Reverse your failing eyesight

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A few pioneering doctors are using a mix of diet, supplements, acupuncture and more to reverse macular degeneration. Cate Montana investigates

In the spring of 2018, Connie Coker, 72, of High Falls, New York, awakened to a gray cloud obscuring her central vision. Immediately she called her ophthalmologist, who examined her the next day. Concerned, he referred her to a retinal ophthalmologist who confirmed the diagnosis of macular degeneration.

The retinal specialist injected her affected eye with Eylea, an anticancer drug designed to block what's known as vascular endothelial growth factor (VEGF)— a signaling protein produced by cells that stimulates the formation of blood vessels, in this case in the retina. After the injection, he told her to come back in a month.

Eylea, which costs an average of $2,000 per injection, is one of three popular injectible anticancer drugs used for macular degeneration, along with Lucentis and Avestin. They all have numerous side-effects; Eylea negatively impacts over 30 percent of those given it.

Side-effects include burst blood vessels in the eye, eye pain after the injection, cataracts, watery eyes, blurred vision, swelling of the eyelids, vitreous detachment (a condition where the gel-like substance that fills the inside of the eyeball shrinks and separates from the retina), eye "floaters," increased pressure within the eye, light sensitivity and sudden numbness or weakness, especially on one side of the body, as well as sudden severe headache, confusion and problems with speech or balance.

After a follow-up eye scan, Connie's doctor recommended doing another injection, and from then on she had injections every two months. "Sometimes there would be fluid and blood in there, and sometimes there wouldn't," she said. "But his protocol recommendation was always the same, to continue with the injections."

The doctor carried on with his recommendation, even when Coker developed a severely infected eye from an injection she quite possibly didn't need—an infection that required surgery to correct.

At this point, Coker began seeing Dr Marc Grossman, optometrist, New York state-licensed acupuncturist, and coauthor of Natural Eye Care: Your Guide to Healthy Vision and Healing. Grossman started her on a regime of acupuncture, nutrient-rich foods, supplements and Chinese herbs to help stabilize her condition, and after an examination that showed her retina to be clear of blood and fluid, he recommended that she stop the injections and continue with monthly checkups to monitor the situation.

After coping with the infection, Coker vowed never to have another injection. Recently she switched to another retinal ophthalmologist who is collaborating with Grossman, and who recognizes the value of acupuncture and nutritional supplements for macular degeneration. Says Coker: "I'm very optimistic based on my history working with Dr Grossman that I won't have to have another injection."

Causes of AMD

For decades, little was known about the cause of AMD aside from the fact that it is age-related and affects a higher percentage of women of European descent than men and other ethnicities. Today, studies have shown that diet and lifestyle are also major contributors to the disease.

"Macular degeneration is starvation of the retina, such that we're not able to use nutrients that we take in in an effective and efficient way," says Grossman. "And we're not getting the carotenoids that we need. Frankly, I think that the first approach for macula health is nutrition and diet, then acupuncture and microstimulation. But if I had only one approach I could take, I would go with nutrition."

Macular degeneration is the number one reason for irreversible blindness in the United States, and by the year 2030, Grossman says there will be almost 30 million Americans struggling with the condition because there's no real drug or healing protocol for dry AMD—injections are only used when dry AMD has advanced to wet AMD (see box, page 61).

One of the few things ophthalmologists and retinal specialists recognize as working for dry macular

degeneration is something called ARED vitamins, a combination of vitamin C, vitamin E, beta carotene, zinc and copper discovered by researchers involved in the Age-Related Eye Disease Study (AREDS) back in 2001.

Grossman, however, is clear that this approach is far from enough (see box, page 67). "Lutein, zeaxanthin, mesozeaxanthin and astaxanthin are all vital carotenoids we rarely get enough of," he says. Carotenoids are a class of yellow, orange or red fat-soluble pigments that give red and yellow peppers and wild-caught salmon their distinctive color.

"Kale is the number one food for preventing and mitigating macular degeneration, along with orange peppers and other green leafy vegetables and dark fruits like blueberries and grapes," he adds.

