# Vision Improvement

by: Grace Halloran, Ph.D.

**Abstract:**. Vision Loss: Multiple Causes = Multi-Discipline Solution. Grace Halloran reviews here her design and study of a holistic approach to interactive eye-health care for Macular Degeneration, Retinits Pignetosa, Glaucoma and Diabetic Retinopathy. Vision degeneration is often due to many conditions which demand an inter-disciplinary approach to promote the recovery of sight.

**The Multi-Discipline Therapy Study**

From September 7, 1996 to April 1, 1997, five separate groups of visually impaired individuals participated in a two-week course of multi-discipline therapies and training sessions.

The two-week study course was based on the MaximEyes Vision Improvement Program, developed by Grace Halloran, Ph.D. There were a total of twenty-two individuals, aged 13 to 83; thirteen were diagnosed with Retinitis Pigmentosa (RP), two with Macular Degeneration associated with Retinitis Pigmentosa (RP/MD), four with Age-Related Macular Degeneration (AMD), one with juvenile macular degeneration (Stargardt's), one with Glaucoma, and one individual with Diabetic Retinopathy participated in the intensive therapy/education program.

The intensive programs were administered by Grace Halloran, Ph.D. All participants were tested pre- and post-intensive by August L. Reader, M.D., F.A.C.S. Visual examinations consisted of Humphrey Field Tests (30-2 Central), standardized best corrected visual acity, Ishihara Color Plate identification, bio-slit lamp examination and intraocular pressure.

The two-week intensive provided over 75 hours of therapy, training and education in the following areas; between 25-30 treatments of Electro-Acuscope 80 (Bio - electrical stimulation of Acupuncture points), biofeedback and stress management education and training, Touch for Health (applied kinesiology and neuro-lymphatic stimulation, Tyro Instrument (visual color identification & retraining), 20-25 sessions of Light Resonance Therapy (color therapy, blue green, green yellow, and magenta), eye health exercises, acupressure, deep tissue massage, foot and hand Reflexology, Total Body Balancing, nutritional education and supplementation consisting of multiple vitamins and minerals, DHA, Ginkgo Biloba, Planti-Oxidents and Trace Mineral Clay (188 trace minerals), group discussion, and peer counseling.

The results showed overall improvement in many of the field of vision and visual acuity tests. Color identification had mostly similar pre- and post-testing partly due to the type of color test employed. However there was a dramatic improvement - from 0 of 18 correct at the pre-therapy test, to correct identification of 14 of 18 at the post-test (a remarkable increase of color vision), in an AMD (age-related macular degeneration) participant.

At the time of this writing, three 'Controls' diagnosed with Retinitis Pigmentosa have been evaluated. The Controls were tested identically to the participants. None of the controls received any therapy, education or training. All three post-tests were nearly

identical or slightly worse than the pre-test evaluations on these Controls.

**Keywords**: Acupressure, Acupuncture, Biofeedback, Color Therapy, Diabetic Retinopathy, DHA, Deep-Tissue Massage, Electro-Acuscope, Foot Reflexology, Ginkgo Biloba, Glaucoma, Macular Degeneration, Nutrition, Retinitis Pigmentosa, Stress Management, Touch for Health, Trace Minerals.

**"Do not go gentle into that good night;**
**Old age should burn and rave at close of day;**
**Rage, rage, against the dying of the light."**
Dylan Thomas (1914-53), Welsh poet.

## Background

There is an epidemic of serious eye disorders facing this country. Over 17 million Americans are now visually challenged in the United States. Within the next several years over 75 million Americans will pass the mid-century mark. The National Institutes of Health estimates that nearly half are at risk to develop impaired sight. If these eye dis-orders were fatal, there would be a global panic.

Little has been done to prevent devastating visual conditions, such as macular degeneration, retinitis pigmentosa or diabetic retinopathy.

Until recently Macular Degeneration was called Senile Macular Degeneration. Researchers and health care professionals felt that this condition was part of the 'normal' aging process, and therefore did not warrant intervention or preventive measures. Re-named Age-related Macular Degeneration (AMD), it now accounts for more than forty-five percent of the low vision cases in industrialized countries. Individuals diagnosed with Retinitis Pigmentosa (RP) are always told that nothing can be done to prevent the progressive blindness. The majority of the visually challenged population, aged forty and under, are impaired from RP and Diabetic Retinopathy.

## Age-Related Macular Degeneration

There are two types of AMD: *Wet and Dry.* The macular or fovea is where central acuity is processed in the photo-receptor cells located in the retina that enables clarity of vision to occur. The retina is often considered the back of the eye and the front of the brain.

