

Sex allergy: No laughing matter

The phrase "Not tonight, dear" may be a deadly serious matter for women who suffer from an allergy to their husband's seminal fluid, the liquid that carries sperm. In rare cases, such an allergic response can cause death.

The first case of an allergy to human seminal fluid was documented in 1958. Since then, the disorder has been diagnosed in a small number of cases. However, allergists believe the disorder is not readily recognized by gynecologists.

Some women with this condition report a dramatic, whole-body reaction to seminal fluid. Their symptoms include wheezing, vomiting, diarrhea, unconsciousness, or complete circulatory collapse. Other women experience a localized reaction, such as vaginal burning or swelling.

Researcher Jonathan A. Bernstein of the University of Cincinnati College of Medicine and his colleagues decided to study the prevalence of the disorder. They administered a questionnaire to 1,073 women who had reported symptoms consistent with the allergy.

Bernstein's team found that 12 percent of the women they studied met the diagnostic criteria for an allergy to seminal fluid. This result indicates that the disorder is much more common than previously suspected. The team reports its findings in the January *ANNALS OF ALLERGY, ASTHMA, & IMMUNOLOGY*.

Allergists can treat the condition, the researchers point out. Regular injections of purified seminal proteins can prevent the relationship-stopping symptoms, says Bernstein. — K.F.

The question of regular mammograms

Women in their forties still have no clear answer on whether to get regular mammograms, X-ray tests that can detect breast cancer. Late last month, a panel of specialists put together by the National Institutes of Health in Bethesda, Md., reviewed evidence from scientific reports and presentations on the value of regular mammograms for women age 40 to 49. The panel concluded that, for most women, routine mammograms are of no benefit.

That conclusion runs counter to the advice offered by the Atlanta-based American Cancer Society (ACS), which recommends that women in that age group obtain mammograms every 1 to 2 years. The ACS says routine mammograms can detect tumors at an early, treatable stage.

The NIH panel said the scientific evidence shows that even when regular mammograms do detect breast cancer in younger women, the early detection generally does not improve their prognosis. Furthermore, studies indicate that mammography missed up to 25 percent of invasive breast tumors in women age 40 to 49. In these cases, a negative mammogram could give a woman a false sense of security, the panel said.

No one disagrees about the value of mammography for older women. The NIH group said that numerous studies have demonstrated that regular mammograms for women between the ages of 50 and 69 result in a reduced risk of dying from breast cancer. The ACS also advises annual mammograms for women age 50 and older.

The panel concluded by saying that women in their forties would have to make an individual decision on whether to obtain routine mammograms.

That advice, or lack of it, generated considerable criticism. The ACS issued a press statement calling the panel's report disappointing. "The greatest concern is that women are totally confused," says ACS' Joann Schellenbach.

Even Richard D. Klausner, director of the National Cancer Institute, took issue with the panel's report. In a statement he delivered to a congressional panel on Feb. 5, Klausner said he thought the panel overemphasized the risks of mammography for women in their forties. — J.R.

Overfishing imperils cod reproduction

Though eaten throughout Europe, North Sea cod is perhaps best known as the finned component of Britain's fish-and-chips. In the early 1980s, trawlers netted some 250,000 to 300,000 metric tons of this cod annually. Today, though fishing no less intensively, trawlers haul in only about 90,000 tons per year—and the fish tend to be smaller. As a result of the shrinking stock, moreover, each year's harvest now totals a whopping 60 percent of the cod calculated to be present.

Not surprisingly, concludes a group of scientists, this population appears to be hovering on the brink of collapse.

In the Feb. 6 *NATURE*, Robin M. Cook of the United Kingdom's Marine Laboratory in Aberdeen, Scotland, and his colleagues note that though these fish reach reproductive maturity at age 4 or 5, most are caught by age 2. Indeed, the new findings indicate that only 4 percent of yearlings survive to age 4.

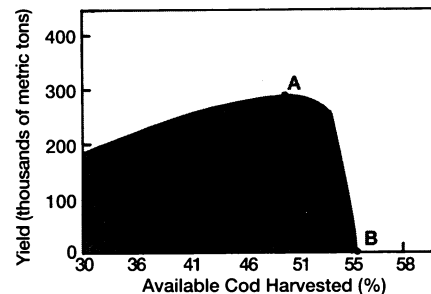
"This stock is incapable of producing enough young fish and growing fast enough to replace itself," says coauthor Alan Sinclair of Canada's Department of Fisheries and Oceans in Moncton, New Brunswick.

According to their model, as intensity of fishing increases, so will yield—up to a point. Beyond that point, known as maximum sustainable yield, the tonnage of fish hauled in decreases, even as a larger percentage of the fish population is being caught. The fishery eventually reaches the point of collapse. One of the biggest surprises, Cook and Sinclair say, is how close the North Sea cod fishery's maximum yield, achieved years ago, is to the point at which collapse is imminent. The difference between these two extraction rates is only about 8 percent. In many other fish populations, these extraction rates can differ by 100 percent.

The cod fishery's margin of error is so small, Cook says, that trying to manage the stock for maximum sustainable yield would virtually guarantee its collapse. Across the ocean, such a collapse closed Canada's Atlantic cod fisheries 4 years ago.

The simplest remedy—to increase the mesh size of nets so that young fish slip through—is going to be rejected without a trial, Cook says, because ships that fish for cod also trawl for the far smaller whiting.

A more palatable solution, the researchers suggest, may be to keep the present gear but simply fish less, by about half. That remedy would entail limiting total harvests to 30 percent of the stock in any year. — J.R.



Current fishing rates exceed the maximum sustainable catch (A) and are perilously close to the point of total fishery collapse (B).

Erosion tails tropical trails

Many programs aimed at improving the economy of communities in tropical rain forests have promoted ecotourism, nut harvesting, and other activities that protect the environment. One largely ignored impact of these programs, however, is the role that trails play in the erosion of the forests' thin soils.

In the just-released December 1996 *AMBIO*, researchers at the University of Tennessee in Knoxville reported soil runoff for neotropical rain forest trails in reserves. Under a typical 15-millimeter rain, the trails lost at least six times as much soil as adjacent, vegetated plots. In Ecuador, the difference in erosion averaged 165 kilograms per kilometer along 2-meter-wide walkways, and in Costa Rica, 250 kg per km of slightly wider trails. — J.R.