Soy May Help Women’s Hearts if they Start Early

CLEVELAND, Ohio (Wednesday, July 30, 2014)—A diet rich in soy may help feminine hearts, but timing matters, finds a new study published online today in *Menopause*, the journal of The North American Menopause Society.

Lifelong soy consumption, similar to the diet of women in Asia, produces the least atherosclerosis. Switching to a Western diet after menopause, similar to Asian migrants to North America, leads to just as much atherosclerosis as a lifelong Western diet, and switching to soy from a Western diet after menopause helps only if there isn’t much atherosclerosis already.

Researchers at Wake Forest School of Medicine in Winston-Salem, NC, reached those conclusions based on their feeding study of cynomolgus monkeys before and after surgical menopause. They fed premenopausal monkeys a diet with protein derived mainly from animal sources or a diet with protein from high-isoflavone soybeans. After having their ovaries removed, mimicking human menopause, one group of monkeys continued to eat a soy diet, another switched from animal protein to soy, a third group stuck with animal protein, and a fourth switched from animal protein to soy.

After 34 months, cholesterol levels were good in the monkeys who ate soy before and after menopause. And for those that switched to a soy protein diet after menopause, similar to some North American women concerned about their heart health, cholesterol levels did improve significantly (with lower total, LDL, and VLDL and higher HDL). But when it came to how much plaque progressed in the arteries, there weren’t any statistically significant differences, despite trends favoring a lifelong soy diet and the switch to soy after menopause.

As far as the total amount of atherosclerosis was concerned, monkeys eating a lifelong soy diet showed a much lower proportion of complicated plaque in the arteries than the other monkeys.

There was a big advantage to a postmenopausal switch to soy for some of the monkeys, however. For those that had small plaques in the arteries at the time of menopause, the switch to soy after menopause markedly reduced the progression of plaque in the arteries.

These findings add to the similar ones from the Women’s Isoflavone Soy Health (WISH) clinical trial on atherosclerosis in women after menopause, but this animal study was able to model what the effects of a
soy diet or soy supplements may be, based on women’s diets and heart health before menopause or very early after menopause, when artery plaques may still be small.

“This study underscores how important it is for women to get into the best cardiovascular shape they can before menopause. The healthy habits they start then will carry them through the years to come,” says NAMS Executive Director Margery Gass, MD.

The article “Beneficial effects of soy supplementation on postmenopausal atherosclerosis are dependent on pretreatment stage of plaque progression,” will be published in the March 2015 print edition of *Menopause.*

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Founded in 1989, The North American Menopause Society (NAMS) is North America’s leading nonprofit organization dedicated to promoting the health and quality of life of all women during midlife and beyond through an understanding of menopause and healthy aging. Its multidisciplinary membership of 2,000 leaders in the field—including clinical and basic science experts from medicine, nursing, sociology, psychology, nutrition, anthropology, epidemiology, pharmacy, and education—makes NAMS uniquely qualified to serve as the definitive resource for health professionals and the public for accurate, unbiased information about menopause and healthy aging. To learn more about NAMS, visit www.menopause.org.