



The Magnifier

Issue #67 September / October 2008

SMOOTHIES: A FUN WAY TO GET MORE NUTRITION INTO YOUR DIET

- 1-2 cups of frozen fruit (any kind)
- 1 cup of almond milk or soy (something other than dairy)
- 1 packet of sweetener
- 1 coffee scoop of powdered Brewer's Yeast
- 1 coffee scoop of lecithin granules,
- 1 coffee scoop of protein powder

Adjust the amount of fruit or milk to create a thicker or thinner consistency. The nutritional value of this mix does not last for more than a couple hours, so only make enough for one morning. Drink as much as you like. I peel and freeze bananas that may no longer be firm. A banana always makes the smoothie a little sweeter.

Fresh or frozen juice smoothies are a tremendous source of bio-available vitamins and minerals that are the partners of enzymes and co-enzymes. Vitamins activate enzymes and without vitamins enzymes can not carry out their work. Enzymes act as catalysts in hundreds of thousands of chemical reactions that take place throughout your body, and are essential for digesting, absorbing and converting food into body tissue. Enzymes produce energy at the cellular level and are critical for most of the metabolic activities taking place in your body every second of every day. Example: When you eat a raw carrot, you are only able to assimilate a small percentage of the available beta carotene. When a carrot is juiced, or even slightly cooked the fiber is broken down and a LARGE percentage of the beta carotene can be assimilated by your body.

LECITHIN BENEFITS

<http://www.lecthinguide.info/lecithin-benefits.html>

“Lecithin breaks up fats and cholesterol. It is excellent for a healthy heart. It helps the body utilize vitamins A, D, E, and K. It is excellent for memory, concentration, and recall; It cleanses the liver and kidneys and helps the body absorb nutrients.” It is also responsible for maintaining the surface tension of the cell membranes. Therefore it controls what goes in and out of each cell, allowing nutrients in, or wastes out. Without enough lecithin, the cell wall hardens, thus not allowing enough nutrients in or wastes out. This condition contributes to premature aging of the cells.

“Brewer’s Yeast is a rich source of minerals (particularly chromium), protein, and the B-complex vitamins. Chromium is an essential trace mineral that helps the body maintain normal blood sugar levels. Some experts estimate that as many as 90% of Americans don’t get enough chromium in their diet.” (University of Maryland) When you are proactive in maintaining a healthy Ph balance, you are giving your eyes an opportunity for better health as well.

STEM CELL THERAPY

A STORY OF HOPE

From enVISION, UC Davis Dept. of Ophthalmology & Vision Science Newsletter

“On July 9, 2007, 125 donors, faculty members, and friends of the UC Davis Department of Ophthalmology & Vision Science gathered to hear Dr. David Telander’s presentation on the future of stem cell research at UC Davis. Many people in the audience were there because of their hope that at some time in the future, stem cell research would be able to provide cures or at least therapies to address their personal situations.” One couple in the audience, during the question and answer session following the presentation, “electrified the audience with the personal story of struggle, hope and experimental stem cell therapy”. The patient was diagnosed with Autoimmune Related Retinopathy and Optic Neuropathy caused by an unknown autoimmune disease that affected her vision, hearing and other functions of her nervous system. The patient, with the support of her husband, would not give up on her illness. “With their tremendous courage and fortitude she underwent an experimental stem cell treatment (using her own stem cells), which resulted in a miraculous stabilization and improvement in her disease.” Their story represents hope and encouragement for the future of stem cell therapy.

The Macular Degeneration Foundation, Inc. funded a \$100,000 grant for Dr. David Telander in December, 2007. We are proud of the work in stem cell therapy at UC Davis. 100% of all donations designated "research" are placed in a separate account for "Research To Restore Vision".

INTERNATIONAL MACULAR DEGENERATION SUPPORT GROUP RECEIVES \$50,000 GRANT FROM MACULAR DEGENERATION FOUNDATION.

The grant is over three years. In 2007, IMDSG received \$15,000; in 2008, IMDSG received \$15,000; and in 2009 IMDSG will receive \$20,000.

Support groups provide individuals with severe low vision an opportunity to share information and experiences with peers. The IMDSG was founded by the director of MD Support, Dan Roberts, to bring presenters directly to the support group meeting via internet web conferencing. Support groups or individuals may access all prerecorded presentations at any time by visiting the web site, mdsupport.org. Click on the IMDSG icon on the home page to locate support groups in your area or to start a support group. Each affiliate group will receive (free) materials, monthly newsletters and audio/visual presentations by leading experts in research, treatment, rehabilitation and daily living. Visit the IMDSG page for complete information. There are currently more than 120 affiliates worldwide that are taking advantage of this successful program. Daniel L. Roberts is the author of *The First Year Age-Related Macular Degeneration*.

Why would we fund a program for another organization? Because we believe in this program and we believe that networking with other organizations can provide a full circle of services for MD patients.

BLUE LIGHT SPECIAL!

