

Your bladder: Use it or lose it?

Postponing urination long after the call of nature says it's time to go — discreetly called “habitual forced urine retention” by scientists — could be bad for your health, according to a report from Israel in the March *JOURNAL OF THE NATIONAL CANCER INSTITUTE*. Several studies have shown that urban men have a higher incidence of bladder cancer than rural men. This observation, coupled with other studies suggesting a role for urinary cancer-causing agents in contact with the bladder, led to the Israeli study of drinking, urination habits and urine concentration in various populations of workers.

Chosen randomly from cities and collective farms, a total of 631 subjects from a range of professions, who had no prior knowledge of the study, were asked for urine samples. They then were questioned about urinary and drinking habits. Rural workers in general urinated more often and drank larger amounts of liquid than did urban workers. For example, urban males reported an average of about five urinations per day, while those on the farms reported an average of more than six episodes. Urban male urine also was significantly more concentrated.

After taking into account smoking habits (considered a risk factor for bladder cancer), the scientists conclude that the data — which indicate prolonged urine storage in the urban bladder — support the so-called “urogenous contact hypothesis” of what causes bladder cancer. They also acknowledge that the urban work environment, with its more tightly scheduled use of time, is less conducive to heeding natural urges.

Parasite is target of world fight

On March 17, the U.S. House Select Committee on Hunger heard testimony from health experts regarding the U.S. role in the World Health Organization's worldwide campaign to eradicate Guinea worm disease. Also called dracunculiasis, the water-borne, crippling disease is caused by a worm that infects an estimated 10 million people annually, mostly in rural areas of Africa, India and Pakistan. Because the worm's larvae can easily be removed from water with chemicals or filtering, the committee will recommend that U.S. foreign aid for water projects in those endemic areas concentrate on eliminating the larvae, says a committee spokeswoman.

Antibiotic-resistant VD on increase

The incidence of antibiotic-resistant gonorrhea has risen fourfold in the United States since 1984, and is spreading to new areas in the country, according to the Centers for Disease Control (CDC) in Atlanta. The March 6 issue of CDC's *MORBIDITY AND MORTALITY WEEKLY REPORT* says the 16,608 U.S. cases of gonorrhea reported in 1986 that could not be treated with penicillin marked a 90 percent increase over the number of cases reported in 1985. Florida, New York City and Los Angeles, traditionally considered “hyperendemic” areas for the disease, had 64 percent of the more than 16,000 cases.

Data collected by CDC show that the penicillinase-producing *Neisseria gonorrhoeae* (PPNG) responsible for the disease is spreading to suburbs of New York City and Los Angeles, as well as to previously unaffected counties in Florida. Although PPNG-caused cases in 1986 represented only 1.8 percent of all reported cases of gonorrhea, some areas were more affected by the resistant strain of bacteria (which produces a penicillin-disabling enzyme). For example, 22 percent of the total gonorrhea cases reported in Florida's Dade County in 1986 were caused by PPNG strains.

CDC officials are preparing updated recommendations for prevention, diagnosis and control of PPNG venereal disease — which, although susceptible to drugs other than penicillin, is both expensive and difficult to treat.

U.S. weather waxing cloudy

Do you remember the weather years ago as having been sunnier than now? You may not be idealizing the past; you may be right. Two current studies, one an analysis of overall cloudiness in the United States and the other a close look at the weather of Michigan, indicate that the United States has gotten cloudier. Previous work had shown that the central United States has suffered the same fate.

William L. Seaver of Virginia Polytechnic Institute in Falls Church and James E. Lee of the MITRE Corp., a nonprofit systems engineering company in McLean, Va., compared the number of cloudless days in 45 U.S. cities during two periods, 1900-1936 and 1950-1982. Cloudless days were defined as those in which an average of 10 percent or less of the daytime sky was obscured by clouds, haze, smoke or fog. The study used data collected by U.S. National Weather Service observers.

An increase in cloudiness in the middle third of the United States has been documented by Stanley Changnon and his colleagues at the Illinois State Water Survey at the University of Illinois in Urbana-Champaign, but according to several meteorologists, Seaver and Lee are the first to show the trend for the nation as a whole.

The two researchers report in the current (January) *JOURNAL OF CLIMATE AND APPLIED METEOROLOGY* that the second half of the century has had fewer cloudless days than the first half. Los Angeles, for example, averaged 10 cloudless days per month in the years from 1900 to 1936; from 1950 to 1982, the number of cloudless days dropped to 7.6 per month. St. Louis went from 7.2 to 4.7 cloudless days per month, and Washington, D.C., from 5.3 to 4.4. Of the 45 cities checked, the only one to get sunnier was Ft. Worth, Texas, but the increase from 7.4 to 7.5 was barely enough to be significant, Lee says.

And at the Fourth Conference on Climate Variations in Baltimore last week, Val L. Eichenlaub of Western Michigan University in Kalamazoo presented data showing an increase in cloudiness in Michigan. Grand Rapids, for example, was 75 to 80 percent sunny in the late 1930s and early 1940s but dropped to about 65 percent in the 1970s.

While the studies have shown a trend toward cloudiness, they don't explain why the change is occurring. But the researchers involved in the work have several ideas. Changnon, who collected the Midwest data, has suggested that jet contrails act as condensation “seeds” and instigate cloud formation. For Michigan, Eichenlaub says, other data indicate that the polar weather front has been shifting southward, and this could be pulling in more storms and clouds. On the national scale, Lee suggests that pollution could be supplying particles around which water may condense.

Earthquake update

Two countries on opposite sides of the Pacific Ocean suffered large earthquakes this month.

On the evening of March 5, Ecuador was hit by a foreshock of magnitude 6.1, followed a couple of hours later by a 6.8 quake lasting more than 30 seconds, according to the National Earthquake Information Center in Boulder, Colo. The quake's epicenter was 50 miles east of Quito.

The quakes occurred during the rainy season, shaking loose fierce mudslides that buried villages in the rugged, hilly area. According to a spokesperson for the Embassy of Ecuador in Washington, D.C., at least 1,000 people are known dead and more bodies are expected to be discovered when rescue workers reach the more remote areas.

A March 18 Japanese quake, magnitude 6.4, did much less damage. According to the National Earthquake Information Center, it was centered in the water about 25 miles off the east coast of the island of Kyushu, and caused one death.