

UK scientists grow super broccoli

October 26 2011, By MARIA CHENG , AP Medical Writer

Popeye might want to consider switching to broccoli. British scientists recently unveiled a new breed of the vegetable that experts say packs a big nutritional punch.

The new [broccoli](#) was specially grown to contain two to three times the normal amount of glucoraphanin, a nutrient believed to help ward off [heart disease](#).

"Vegetables are a medicine cabinet already," said Richard Mithen, who led the team of scientists at the Institute for [Food Research](#) in Norwich, England, that developed the new broccoli. "When you eat this broccoli ... you get a reduction in cholesterol in your [blood stream](#)," he told Associated Press Television.

Glucoraphanin works by breaking fat down in the body, preventing it from clogging the [arteries](#). It is only found in broccoli in significant amounts.

To create the vegetable, sold as "super broccoli," Mithen and colleagues cross-bred a traditional British broccoli with a wild, bitter Sicilian variety that has no flowery head, and a big dose of glucoraphanin. After 14 years, the enhanced hybrid was produced, which has been granted a patent by European authorities. No [genetic modification](#) was used.

It's been on sale as Beneforte in select stores in California and Texas for the last year, and hit British shelves this month. Later this fall, the broccoli will be rolled out across the U.S.

The super vegetable is part of an increasing tendency among producers to inject extra nutrients into foods, ranging from calcium-enriched [orange juice](#) to fortified sugary cereals and milk with added [omega 3 fatty acids](#). In Britain, the new broccoli is sold as part of a line of vegetables that includes mushrooms with extra vitamin D, and tomatoes and potatoes with added selenium.

Not enough data exists to know if anyone could overdose on glucoraphanin, but [vitamin D](#) and selenium in very high quantities can be toxic.

Mithen and colleagues are conducting human trials comparing the [heart health](#) of people eating the super broccoli to those who eat regular broccoli or no broccoli. They plan to submit the data to the European Food Safety Agency next year so they can claim in advertisements the broccoli has proven health benefits.

"There's a lot of circumstantial evidence that points to (glucoraphanin and related compounds) as the most important preventive agents for (heart attacks) and certain cancers, so it's a reasonable thing to do," said Lars Ove Dragsted, a professor in the department of human nutrition at the University of Copenhagen. He previously sat on panels at the International Agency for Research on Cancer examining the link between vegetables and cancer.

Dragsted said glucoraphanin is a mildly toxic compound used by plants to fight insects. In humans, the compound may stimulate the immune system to attack cancer, he suggested.

Other experts said eating foods packed with extra nutrients would probably only have a minimal impact compared with other lifestyle choices, like not smoking and exercising.

"Eating this new broccoli is not going to counteract your bad habits," said Glenys Jones, a nutritionist at Britain's Medical Research Council. She doubted whether adding the nutrients in broccoli to more popular foods would work to improve people's overall health.

"If you added this to a burger, people might think it's then a healthy food and eat more burgers, whereas this is not something they should be eating more of," Jones said. She also thought the super broccoli's U.K. price - it costs about a third more than regular broccoli - might discourage penny-pinching customers.

But that wasn't enough to deter Suzanne Johnson, a 43-year-old mother of two young children in London.

"I'm very concerned about the food they eat and would happily pay a bit more to buy something that has an added benefit," Johnson said.

But for her children, taste is ultimately more important than any nutritional value. "Broccoli is one of the vegetables they actually like, so I'm glad it's the one (scientists) have been working on," she said. This wouldn't work if it had been mushrooms or asparagus."

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