Historically, the ophthalmic field has been very concerned about the damaging effects of ultraviolet light on various structures in the eye. Research has recently brought our attention to the visible spectrum of light, the red, orange, yellow, blue, green, and violet, which comprises white light. These different colors represent different wavelengths of energy. The blue light with its 450-495nm wavelength has the greatest potential for damaging the human retina.

Melatonin, one of the many protective antioxidants that the retina naturally produces, is considered the most powerful in the protection of nuclear and mitochondrial DNA. The production of melatonin may be suppressed by light, with the peak sensitivity in the 446-477nm (blue light) portion of the visible spectrum. For this reason, ophthalmologists recommend blue-light filtering lenses for AMD patients and their family members.

Over-the-counter sunglasses may offer UV protection that filters out light energy of 400nm and below that may reduce the risk of cataracts. However, a 495nm filter is required to effectively eliminate the destructive blue light rays in your protective eyewear. (For more information call 800-924-4393)

Blue light has also been identified by a number of researchers as a causative factor in the production of a toxic substance called A2E. This molecule, which is formed in the outer discs of the photoreceptor cells of the macula, is thought to inhibit the degrading action of the retinal pigment epithelium. The build-up and overflow of this undigested lipofuscin is thought by some to contribute to the production of the drusen deposits that accumulate in the Bruch's membrane.

Having identified the "blue-light hazard", the manufacturers of intra ocular lenses (IOL's), are now offering a yellow (blue-light filtering) lens, as well as the crystalline-clear lens after cataract surgery.

In a recent article in the American Journal of Ophthalmology in March 2008, Dr. C.I. Falkner-Radler, et al. conducted a randomized controlled clinical trial of sixty patients who received either a clear (UV blocking) lens, or a yellow (UV and blue-light blocking) lens. "Patients in both IOL groups showed comparable functional results with respect to visual acuity, contrast sensitivity, color vision, and glare effect.

CONCLUSIONS: With the possible advantage of macular protection and no intra-operative or functional disadvantage, the routine use of the blue-light filter IOL in combined surgery can be recommended."

Clinical trials to determine daytime levels of melatonin in post-cataract subjects with blue-light filtering intra ocular lenses, compared to subjects with crystalline-clear IOLs will provide more information.

BLOCKING THE BLUE

By Patricia Hawse, MS, COMT, CRC

British journal of Ophthalmology

Excerpts of this abstract are published with permission

Patricia Hawse's article, **BLOCKING THE BLUE**, is addressing another potentially harmful risk factor when blue light is used during an ophthalmic examination and treatment.

With the recent research surrounding the development of a blue blocking intraocular lens (IOL) for cataract surgery, the question has again been raised about the potentially harmful effects of light on the retina, particularly the blue light hazard.

Patricia Hawse asks these two questions:

“Does the literature support the hypothesis that blue light exposure contributes to the development of retinal damage, particularly macular degeneration?”

“If we are developing blue blocking IOLs to reduce this risk, should regulators consider mandating the use of blue blocking filters in diagnostic equipment (slit lamps, direct and indirect ophthalmoscopes, ophthalmic cameras, and magnifying lenses) as well?”

“Research on rhesus monkeys, conducted decades ago, found that exposing the retina to the light of ophthalmoscopes produces retinal lesions and damages the retinal pigment epithelium after 15 minutes. More recent research on the indirect ophthalmoscope supports these early findings.”

“Biomicroscopy using the slit lamp produces at least three times the retinal exposure of light compared with the indirect ophthalmoscope and was thought to merit caution regarding potential retinal damage. The calculated safe time for slit lamp biomicroscopy was found to be ‘as little as 8 seconds at maximum intensity,’ which may be exceeded in many clinical situations.”

Some may believe that there is not enough evidence to show a definitive casual link between blue light exposure and retinal damage, specifically macular degeneration. However, even if that is the case, why wouldn't the ophthalmic community err on the side of caution and make the use of blue light blocking filters mandatory on slit lamps, direct and indirect ophthalmoscopes and magnifying lenses?

A blue-light filter is now available and being used in many eye centers around the country.

If you would like a copy of the full article, "BLOCKING THE BLUE", or if you have any questions, you may contact Patricia Hawse at blocktheblue@yahoo.com

CONTACTING MDF

To speak to a support representative directly, you may call 1-888-633-3937. If you reach our voice mail, please speak slowly and distinctly.

MAKING CONTRIBUTIONS:

Please make checks payable to Macular Degeneration Foundation, Inc., P.O. Box 531313, Henderson, Nevada 89053, or you may use your credit card on our web site <http://www.eyesight.org/> . Your contributions make our services available as a support system for macular degeneration patients in the following ways:

1. We provide toll-free lines for personal contact assistance.
2. We mail brochures and other printed materials upon request.
3. We support an award-winning web site that provides the latest up-to-date information.
4. We fund research proposal grants to provide therapies for both the wet and dry form of AMD. Contributions marked "research" are used 100% for research.

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MDF was founded in 1992 by Edmund J. Aleksandrovich Ph.D (a victim of macular degeneration). It provides MD patients and their families with the information necessary to understand the disease, the latest news concerning ways to cope with the disease, and supports the efforts of researchers to find a cure.