



## Children's Eye Health & Safety

The fall season means football, cooler temperatures, and back to school. This is a good time each year to have your child's vision examined by an eye care professional (optometrist or ophthalmologist). Do not wait until your child complains of blurred vision, red eyes, and/or headaches. The school's vision screening program is designed to only detect the more common eye and vision problems.

Children often do not know how they should be seeing because they assume everyone sees the way they do. Because of this, the American Optometric Association recommends that all children receive a professional eye and vision examination at critical stages in their visual development. These critical stages are

- By six months of age
- At 3 years of age
- Before first grade
- At least every two years until age 18

By having your child's eyes examined at these critical stages, permanent vision loss from amblyopia ("lazy eye") and other pediatric eye diseases can be prevented.

Children with signs and/or symptoms of vision problems, like red eyes, tearing eyes, unusual sensitivity to light, eye pain, or squinting should be examined as soon as possible.

Parents often ask how very young patient can be examined. Fortunately, there are many new instruments available today to objectively (i.e., no patient response needed) measure refractive error. In addition, young children enjoy playing the visual acuity game of identifying common objects on a card like school busses, telephones, and birds that are presented in smaller and smaller sizes. And most eye

health tests, like pupil responses, external examinations, and internal (ophthalmoscopy) examinations only require children to sit still and watch a cartoon to keep their eyes fixated on a distance target.

For children who need to wear prescription glasses, polycarbonate lenses are usually the safest and most durable lens material. Glass lenses can shatter into dangerous pieces if they are struck by a flying object; and plastic lenses - even with scratch coating- are not as durable as polycarbonate lenses for children. In addition, if a child plays a rough sport like baseball, basketball, or hockey, goggles such as "Rec-Specs" are wonderful eye safety devices.

## Eye Injury Prevention

Eye injury is a significant disabling American health problem. The National Research Council reported that "Injury is probably the most under-recognized major health problem facing the nation today. The study of injury presents unparalleled opportunities for reducing morbidity and for realizing significant savings in both financial and human terms." The American Medical Association's Guides to the Evaluation of Permanent Impairment rate permanent impairment to the visual system on an almost equal rate of



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impairment as to the "whole man" ("a total loss of vision in one eye equals a 25% Impairment of Visual System and a 24% Impairment of Whole Man")

Nearly one million Americans have permanent significant visual impairment due to injury, with more than 75% of these individuals being monocularly blind. Eye injury is a leading cause of monocular blindness in the United States, and is second only to cataract as the most common cause of visual impairment. USEIR estimates that 500,000 years of lost eyesight occur annually in the United States. Injury is the leading cause for eye-related hospital admissions.

While no segment of society escapes the risk of eye injury, the victims primarily at risk are the young. The majority of all eye injuries occur in persons under thirty years of age. Trauma is considered the most common cause of enucleation in children over three years of age.

The National Society to Prevent Blindness (now Prevent Blindness America) estimates that 90% of all eye injuries are preventable. Data collection leads to the identification of particularly prominent preventable causes of eye trauma, to help target specific causes. Continued progress in addressing the public health aspect of eye injury also depends on the adequate collection of data concerning incidence, prevalence, demographics, and causative factors.

## **Diabetic Eye Disease Awareness**

There are many different ways to reduce the risk of eye disease (keeping blood pressure under control, not smoking, keeping cholesterol levels low, keeping blood glucose levels as close to normal as possible with diet, exercise and, if necessary, medication.)

Approximately 29 million Americans age 20 and older have diabetes.

Diabetic eye disease, a group of eye problems that affects those with diabetes, includes diabetic retinopathy, cataracts and glaucoma. The most common of these is diabetic retinopathy.

Each year, between 12,000 and 24,000 people lose their sight because of diabetic retinopathy.

Diabetic retinopathy often has no early warning signs. If undetected and untreated, diabetic retinopathy causes the small blood vessels in the back of the eye to leak or burst. Blood leaking into the eye causes clouding and blurry vision in early stages. If treatment is not sought and more leakage occurs, permanent blindness is imminent.

In advanced cases of diabetic retinopathy, laser treatment has been shown to reduce chances of severe vision loss and blindness. This surgery does not cure diabetic retinopathy or restore vision that has already been lost, nor does it prevent future vision loss, especially if blood glucose or blood pressure is not well controlled.

Early diagnosis of diabetes and most importantly, effective control of blood sugar and hypertension through diet and exercise can help to reduce the risk of developing eye diseases associated with diabetes.

Because there are often no early symptoms, your vision may not be affected until the disease is severe and less easily treated. Once you are diagnosed with diabetes, schedule a thorough eye examination including complete dilated exam at least once a year. Also, make an appointment promptly if you experience blurred vision and/or floaters that:

- Affect only one eye
- Last more than a few days
- Are not associated with a change in blood sugar

Diabetes can also affect your vision by causing cataracts and glaucoma. If you have diabetes, you may get cataracts at a younger age and your chances of developing glaucoma are doubled.

More than one third of those diagnosed with diabetes do not receive the recommended vision care and are at risk for going blind. If you have not had dilated exam this year, please schedule one this month. Your vision is worth it.