

BIOMEDICINE

From Philadelphia, at the annual meeting of the American Association for Cancer Research

Antioxidants may limit key mutations

People with head and neck cancer who have been taking antioxidant vitamins regularly are less likely to have mutations in the cancer suppressor gene known as *p53*, a new study finds.

Cancer patients with impaired *p53* “appear to have lower survival [rates] and poorer response to chemotherapy,” says Bruce Trock of Georgetown University Medical Center in Washington, D.C., who presented the findings. Trock and his colleagues examined 135 patients, average age 56, and found that those who had been taking vitamin A, C, or E supplements had only one-fourth the mutation rates in *p53* as those patients with no history of using these vitamins. All-purpose multivitamins that have low antioxidant content showed no protection against *p53* mutation, says Trock.

Head and neck cancer includes tumors of the mouth, throat, and larynx, which are usually associated with smoking or alcohol use. Four-fifths of the cancer patients had been tobacco smokers. Patients who had smoked less than 30 years and used antioxidant vitamins regularly had *p53* mutation rates one-twentieth of that seen in smokers who hadn’t taken these supplements. This *p53* difference persisted after Trock accounted for confounding factors such as weight and lifestyle.

Trock says that it is premature to recommend popping vitamins to prevent cancer. The study “is a tantalizing bit of evidence that needs to be followed up,” he says.

—N.S.