The area on the retina that houses photoreceptor cells identified as 'cones' are concentrated in an area not much larger than the head of a ball-point pen. The cones are responsible for translating light entering the eyes into shape, size and color. There are color specific cells that pick up red, blue and green. Other cells pick up horizontal, vertical and diagonal lines. These cells are stimulated by light bouncing off objects being viewed, and each piece of information is processed within the brain and visual cortex.

When an individual is diagnosed with the 'wet' type of AMD, the area of retinal tissue is flooded with fluid from the lymph and vascular region and does not allow images to be clearly identified (distortion and wavy lines, not unlike looking through a fish tank).

The eyes have been considered 'immunologically' privileged. The eyes have a sluggish or slow and limited lymphatic system, allowing little if any rejection to transplantation. If the wet type of AMD is caught early (within a few days), some physicians employ laser surgery, cauterizing the leaking area. The laser permanently scars retinal tissue, and cannot be used directly on the macular area, as that would cause irreversible blindness.

The 'dry' AMD is where blood vessels become blocked and atrophied such that nutrients and blood flow is depressed to the area. Tissue starved for the life-giving supply,

stimulates more capillaries to be created in an effort to provide a new blood supply to the tissue. In the attempt to regrow supply lines, the tissue becomes more and more dysfunctional.

Doctors who often tell their patients that they won't go completely blind from AMD do not fully realize the implications that statements makes. The individual is left confused and emotionally devastated. After all, what is blindness when what they are experiencing is not able to see and function clearly in the sighted world? The ability to focus and transform light into images, and colors clearly is a form of 'blindness' that completely debilitates not only the person affected, but the family as well.

Wet or dry, the result is the same: *clear, central acuity is impaired or lost.* The ability to read, to recognize friends and family, to witness the rites of spring and the colors of the blossoms in their glory, to be able to turn the heater up or down accurately, set the proper wash cycle, to sew, or even spot an embarrassing stain on clothing is gone.

Life is altered completely on all levels; social, educational, financial, recreational and survival issues are seriously challenged. The adjustment for most from a sighted world to a visually impaired one is often cruel and isolating. Most eye doctors do not address the emotional issues, or even guide the individual to helpful training and support systems.

**Retinitis Pigmentosa**RP is a progressive, inherited, blinding disease. It is a genetic disorder that often attacks entire families.

**There are at least nine known types of RP:**

- Abetalipoproteinaneminia RP-dietary deficiency
- Battens Disorder-usually fatal before adulthood
- Cone Dystrophy RP (Macular Degeneration)
- Dominant-passed from one generation to the next
- Lawrence Moon-Biddel-Obesity, developmental disabled, gait difficulties
- Recessive Refsoms-metabolic disorder, normally in Scandinavian countries
- Ushers - Deafness associated with RP
- X-Linked

The typical symptoms of this disorder affect night vision, produce tunnel vision, progressing to total blindness. Millions of dollars of research over the last twenty-five years has brought little hope to the many people who live with this disease. There are some breakthroughs in the genetic make-up of some of these types, but none have produced effective treatment to date.

> "These debilitating and blinding disorders affect approximately 100,000 people in the United States and countless others around the world. The incidence has been estimated to be approximately 1 in 3,500 births, and all social, ethnic, and racial groups are affected." -The National Eye Institute, a U.S. governmental agency.

Where many of the other eye disorders affect the elderly, most of the individuals diagnosed with RP are legally blind by their forties. This has traditionally been considered a progressive, degenerative disorder that affects the younger population. Recent studies have found that at least half of the individuals with RP are born to parents with normal sight. Experts estimate that one in eighty people carry the abnormal RP gene.

Again the National Eye Institute clearly sums up the problem and the need for development of a therapeutic solution:

> "The emotional and economic costs to our society are enormous, particularly in view of the fact that no effective treatments are known for practically all types, and that many patients become legally blind by the age of 40 or earlier."

**Study Points to Multiple Causes**

A 1996 study published by the National Institute of Eye Health concluded that there are multiple causes contributing to the destruction of usable vision. Factors ranging from genetic predisposition, environmental toxins (pollution, smoking), increased exposure to UV radiation, drugs, and nutritional deficiencies are some of the influences leading to loss of sight. Factors that most can alter, change or avoid if given adequate information and education. Sadly, this information is not forthcoming from the front line of vision specialists. The individual is given the rote statement, 'nothing can be done,' 'just grow old gracefully and accept the side affects of aging without complaining.'

