Researchers find increased dairy intake reduces risk of uterine fibroids in black women

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Boston University School of Medicine (BUSM) researchers at the Slone Epidemiology Center found that black women with high intake of dairy products have a reduced incidence of uterine leiomyomata (fibroids). This report, based on the Black Women's Health Study, appears in the current issue of the *American Journal of Epidemiology*.

Uterine fibroids are benign tumors of the uterus and are two to three times more common among black women than white women. They are the primary indication for hysterectomy in the U.S. and account for $2.2 billion annually in health care costs.

National surveys show that black women consume fewer servings of dairy than white women and have lower intake of calcium, magnesium and phosphorus. The causes of fibroids are poorly understood, but sex steroid hormones and growth factors are thought to play a role. The Slone researchers studied dairy products because of the possibility that they have antioxidant effects and may modify endogenous sex hormones .

The study was based on data from the Black Women's Health Study. The 59,000 study participants, enrolled in 1995, completed biennial questionnaires on which they reported whether they were diagnosed with fibroids. Their diet was assessed at two points in time using a modified version of the National Cancer Institute's Block short-form food

frequency questionnaire (FFQ).

Based on 5,871 incident cases of fibroids diagnosed after 10 years of follow-up, the study found that high dairy intake was inversely associated with fibroid risk after controlling for other risk factors. Fibroid incidence was reduced by 30% among women who had 4 or more dairy servings a day, relative to women who had less than 1 serving a day. Intakes of calcium, phosphorus, and calcium-to-phosphorus ratio (an indicator of calcium bioavailability) were also inversely associated with fibroid risk. Because dairy intake is lower among blacks than whites, such differences in intake may contribute to the racial discrepancy in rates of fibroids.

"Although the exact mechanisms are unclear, a protective effect of dairy consumption on uterine fibroids risk is plausible, as calcium, a major component of dairy foods, may reduce cell proliferation," said lead author Lauren A. Wise, ScD, an associate professor of epidemiology at Boston University School of Public Health and a senior epidemiologist at the Slone Epidemiology Center at BUSM. "This is the first report showing an inverse association between dairy intake and fibroid risk. If confirmed, a modifiable risk factor for fibroids, a major source of gynecologic morbidity, will have been identified," added Wise.

Source: Boston University Medical Center

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