Recharging the battery

Next to diet and nutrition, Grossman says stimulating blood circulation to the eyes and making sure the photoreceptors in the eye easily drain are the best strategies for preventing AMD and controlling and reversing dry macular degeneration.
"That's why I also use microcurrent stimulation in addition to diet and regular acupunture," he says. "It increases levels of ATP, the cellular energy in the retina, and helps more with the circulation." ATP, adenosine triphosphate, is a crucial molecule that provides energy to all living cells.

Microstimulation of the eye is a technique where microelectrodes stimulate a small, local population of neurons by passing a small electrical current through energy meridian points surrounding the eye.

Dr Andy Rosenfarb, founder and clinical director of Acupuncture Health Associates in Westfield, New Jersey, is an international expert in the field of Chinese Medical Ophthalmology who regularly uses microstimulation to treat patients with macular degeneration.

"Opinions vary wildly about the effectiveness of microcurrent stimulation for macular degeneration," Rosenfarb says.

"I think it can be very useful, and people improve in more than 50 percent of cases. I haven't seen any cases where the AMD has gotten worse from using it. However, if somebody has severe dry eyes there might be a consideration because you're dealing with electricity.

"Basically the idea of microcurrent is it stimulates all the acupuncture points around the eyes to increase blood flow. By dilating the blood vessels and stimulating the nerves around the eyes, it wakes up the dormant cells and gets the ATP going, kind of like a recharge."

Rosenfarb likens the use of microstimulation to charging your cell phone. The cells around the eyes are like batteries, and just like batteries, they can lose their charge and go dormant.

But you don't have to give up on them—you just have to charge them again as you would a battery. "If you have cells that are weak, the charge is going to help you," he says. "If you don't and your situation is more advanced, it's probably not going to help."

Lifestyle changes are also an important factor in maintaining macular health. Because the macula receives the highest blood flow of any tissue in the body in proportion to its size, anything that reduces the rich blood and oxygen supply to the eyes, such as lack of exercise, smoking and oxidative stress (an imbalance between free radicals and antioxidants in your body), can negatively impact the macula.1

Says Grossman, "Even when advanced AMD has developed, healthy lifestyle choices and targeted supplementation can still play a major role in slowing down and stabilizing the AMD. But lost vision, due to retinal cells no longer living, cannot at this time be regenerated, though excellent research such as with stem cells and the regeneration of lost retinal cells is underway.

"Keep in mind that patients can sometimes experience improved vision, as retinal cells that are not active may still be alive, but low functioning. These cells can be stimulated and helped to become more active through diet, exercise, microstimulation and targeted supplementation."

Emotional and spiritual components

Grossman also believes there are clear emotional and spiritual aspects behind AMD—something that Western medicine often fails to take into consideration. "On the emotional level, the macula in Chinese medicine has to do with earth elements," he says.

"The earth element is related to the stomach and the spleen, and that has to do with nourishing yourself. I find it's people who are caretakers—who take care of other people before they take care of themselves—that often experience macular degeneration."

This might not be as far-fetched as it first seems to some people, especially considering the statistically significant difference between the number of men and women who develop AMD. The condition occurs far more often in women than men of all ethniticies.

Spiritually, Grossman says, many of the people who come to him with AMD are not only not taking care themselves, they carry an almost martyr-like mentality.

"So often I see the theme 'I don't deserve' in these patients. So I always recommend to these kinds of people to learn to nurture themselves. I have them take baths with lavender at night and do a lot of self-care."

For most people dealing with macular degeneration—facing the frightening prospect of losing their vision in one or possibly even both eyes—taking lavender baths, eating lots of kale and taking supplements seems a small price to pay.
Robert Essman, 67, of Stamford, Connecticut, was diagnosed with macular degeneration after he experienced a severe buildup of blood that formed a swelling in front of the retina in one eye.

"They wanted to do an anticancer drug injection in my eye," he says, "and I'd heard there is only a really small percentage of people that it helps. I was willing to try anything other than that crazy stuff. So I spent about 18 months working with Dr. Grossman, and it got better and dried up.

