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Our January 2020 Newsletter for Healthy Living

Feeling Blue?

The loss of daylight hours during winter is a common cause of seasonal affective disorder (SAD), a type of depression that hits seasonally and lifts as spring and summer rolls back around. The fact that SAD occurs when the days begin to darken and sunlight is at a minimum is not a coincidence. Your health and mood are intricately tied to exposure to sunlight.

For example, your serotonin levels (the hormone typically associated with elevating your mood) rise when you're exposed to bright light. Your melatonin level also rises and falls — inversely — with light and darkness.

When it's dark, your melatonin levels increase, which is why you may feel tired when the sun starts to set, and in the heart of winter, this may be at as early as 3 p.m. if you live far from the equator.



Light and darkness also control your biological clock, or circadian rhythm, which impacts hormones that regulate your appetite and metabolism.

As explained in the paper, "Seasonal Affective Disorder: An Overview of Assessment and Treatment Approaches," published in the journal *Depression Research and Treatment* in 2015: "... SAD is a recurrent major depressive disorder with a seasonal pattern usually beginning in fall and continuing into winter months. A subsyndromal type of SAD, or S-SAD, is commonly known as 'winter blues.' Less often, SAD

causes depression in the spring or early summer. Symptoms center on sad mood and low energy. Those most at risk are female, are younger, live far from the equator, and have family histories of depression, bipolar disorder, or SAD ... Typical treatment includes antidepressant medications, light therapy, vitamin D, and counselling."

As explained in the featured

more than 50,000 IU per day."

Vitamin D deficiency is very common, and should be a top consideration when you're looking for a solution to flagging mood and energy — especially if it occurs during fall and winter months. While regular sun exposure is the best way to optimize your vitamin D level, this isn't possible in many areas during the winter, thus necessitating the

"Many people with SAD and S-SAD have insufficient or deficient levels of vitamin D."

paper, vitamin D appears to play a role in the activity of serotonin, a mood-balancing hormone, and melatonin, a hormone that responds to light and dark. People with SAD tend to have lower serotonin and higher melatonin levels, which can account for the fatigue, tiredness and depressed mood typically associated with this condition.

According to the *Depression Research and Treatment* paper: "A systematic review and meta-analysis concluded that low levels of vitamin D are associated with depression ... During the winter months of November through February, those living about 33 degrees north or 30 degrees south of the equator are not able to synthesize vitamin D. Many people with SAD and S-SAD have insufficient or deficient levels of vitamin D, and ... research investigating this association suggests that taking vitamin D daily may improve their symptoms. Adverse reactions or intoxication is rare but could occur from doses of

use of oral supplements instead. Since SAD is triggered by the loss of light, it makes sense that light therapy is among the most effective treatments. Vitamin D and/or omega-3 deficiency, as well as lack of sleep and exercise, can also play a significant role, so addressing these basic lifestyle factors could also be what you need to avoid the winter blues.

It's natural for your body to want to slow down somewhat in the wintertime. While this can be difficult when your work and personal life dictate otherwise, allowing yourself to slow down a bit and surrender to the overwinter process may ultimately help you to respect your body's circadian rhythm, and recharge. However, this doesn't mean you should plant yourself on the couch for the winter and not venture outdoors. On the contrary, staying active and spending time outdoors during the day are among the best "cures" for SAD.

Reference: *Depression Research and Treatment* 2015; 2015: 178564, 1-3.2.

What's Inside This Issue

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Be Wise About Your Eyes

It's said that your eyes are the window to your soul, but they may also provide a unique window to your brain. As your vision worsens with age, so too may your cognitive abilities, according to research published in *JAMA Ophthalmology*. By the age of 65, 1 in 3 people have some type of eye disease that reduces vision, and in the U.S.,

1 in 3 people aged 60 years and older, visual dysfunction at a distance was associated with poor cognitive function. People with poor vision have even been found to have a 63 percent greater risk of developing dementia, and leaving poor vision untreated appears to be particularly damaging.

In research published in the

changes to your vision, you should see an eye doctor or ophthalmologist to have them checked out.

Your lifestyle plays a major role in your vision (and brain) health, and that includes your diet. Antioxidants including lutein, zeaxanthin and astaxanthin are your allies for keeping your vision sharp as you age. Lutein and zeaxanthin, in particular, are notable because they're located in your eyes.

According to the American Optometric Association: *"Of the 600 carotenoids found in nature, only these two are deposited in high quantities in the retina (macula) of the eye ... Many studies have shown that lutein and zeaxanthin reduce the risk of chronic eye diseases, including AMD and cataracts ... Beyond reducing the risk of eye disease, separate studies have shown*



that lutein and zeaxanthin improve visual performance in AMD patients, cataract patients and people in good health."

