The Power of Berries

Studies show that many berries, including these Olallie blackberries, are packed with nutrients and may be a weapon against cancer. (David Karp for The New York Times)

Several studies show that people who eat diets high in fruits and vegetables have lower cancer rates. Now a large body of research suggests that berries may be among the most potent cancer-fighting fruits.

In numerous laboratory studies, researchers at Ohio State University have found that black raspberries inhibit the development of oral, esophageal and colon cancers in rats. Some human studies have also suggested a benefit from berry consumption. In one small study of patients with familial adenomatous polyposis, a genetic condition that raises risk for colon cancer, patients given black raspberry extract had up to 59 percent fewer rectal polyps than those taking a placebo; the findings were published in November's Cancer Prevention Research journal. Another study showed black raspberry powder reduced symptoms for patients with Barrett’s esophagus, a precancerous condition.

The main berries being researched include black and red raspberries, blackberries, strawberries and elderberries. Although blueberries have numerous health benefits, they don’t appear to have the same cancer-fighting properties as other berries, researchers say. Berries contain a number of healthful compounds including vitamins A, C, E and folic acid; selenium; calcium; polyphenols; and compounds called anthocyanins, which give berries their color.

While berries, particularly raspberries, look like a promising super food, many people may not find it practical to eat them on a regular basis. A human would have to eat about a pound of berries a day to ingest the equivalent doses used in the rodent studies. Another concern is whether variations in climate and growing techniques may alter the concentration of the beneficial compounds found in the fruit. Although frozen berries can substitute for fresh when
they are out of season, the fruits are expensive and may be too costly for most people to eat daily.

As a result, researchers are trying to identify the key ingredients that make berries cancer fighters. In a study published this month in Cancer Prevention Research, scientists compared rats who ingested a diet of whole black raspberries or a concentrated powder of black raspberry anthocyanins to rodents who ate a regular diet. The study found that the anthocyanin powder worked just as well as whole raspberries for slowing tumor growth. Both groups of rats consuming either whole berries or anthocyanin powder developed 50 percent fewer esophageal tumors compared to untreated rats.

“We’re quite encouraged by that,” said Gary D. Stoner, professor emeritus and former head of the Cancer Prevention Program at Ohio State University. “It’s not total inhibition, but it was pretty substantial. It tells us the anthocyanins in the berries are pretty important and they are deserving of more research.”

Although the verdict on berries as cancer fighters is still out, Dr. Stoner says more people could benefit by eating them. Studies already show people with diets high in fruits and vegetables are healthier, and berries are a particularly tasty fruit. Dr. Stoner says frozen berries are a good option, because they won’t spoil, can be eaten year round and often are cheaper than fresh berries. Concentrated berry powders are also available at health food stores.

Dr. Stoner says he starts every morning with a shake made with strawberries, blackberries and blueberries mixed with yogurt and milk.

“We think for the average American, probably the consumption of three to four helpings of berries every week is a good thing,” he said. “We know berries have so many effects on processes related to cancer development. They are one of the food stuffs you probably should consider consuming every day, or at least a few times a week.”