

## **Intermittent Exotropia**

### **What is intermittent exotropia?**

Intermittent Exotropia is an intermittent outward drift of one eye. In some cases one eye will be the only eye that drifts out. In other cases the eyes may alternate, sometimes the right eye drifts and sometimes the left eye drifts. This problem usually comes on gradually and is not uncomfortable to the child. The child will **not** complain of double vision. Children usually exhibit more drifting when they look at distance objects than when they look at near objects. The drift can be fleeting and last seconds, or can be almost constant with only brief periods when the eyes are straight. Many children with intermittent exotropia close or squint one eye when out in bright light.

### **What causes intermittent exotropia?**

The exact cause is not fully known. However we do know a few things. It is not caused by anything you or your child have done, anything environmental, or because your child crosses his eyes or uses his eyes to make funny expressions. The cause is believed to be in the brain, more than the muscles of the eye. The exact cause of the abnormal brain pathways is not known, but in many cases it may be an inherited characteristic, determined by one's genetics. Therefore, calling it an eye muscle problem is a bit incorrect. The muscles are simply following the incorrect instructions of the brain. With long term exotropia there can be secondary changes in the muscles and there are a few unusual medical conditions that can cause changes in the eye muscles causing this problem. Perhaps the best way to understand intermittent exotropia is to imagine that the brain has two pathways for instructing the eyes to work. One pathway tells the eyes to both work at the same time and to track together. This is the way most of us use our eyes. A second (abnormal) pathway exists that allows the child to shut off the vision in one eye and let the eye drift outwards while the other eye does all the work.

### **Is intermittent exotropia dangerous for my child's vision?**

Yes! A child has a brain that is still growing and developing. Any part of the brain that is frequently used will develop further, and any part of the brain that is not used will become less developed. So, if a child is drifting frequently and not using one of their eyes, or not using their eyes together, they can develop amblyopia and also permanently damage the development of depth perception. Amblyopia is underdevelopment of the part of the brain for an eye, and if it is untreated it can be permanent. Untreated amblyopia can lead to blindness in one eye. Amblyopia can only be treated when a child is young. In addition, the more the eye drifts and the brain uses the abnormal pathway, the more the development of this pathway in the brain is encouraged. Eventually, the child can stop using their eye together at all. In this case the child has constant exotropia. Although constant exotropia can be treated surgically, the results are not as good as when we treat intermittent exotropia.

### **How is intermittent exotropia treated?**

Every child is different. Your doctor will recommend and explain the appropriate treatment for your child. Treatment depends on the vision in each eye, how frequently the child drifts, how large the drifts are, and whether the child drifts more when looking at a distance or near object. Treatment can include glasses, patching, orthoptic (eye exercises), and surgery. Surgery is used for frequent large exotropias and when simpler, less invasive methods, fail to improve smaller less frequent drifts.