"Frankly, I think at this point I'd be blind if I'd gone the other regular route."

The stages of AMD

Macular degeneration, also known as age-related macular degeneration or AMD, is the slow deterioration of cells in the macula, a tiny yellowish area near the center of the retina where vision is most focused.

In later stages, this decline in macula health often shows up as a shadow or cloud affecting the central visual field needed for everything from driving, reading and writing, to watching movies and identifying faces.

Another problem that occurs with macular degeneration is that straight lines in the center of one's vision become crooked or wavy. Peripheral vision—vision to the sides—is usually left undisturbed.

There are three stages of macular degeneration and two names for it. Early and intermediate AMD are known as "dry" macular degeneration. Early AMD typically presents with changes to the retinal pigment epithelium (RPE), the cell layer that nourishes retinal neurons, the cells responsible for vision, as well as the presence of small, hard fatty deposits called drusen underneath the macula.

Intermediate AMD is characterized by continued RPE deterioration and the presence of large, soft drusen, which further break down the macula cells.

Soft drusen are the usual precursor to advanced AMD, also known as "wet" macular degeneration, where something called choroidal neovascularization occurs—a condition where abnormal blood vessels begin to grow toward the macula, frequently leaking blood, obscuring vision and breaking the macula down even further. If left untreated, wet AMD results in rapid vision loss and eventual blindness.

On average, approximately 10 to 15 percent of cases of dry macular degeneration progress to the stage of wet macular degeneration.

Testimonial

Rivah D. from New York

After detecting early signs of macular degeneration, a condition New York resident Riva said she watched steal the vision away from her mother, her eye doctor recommended that she begin taking Dr Marc Grossman's herbal Advanced Eye & Vision Support Formula. "At a six-month check-up, there was improvement," she says, "and after a year, all signs of macular degeneration are gone! I'm so relieved. Getting older, as my mother used to say, is not for sissies. Feeling like there are some conditions that are not inevitable gives me strength for the journey."

Testimonial

Bob D. from Texas

Bob has cataracts in both eyes and had been diagnosed with macular degeneration. He ended up seeing Dr Grossman, who prescribed herbal formulas and special eyedrops. After just three weeks of treatment, he says he cannot believe the improvement in his vision. "Three weeks ago I was leery of driving my car when it was overcast, and now I can see very clearly," he says. "It is amazing having my eyesight back!"

Testimonial

Adah H. from Massachusetts

Adah was being treated with injections for wet macular degeneration in both eyes until her doctor told her the left eye had become untreatable due to scar tissue that was not caught in time.

She heard about microstimulation treatment, and in February 2016 she decided to purchase a microcurrent stimulation device from Dr Grossman for home use, faithfully following the instructions to treat her eyes four times a day. After about three or four months of self-treatment, she started noticing the clapboard siding on houses. "It seemed to happen all of a sudden," she says. "Every house now stood out and practically shouted with their long horizontal lines."

Then she says she started noticing colors that had long since faded from her vision. "Red cars were redder; same with the color blue. The string that holds my glasses around my neck, which I thought was black, suddenly turned green—small little colored things showed up."

Most exciting was the change in her reading ability. "After using an extra-strength magnifying glass to read the newspaper, now I can read the newspaper with just my reading glasses. Writing checks and balancing my checkbook is easier, and I can see the lines much better."

Signs of AMD

Macular degeneration is the leading cause of vision loss and blindness in the US and UK, affecting approximately 11 million men and women in the US, 600,000 in the UK and 170 million people globally.1 Because of the rapid aging of the population, AMD is on the rise.

Optometrist Dr Marc Grossman estimates that by 2030, as many as 30 million people in the US could suffer from the disease. AMD is most commonly diagnosed among older people of European descent, affecting more women than men.

Early detection is crucial

Because AMD is painless and has few, if any, symptoms early on, it is difficult to detect in its early stages (when something can be done to halt and even reverse its progress). The only safeguard is to have regular eye exams.

