

# Swan

## UPDATES

### SWAN BONE HIGHLIGHTS

*November, 2003*

Several SWAN centers are measuring bone density each year. SWAN has made several important new discoveries related to ethnic patterns of bone density and changes in bone density during the menopause transition.

It is widely believed that Asian women have lower bone density than Caucasian women, but SWAN has found that this is not completely true. SWAN has shown that in women of similar body size, bone density is actually higher in Asian women than in Caucasian women. This finding may explain why Asian women are less likely to break bones than Caucasians. African American women have the highest bone density in SWAN, but most of their apparent advantage is because they tend to have a larger body size than Asian or Caucasian women.

SWAN has shown for the first time that women who have greater amounts of routine daily physical activity at home (e.g. childcare, meal preparation, chores, etc.) have higher bone density than less active women. Therefore, it is crucial to measure all aspects of women's activity (not just sports and other recreational activities) to understand the relationship between physical activity and bone strength.

Women with higher follicle stimulating hormone levels (FSH is a hormone month in pre-menopausal women) tend to have lower bone density than other women. FSH levels increase as women begin to go through the menopause. Interestingly, we found no relationship between estrogen levels and bone density at the initial SWAN visit, probably because estrogen levels are so variable in women.

Bone density decreases even before a woman's periods stop. Bone density changes very little in the earliest phase of the menopause transition but bone loss accelerates in the later parts of the transition. Women who are heavy lose bone less rapidly during the menopause transition than women who are light.

In Japanese women, diets high in soy foods are associated with higher bone density than diets with less soy. Surprisingly, Chinese women who consume a diet high in soy do not have higher bone density than other Chinese women, perhaps because Chinese and Japanese diets contain different kinds of soy foods. This suggests that not all soy foods have the same effect on bone density.

### **There is an end to monthly SWAN calendars for some participants!**

Once the SWAN computer calculates that you have not had menstrual bleeding for more than 2 years, you will get a letter saying that you can stop filling out the monthly SWAN calendar. (The SWAN computer calculates this from the information that you report at your yearly visit, so the letter will be sent more than 2 years after your last period.)



Some participants who have not bled for 2 years have been filling out a short symptom report every 6 months, but the study has decided to stop using this report. So, once the SWAN computer knows that you haven't bled for more than 24 months, SWAN will only ask you to complete a study visit every other year.

SWAN very much appreciates the calendar data that many dedicated participants have been mailing us every month. Analysis of the data from several years ago is going on right now - future newsletters will report some of the results.

**[HTTP://WWW.SWANSTUDY.ORG](http://www.swanstudy.org)**

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