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Integrative Manual Therapy for Visual Improvements

by Kimberly Burnham, PhD, IMTC, LMT

Abstract: The Vision IMT program relies on the expertise of many types of Integrative Medicine practitioners to help improve vision in people with detached retina, lazy eye, visual headaches, migraines with visual auras, cataracts, glaucoma, corneal ulcers, keratoconus, astigmatism and dyslexia. IMT is also effective for clients with conditions involving an eye component, such as spinal cord injuries, multiple sclerosis, high blood pressure, seizures, tinnitus, Cerebral palsy and Down's syndrome.

Key Words: VisionIMT, Visual Dysfunction, The Eyes, Complementary Medicine Approaches for Vision

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There is a Nicaraguan saying, "Eyes that see do not grow old." Many people are asking themselves and their therapists, "how do we see better as we age rather than face progressive visual loss as the birthdays come and go."

People of all ages are improving their vision through the use of hands-on therapies from the field of Complementary Medicine as well as by shifting their diet / nutrition and doing visual exercises.

American osteopath Eric Dolgin notes, "visual problems are very common in today's society and take many forms. A good number of these go undiagnosed or untreated, but are amenable to osteopathic treatment [manual therapy], including functional eye problems and visual strain."¹ (Dolgin, 2003).

In the *Clinical Journal of Pain*, Fernandez-de-Las-Penas et al. described the relationship between migraines and the superior oblique muscles of the eyes. "Some patients with trochlear disorders have been found to suffer from concurrent migraine." In this study, "the trochlear region was examined in 20 participants with strictly unilateral migraine without side-shift and in 20 controls. Referred pain, elicited by different maneuvers during manual palpation (ie, maintained pressure, active muscle contraction, and stretching of the superior oblique muscle) was assessed with a visual analog scale. All participants were headache free on the day of evaluation.

Sixteen participants with migraine (80%) perceived re-

ferred pain on examination of the trochlear area. It was described as a tightening sensation in the retro-orbital region, sometimes extending to the supraorbital region and the homolateral forehead. In 15 participants with migraine, both the active contraction and the stretching of the muscle increased the referred pain, which was consistent with definite myofascial trigger points. All the definite trigger points were ipsilateral to the side of the headache. Conversely, only 5 controls (20%) had referred pain."

Researchers concluded, "patients with unilateral migraine commonly perceive referred pain from the trochlear area that probably comes from the myofascial trigger points. Myofascial disorders in the trochlear region might contribute to the perpetuation of concomitant migraine."²

Vision IMT synthesizes the skills of many practitioners, including massage therapists, physical therapists, functional vision experts, and behavioral optometrists. All work towards improving the client's visual function and overall health.³

Integrative Manual Therapy (IMT) clients literally seeing improvements, include both adults and children with visual labels such as detached retina, lazy eye, visual headaches, migraines with visual auras, cataracts, glaucoma, corneal ulcers, keratoconus, astigmatism and dyslexia. IMT is also effective for clients with conditions involving an eye component, such as spinal cord injuries, multiple sclerosis, high blood pressure, seizures, tinnitus, Cerebral palsy and Down's syndrome.

This integrative approach works for people whose vision has worsened as they have aged as well as those with serious dysfunctions. A 40-something client put it this way, "now for the really exciting news! I saw the optometrist yesterday. Eight months ago I had an extensive eye exam. Since then, my prescription changed .5 diopters and, best

of all, my astigmatism is gone--completely--30 years worth. The objective changes are wonderful, but even more so, what it means to me is, my vision is literally not so distorted and I can trust what I see. I realize how hugely this ties into my trust issues and the ability to trust what I perceive."

There are Advanced Strain and Counterstrain techniques¹ (Giammatteo, 1997) and ² (Wheeler, L. 2004), which address the ocular muscles and the muscle wall of the blood vessels supplying the eyes. A number of studies have shown that relaxing the muscles of the eyes can significantly improve vision. These easy positional release type techniques address tension in skeletal muscles and the muscle wall of blood vessels and organs throughout the head and rest of the body. This approach can be effective with vascular headaches.

Strabismus or lazy eye is another problem of the muscles of the eye and the way the nervous system interacts with those muscles. This is one client's report of her daughter's progress: "I am giving T. a little time to adjust to all the changes that may have taken place with the intensive IMT treatment. I'm anxious to see her progress. I'm already noticing that the degree of her eye turn doesn't seem to be as severe. Before her pupil would almost disappear and now that's not the case."

