

DSM Press Release

DSM Nutritional Products

Global Communications

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Two studies in Humans confirm crucial role of lutein and OPTISHARP™ (zeaxanthin)

Two studies in Humans confirm crucial role of lutein and OPTISHARP™ (zeaxanthin) for improved vision in healthy people

Two recent studies from the Applied Vision Research Centre in London have reported that supplementation with lutein and OPTISHARP™ (zeaxanthin) can improve visual acuity.

The first study¹, a placebo controlled human trial, measured three key determinants of visual performance. These were “wave front aberration”, “light scatter” and “contrast acuity thresholds”. Wave front aberration measures the distortion of the image on the retina, while light scatter measures how sharply the eye can focus on a point of light. Contrast acuity thresholds measure the ability of the eye to distinguish between different degrees of contrast, for example by identifying light grey shapes on a white background. This is considered a more accurate indicator of visual performance than the eye charts used by most opticians.

All three parameters improved significantly in people supplemented with lutein and OPTISHARP™ confirming the crucial role these carotenoids play in visual acuity. The study also found that supplementation with lutein and OPTISHARP™ improved vision in low or “mesopic” light conditions.

Study¹: Kvangsakul J, Rodriguez-Carmona M, Edgar DF, et al. Supplementation with the carotenoids Lutein and Zeaxanthin improves human visual performance. *Ophthal. Physiol. Opt.* 26 (2006) 362–371

The second study² carried out by the same research group investigated the effect of lutein and OPTISHARP™ on colour vision. This was carried out by measuring “human chromatic discrimination sensitivity”, the ability of the human eye to differentiate between colours. The results demonstrate that lutein and OPTISHARP™ can improve colour vision.

Study²: Rodriguez-Carmona M, Kvangsakul J, Harlow JA, et al. The effects of supplementation with Lutein and/or Zeaxanthin on human macular pigment density and colour vision. *Ophthal. Physiol. Opt.* 26 (2006) 137–147

As part of its continuous commitment to eye health, DSM Nutritional Products has launched a website, www.optisharp.com that provides a wealth of information about this ingredient. The website is available in English, German, French, Spanish and Portuguese and includes product profiles and links to scientific studies on the benefits of OPTISHARP™ in maintaining eye health.

DSM Nutritional Products

DSM Nutritional Products is the world's leading supplier of vitamins, carotenoids and other fine chemicals to the feed, food, pharmaceutical and personal care industries. The business has sales of about EUR 2 billion and a long tradition as a pioneer in the discovery of new products, new formulations and attractive applications for all industry segments. For further company information please visit www.dsmnutritionalproducts.com.

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DSM is active worldwide in nutritional and pharma ingredients, performance materials and industrial chemicals. The company creates innovative products and services that help improve the quality of life. DSM's products are used in a wide range of end markets and applications such as human and animal nutrition and health, cosmetics, pharmaceuticals, automotive and transport, coatings, housing and electrics & electronics (E&E). DSM's strategy, named Vision 2010

(http://www.dsm.com/en_US/html/about/vision_2010.htm) – Building on Strengths, focuses on accelerating profitable and innovative growth of the company's specialties portfolio. Market-driven growth, innovation and increased presence in emerging economies are key drivers of this strategy. The group has annual sales of over EUR 8 billion and employs some 22,000 people worldwide. DSM ranks among the global leaders in many of its fields. The company is headquartered in the Netherlands, with locations in Europe, Asia, Africa and the Americas. More information about DSM can be found at www.dsm.com.

For more information:

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