As an added benefit, those with higher levels of lutein in middle-age have been found to have more youthful neural responses than those with lower levels, which suggests a lutein-rich diet may also keep you cognitively sharp. Lutein and zeaxanthin are primarily found in organic pastured egg yolks and green leafy vegetables, with kale and spinach topping the list of lutein- and zeaxanthin-rich foods. You'll also find it in orange- and yellow-colored fruits and vegetables. Adding dark blue, purplish or black-colored berries like black currants and bilberries to your diet is another wise strategy, as they contain high amounts of antioxidant anthocyanins. Research suggests bilberry, in particular, may be effective for preventing cataracts and AMD.

Astaxanthin also helps maintain appropriate eye pressure, energy levels and visual acuity. Krill oil is a great source of astaxanthin that comes with the added benefit of omega-3 fats, which are also protective of healthy vision. People with the highest intake of animal-based omega-3 fats have a 60 percent lower risk of advanced macular degeneration compared to those who consume the least.

Reference: *American Family Physician*, 1999 July 1; 60(1):99-108. *JAMA Ophthalmology* June 28, 2018. *JAMA Ophthalmology* 2017; 135(9):963-970. *Frontiers in Neurology* 2016; 7:55. *American Journal of Epidemiology* 2010 March; 171(6):728-35. American Optometric Association, *Lutein & Zeaxanthin*. *Frontiers in Aging Neuroscience* June 9, 2017. *Advances in Gerontology* 2005; 16:76-9. *Ophthalmology* Dec. 2010; 117(12):2395-2401

"Many studies have shown that lutein and zeaxanthin reduce the risk of chronic eye diseases, including AMD and cataracts ."

about 70 million Americans will be 65 years or over by 2030. While it's not a given that your eyesight will decline as you get older (a healthy lifestyle can keep your eyesight sharp well into old age), it's important to understand that changes in vision may correlate with changes in your brain, either as an indirect consequence of changing your behaviors to accommodate them or due to an undiscovered biological component. As it stands, both worsening vision and cognitive function are common among elderly people, but you have the ability to take control of your health so your eyes and your mind stay clear and functioning optimally.

Researchers from the University of Miami Miller School of Medicine followed 2,520 Americans for eight years. Their vision and cognitive status were tested at the start of the study and again four times throughout. Significant associations were found between the two. For example, those who had worse vision when the study began had lower scores on tests of cognitive function. On average, the participants' vision declined enough that they lost the ability to read one line on an eye chart, and visual impairment at a distance was found to be associated with declining cognitive function over time. The study authors noted, "Worsening vision in older adults may be adversely associated with future cognitive functioning. Maintaining good vision may be an important interventional strategy for mitigating age-related cognitive declines."

As for why worsening vision may lead to worsening brain function, it could be that poor vision makes it harder for people to engage in activities known to stimulate the brain. The study adds more support to previous research also linking poor vision with poor cognition. In an analysis of two U.S. data sets com-

American Journal of Epidemiology, those with poorer vision who did not visit an ophthalmologist had a 9.5-fold increased risk of Alzheimer's disease and a fivefold increased risk of being cognitively impaired (without dementia). "Untreated poor vision is associated with cognitive decline, particularly Alzheimer disease," the researchers concluded, adding that it's possible "ocular disturbances may be precursors — not consequences — of cognitive decline." In addition, lending support to the importance of getting vision problems addressed by a professional, the authors of the featured study suggested simple interventions like updating your eyeglass prescription or removing cataracts could give your brain health a boost.

As for the somewhat-surprising link between vision and Alzheimer's, it could have to do with the buildup of amyloid beta, one of the hallmarks of Alzheimer's disease. The subsequent formation of brain plaque leads to progressive decline in cognitive and social functioning — and research has also linked amyloid beta deposition to neurodegeneration in the retina as well as AMD. Diseases that affect your blood vessels, veins and arteries have long been implicated in cognitive impairment, and it appears this may extend to the health of blood vessels in your eyes. Research using data that spanned 20 years and involved more than 12,000 people revealed that people with moderate to severe retinopathy, or damage to blood vessels in the retina, scored much lower on tests of cognitive function.

Getting your eyes checked, in fact, can reveal far more than the state of your vision. A skilled practitioner peering into your eyes, or hearing about changes to your vision, may be able to detect other disease, such as diabetes and hypertension. If you're experiencing

Olive Oil — Hard to Get Enough

Extra-virgin olive oil (EVOO) may improve brain health and decrease your risk of cognitive decline, according to researchers from Temple University in Philadelphia and Sapienza University in Rome. The research was

olive oil on cardiovascular disease and mortality. A group of 7,216 participants, ages 55 to 80, who had high cardiovascular risk were included in the clinical trial. They were randomized into one of three groups: members of the first group

color. However, good oils come in all shades, from luminescent green to gold to pale straw, so color should not be a deal-breaker. The oil should smell and taste fresh and fruity, with other descriptors including grassy, apple, green banana, herbaceous, bitter or spicy (spiciness is indicative of healthy antioxidants). Avoid flavors such as moldy, cooked, greasy, meaty, metallic or re-

“We propose extra-virgin olive oil is a promising tool for... potential prevention of late-onset Alzheimer’s.”

published in November 2019 in the journal *Aging Cell*. The research team tested the effects of EVOO supplementation in a diet fed to mice that were genetically predisposed to tauopathies, or neurodegenerative disorders. After six months, they noticed improvements in the animals' memory and cognition.

