

# Alcohol Test May Be Condemning the Abstinent

BY TIMOTHY F. KIRN  
Sacramento Bureau

SAN DIEGO — Nancy Clark, a registered nurse, had been drug free and sober for 3 years when she tested positive for alcohol on the new ethyl glucuronide test, the same one used for many chemically dependent physicians who are entered into monitoring programs and are on probation.

She kept her job the first time, but then she tested positive again—and lost it.

So Ms. Clark bought a plane ticket. She flew almost 3,000 miles from Pennsylvania to San Diego to meet with the one person she thought might be able to help her and others in her situation: Dr. Greg Skipper.

“When I tested positive, I looked on the Internet, and everything I saw said this test was perfect,” said Ms. Clark of Fleetwood, Penn., at the meeting where she met with Dr. Skipper—the annual conference of the American Society of Addiction Medicine.

“I thought: How am I ever going to be able to protest this?” she said.

Recent evidence, however, suggests that while the test may be highly accurate and sensitive, it may also be fallible, said Dr. Skipper, who helped develop ethyl glucuronide (EtG) as a drug test to monitor whether a person has consumed alcohol. In essence, the evidence suggests the test may be too good, picking up people who are exposed to alcohol in any number of ways without drinking it, said Dr. Skipper of Montgomery, Ala., director of that state’s physician health program.

The EtG test is used widely by physician monitoring programs. In a survey of physician health programs conducted this year, 29 of 31 responding programs reported

that they use the test, compared with 17 of 46 programs that reported using it in 2004, said Dr. Michael Sucher, medical director of the physician health program in Scottsdale, Ariz. Some of those states use it routinely, others just for cause.

Dr. Skipper says he knows of at least 60 people who claim that they have not touched a drink but have had positive results on the EtG test. Consequently, some people who have not been drinking may lose their jobs, licenses, or even custody of their children. Still others may be going back to jail.

For health care workers, washing hands with alcohol-containing sanitizers such as Purell might be the reason they are testing positive, Dr. Skipper said. “We’re getting data, and we’re worried about what [they show],” he said in an interview.

Dr. Skipper said that he does not want to see the test abandoned. He finds it often picks up monitored physicians whose alcohol use would not be detected otherwise, and even among those who deny drinking at first, 50%-80% later admit to it.

Random EtG testing surveys of physicians who are not supposed to be drinking in monitoring programs have found that around 7% will have a positive test result. It is important to catch those physicians to get them help, Dr. Skipper said.

Given the gathering evidence, however, the test needs to be used with some clinical judgment of the individual, he added. “I am urging no use in administrative hearings and courts,” he said. “It is a clinical test.”

Moreover, if hand sanitizer can cause measurable EtG levels, then probably any product containing alcohol could, he noted. And products that contain alcohol are everywhere, ranging from the cold medi-

cine NyQuil to asthma inhalers, topical testosterone, and bug spray.

Ethyl glucuronide is a very specific metabolite of alcohol found in urine. It is considered a better test than a blood alcohol level, because it lasts much longer—about 5 days—depending on the amount ingested and individual variation. Although it has been theorized that certain rare individuals could automatically ferment alcohol in their system, such as yeast in the bowel, it has been assumed that a positive test meant someone had to have taken a drink.

At the meeting, Dr. Michael R. Liepman presented an experiment on the EtG test that he conducted using 24 abstinent subjects.

One group of subjects washed their hands with Purell (62% alcohol) 15 times at 4-minute intervals in a small enclosed room where, presumably, they would be inhaling the fumes from the washing. Each of those subjects was accompanied by another subject who did not wash their hands but stood close enough for inhalation.

A third group washed their hands in an air-flow chamber to prevent inhalation, and a fourth group served as controls.

Three of the subjects who washed their hands and could inhale the sanitizer had positive EtG tests 30 minutes after washing, as did one of the subjects observing in the same room, said Dr. Liepman, director of addiction psychiatry and research at Michigan State University’s Kalamazoo Center for Medical Studies.

That observer had a level of 350 ng/mL, while the cutoff used for a positive test in the experiment was 100 ng/mL, the same cutoff that is generally used out in the field.

None of the subjects who washed in the

air-flow chamber had a positive test, though there were detectable levels.

Breathalyzer tests given to the subjects did not suggest any level of impairment.

The results confirmed that use of alcohol-containing hand wash can influence the EtG test, and the primary means appears to be inhalation, Dr. Liepman said.

“Recovering alcoholics, including those who are subject to urine monitoring, should avoid the use of alcohol-based hand sanitizer,” he said.