**Alternatives to Failing Sight**

For over twenty years the author has studied and developed alternative modalities for the visual system. Having been diagnosed with an 'incurable and untreatable' condition, Retinitis Pigmentosa and Cystoid Macular Edema (macular degeneration), the motivation was personal in the beginning.

The multi-disciplined vision improvement program has been taught in over 8 countries, including Europe and South America. The results are currently being documented by other eye health professionals, under the guidance of pre- and post-examination protocol developed by August L. Reader, M.D., F.A.C.S., a renowned Neuro-ophthalmologist working at Cedar's Sinai in Los Angeles, and California Pacific Medical Center in San Francisco, California.

Once the initial results have been evaluated and reported, it is our goal to thoroughly investigate each and every modality utilized to obtain the results described in the review of the study on the first page of this report.

The disciplines provided during the two week vision improvement intensive are varied, providing avenues of therapy and education in all of the areas recently identified by the National Eye Institute as contributing factors for visual degeneration.

There is an abundance of literature being published on the positive affects of incorporating a healthier diet, stress management and even meditation. Dr. Dean Ornish has developed one of the most widely accepted and studied heart health regimes based upon alternative lifestyle and therapies.

**Touch for Health**

One of the most consistent and powerful tools employed in the MaximEyes intensive program is Touch for Health. During the initial muscle testing and remediation of neuro-lymphatic pressure points, a dialogue is frequently generated between practitioner and participant. Within this environment a new understanding of the relationship between the body and the mind is communicated to the individual. Touch for Health affords the opportunity to educate the lay person as to the immediate changes possible in a 'balancing.'

Theory transforms into practice the instant an individual feels the strength returning to their arm or leg that had moments before been 'weak.' Often this leads to an exciting discussion regarding health care and the interactive role practitioner and participant can establish. There are eight Touch for Health sessions provided during the two week

intensive. Each session is a progression of 'hands on' education regarding topics from nutrition to stress management and the ability to learn to massage their own points as established in the Total Body Balancing segment of the program.

Improving lymphatic flow (critical to eye health and visual function), an adaptation of Touch for Health has been instituted into the MaximEyes Vision Improvement Program. All graduates of the two week intensive, designed to 'jump start' circulation to the head and eye area, receive extensive training in Total Body Balancing - based upon the Touch for Health discipline.

Individuals are instructed to open the fourteen meridians with precise muscle movement (muscle dance) and to apply acupressure on the neuro-lymphatic points specified in the Touch for Health book. After stimulation of points, the meridian is then closed by repeating muscle movement. It is recommended that individuals perform this procedure a minimum of twice weekly, along with the other disciplines outlined in the MaximEyes Home Training Version. Most eye disorders are chronic, and the use of this discipline assists in attaining and continuing their improvement. Early follow-up studies clearly show continuing improvement when the home training program is consistently utilized.

After being told for so long that their visual loss is unpreventable, and often times that it is their own fault for growing old, the capability to change a muscle group's ability to resist in so short a time as thirty seconds is astonishing at least, and a powerful tool in overcoming health challenges at best.

Touch for Health has been the catalyst for changing the outlook of visually challenged individuals for more than twenty years in this practice. I am grateful to Dr. John Thie, and to the many people who have helped support, teach and train this remarkable discipline.

**Case Studies**

The case studies presented in this paper embody the positive results that have been achieved when multiple alternative modalities are embraced by individuals seeking to prevent or regain visual loss. The cases outlined in this study are statistically small in number, nonetheless they are significant in that they clinically and measurably improve eye conditions that have long been classified as progressive and untreatable.

**Sean D., Age 13, Retinitis Pigmentosa - Canada:**

Sean's field of vision had become severely restricted, and his night blindness was preventing him from feeling confident at night for school functions. His visual acuity in his left eye was 20/60+2 and at the post- two week intensive test had recovered to 20/25-1 (20/20 is considered excellent acuity). His right eye had been 20/20 at the start. Sean's post Humphrey Field of Vision test indicated improvement in the right eye, with a Mean Deviation going from -27.55 to -26.5 (normal vision fields are measured in the +numerical range). With narrowed fields and a large discrepancy in right and left eye acuities, Sean's visual function was limited. The following statement is from Sean's point of view, and although subjective, is important from the standpoint of improved visual function and quality of life:

> "I can see more in the dark. I can see a whole page of printing now, instead of part of a page. My mom is happy for me and pleased with the program. I told my friends about it and they think it's cool. I have more confidence now. I'm playing sports now. I couldn't before. I'm playing basketball and badminton. I'm looking forward to getting more vision. I

do the program every day during the week."