If small amounts of drusen (fatty lipid deposits under the macula) are found, the standard care procedure calls for the attending physician to wait for signs of increasing drusen before taking action, which often can involve a fluorescein angiography test to examine the condition of the retinal blood vessels surrounding the macula.

Fluorescein angiography requires injecting fluorescent yellow-green dye into the veins. When the dye reaches the interior blood vessels in the eye, it highlights abnormal growth of blood vessels in the retina and retinal bleeding.

You can self-test for AMD by viewing something called the Amsler grid, a chart with black lines and a black dot in the center. (You can take the macular degeneration test at this website:

www.allaboutvision.com/conditions/amsler-grid.htm)
AMD, even in its early stages, makes the central portion of the grid blur and causes many of the grid lines to appear wavy. There is also something called an OCT test—optical coherence tomography— of the macula, which can pick up very early signs of macular degeneration.
AMD progression is slow, taking years. But in some cases, vision loss can be sudden.

What causes macular degeneration?

The most common cause of macular degeneration is aging and a deterioration of the cells of the retina. Research also shows a strong association between advanced macular degeneration and the presence of a specific genetic variant of the immune-regulating protein complement factor H (CFH).1 Almost half of patients studied with advanced AMD—most of European descent—had this gene variation.

But here are some other risk factors you can control yourself:

Don't smoke: Other than age, smoking is the risk factor most consistently associated with AMD.2
Eat your greens: Poor nutrition and a lack of antioxidant-rich foods such as leafy greens in the diet have been linked to macular degeneration.3
Lower your blood pressure: Hypertension and atherosclerosis, or hardening of the arteries, are also contributing factors.4
"When the drusen accumulates, it clogs the eyes like cholesterol will clog the heart," says Dr Andy Rosenfarb, a Chinese Medical Ophthalmologist in Westfield, New Jersey. (Drusen are fatty deposits that collect under the macula in the eye.)
"The majority of macular degeneration cases are highly linked to cardiovascular disease. I tongue-in-cheek call it ocular-vascular disease."
Eat the right fats: Studies show that diets high in saturated fatty acids (SFA), polyunsaturated fatty acids (PUFA) like omega-6 oils and monounsaturated fatty acids (MUFA) lead to an increased risk of AMD, while people who eat diets high in omega-3 and low in omega-6 fats are at decreased risk of AMD.5
Get regular eye exams, to check whether you have fatty deposits called drusen. The presence of drusen is related to a person's risk of developing AMD, and is one of the major signs that macular degeneration may be occurring.
"Hard" drusen, which are small and distinct from one another, may not cause vision problems for a long time, if at all. "Soft" drusen, by contrast, are large and clump together. It is the soft type of drusen that is known to be the precursor to AMD.6

Supplements to take for macular degeneration

The following dietary supplementation of carotenoids, antioxidants, vitamins and trace elements is recommended by opthamologist and acupunturist Dr Marc Grossman for improving overall eye health. Gut health is also important.

"Health is determined not only by what you eat but by what you absorb," he says, "Paying attention to how you feel after you eat, to the quality of your digestion and elimination, will give you clues as to how well you are assimilating your food and its nutrients."

He also advises caution when buying commercial supplements, as they can contain additives like dyes. Read the labels and make sure your supplements are high quality and contain only what they should.

Essential

Lutein and zeaxanthin: These two carotenoids make up the macular pigment in the retina and help protect against damaging blue light as well as acting as powerful antioxidants
Suggested daily dosage: Lutein, 10-20 mg daily; zeaxanthin, 3-8 mg daily. Take with food or a small amount of oil

Astaxanthin: Has a high antioxidant effect
Suggested daily dosage: 6-12 mg daily

Mesozeaxanthin: Helps central vision in the retina
Suggested daily dosage: 10 mg daily

Vitamin C: Scavenges free radicals
Suggested daily dosage: 1,000-2,000 mg daily (buffered and ascorbate)

Resveratrol: Helps strengthen blood vessels and reduce inflammation
Suggested daily dosage: 150 mg-175 mg per day

Omega-3 fatty acids: These form primary parts of retinal photoreceptors (vision cells) and the myelin sheath that surrounds nerve fibers in the eye
Suggested daily dosage: 2,000-6,000 mg daily

Grapeseed extract: Strengthens blood vessels
Suggested daily dosage: 150-300 mg daily

Very important! The following compounds are also beneficial for eye health. Dr Grossman recommends the suggested daily dosages listed below.