Dr. Liepman was motivated to perform the experiment because two nurses in his practice, both of whom were recovering opiate addicts and both of whom were pregnant, had tested positive for ethyl glucuronide and violated their recovery employment contracts, he said. Both were suspended for 1 month, just at the time they needed to be accumulating vacation hours so they could take time off for the birth of their babies.

Both denied drinking, neither tested positive for any other drugs, and both were doing well on the job.

One nurse measured 270 ng/mL on the EtG test, while the other measured 215 ng/mL, levels that might be considered fairly low for a substance abuser who has fallen off the wagon, since two drinks can produce a level of 23,000 ng/mL, Dr. Liepman said.

Both nurses reported washing their hands with sanitizer on the job upward of 30 times a day, a frequency that might explain why, among health care workers, so many of those who have been tripped up by the test have been nurses.

In the laboratory, Dr. Skipper has found that two nonalcoholic beers will cause a level of 93 ng/mL and gargling with Listerine can trigger a level of 100 ng/mL. ■

## Study Finds Americans Much Less Healthy Than the English

BY MARY ANN MOON  
Contributing Writer

Americans are much less healthy than their British counterparts, at all levels of socioeconomic status, reported James Banks, Ph.D., of University College, London, and his associates.

In both countries, people with the highest levels of education and income are the healthiest, while those of low education and income are the unhealthiest. But the overall differences in health status between the two countries is so profound that the wealthiest Americans have comparable rates of diabetes and heart disease to people at the lowest levels of education and income in England.

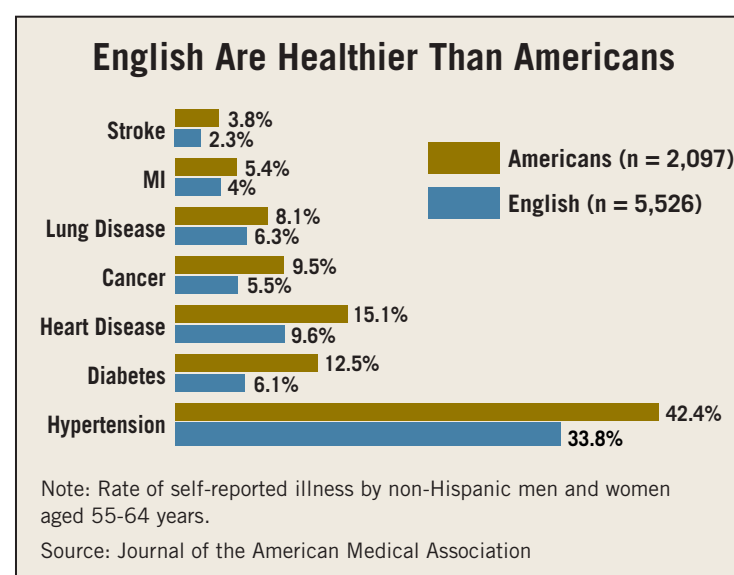
Dr. Banks and his associates compared rates of seven major diagnoses among populations of comparable socioeconomic positions in nationally representative samples from the United States and England. To minimize

the effects of racial and age differences between the populations, they restricted their study to only non-Hispanic white men and women aged 55-64 years.

The analysis included health-related data on 2,097 Americans and 5,526 British subjects. All were interviewed in 2002 and underwent physical examinations that included laboratory tests to verify their self-report of conditions such as diabetes.

Overall, Americans were more likely to have diabetes, hypertension, heart disease, a history of myocardial infarction or stroke, lung disease, and cancer than British subjects. Diabetes prevalence was twice as high in the United States (13%) as it was in England (6%), the rate of hypertension was nearly 9% higher, and the rate of heart disease was almost 6% higher, the investigators said (JAMA 2006;295:2037-45).

Regarding markers of future cardiovascular risk, 40% of Americans had high levels of C-



reactive protein and 24% had high levels of fibrinogen, compared with 30% and 10%, respectively, among the British participants. Similarly, only 28% of Americans had heart-healthy levels of HDL cholesterol, compared with 44% of the European comparison group.

The study was not designed to explain the reasons underlying the large discrepancy in health status between England and the United States, and the investigators did not offer any potential explanations. However, they were able to rule out possible causes.

The discrepancy was not be-

cause of differences between the two populations in major risk factors. Smoking status was remarkably similar between the two countries. And although obesity was much more common in Americans, while heavy drinking was much more common in England, “very little of the overall between-country differences in health conditions are due to differences in ... behavioral risk factors,” the researchers noted.

Nor did differences in access to health care account for the wide gap in health status. The British participants may have nationalized health care, but most of the Americans in the survey had full insurance coverage. “Health insurance cannot be the central reason for the better health outcomes in England because the top [socioeconomic] tier of the U.S. population have close to universal access but their health outcomes are often worse than those of their English counterparts,” the investigators wrote. ■