

# Broccoli Sprouts & Sulforaphane,

## *Cancer Prevention and Detoxification*

By Geoff D'Arcy, Lic. Ac., D.O.M

### **SGS BROCCO Organic Broccoli Sprout Capsules**

<https://www.darcywellness.com/shop/sgs-brocco>

When your mother told you, "Eat all your vegetables and don't miss the broccoli, it's good for you!" she was right!

Now the experts agree - there is compelling scientific evidence that consumption of vegetables and fruits helps to reduce the risk of some cancers. The USDA's Dietary Guidelines for Americans, as well as the National Research Council and American Institute of Cancer Research recommendations, all reflect this growing knowledge. It is estimated that 10.3 million new cancer cases are diagnosed each year worldwide, making cancer prevention a major public health priority. Those simple words from your mother held much truth. Vegetables do keep us healthy, and can be a powerful weapon against cancer. According to a recent international expert report, dietary changes can *prevent* 30 to 40 percent of cancer cases (three to four million cases annually).

**What is it about vegetables that produce those healthy effects?** It's the naturally protective phytochemicals in vegetables. The "stars" of these anti cancer chemicals in the body are: allicin, found in garlic; carotenoids, found in carrots; lycopene, in tomatoes; and another amazing compound found in broccoli, sulforaphane glucosinolate (SGS ). These compounds increase the body's own defense system against carcinogens. Cells in the body contain a family of detoxification enzymes (Phase Two enzymes) that neutralize cancer-causing chemicals as well as free radicals before they damage DNA and initiate cancer.

**Chemo-protection** can be accomplished by activating the body's Phase Two "defense." The Phase Two enzymes are an integral part of the body's amazing detoxification system, neutralizing carcinogens and making them inactive. This detoxification system turns carcinogens and other toxic substances into harmless molecules that are excreted from the body.

In his article "Sulforaphane Stimulates the Body's Cancer Fighting Enzymes," Richard Conant describes how sulforaphane works. "The detoxification of carcinogens and other toxic substances takes place in the liver, and involves two distinct enzyme driven processes or 'phases.' Phase One enzymes neutralize toxins by various routes. Some of these convert toxins into substances that are immediately eliminated. However, other Phase One steps convert toxins into intermediate products which are carcinogenic themselves, and require further treatment before they can be excreted. Phase Two enzymes do this vital job. Phase Two enzymes deactivate these carcinogenic metabolites of Phase One, and the final breakdown product is then eliminated once and for all. [For an excellent review of this subject, see Encyclopedia of Natural Medicine, by Drs. Michael Murray and Joseph Pizzo]. Phase Two is critical. If Phase One is in good working order, but Phase Two is not, the potential threat from carcinogens increases. It is vitally important to keep Phase Two operating well. This is where sulforaphane plays its cancer preventive role. Sulforaphane is a powerful inducer of Phase Two enzymes."

According to studies by Dr. Paul Talalay and his colleagues at Johns Hopkins University School of Medicine, sulforaphane enhances the cancer-protective capacity of animal cells. Sulforaphane induces Phase Two (detoxification) enzymes, which are the enzymes that help to deactivate carcinogens and free radicals, thereby enhancing the body's own defense system against cancer-causing chemicals.

Some of the best growing techniques now guarantee large quantities, up to 5,500 parts per million, of sulforaphane within organically grown broccoli sprout powder. "Three-day-old broccoli sprouts consistently



