

Alcohol-Breast Cancer Link

Drinking three or more alcohol-containing beverages a week may double a woman's chance of developing breast cancer later, and even lower amounts can increase risk to a lesser degree, says one of two reports this week on the relationship between alcohol and breast cancer. The other study, which found increased risk only at higher intake levels, also concludes that alcohol can significantly increase the risk of breast cancer. But scientists from both groups — while emphasizing the importance of alcohol as a risk factor because it can be eliminated — stopped short of recommending that women quit drinking.

Using previously collected data from the National Health and Nutrition Examination Survey, researchers from the National Institutes of Health (NIH) found that any amount of alcohol, even the equivalent of less than one drink weekly, raises the breast cancer risk by at least 40 percent. In the study's heaviest-use category (three or more drinks per week), the risk increase jumps to 100 percent, or double, report the researchers in the May 7 *NEW ENGLAND JOURNAL OF MEDICINE*. Data were not available on the types of

drinks consumed or the age at which subjects began drinking. An earlier NIH study suggested the risk is elevated if drinking begins before age 30.

In another study reported in the same issue, based on data from the Nurses' Health Study begun in 1976, scientists at Harvard Medical School and Harvard School of Public Health in Boston estimate that women who consume from about three to nine drinks per week have a 30 percent increased risk of developing breast cancer compared with non-drinkers. (One drink is defined as 12 ounces of beer, a glass of wine or a drink with 1 ounce of liquor.) Greater alcohol intake raises the risk to 60 percent, according to Walter C. Willett and his coauthors. The group did not, however, find increased risk in those who drank fewer than three drinks per week, partly contradicting the NIH data.

Philip R. Taylor, a coauthor of the NIH report and acting chief of the National Cancer Institute's Division of Cancer Prevention and Control, told *SCIENCE NEWS* that the differences between the NIH results and the Boston data may have resulted from possible underreporting by

NIH subjects of the amount actually consumed. He adds, however, that the two studies and an earlier one similarly designed are consistent and "right on target" in reporting an average 50 to 60 percent increased risk with moderate drinking. Willett says data collected by the Boston group "are probably more likely to be real," because the amount of alcohol ingested was validated with follow-up questionnaires given women chosen randomly from the larger group. Alcohol consumption among the NIH subjects was measured only during the initial interview.

In any case, both Taylor and Willett agree that alcohol must be considered a possible factor in breast cancer. "It still is not totally clear whether this is a true cause-and-effect relationship," says Willett. Taylor also says NIH "is not in a position to make a firm recommendation [regarding alcohol use by women] at this point." He notes that other NIH reports suggest that small amounts of alcohol may lower the risk of heart disease.

"There are a large number of risk factors [such as heredity] for breast cancer," says Taylor. "Almost none are things that a woman can do anything about. Alcohol may be one of those things . . . but there's a lot of thinking that has to go on before people start chucking their wine bottles."

In an accompanying editorial, Saxon Graham, chairman of Social and Preventive Medicine at the State University of New York in Buffalo, points out that 14 of the 17 studies that have looked at alcohol and breast cancer have found increased risk. Graham writes that women with other known risk factors for breast cancer "should curtail their alcohol ingestion." Those risk factors include obesity, having had first pregnancies after 25, having few or no children, and having a mother with breast cancer. Graham told *SCIENCE NEWS* he thinks women at high risk should quit drinking alcohol entirely.

Those interviewed agreed that the two epidemiologic studies have their shortcomings. The NIH's conclusions are based on a total of 131 cases of breast cancer identified among a group of 7,188 women. "[The 131 cases] is small in absolute numbers," says Taylor. "But the statistical analysis tells you the results are not likely to be due to chance. One still should be cautious [about interpreting results]." Based on 89,538 women, 601 of whom developed breast cancer during the four years following the original interviews, the Boston study has larger numbers but also is flawed, says Graham. He criticizes the study for the homogeneity of its nurse population, a "medically knowledgeable and middle-class" group. Middle- and upper-class women have a higher incidence of breast cancer, and Graham questions whether such results can be extrapolated to the general public.

— D.D. Edwards

Blood imbalance detected in SIDS victims

Sudden infant death syndrome (SIDS), in which the tragedy of a baby dying is compounded by the lack of any clear-cut medical reason, is one of the most frustrating mysteries for medical researchers. The infant, usually between 2 and 4 months of age, simply stops breathing. Researchers have observed in retrospect that "at risk" babies tended to be of low birthweight, required longer hospitalization at birth and had lower Apgar scores — which reflect reflexes, muscle tone and respiratory function — and that their mothers may have had anemia or taken drugs during pregnancy. But such factors are only very loosely correlated with the syndrome and by no means predict that a particular baby will succumb to SIDS.

Now, another clue has been added — one that researchers say might eventually help in screening for potential SIDS victims. University of Wisconsin at Madison scientists report they have found elevated levels of hemoglobin F (fetal) in the blood of infants whose cause of death was listed as SIDS. They found that the mean proportion of hemoglobin F to hemoglobin A (adult) in 59 SIDS victims was 63 percent, compared with a mean of 48 percent in 40 age-matched control infants. "Nor-

mally, hemoglobin F is largely replaced by adult hemoglobin . . . during the first six months after birth," researchers Enid F. Gilbert, Richard L. Moss and Gary G. Giulian write in the April 30 *NEW ENGLAND JOURNAL OF MEDICINE*.

They suggest that "infants with SIDS are characterized by a marked delay in the switch from hemoglobin F to hemoglobin A — a phenomenon that may reflect an underlying chronic condition." The imbalance, they add, could affect "the delivery of oxygen to sensitive tissue sites."

The Wisconsin researchers conclude that hemoglobin F levels may be valuable not only as a "postmortem indicator" of SIDS but also "as a prospective marker for some infants at risk for SIDS."

The findings are "a valuable first step," says Marie Valdes-Dapena, president of the National SIDS Foundation in Landover, Md., and a pathologist at the University of Miami School of Medicine. But she stresses that the findings must be replicated.

Beyond that, Valdes-Dapena echoes the dilemma of those looking for ways to prevent SIDS. "It would be helpful to have a blood test," she says. But if the test showed an infant was at high risk, she asks, "Then what?" — J. Greenberg