you and your family to wear at home.
- Wear eye protection whenever you perform a task that could send splashes, fragments, dust or harsh light into your eyes.
- Remove rocks and debris from the yard before mowing.
- Insist that everyone wear eye protection when cutting the grass or working with wood, stone, concrete, chemicals or tools.
- Wear chemical goggles when using solvents, pesticides and fertilizers and when working with or charging batteries.
- Never allow unprotected people to enter an area where an eye hazard is present.



Summary



Wearing eye protection at work and at home is a small price to pay to head off an injury that can dramatically change your life.

Use the right eye protection for the job.

Don't take risks with your vision.

Protect your eyes so you can see the whole picture.

Quiz



1. True False Up to 90 percent of eye injuries can be prevented by wearing the correct eye protection.
2. True False Wearing the wrong eye protection is almost as dangerous as wearing no eye protection at all.
3. True False Different eye hazards require different types of protection.
4. True False Impact injuries may occur any time your work creates flying fragments, chips or particles.
5. True False Chemical and heat injuries never occur together.
6. True False Lasers and glare are two sources of heat injuries.
7. True False Your employer is responsible for protecting your eyes.
8. True False You do not have to wear eye protection when you wear contact lenses.
9. True False You can do work that creates an eye hazard when unprotected people are nearby as long as you warn them.
10. True False Scratched or pitted lenses are okay if you aren't doing work that requires clear vision.
11. True False Never point a nail gun or other powered fastener at another person.
12. True False You only need to be trained about eye protection when you are first hired.
13. True False You should inspect and clean your eye protection at least once a week.
14. True False Any eye protection works so it doesn't matter which type you wear.
15. True False Battery charging is one dangerous eye hazard you may face at home.



16. True False At home you should insist that everyone wear eye protection when cutting the grass or working with wood, stone, concrete, chemicals or tools.
17. True False Children who help with woodworking should wear eye protection.
18. True False If you get a splash or a foreign object in your eye you should hold your eye open and rinse it under running water for at least 15 minutes.
19. True False Never rinse an eye with a cut or an object embedded in it.
20. True False Always apply cold compresses after a blow to the eye.

ACKNOWLEDGEMENT OF TRAINING

I have read and understand the training handbook, **Eye Protection: See the Whole Picture**. I have also completed and passed the comprehensive quiz at the conclusion of this handbook.

Employee's Signature

Date

Trainer's Name

Date

NOTE: This record may be included in the employee's personnel or training file.

INTERACTIVE CD-ROM COURSES FROM COASTAL

- Asbestos Awareness
- Back Safety
- Bloodborne Pathogens
- Confined Space Entry
- Defensive Driving
- Electrical Power Generation
- Electrical Safety
- Employment Terminations
- Environmental Awareness
- Ergonomics
- Fall Protection
- Fire Safety
- First Aid
- Forklift Safety
- Hazard Communication
- Hearing Protection
- HAZMAT Preparation
- HAZMAT Transportation
- HAZWOPER Awareness
- Hydraulics
- Indoor Cranes
- Industrial Electricity
- Interviewing
- Lab Safety
- Lockout/Tagout
- Office Safety
- Performance Appraisals
- Personal Protective Equipment
- Pneumatics
- Respiratory Protection
- Safety Orientation
- Sexual Harassment
- Stairways and Ladders
- Teamwork
- Time Management
- Trenching and Shoring
- Walking and Working Surfaces
- Vibration Analysis

VIDEO-BASED PROGRAMS FROM COASTAL

- Accident Investigation
- Anhydrous Ammonia
- Asbestos Series
- Back Safety Series
- Behavior-Based Safety Series
- Bloodborne Pathogens Series
- Chemical Handling Series
- Chlorine Safety Series
- Commercial Driver Series
- Confined Space Series
- Contractor Safety
- Construction Safety Series
- Crane Safety Series
- Disaster Planning Series
- DOT Drug & Alcohol Testing
- Driving Safety Series
- Electrical Safety Series
- Electrical Power Generation Series
- Emergency Planning Series
- Employment Terminations
- Environmental Series
- Ergonomics Series
- Fall Protection Series
- Fire Safety Series
- First Aid
- First Aid for Schools
- Foot Protection
- Forklift Safety Series
- Groundskeeping Safety
- Hand Safety
- Hand Tool Safety Series
- Handwashing
- Hard Hat Safety
- Hazard Communication for Schools
- Hazard Communication Series
- HazWaste Transportation Series
- HAZMAT Transportation Series
- HAZWOPER Training Series
- Hearing Protection
- Heat Stress
- Highway Work Zone Series
- Hotel Safety Orientation
- Hydrogen Sulfide
- Indoor Cranes
- Interviewing
- ISO 9000 Series
- Lab Safety Series
- Laser Safety
- Lead Safety
- Line Breaking
- Lockout/Tagout Series
- Low-Lift Trucks
- Machine Guarding
- Mechanical Power Press Safety
- Media Relations
- Motor Vehicle Awareness
- Off-the-Job Safety Series
- Office Safety
- OSHA Inspection Series
- Performance Appraisals
- Phosphoric Acid
- Pollution Prevention Series
- PPE Series
- Pro-Active Safety Series
- Process Safety Series
- RCRA
- Respiratory Protection Series
- Rope Rescue Series
- Safety Orientation
- Sexual Harassment
- Slips, Trips & Falls
- Stairways and Ladders
- Static Electricity
- Substance Abuse Prevention Series
- Teamwork
- Time Management
- Train the Trainer Series
- Trenching & Shoring Series
- Tuberculosis Awareness
- Walking & Working Surfaces
- Welding Safety Series
- Winter Safety Series
- Workplace Violence

ILLUSTRATED HANDBOOKS FROM COASTAL

- Asbestos Series
- Back Safety
- Bloodborne Pathogens for Schools
- Bloodborne Pathogens Series
- Chemical Handling Series
- Chlorine Safety
- Confined Space Series
- Contractor Safety
- Driving Safety Series
- DOT Drug & Alcohol Testing
- Electrical Safety Series
- Environmental Series
- Ergonomics Series
- Eye Protection
- Fall Protection Series
- Fire Safety
- First Aid for Schools
- First Aid on the Job
- Foot Protection
- Forklift Safety Series
- Hand Safety
- Hazard Communication Series
- HAZMAT Transportation Series
- HAZWOPER Training Series
- Hearing Protection
- Heat Stress
- Holiday Safety Series
- Hotel Safety
- Hydrogen Sulfide
- Indoor Cranes
- Interviewing
- Lab Safety
- Lead Safety
- Lockout/Tagout Series
- Low-Lift Trucks
- Machine Guarding
- Mechanical Power Press Safety
- Office Safety
- Performance Appraisals
- Personal Protective Equipment
- Pollution Prevention Series
- Pro-Active Safety Series
- Process Safety
- Respiratory Protection
- Safety Orientation
- Scaffold Safety Series
- Sexual Harassment
- Slips, Trips & Falls
- Stairways and Ladders
- Static Electricity
- Teamwork
- Time Management
- Trenching & Shoring Series
- Tuberculosis Awareness
- Vacation/Summer Safety
- Video Display Terminals
- Walking & Working Surfaces
- Warehouse Safety
- Winter Safety Series
- Workplace Violence



COASTAL[®]
SAFETY + ENVIRONMENTAL

CAT. NO. EYE000-HBK-ENG-0000

9909