IMMUNE SUPPORT

Nutrients and HPV

Recent studies have shown that higher intake of certain vitamins and antioxidants may improve the clearance of HPV infections.

Human papillomavirus (HPV) is the most common sexually transmitted disease (STD) in the U.S. There are many subtypes of HPV which can affect the genital areas of men and women. HPV can also affect the mouth and throat.[1]

Many people who are exposed to HPV are able to clear the infection on their own, and may never know that they were infected. In other cases, HPV can cause cervical abnormalities (cervical dysplasia) in women, which can potentially develop into cervical cancer. HPV can also cause genital warts in both men and women and, rarely, a condition where warts grow in the throat, called respiratory papillomatosis.[1]

Because so many people are exposed to HPV, and many do not know that they have it, HPV is easily spread during sexual contact.[1]

Vitamins

Recent studies have shown that higher intake of certain vitamins and antioxidants may reduce the risk of cervical dysplasia or cervical cancer, and improve the clearance of HPV infections in women. Specifically, increased consumption of folic acid, riboflavin, thiamin, and vitamins C, E, beta-carotene, and B_{12} from both food and supplements may help decrease the risk of cervical dysplasia.[2,3]

A recent combined analysis of several studies reported that higher intakes or blood levels of beta-carotene, folate, lycopene, and vitamins C, E, and B_{12} were linked to a lower risk of cervical dysplasia. In women with proven HPV infection, lycopene and vitamins C, E, and B_{12} were associated with decreased risk of developing dysplasia.[4,5]

Several other studies link diets low in B vitamins, especially vitamin B_{12} and folate, with an increased risk of cervical abnormalities.[6-8]

Other nutrients may also impact HPV infections. Higher blood levels of carotenoids (including zeaxanthin and beta-carotene) have been linked to a lower risk of anal HPV, but also to decreased clearance, while higher levels of beta and gamma tocopherols (two forms of vitamin E) were associated with faster HPV clearance.[9] Another study also found a protective benefit with tocopherols, but not with other antioxidants and lycopene.[10] It has been suggested that low levels of carotenoids may increase the risk for persistent HPV infection.[11]

Green tea polyphenols

Green tea contains disease-fighting antioxidants called catechin polyphenols (EGCG and others), which may play a role in the prevention of certain cancers. The levels of these polyphenols are higher in green tea than black tea, and instant iced tea contains only negligible amounts. Bottled teas have fewer polyphenols than freshly brewed teas.

Published studies suggest that green tea extracts that are rich in EGCG may have a protective effect on HPV-related abnormalities. In a study of 90 women with cervical dysplasia, 69% of women using green tea (by mouth or as ointment) showed improvement in their cervical abnormalities, compared with only 10% of the women who did not use green tea.[12]

Green tea catechins are also used in an FDA-approved prescription ointment for men and women with genital warts.[13] Treatment with green tea ointment (Veregen®) resulted in complete clearance of existing warts for over 50% of individuals, and partial clearance of warts for about 75% of individuals. Recurrence rates were less than 10%.[14]

Indole-3-carbinol (I3C)

I3C is a nutrient found in cruciferous vegetables (broccoli, cabbage, cauliflower, Brussels sprouts, collard greens, and kale). I3C has been studied for its potential role in cancer prevention. Results of clinical trials in

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humans have demonstrated that I3C supplementation may help treat conditions caused by HPV infection. In one study, 50% of women taking 200 mg of I3C had complete regression of their cervical lesions after 12 weeks, compared with none of the women taking a placebo supplement.[15]

Preliminary studies have also shown I3C treatment to be effective for other HPV abnormalities, specifically reduced growth of warts in recurrent respiratory papillomatosis[16] and reduced size and severity of lesions in vulvar intraepithelial neoplasia.[17]

Summary

Even though the science is still developing for the benefits of certain nutrients, both men and women with HPV infections should consider taking a daily multivitamin supplement containing these nutrients, along with eating a healthful diet rich in vegetables, fruits, and other nutrient-rich foods to support overall health and a strong immune system.

For more information,

speak to your healthcare provider.

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