New research indicates a potential association between low blood levels of folate and vitamin B12 and an increased risk of macular degeneration.

Low folate and vitamin B12 levels may increase risk of age-related macular degeneration

Previous research has revealed a potential relationship between serum homocysteine, vitamin B12 and folate and age-related macular degeneration (AMD), but overall results have been inconsistent.

In a new study published in the *American Journal of Clinical Nutrition*, researchers sought to determine whether serum homocysteine and intakes and serum levels of vitamin B12 and folate were related to AMD incidence.

The study included adults aged 55 and older that had their blood drawn between 1997-1999 to determine serum levels of folate, B12, and homocysteine. Retinal photographs of 1,760 participants were taken in 2002-2004 and 2007-2009 to assess AMD. Dietary and supplemental intakes of folate and B12 were assessed using a food-frequency questionnaire.

Researchers adjusted for potential confounding factors such as age, gender, smoking, white blood cell count and fish consumption. Subjects who were deficient in serum B12 had a 58% increased risk of early AMD and were more than 2.5 times more likely to develop AMD overall. Folate deficiency was associated with a 75% increase in early AMD and an 89% increase in the risk of AMD by the 10 year follow-up. High homocysteine levels were also related to a significant increase in the incidence of AMD. Participants that reported taking vitamin B12 supplements had a 47% decrease risk of developing any AMD.

In this group of participants, elevated serum homocysteine and folate and B12 deficiencies were related to increased risk of AMD suggesting a potential role for folate and vitamin B12 in reducing the risk of macular degeneration.

Bamini Gopinath et al. Homocysteine, folate, vitamin B-12, and 10-y incidence of age-related macular degeneration. Am J Clin Nutr. 2013 May 1.