AstaReal
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AstaReal® Astaxanthin for eSports & Gamers.

Nearly 70% of Americans (211 million people) play video games. A survey of 5,000 people found that 90% of respondents were playing games on their smartphones, tablets, or both (Electronic Entertainment Design and Research). That means people are spending a lot of time viewing screens at close range, putting stress on their eye muscles, and experiencing eye strain and fatigue. In fact, 65 collegiate eSport players from nine universities across the USA and Canada, reported eye strain as their number one complaint.

An Emerging Market for Ocular Nutrition

Ocular nutrition has been widely used to support aging eyes. However, the ocular nutrition market is now gaining younger consumers who are finding that their increased visual workload is affecting their daily lives. For example, in the eSport segment, which is expected to generate $2 billion USD in 2021, the majority of athletes are between the ages of 21 and 35. At the same time, CRN reported that 70% of adults ages 18 to 34 were taking supplements in 2019. This suggests that younger consumers are recognizing the benefits of supplements that fit their modern lifestyle.

Carotenoids have long been recognized for their antioxidant properties, and as ocular nutrients. In particular, lutein and zeaxanthin are known to support the back of the eye by filtering blue light emitted by digital devices. Natural astaxanthin is an emerging eye nutrient being added to advanced carotenoid formulas for its ability to address eye strain and fatigue associated with muscles at the front of the eye. Natural astaxanthin can provide visual support for the eSport market, as well as cognitive and cardiovascular benefits that are also relevant to gamers.

Visual Performance with AstaReal® Astaxanthin

The ciliary muscles in the front of the eye, which frame the lens, must contract in order to facilitate near focus. Those muscles stay contracted throughout the duration of game play. The 20-20-20 rule is intended to give these overworked muscles a rest by having digital device users look up from their screen every 20 minutes to focus on an object 20 feet away for 20 seconds. In competitive play, this schedule may not be achievable. However, clinical studies involving computer workers have shown that AstaReal® Astaxanthin can curb symptoms of visual strain.

In a double-blind placebo-controlled (DBPC) trial involving 48 computer workers aged 30-45, the 6mg/day AstaReal® group had a 16% increase in amplitude of accommodation after 4 weeks compared to the placebo group ($p<0.05$).

In another DBPC study of 30 computer workers aged 20-60, a significant increase was observed in positive accommodation speed of the 6mg/day AstaReal® group after 4 weeks, compared to baseline ($p<0.05$), but not in the placebo group. Participants in the AstaReal® group also reported improvements in symptoms of eye pain and blurriness after 4 weeks, while members of the placebo group did not. This suggests that AstaReal® Astaxanthin can alleviate subjective symptoms of eye strain afflicting gamers, and may also support visual performance.

Cognitive Edge with AstaReal® Astaxanthin

Half an hour of mental math has been shown to induce mental fatigue that causes a decrease in accuracy of calculations. Meanwhile, adult gamers average 5 hrs/wk of video game time, while eSport players practice 5.5-10 hrs/day leading up to a competition. The brain is being put to work during this game play; novice players average 50 action moves per minute (APM), and higher level eSport athletes average 500-600 APM. Support in combating mental fatigue can make a difference in overall endurance and performance.

In a DBPC study, 96 participants had their cognitive performance tested by measuring their response times to a battery of CogHealth tasks performed on a computer. The 12 mg/day natural astaxanthin group exhibited 6% faster choice reaction time ($p<0.1$), 7% faster working memory ($p<0.05$), 7% faster delayed recall ($p<0.1$), and 8% faster multitasking ($p<0.1$) compared to baseline. The placebo group did not exhibit improvement.

In another DBPC study with 39 participants, the 12mg/day AstaReal® group reported reduced symptoms of mental and physical fatigue, and improvement in clarity of thinking, concentration, motivation, and mood after 8 weeks, compared to baseline ($p<0.05$). These and other studies suggest that AstaReal® Astaxanthin can promote the quick thinking and resilience required to have a competitive edge in eSport and gaming.

The Importance of Blood Flow in Gaming and eSport

Even though the brain makes up only 2% of body weight, it consumes a quarter of the body's total glucose reservoir for energy. Within the brain, the visual system is among the highest energy consuming systems. To power visual and cognitive performance, blood flow supplies oxygen, glucose, and other nutrients needed to generate ATP, and removes metabolic waste.

AstaReal® Astaxanthin has been shown in two DBPC studies to increase ocular blood flow by 9-15% after 4 weeks at 6 -12 mg/day, compared to baseline ($p<0.01$, $p<0.05$). Clinical studies have also shown that AstaReal® Astaxanthin can help support peripheral and capillary blood flow. AstaReal® Astaxanthin has also been shown to promote a healthy blood lipid profile, which may be especially relevant for more sedentary gamers who are looking for a nutritional boost to their overall health.

Game on with AstaReal® Astaxanthin

The challenge for gamers is to achieve peak performance and to ward off fatigue. AstaReal® Astaxanthin has been clinically proven to promote visual and cognitive performance, and support cardiovascular health, providing both short- and long-term benefits to eSport athletes.

AstaReal® Astaxanthin is available for all "on-the-go" applications gamers prefer, including drink mixes, and gummies.

References: 1. 2019 CRN Consumer Survey on Dietary Supplements www.crnusa.org/2019survey. **2.** Da'Les Allen 2019. Oracle Data Cloud Blog. https://blogs.oracle.com/oracledatacloud/the-marketers-guide-to-esports. **3.** Nagaki et al. 2006. **4.** Nitta et al. 2005. **5.** Hongo et al. 2016. **6.** Katagiri et al. 2012. **7.** Nagaki et al. 2005. **8.** Saito et al. 2012. **9.** Iwabayashi et al. 2009. **10.** Yoshida et al. 2010.