As noted in the abstract, their findings: “...demonstrate that EVOO directly improves synaptic activity, short-term plasticity, and memory while decreasing tau neuropathology in the *hTau* mice. These results strengthen the healthy benefits of EVOO and further support the therapeutic potential of this natural product not only for Alzheimer’s but also for primary tauopathies. The realization that EVOO can protect the brain against different forms of dementia gives us an opportunity to learn more about the mechanisms through which it acts to support brain health.”

Scientists from New York and Texas recently offered similar findings, as described in a December 2019 review article. Noting studies from the last several decades, the authors cited common threads across various studies, with EVOO as a potential remediation tool: “We therefore propose that extra-virgin olive oil is a promising tool for mitigating the effects of adverse vascular factors and may be utilized for potential prevention of late-onset Alzheimer’s.”

As one of the main components of the Mediterranean diet, EVOO has already earned an impressive health reputation for boosting both brain and heart health, improving the elasticity of blood vessels and decreasing your risk of Alzheimer’s disease and age-related memory decline, according to the report. The benefits of olive oil come from its biologically active compounds, including oleic acid and phenols. In 2014, results from the PREDIMED Study were published in *BMC Medicine*. Physicians from Spain and the U.S. teamed up to investigate the effects of various types of

ate a Mediterranean diet supplemented with nuts; the second group ate a Mediterranean diet supplemented with olive oil, and the third group was assigned a low-fat diet. Follow-up was conducted 4.8 years later. The scientists found that those whose diets were supplemented with olive oil had a 35% risk reduction for cardiovascular disease. Their risk of death related to cardiovascular problems was also reduced by 48%. “The associations between cardiovascular events and extra-virgin olive oil intake were significant in the Mediterranean diet intervention groups and not in the control group,” the authors wrote.

The flavor, smell and color of olive oil can vary significantly, based on its origin and whether it is extra-virgin (finest grade) or not. Commonly sold varieties include: extra-virgin olive oil — The highest-quality olive oil you can get. It is unrefined and contains more nutrients compared to other processed varieties; pure or “refined” olive oil — made by combining extra-virgin olive oil and refined olive oil, resulting in a lower-quality product; light olive oil — The word “light” is a marketing term that simply refers to a lighter flavor.

“Extra-virgin” olive oil is often diluted with other, less expensive oils, including hazelnut, soybean, corn, sunflower, palm, sesame, grape seed and/or walnut. Adding insult to injury, these are not listed on the labels. So, how do you know if you are buying pure EVOO or fake? One way is to buy it from specialty retailers who know their products. Finding “USDA certified organic” is a bonus, but not the only consideration. Though not always a guarantee of quality, PDO (protected designation of origin) and PGI (protected geographical indication) status should inspire some confidence.

Taste and smell are important factors in determining authenticity. Genuine, high-quality extra virgin olive oil has an almost luminescent green

Michigan Grass-fed Beef:
*Humanely-raised at
Lamb Farm in Manchester, MI*



Porterhouse & T-Bone Steaks
only \$14.99/lb

sembling cardboard. Favor bottles or containers that protect against light; darkened glass, stainless steel or even clear glass enclosed in cardboard are good options. Ideally, buy only what you can use up in six weeks.

Ensure that your oil is labeled “extra virgin,” since other categories — “pure” or “light” oil, “olive oil” and “olive pomace oil” — have undergone chemical processing. Here are four tell-tale signs to look out for: 1. Rancidity. If it smells like crayons or putty, tastes like rancid nuts and/or has a greasy mouth-feel, your oil is rancid and should not be used. 2. Fusty flavor. “Fusty” oil occurs when olives sit too long before they’re milled, leading to fermentation in the absence of oxygen. However, your olive oil should not smell like sweaty socks or swampy vegetation. 3. Moldy flavor. If your olive oil tastes dusty or musty, it’s probably because it was made from moldy olives, another occasional olive oil defect. 4. Wine or vinegar flavor. If your olive oil tastes like it has undertones of wine and vinegar (or even nail polish), it’s probably because the olives underwent fermentation with oxygen, leading to this sharp, undesirable flavor.

Reference: *Aging Cell* November 24, 2019. *Forbes* November 30, 2019. *Revue Neurologique* December 2019. *BMC Medicine* May 13, 2014; 12:78. *Olive Oil Times* 2019.