

Sushi lovers: Beware of parasites

Sumptuous sushi can satisfy almost any gourmet's taste. Unfortunately, it can also satisfy the taste of parasitic organisms that burrow into the fish's muscle, giving unsuspecting sushiphiles abdominal pain after they eat the raw fish.

Individuals with acute abdominal pain 12 or more hours after eating raw fish should have the offending parasites, often *Anisakis* larvae, removed from the stomach lining with forceps, report Japanese researchers in the Feb. 15 *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*. The victims should then take antacids while the lining repairs.

Although scientists at the Centers for Disease Control (CDC) in Atlanta know of only one U.S. case in which parasites from raw fish had to be removed, several cases of nausea and abdominal pain after consumption of raw fish have been reported. And the CDC is on the lookout for more such cases as sushi gains in popularity.

Sunshine and calcium for colon cancer

Living in a sunny climate and drinking milk may do more than give you a nice tan and healthy teeth and bones. They may also help prevent colorectal cancer, the second most common cancer type resulting in death in the United States, report University of California at San Diego (UCSD) researchers.

Their study examined about 2,000 men and showed that those who frequently ate vitamin D- and calcium-rich foods had only one-third the rate of colorectal cancer as men who rarely ate such foods, says Cedric Garland of UCSD School of Medicine, an author of the paper. An earlier study by Garland and his brother, Frank Garland of the Naval Health Research Center in San Diego, showed that people in southern and western states with high average levels of light, which is known to be a good source of vitamin D, had fewer deaths from colorectal cancer than those in states receiving less sunlight.

For their current report, in the Feb. 9 *LANCET*, the researchers reviewed dietary data collected from 1957 to 1959 for a different study of male employees at Chicago's Western Electric Co. They collected information about their incidence of cancer for the next 19 years. Men with the lowest dietary intake of vitamin D and calcium had a colorectal cancer rate of 38.9 per 1,000, they found, while men with the highest intake had a rate of 14.3 per 1,000.

The researchers caution that "the present evidence cannot show conclusively that vitamin D or calcium protects against the occurrence of colorectal cancer." But they believe further research in this area is worth pursuit.

Pasteurized milk a culprit in disease

Bacteria in pasteurized milk from a Massachusetts supermarket chain two years ago caused an outbreak of listeriosis, a rare, often fatal infection, researchers from the Centers for Disease Control report in the Feb. 14 *NEW ENGLAND JOURNAL OF MEDICINE*. It is the first time bacteria have been found to have escaped the pasteurization process and cause human illness.

The bacteria showed up in pasteurized milk, the researchers say, because they are highly resistant to heat. Their numbers were great enough to cause infection because many cows at farms supplying milk to the dairy were infected. Inspectors found the only dairy involved in the incident to be clean and modern. They say it had processed the milk correctly.

The findings suggest that pasteurization may not always be 100 percent effective in removing disease-causing bacteria from milk, according to the researchers. However, their report notes, "it is important to remember the potential benefits of this food product and the amount of human illness caused by consumption of unpasteurized milk" (SN: 2/9/85, p. 88).

Milk curbs osteoporosis

A few extra 8-ounce glasses of skim milk daily may be better than calcium supplements for postmenopausal women, a new study indicates. Osteoporosis, or bone loss, accounts in large part for both the frequency of hip and spine fractures in the elderly and the slowness with which their bones heal. Though studies have shown that calcium carbonate supplements can slow or curb bone loss in postmenopausal women, there has been some question about whether good old milk—whose calcium is delivered to the body in a noncarbonate form—might not work as well.

Robert Recker and Robert Heaney of the Creighton University School of Medicine in Omaha, Neb., compared the two in a year-long study of 22 healthy postmenopausal women. In the February *JOURNAL OF CLINICAL NUTRITION*, they report that milk retards bone loss as effectively as carbonate supplements. Moreover, unlike the supplements, it does not suppress bone renewal.

Explains Recker, "This renewal process exists to replace the skeletal tissue that has aged." It is important, he says, because "the skeleton is crystalline, and like any crystalline substance, when it's subjected to submaximal strains, it can fall, or break." He says the natural bone remodeling process removes aged tissue prone to cracking and tissue that may already have acquired microcracks. Recker found that while milk did not seem to affect the natural bone remodeling rate, calcium carbonate supplements suppressed it by 25 to 30 percent.

Recker says his research shows that bone loss can be halted in postmenopausal women consuming about 1,500 milligrams of calcium daily. However, he adds, that's far more than most women get. "One quarter of all adult white women in this country get 300 mg per day or less," he says, "and the median dietary intake for women in adult life is close to 500 mg—well below the current recommended daily allowance of 800 mg."

Calcium, vitamin D and heart disease

Not only does the calcium in milk help to curb bone loss, but it may also impart some protection against atherosclerosis (hardening of the arteries) and clogging of blood vessels with plaque, according to an animal study in the February *JOURNAL OF NUTRITION*. However, that same study shows that when a calcium-rich diet also contains a substantial excess of vitamin D, the opposite occurs—animals develop an elevated susceptibility to atherosclerosis.

Explains Donald Beitz, one of the researchers at Iowa State University in Ames, "Vitamin D plays a role in calcium deposition." Since plaque hardens as it matures, there was some suspicion that an excess of vitamin D might aid in this calcification. Working with groups of six male kids, the researchers fed each group of goats a diet with a different milk ration: plain goat milk, milk with 2 to 2.5 times the recommended calcium level, milk with 100 times the recommended vitamin D, and milk with double the calcium and 100 times the vitamin D. Kids receiving the calcium-only supplement had the healthiest arteries of all; those with the calcium/vitamin D combo fared worst, with serious calcification and atherosclerosis.

Beitz says they chose a 100-fold excess of vitamin D to accelerate the onset of any related effect during their 20-week study. If a comparable effect occurs in humans, he speculates, it might take only a 5- or 10-fold excess of the vitamin—over a 50-year period—to achieve a similar effect. As to why calcium alone might be protective, Beitz says one theory is that it may form a calcium salt of the bile acid, thereby causing a drain on cholesterol, from which these bile acids are synthesized.

The Iowa State researchers plan to study the vitamin D/calcium interaction next in pigs—an animal that better models what one might expect to occur in humans.