

## FOCUS ON Your Health

### THE PULSE

Since 1991, there has been a 76 percent increase in medicines under development for diseases that affect mostly women, with 348 new treatments now in the pipeline

SOURCE: PHARMACEUTICAL RESEARCH AND MANUFACTURING OF AMERICA

# A Prescriptive Palette

Researchers say the pigments that give foods their color also can cut cancer and heart-disease risk, and ease the pain of arthritis. BY ANNE UNDERWOOD

**B**ERNIE TENNES HAS A FAVORITE arthritis remedy—tart red cherry juice. “I drink it religiously, a glass a day,” says Tennes, 62. It’s a cure he discovered almost by accident. At the Country Mill farm market he owns in Charlotte, Mich., Tennes noticed that an elderly woman was buying the juice in huge quantities. It eased her arthritis, she said. Hearing that, another employee started taking it for her hip pain. Another began drinking it for her hands. Fifteen years later Tennes has close to 200 elderly customers who flock to his store for their cherry-juice fix. Just recently a 90-year-old woman came in and held out her hand to him, fingers straight. Tennes shot her an inquiring glance. “Sonny,” she said, “last year this time it took me all morning just to partially straighten my fingers out. After a year of tart-cherry juice, just see what I can do.”

It’s a folk remedy, not a clinically proven treatment. But science is starting to figure out why sour-cherry juice just might work for Tennes and his customers. The secret is in the pig-

ments that give cherries their rich red hue. They belong to a class of natural dyes called anthocyanins (Greek for “blue flower”) that color fruits like blueberries, strawberries and plums. According to Dr. Muralidharan Nair at Michigan State University, lab tests show that the anthocyanins in tart cherries give 10 times the anti-inflammatory relief of aspirin, without irritating the stomach. They are also potent antioxidants.

And they are not alone. In growing numbers of studies, the various pigments in fruits and vegetables have been shown to reduce cancer, heart disease and other ailments that result from a lifetime of oxidative damage. In short, vitamins and fiber are not the only reason to eat fruits and vegetables. There’s also pigment power. “Fill up your plate with as many colorful foods as you can,” advises Elizabeth Ward of the American Dietetic Association. “Think variety and color.”

By thinking color, scientists are discovering powerful benefits in foods that were once regarded as nutritional weaklings. Blueberries, for example: in a recent test of 60 fruits and vegetables, anthocyanin-rich blueberries topped the list of fresh produce for antioxidant strength. According to Dr. James Joseph of the USDA Human Nutrition Research Center on Aging at Tufts University, that may translate into protection against age-related declines in memory and coordination. In his lab, Joseph staged a “rat Olympics.” Elderly rodents (in the human equivalent of their 70s) were divided into four “teams”—a control group on a normal diet and three test groups with fortified diets including either pureed blueberries, strawberries or spinach. All three “pigment-fed” groups outperformed the control group on a memory test. But the blueberry-fed rats, who took in the greatest number of anthocyanins, excelled at motor skills, too. In the “lumberjack test”—in which the animals balance on a slowly spinning rod—the control group stayed on just four seconds. The blueberry group balanced for nine seconds. They also balanced nearly twice as long on station-

