

## Longer reproductive life equals less depression in menopause



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By Fran Lowry

NEW YORK (Reuters Health) - Women with a longer exposure to estradiol due to early menarche and late menopause appear to be protected against depression during menopause, researchers said at the North American Menopause Society annual meeting in Washington, DC.

"The longer a woman's reproductive life, the more she seems to be protected against depression in her transition through the menopause," lead author Dr. Wendy Marsh, from the University of Massachusetts, Worcester, MA, told Reuters Health.

When the congress wrapped up on September 24, her presentation was awarded a 2011 NAMS Poster Prize.

The role of estrogen has been studied in breast cancer and osteoporosis, but this study was designed to look at duration of estrogen exposure with regard to depression in the perimenopause, when women are known to be at higher risk for depression, Dr. Marsh said.

She and her team used data from the Study of Women's Health Across the Nation (SWAN), a multi-site longitudinal study of various physical and psychological changes that occur in women during their middle and menopausal years.

The investigators estimated lifetime exposure to estrogen by subtracting the age at menarche from the age at menopause.

For most females in the U.S., the age at menarche is 12.5 years, and early menarche would be around age 10 or 11. The average age of menopause is 51, and later menopause would be considered to be in the mid-50s or later, although there is a far wider range for age at menopause, Dr. Marsh noted.

For the 1,282 women analyzed in the SWAN database, the average duration of estradiol exposure was 35.6 years (range 32.4 to 38.8 years).

The study found that a longer duration of exposure prior to the menopausal transition was linked to a lower risk of having depression, defined as a Center for Epidemiologic Studies Depression (CES-D) scale score of 16 or more.

After adjusting for premenopausal depression, current and ever antidepressant use, site, ethnicity, baseline education, baseline smoking, baseline age, and time in the SWAN study, a woman's risk for perimenopausal depression was reduced by 15.3% for each additional year of premenopausal estradiol exposure (hazard ratio 0.847,  $p < 0.0001$ ).

"Estradiol has been shown to modulate monoaminergic systems involved in mood regulation but it isn't known how this would be protective against depression during the transition," Dr. Marsh said.

"We're hoping to look more into this. We can't change the duration of a woman's reproductive life, but we think that this is certainly something physicians should ask patients, to get a sense of whether short duration of estradiol exposure is a risk factor for her as she goes through her menopausal transition. We know that in general, this is a time of increased risk for depression."