Supplement trial shows how beta-carotene beats cancer

Scientists at the Institute of Food Research in Norwich are wondering whether carrots cure cancer following results from their Ministry of Agriculture-sponsored trial.

The research team have been studying a mechanism by which beta-carotene could be helping the body's immune system to fight cancer.

In a double-blind, placebo-controlled, crossover study, 25 healthy, adult, male, non-smokers were randomly assigned to receive 15 mg beta-carotene daily or a placebo, for 26 days, followed by the alternative treatment for a further 26 days (15 mg beta-carotene is equivalent to 3-4 carrots a day).

The findings suggest that "moderate increases in the dietary intake of beta-carotene can enhance cell mediated immune responses within a relatively short period of time, providing a potential mechanism for the anti-carcinogenic properties attributed to beta-carotene."

Describing this mechanism in their press release, the researchers explain that cancerous cells produce some proteins which are different from those found in healthy cells. In order to switch on the immune system's attack on cancer cells, it has to be shown these unusual proteins in the right way.

Dr Hughes and his team found that after supplementation with betacarotene, a significant increase could be detected in molecules on the surface of white blood cells, and they believe it may be the increase of these molecules which enables the immune system to spot cancerous changes quickly.

"This could be one way in which a vegetable-rich diet helps to prevent cancer" says Dr Hughes, who adds: "Boosting the immune system in this way could also help to fight off infectious diseases such as colds and 'flu".