A few months later, she continues, "just wanted to let you all know that the appointment with the optometrist went incredible yesterday. The biggest news was that since the intensive, [the] degree of eye turn has gone from an 85 degree turn to a 50 degree turn, solely from the Integrative Manual Therapy treatment. As soon as she gets her new prescription, which should be next week, she will start Vision Therapy."

Then after a few more months, "T. [has] been making some progress. We got her fitted in some glasses that improved the rhythms in her eyes. She's been doing Vision Therapy as well. Her degree of turn has gone from the new 50 degree turn to 45 degrees. Her prescription is also getting better. She was 80/60 and now she's 60/30."

There are a range of IMT techniques addressing the cranial bones, the sutures and joints of the head and neck, with specific techniques to address the sphenobasilar joint which is located near the optic chiasm, the part of the system where the nerves from each eye meet before continuing to the back of the head.

Given the number of small bones that make up the orbit of the eye, trauma to the bony structure can cause significant visual symptoms. Developed by Sharon W. Giammatteo, the "bone bruise" technique¹ is used to address bone integ-

rity problems of the orbit and face. Additionally, therapists look at the way the joints articulate. This biomechanical approach can make significant changes to the amount of space and movement in and around the eye. One way to focus on eye biomechanics is to look at how the different parts of the eye interface with each other and seeing if there is movement available between the different parts. For example, consideration is given to the relationship between the frontal bone and the zygomas (cheek bones) as well as to the relationship between the iris and the pupil.

Often addressed by IMT practitioners is the connective tissue lining of the cranium, the dural or meningeal layers. From their attachment on the posterior aspect of the eye, the meningeal layers cover the optic nerve and other brain tissue. These connective tissue layers also attach to the bones of the head.

Infections from the eye can be communicated to the rest of the brain and spinal cord via the connective tissue. Toxicity can also affect the eyes secondary to a spinal cord or brain tissue infection. There are several hands-on techniques to address the health of the dura and membrane system of the eyes, brain and spinal cord. These techniques are aimed specifically at improving the circulation of cerebral spinal fluid and blood flow within the head. Good cranial drainage and adequate arterial blood flow as well as proper lymph and immune function can make a significant difference in the healing of visual problems.

A 50 year old woman with a diagnosis of keratoconus, a genetic disorder where the cornea becomes weaker than it should be said, "I also had nystagmus, where the eyes would get twitchy, especially when I was tired. For a while the nystagmus was only slightly visible when I was very tired and look to the extreme right side. Now it is completely gone. The keratoconus has stopped degenerating. I have virtually no dysfunctional light sensitivity, which is usually a big problem. I have had one migraine headache in the last 5 years, previous to that I had 3-6 severe migraines a year."

Work can be done with a variety of brainstem mediated reflexes which releases the compression by the musculoskeletal tissue on the eyes, optic nerve, blood vessels serving the eyes and the visual cortex. This can particularly help with nystagmus. The eyes are also involved in a number of reflexes affecting balance, hand eye coordination and upright posture, so balance can improve as vision improves.

Macular degeneration, the most common cause of blindness in people over 60, is a problem of the nerve part of the eye (macula), which is the central portion of the retina. An 82 year-old client put her recovery this way, "after 15 hours of

IMT treatment, my ophthalmologist said my wet macular degeneration had not worsened in the previous year. I find that I can read and drive better. Colors seem brighter.”

The neural tissue tension and dysfunction of the eye, optic nerve, optic chiasm, occipital lobe and other central nervous system areas are addressed by focusing manually on the circadian rhythms of the neural tissue. The ciliary ganglion and the stellate ganglion seem to both be influenced manually resulting in better nerve and eye function.

There is also a significant pressure component in many eye and vision dysfunctions. There can be pressure problems in the eye itself that result in a detached retina or there can be pressure relationships between the eye and other areas of the body. For example the heart, kidneys and high blood pressure can contribute to glaucoma. In Integrative Manual Therapy, there are tools to work with balancing these pressures and reflex point to help in that process.

