

Mammography's mixed blessings

By Dr. Samuel Epstein
and Barbara Seaman
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Mammography centers nationwide are scaling down or even closing because of inadequate Medicare payments and concerns about possible malpractice suits. While access to mammography is shrinking, the demand is increasing in the wake of aggressive promotion of premenopausal screening by the American Cancer Society.

Women now are waiting weeks or longer for appointments—potentially dangerous delays for those with lumps needing diagnostic mammography. With breast cancer on the increase—and now striking about 192,000 women and killing 41,000 annually—delayed detection promised by mammography surely poses a health care crisis. However, the crisis is more apparent than real, as screening is unreliable, dangerous—and inflationary.

■ Mammography is not a technique for early diagnosis as breast cancer is rarely detectable until about eight years old.

■ Evidence that screening allows early detection and treatment of breast cancer is tenuous based on analysis of two large trials, Danish researchers writing in the *Lancet* recently concluded: "There is no reliable evidence that screening decreases breast cancer mortality [and thus that] screening is unjustified."

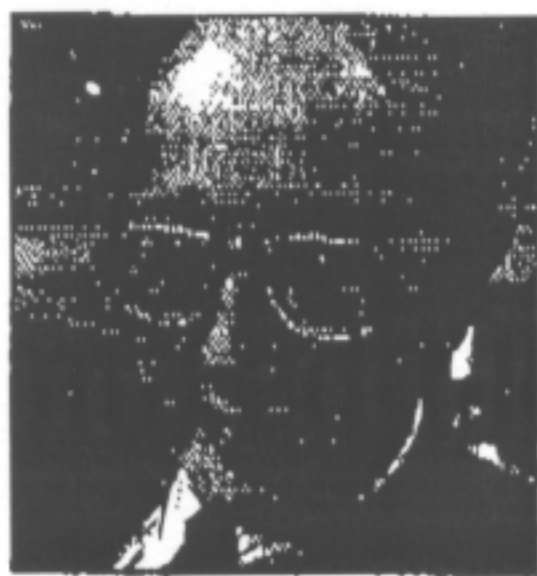
■ The Canadian National Breast Screening Study recently reported on a trial on some 39,000 postmenopausal women. Half of the women performed monthly breast self-examination, following instruction by trained nurses, had annual clinical breast examinations by trained nurses and also annual mammograms. The others practiced self-exams and had annual clinical exams but no mammograms. The authors of the study concluded that the mammographic detection of non-palpable cancers did not improve survival rates.

■ False-negative mammograms are particularly common in premenopausal women because of their denser breast structure, and also in postmenopausal women on estrogen replacement therapy as some develop breast densities, making mammograms difficult to read.

■ About one-third of all breast cancers and more still of the aggressive premenopausal cancers are discovered in the interval between successive annual mammograms. Premenopausal women particularly can thus be lulled into a false sense of security and fail to seek medical advice.

■ False-positive mammograms, common in premenopausal and postmenopausal women on estrogen replacement therapy, result in needless anxiety, additional mammograms or unnecessary biopsies—even mastectomies. For some, the cumulative risk of false positives can reach as high as 100 percent over a decade of screening.

■ Overdiagnosis is another risk. As screening becomes more common, pre-invasive breast ducts cancer, or ductal carcinoma-in-situ, is now diagnosed annually in some 40,000 women and often unnecessarily treated as invasive cancer by lumpectomy, plus radiation or even mastectomy. Howev-



Dr. Samuel S. Epstein, professor emeritus of environmental medicine at the University of Illinois-Chicago School of Public Health, is co-author of "The Breast Cancer Prevention Program" (Macmillan Books, 1998).



Barbara Seaman, author of "The Doctors' Case Against the Pill" (Hunter House, 1969), is co-founder of the National Women's Health Network.

er, most of these pre-invasive cancers never become invasive, even if left untreated, and mortality is very low (1 percent)—the same for those diagnosed and treated early or late.

■ Screening poses cumulative cancer risks. The routine of taking four films for each breast results in 1 rad (radiation absorbed* dose) exposure, about 1,000 times more than a chest X-ray. The premenopausal breast is sensitive to radiation, each rad exposure increasing risk by 1 percent with a cumulative 10 percent increased risk over 10 years of screening; risks are greater for "baseline" screening at younger ages. Less well recognized dangers are posed by forceful breast compression during premenopausal mammography, which may rupture blood vessels in or around small undetected cancers and result in the spread of malignant cells.

■ Finally, screening is inflationary; average Medicare and insurance costs are \$70 and \$125, respectively. If all 20 million premenopausal women had annual mammograms, minimum aggregate costs would be \$2.5 billion; costs would reach \$10

billion if the industry succeeds in replacing film machines, costing about \$100,000, with digital machines, costing about \$400,000, for which there is no evidence of improved effectiveness.

The combination of clinical exams and self-exams is effective, safe and low cost, unlike mammography. In 1985, ACS admitted: "At least 90 percent of the women who develop breast carcinoma discover the tumor themselves."

Nevertheless, the National Cancer Institute and the ACS, with ties to the American College of Radiology, and the mammography industry remain dismissive of breast examination as an alternative to mammography. National networks of clinical exam and self-exam clinics staffed by trained nurses should be established. These clinics would further empower women by providing scientific information on breast cancer prevention, of which women remain largely unaware.