If broccoli isn’t on your list of favorite foods, don’t worry. Broccoli supplements offer a concentrated version of the vegetable’s health benefits without offending anyone’s taste buds.

The secret of broccoli’s therapeutic effect is a substance called sulforaphane, which detoxifies carcinogens and acts as an antioxidant. Scientists at Johns Hopkins University Medical School first identified broccoli as an exceptionally rich source of sulforaphane in 1992. Five years later, medical researchers discovered that broccoli sprouts are an even better source, containing more than 20 times as much sulforaphane (the vegetable’s beneficial component) as the mature plant. Based on this research, broccoli supplements are now being made from sprouts specially cultivated to provide a concentrated form of sulforaphane.

What Researchers Have Uncovered

A study led by Johns Hopkins researchers, published in Cancer Epidemiology Biomarkers & Prevention, tested a proprietary extract of broccoli sprouts known as SGS (sulforaphane glucosinolate). Study participants were chosen because they live in a rural area of China where locally grown food is contaminated with aflatoxin, a powerful carcinogen that puts residents at exceptionally high risk of liver cancer. SGS, which is available as an ingredient in broccoli supplements, was given to 100 people, while another 100 people received a placebo. By testing urine, researchers found that, unlike the placebo, the supplement detoxified carcinogens. They concluded that this detoxifying effect could help to prevent liver and other cancers.

Another study, published in the International Journal of Cancer, compared diets of 697 people diagnosed with bladder cancer and 708 healthy people. Researchers found that eating cruciferous vegetables reduced cancer risk by 29 to 41 percent. Risk for other cancers, including breast, lung, and colorectal cancers, has also been reduced by eating cruciferous vegetables.

In Denmark, researchers are beginning to study the effect of dried broccoli sprouts on blood vessels among people with diabetes, high blood pressure, and high cholesterol. Animal and test-tube studies suggest that broccoli sprouts may protect arteries from damage caused by inflammation.

What to Look for When Shopping

Look for broccoli supplements containing SGS or a standardized extract of broccoli sprouts, or Brassica Tea with SGS (sold at health food stores), and follow product directions. Broccoli is the leading source of two other nutrients found in cruciferous vegetables: indole-3-carbinol (I3C) and 3,3’-diindolylmethane (DIM). Both may offer some protection against hormone-related cancers, although large-scale human studies have not been conducted.