



XCELLENCE IN EYE CARE

## THE EYE INSTITUTE

### *Eye Teaming Problems (Binocular Vision Problems)*

#### **What is an eye teaming problem?**

It is not enough to have 20/20 vision and be able to see the board or a book clearly. We have two eyes and in order to see properly, we have to use our two eyes together in a very precise and coordinated fashion.

Every time we look at something, we must accurately aim the two eyes directly at the object of concern. Each eye sends an image to part of the brain involved in the process of seeing. This part of the brain called the visual cortex then tries to combine these two images to make one **"fused"** image. If these images are identical, the result is normal, clear, single vision and a perception of depth. If, however, the two eyes are not performing in a coordinated manner, the visual cortex will receive two different images and will experience double vision.

As you can imagine, double vision is not something a child or an adult can tolerate. It becomes very difficult to function either at school, play or work if double vision occurs.

#### **What types of eye teaming problems can occur?**

The two most common types of eye teaming problems are:

##### **Convergence Insufficiency**

Convergence insufficiency is an eye teaming problem in which **the eyes have a strong tendency to drift outward** when the individual is reading or doing close work. If the eyes actually drift out, the person experiences double vision. To control the eye's tendency to drift, the individual must exert excessive effort to make the eyes turn back inward.

##### **Convergence Excess**

Convergence excess is an eye teaming problem in which **the eyes have a strong tendency to drift inward** when the individual is reading or doing close work. If the eyes actually drift in, the person experiences double vision. To control the eye's tendency to drift, the individual must exert excessive effort to make the eyes turn back out.

#### **How common are eye teaming problems?**

Approximately five to ten percent of children and young adults have eye teaming problems significant enough to cause some of the complaints listed below.

## What are problems and symptoms associated with eye teaming issues?

People with eye teaming problems may complain of the following:

- Eyestrain and headaches after reading for a short period of time
- Inability to concentrate when reading
- Short attention span
- Frequent loss of place when reading
- Rubbing or closing an eye
- Words moving on the page
- Good decoding skills, but poor comprehension

Eye teaming problems resulting in these symptoms actually have more of an impact on learning or performance at work or school than vision problems causing a lack of clarity. Unfortunately, most school vision screenings are only designed to detect vision problems which cause a lack of clarity. Very few school screenings even test for eye teaming disorders.

## How are eye teaming problems treated?

There are currently two methods used to treat eye teaming problems. Sometimes eyeglasses alone can be prescribed to provide relief from the complaints associated with eye teaming problems. These glasses are usually prescribed for just reading and must be removed for seeing the board. With very young children, who would have trouble removing and putting on the glasses multiple times throughout each day, bifocals can be prescribed. A bifocal allows the child to wear glasses at all times while in school.

Often eyeglasses alone are not sufficient to completely solve eye teaming problems. Although the glasses may provide some relief, the eye teaming problem's symptoms persist and another form of treatment must be used. This is referred to as **VISION THERAPY**.

**Vision therapy** is a treatment approach involving weekly office visits. During these visits, carefully selected and sequenced activities are practiced by the patient. This treatment restores normal coordination, flexibility and function to the eye teaming system and leads to improvement of symptoms.

The success of vision therapy has been well documented in scientific literature.

Any other questions can be directed to Karen Pollack:  
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