

Convergence

To see clearly and without confusion at close distances, the two eyes must be aimed precisely at the object you are trying to see. Unfortunately not everyone develops this ability in childhood. Inaccurate alignment of the eyes can result in visual fatigue, blurred or double vision, poor judgement of depth, eye ache, headache and mental fatigue.

Convergence excess

Convergence excess is a condition in which a child's eyes have a tendency to aim closer than at the object that the child is trying to see. It is possible to achieve correct aim only by exerting extra effort (Figure 1) and prolonged periods of close work can cause considerable discomfort.

Many cases of convergence excess are due to longsightedness. When longsighted people require extra effort to focus (accommodate) to see clearly at close range, it causes their eyes to turn in too far, which creates the convergence excess.

Convergence excess affects about 10 percent of school children.

In cases where convergence excess causes symptoms, it can be treated with reading spectacles or bifocals that relax the convergence and focusing systems, removing the need for extra effort. This often allows longer and more efficient concentration on close tasks.

Eye exercises usually are not successful in treating convergence excess.

Convergence insufficiency

Convergence insufficiency is a condition in which the eyes have a tendency to aim farther away than the object at which they are supposed to be pointed. Correct aim can be achieved only through extra effort (Figure 2). Convergence insufficiency affects about five percent of children and up to 10 percent of adults.

Convergence insufficiency is perhaps the simplest and most successfully treated eye co-ordination problem. Eye exercises are employed to train the eyes to aim efficiently without excessive effort. Normal convergence is usually attained after three or four weeks of daily exercises.

Spectacles may be a useful aid to treatment, especially when there is also a focusing problem involved, although on their own they will rarely solve the problem.

Figure 1

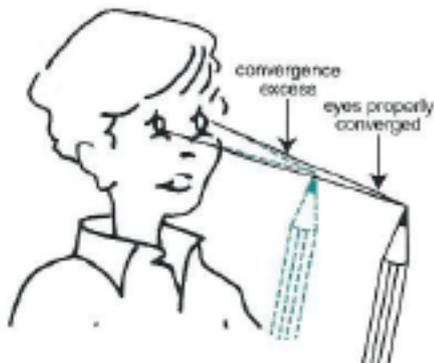


Figure 2

