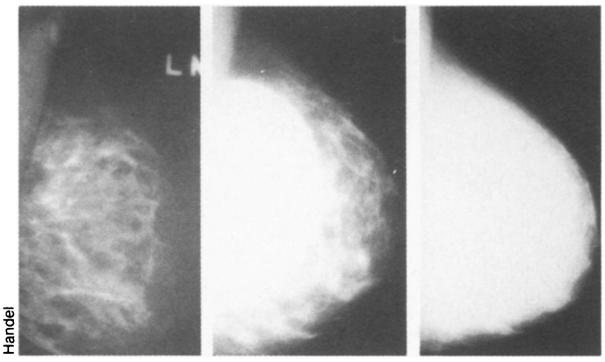
Implants block X-ray view of the breast



Handel

Radiologists have no trouble visualizing breast tissue before surgery (left). Soon after augmentation (middle), the implant blocks about 30 percent of the breast tissue. A year later, the same patient has experienced contracture, and the image has been obscured further.

Mammography, an X-ray examination of the breast, can be a lifesaver when it comes to detecting cancer. However, cancer specialists have worried that breast implants may make it harder to find a tiny breast tumor. A new study seems to confirm that fear.

Women who undergo breast augmentation for cosmetic reasons are typically young and thus not at high risk for breast cancer, says plastic surgeon Neal Handel of The Breast Center in Van Nuys, Calif. As these women age, though, the issue of breast cancer becomes more pressing. Handel and his colleagues reported in 1988 that women who had undergone breast augmentation and who later developed breast cancer were more likely to have an advanced tumor at the time of diagnosis.

To find out more about the effects of implants on mammography, Handel and his colleagues recruited 68 women who wanted breast augmentation to improve their appearance. The team obtained a mammogram of each breast before surgery and another one about a year and a half after the women had received their silicone-gel-filled implants. All implants are radio-opaque and thus can obscure breast tissue, Handel notes. A condition called "capsular contracture" makes the problem even worse, Handel said this week at a science reporters' meeting in Marina del Rey, Calif., sponsored by the American Medical Association.

Soon after surgeons insert an implant into the breast, scar tissue forms around the capsule, Handel explains. In some women, that scar tissue contracts, making the breasts hard. Because mammography equipment compresses the breast in order to obtain a clear image of the tissue, such hardening makes the resulting picture even cloudier than a mammogram of a breast with scar tissue that remains pliable.

Indeed, the team found that women with more severe contracture showed a 50 percent reduction in the amount of tissue that showed up on the postoperative X-ray. By contrast, women with little or no contracture showed a 30 percent decline in the breast tissue that could be visualized.

These findings, which appear in the Oct. 14 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, underscore concern that a tumor that can't be viewed on the mammogram could gain a head start and perhaps spread to other parts of the body before a diagnosis can be made.

The team also found that a certain type of mammography, called displacement mammography, provides somewhat clearer images than standard compression mammography. However, significant portions of breast tissue remain hidden even when radiologists rely on displacement mammography, Handel warns.

"Patients need to be aware that there are potential risks and complications associated with implants," Handel says. He maintains that the benefits of implant surgery can still outweigh the risks, especially for young women who have self-esteem problems caused by a flat chest.

Toni Young of the National Women's Health Network in Washington, D.C., cautions that breast implants have been associated with other health hazards, including a serious autoimmune disorder. She advises women to delay scheduling such surgery until studies determine the procedure's safety.

Finally, Handel takes a more cautious approach for women whose family history puts them at high risk of breast cancer. He says his study's findings argue against breast augmentation for these women. *—K.A. Fackelmann*

Tobacco withdrawal: No link to quitting

Smokers trying to kick their nicotine habit experience withdrawal symptoms that include irritability, anxiety, difficulty concentrating, hunger, and restlessness. Yet many ex-smokers eventually start using cigarettes again for reasons unrelated to nicotine withdrawal reactions, according to a six-month study of adults who quit cigarettes on their own and shunned tobacco for at least 30 days.

No clear culprits emerge as instigators of a smoking relapse, asserts psychiatrist John R. Hughes of the University of Vermont in Burlington. The new findings indicate that important questions about nicotine addiction remain unanswered, including why withdrawal symptoms strike some people with greater intensity, why some succeed and others fail to give up smoking permanently, and how nicotine gum and nicotine patches make cigarette abstinence easier, Hughes contends.

He presents his data in the October JOURNAL OF CONSULTING AND CLINICAL PSYCHOLOGY.

Some earlier studies have found that former smokers with more severe withdrawal signs show a greater probability of resuming their tobacco habit, whereas other trials have uncovered no such pattern. All but one of those studies, however, focused on the fewer than 5 percent of smokers who attempt to quit through a treatment program, Hughes points out. Such smokers display stronger signs of dependence on nicotine than self-quitters, he says.

Hughes used newspaper and radio advertisements to recruit smokers who were about to quit on their own. Participants stopped smoking about one week after an initial interview. Hughes then tracked 178 individuals who remained abstinent for 30 days. He also studied control groups of 56 ex-smokers abstinent for more than one year, 67 current smokers, and 61 nonsmokers.

A total of 78 volunteers who gave up smoking remained abstinent for the entire six-month study.

Except for hunger and weight gain, nicotine withdrawal symptoms among self-quitters largely disappeared two to four weeks after smoking ceased. Self-quitters gained an average of 3.2 pounds over the study period, reaching an average weight similar to that of ex-smokers but greater than that of nonsmokers and current smokers.

Depression did not increase among self-quitters, and cravings for nicotine decreased throughout the study. Nevertheless, participants reported considerable cigarette cravings just before quitting, and many cited continued, though diminished, craving six months later.

Alcohol and caffeine consumption did not change among self-quitters.

None of the common nicotine withdrawal symptoms appears linked to the ability to stop smoking for the entire six months. However, participants whose depressive symptoms increased in the month after quitting cigarettes displayed a modestly greater tendency to suffer a smoking relapse than did those whose symptoms stayed the same or decreased. *—B. Bower*