-Sean D. Age 13, Canada (RP)

**Eudora K. 66, Age-Related Macular Degeneration - California**

In January, 1997, Eudora's visual acuity in her right eye went from 20/60 to 20/40, and her color identification went from 0/18 (Ishihara Color Test) to 2.5/18 on the right and from 0/18 to 14/18 on the left. A significant improvement in color and acuity. Color perception is affected in AMD, indicating pathology in the cells, showing up as color deficit. The following quote was recorded in late March of 1997, several months after completing the Intensive MaximEyes program.

"My vision has improved to the point that I can now tell who I am seeing before they are real close. I can see features on faces rather than a blur. The fog that I've been seeing through has been thinning. Not so much fog. Not much problem with glare anymore, either. I'm driving with greater confidence now, not like a little old lady. When I go into town I can see the curb easily. I don't stumble over them anymore. I'm doing the program 5 days a week. I'm very pleased with my progress!"

-Eudora Kruppa Ballico, CA (AMD)

**Richard Oliver, 35, Macular Degeneration/Retinitis Pigmentosa- New Jersey**

Richard attended the January 1997 intensive. His central visual field was quite restricted, recording Humphrey field mean deviation in the -32.07 (severely restricted) and tested two weeks later at -18.89 in the right eye, and from -31.58 to-13.07 in the left. Significant improvement in field of vision. Richard had extreme sensitivity to sunlight and bright indoor lighting, to the point of wearing sunglasses indoors. His ability to tolerate light, even bright mid-day sunlight significantly improved during the two week training. The following is a statement from Richard:

"This program has changed my way of thinking. I'm not going blind anymore! I can now see through both eyes! My confidence is back and depression is gone! I can even see small print on a page now! The program was worth every penny. Oh, and my eyes don't hurt anymore. I used to wear the darkest sunglasses I could get and another pair of sunglasses over that to get away from the pain of glare. Now I can wear one pair of sunglasses and glare doesn't bother me anymore!"

-Richard Oliver Marlboro, NJ (MD/RP)

**Tony Compton, 50, Retinitis Pigmentosa - California**

Tony was tested three times in six weeks before starting the intensive program. His Humphrey field mean deviation read consistently the same: January 5, left eye -31.55 and -31.11 on January 16, and on February 2, -31.02. Two weeks later on February 13, after participating in the intensive therapy program, his left eye read at-29.69. Tony's right eye acuity remained the same for three examination, of CF@1" (count fingers at one foot), to CF@2-3" on the post-test on February 13, 1997. The following is a statement from Tony:

"I've noticed significant changes, especially in my weak eye, in the fields of view opening up. The overall program has brought this about, I think. I'm sleeping better, now that I'm using the relaxation techniques taught in the program. I'm seeing that I need to do the full program, not just parts of it. I was a pro-bowler and had to leave it because of failing sight. I'm bowling professionally again! I have seen, through my recorded game scores, the improved vision. I can

see the green leaves on the trees in my garden now, instead of a green blur! It is like being born again! I've lost weight and gotten back into shape again, now that I'm more active, and because of the program. I haven't had a cold this winter since I've been on the program, no more sinus problems. I'm not a couch potato any more! The presentation of MaximEyes was very encouraging, it woke me up to new possibilities!"
-Tony Compton Fairfax, CA (RP)

**John Orser, 46, Retinitis Pigmentosa - Kentucky**

John attended the February, 1997 intensive. His Humphrey field mean deviation went from -30.95 to -27.75 in his left eye. His visual acuity at the pre test was 20/200-1and went to 20/70+1 on the right eye, and from 20/400 (big E on eye chart) to 20/200 on the left. Here is John's personal statement:

"Since coming back from the MaximEyes intensive I have noticed that I have more night vision. I can see the table and chairs on my back porch. And when I go out with friends in the evening I can see the curbs before I trip on them. The program has given me hope and confidence again."
-John Orser Louisville, KY (RP)

**Rudy Strunk, 72, Retinitis Pigmentosa - California**

Rudy participated in the January 1997 intensive, and had the most significant improvement in visual acuity. At the pre-test, his right eye was CF@ 1 Ft., and was able to read at the 20/400 line, and on the left eye from CF@ 1 Ft. to 20/200. His color test also showed slight improvement. His fields remained the similar in the central field. Here is a statement from Rudy:

"I'm doing the program daily and have noticed improvement since the intensive. I ride my bike around town and for the first time I can now see where the driveway is and don't hit the curb with my bike! Things seem lighter, brighter. I think this program is the only way to go! I'm very pleased with it."
-Rudy Strunk Turlock, CA (RP)

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