

MEASURING UP

# Beta-Carotene

BY JENNIFER MEDLEY

With most food-based nutrients, we simply have to trust that they are there, but if you're on the lookout for beta-carotene-rich foods, just turn to the rainbow.

**F**at-soluble beta-carotene is one of hundreds of plant chemicals, called carotenoids, that color food—specifically, the orange, yellow, red and dark green vegetables that are so plentiful this time of year.

When beta-carotene is consumed, as is the case with all carotenoids, it's converted into vitamin A by the liver, and in turn brings on immune-boosting, antioxidant properties. As a possible bonus, according to Ellen Lizkoff, registered dietitian at the Yale-New Haven Hospital Nutrition Clinic, "Some studies have shown that intake of antioxidants such as beta-carotene may reduce the risk of heart disease and certain cancers."

### What Should I Know?

An age-old enticement to get children to eat orange vegetables is the benefit of good eyesight, but Lizkoff reveals, "That alone is kind of a myth. In the setting of normal nutrition with there being no deficiency of vitamin A or beta-carotene, increased intake is not likely to improve vision. However, eating carrots and sweet potatoes will certainly help *maintain* vision."

### How Much Is Needed?

At this time, the Institute of Medicine has not made recommendations for daily intake of beta-carotene or other carotenoids, which means you won't find them listed as content on a food label. A loose guideline is to eat at least two beta-carotene-rich foods per day, remembering that some dietary fat is required for beta-carotene absorption.

**Note:** Lizkoff reminds, "When we apply the dietary guidelines of increasing fruits and vegetables, at a minimum of five per day, not only is beta-carotene intake promoted, but also lower calorie intake, higher fiber intake and getting all the different phytochemicals from food."

### Where Can I Find Beta-Carotene?

#### Fruits and Vegetables

Vegetables rich in beta-carotene are carrots, pumpkin, squash, sweet potatoes, broccoli, spinach, kale and red or yellow peppers. Fruit sources include cantaloupe, apricots, mango, papaya and peaches.

**Note:** Since carrots are particularly kid-friendly, parents often ask Lizkoff if it's dangerous that their kids eat so many, to which she answers, "There are no adverse effects to eating a lot of carrots besides maybe having an orangy glow in the skin—and that's just the normal, colorful carotenoid component of carrots."

#### Supplements

Although beta-carotene supplements are available, they're rarely recommended because the body is much better at processing fruit and vegetable sources. In addition, more studies need to be done to determine the effects of beta-carotene supplements on various populations. As of now, one group that is uniformly advised against beta-carotene supplementation is smokers, or anyone with a history of smoking (but food sources are considered safe).

**Note:** Unlike vitamin A in high doses, beta-carotene—especially when taken in through food—is generally nontoxic: the body only converts what is needed to vitamin A.