A client with glaucoma, noted his improvements, “I had laser iridotomy surgery performed for glaucoma, one week prior to seeing an IMT practitioner and it was looking like that may not be effective in lowering my intraocular pressure. After the treatment, my entire head felt relaxed most importantly my eyes. Two days later, I went to the doctor’s office for a pressure check and it was stabilizing at a normal range! I feel the techniques helped revive the cells in my eyes, and contributed to the stability of my intraocular pressure. I can only hope it continues.” His therapist reported, “after doing just work with the muscles of the diaphragms and the cranial work for the blood flow around the eye, his eye pressure started to stabilized.”

In other reflex point based, complementary medicine research on the efficacy of tongue and body acupuncture in affecting visual recovery in children with central and peripheral visual disorders, researchers evaluated and treated 12 children with visual disorder with static functional visual ability for at least 12 months

“The causes of cortical visual impairment (10) included severe perinatal asphyxia (4), postencephalitis (1), traumatic brain injury (1), hydrocephalus (1), and increased intracranial pressure (3). Peripheral causes (2) were due to congenital optic atrophy.

Tongue and body acupuncture consisted of 60 sessions, with 5 sessions per week. Four children showed clinical or functional improvement (33%). Of nine children with abnormal visual evoked potentials, five had improvement (56%). Of seven children who underwent PET, six had improvement in glucose metabolism in the visual cortex (86%). Seven parents (58%) reported improvement (3 chil-

dren had 75% improvement; 4 children had 25% improvement).”¹(Wong, 2006)

In “The Eye”, an advanced IMT Cranial Therapy course, there are a number of techniques that address tear ducts and the tearing function of the eyes in a smooth hands-on way. Tears have a significant lubricating and immune system function keeping the eyes irritation and infection free. These techniques can help with dry eyes.

As one client put it, “last night I was able to sit down and read from a book for the first time in a long time. Usually I have too much eye irritation to read for more than a few minutes.”

IMT practitioners may also make recommendations on nutrition. Drinking green tea is beneficial for eye health. “Epigallocatechin gallate (EGCg), the main polyphenol component of green tea, has several antibacterial properties. Here we show that sub-MICs of EGCg appear to decrease slime production, therefore inhibiting biofilm formation by ocular staphylococcal”² (Blanco, 2005).

“Both green and black teas significantly inhibited diabetic cataracts and caused significant reductions in the biochemical pathway implicated in the development of the pathology. Tea may be a simple, inexpensive means of preventing or retarding human diabetes and the ensuing complications.”³ (Vinson, 2005).

“In addition to alcohol-induced ocular anomalies among children with fetal alcohol syndrome, epidemiologic studies in the past two decades have demonstrated that chronic alcoholism is associated with a significantly increased risk of cataract, keratitis, color vision deficiencies and corneal arcus.”⁴ (Hiratsuka, 2001)

The visual component of Reflection Therapy [an IMT self-care program] makes it ideal for helping a variety of visual conditions as well as a range of nervous system and limbic system issues.¹ (Giammatteo, 2001).

Other exercises help relax the eyes and improve night vision and decrease sun sensitivity on a bright day.

Stand facing the sun with your eyes closed. Keep eyes closed throughout the exercises. Slowly turn your head to the right. Then cover your eyes with your right hand. Then remove your hand and turn your head back to face the sun. Always keeping your eyes closed. Then turn your head to the left. Then cover your eyes with your left hand. Then remove your hand and turn back towards the sun, then repeat by turning your head to the right. Repeat 5-10 times

several times a day. Each place (facing the sun, turned to the right and turned to the left) should take 3-5 seconds. So one cycle takes 15-20 seconds.

Another exercise from Meir Schneider, helps improve visual acuity and relaxes the muscles of the eyes that help us to focus.

Stand facing away from the sun. Hold your arm out in front of you with your index finger in the air. Slowly swing your finger and body, rotating the finger in front of you. Swing your finger and body to the right then to the left. As you rotate look at the index finger. Swing from right to left several times while looking at the index finger. Then continue to swing from right to left but look out to the distance. Repeat this several times then go back to looking at the index finger.² (Schneider)

An easy home program can improve vision and eye pain. This can be done with Neurofascial Process,³ (Weiselfish-Giammatteo, 2002), where the person places one hand softly over both eyes and the other hand behind them on the low back area, over the ureters (between the kidneys and the bladder). This process facilitates drainage of the eyes and should be done for 15-20 minutes at a time. It can be done daily when you wake up or at another time during the day. The hands can be your hands or you can do this for a child or a friend.

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