Cyanidin-3-glucoside: 2-5 mg
Vitamin B6: 100-200 mg (as pyridoxal 5'-phosphate)
Vitamin B12: 1-5 mg (as methylcobalamin)
Vitamin D3: 2,000-5,000 IU Vitamin E: 100-400 IU alpha-tocopherol and 200 mg gamma-tocopherol (from natural sources)
Bilberry: 100-200 mg (standardized extract)
Soy isoflavones: 135-270 mg R-lipoic acid: 300-900 mg
Beta carotene: 25, 000 IU
Ginkgo biloba: 120 mg Glutathione, reduced: 500-900 mg per day. Best to take sublingually (dissolving under the tongue)
Taurine: 750-1,000 mg
N-acetyl-carnosine eye drops: 1-2 drops, 1-4 times daily
Lycopene: 3 mg
Melatonin: 3 mg
Zinc: at least 10 mg

Helpful
Green tea: 500-750 mg per day
CoQ10: 100-200 mg per day
Selenium: 200 mcg per day
Digestive enzymes: follow the recommended dosage instructions on the label

The Vision Diet

There is substantial research proving that a high-quality diet is effective at preventing macular degeneration and slowing its advancement.1

The Vision Diet has been developed by holistic optometrist and licensed acupuncturist Dr Marc Grossman, coauthor of Natural Eye Care: Your Guide to Healthy Vision and Healing, as the healthiest diet to follow for people dealing with macular degeneration and to optimize general eye health.

The Vision Diet is based on an alkalizing diet (which reduces inflammation) and the Mediterranean diet. It avoids processed food, refined carbohydrates, poor-quality oils (including margarine and oils high in trans fats), and high levels of salt. It focuses on the nutrients that support vision health—primarily carotenoids, essential fatty acids, vitamins and enzymes.

On the Vision Diet, the majority of foods should consist of vegetables and fruits, with an emphasis on lots of dark leafy green vegetables and other colorful options, such as yellow and orange peppers.

These are rich in antioxidants, especially lutein and zeaxanthin—these carotenoids are pigments found in plants that function as internal sunscreens, protecting the plants from solar radiation. Not surprisingly, they provide the same protection to human eyes, functioning as "internal sun filters."

Carotenoids are highly concentrated in the eyes and act as antioxidants, helping protect them from oxidative damage and free-radical production.

Many studies show that a diet centered on leafy greens, colored vegetables and fruits not only lowers the risk of developing macular degeneration or having an existing condition progress,2 but also helps prevent heart disease3 and age-related cognitive decline and dementia.4

The Vision Diet at a glance:

• Dark leafy greens
• Colored vegetables
• Cruciferous vegetables like broccoli, cabbage and Brussels sprouts
• Fruits, especially dark fruits like blueberries and grapes
• Omega-rich fish such as mackerel, salmon and tuna—wild caught, not farm raised
• Poultry and occasional red meat
• Legumes—eat at least twice a week, preferably served in the same meal with whole grains. Soak them, if possible, to reduce phytates (which can block the absorption of minerals).
• Whole grains every day, vary your selection
• Healthy oils and fats (coconut oil, olive oil, avocado oil)
• Plenty of pure water every day,
preferably spring water
• No processed or highly refined foods
• Avoid or reduce sugars and artificial sweeteners
• Reduce alcohol consumption (a glass of wine at night is fine)
• Green tea

RESOURCES

Dr Marc Grossman: www.naturaleyecare.com
Dr Andy Rosenfarb: www.acuvisiontherapy.com