University of Waterloo STAT 231 – W. H. Cherry

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Exercise may reduce breast cancer risks

LOS ANGELES (AP) – Young women who exercise four hours a week can cut their risk of breast cancer 50 to 60 per cent, according to a U.S. study.

"Four hours of exercise per week is not difficult," said Leslie Bernstein, a professor of preventive medicine at the University of Southern California School of Medicine and the study's chief author. "Even one to three hours of physical exercise per week reduces a woman's risk of breast cancer by about 30 per cent."

The findings appear in today's issue of the *Journal of the National Cancer Institute*.

They were drawn from surveys of 1,090 Los Angeles County women 40 and younger – 545 with newly diagnosed breast cancer and 545 without the disease. The study

analyzed the women's exercise habits since they began menstruating.

The study did not prescribe any particular sport or type of exercise. But among the activities reported by the women were individual or team sports, dance or exercise classes, swimming, jogging and working out at a gym.

Dr. Susan Love, director of the University of California at the Los Angeles Breast Center, pointed out that promoting exercise in young women "will not only prevent breast cancer, but osteoporosis and heart disease."

The researchers speculated that exercise may protect by altering the production of the ovarian hormones estrogen and progesterone. Other research has shown that vigorous athletics can delay the onset of menstruation and halt ovulation in some women. A woman's

cumulative exposure to the hormones is believed to be linked with breast cancer risk.

Love suggested other mechanisms may be at work. "It may be that (exercise) decreases body fat We know women with a higher percentage of body fat have a higher incidence of breast cancer."

But Bernstein said she observed no association between breast cancer risk and the body mass and body fat of her study subjects."

Bernstein said the results intensified her concerns about how sedentary girls have become. A U.S. study in 1990 showed fewer than 40 per cent of high school girls took physical education; only 20 per cent of that group participated in vigorous activity three or more times weekly.

REFERENCE: Bernstein, L., Henderson, B.E., Hanisch, R., Sullivan-Halley, J. and R.K. Ross: Physical exercise and reduced risk of breast cancer in young women. *J. Natl. Cancer Inst.* **86**(#18): 1,403-1,408 (1994). [DC Library call number: PER RC261.U47]

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