Salsalate cuts blood sugar levels in obese adults

By Martha Kerr Fri Feb 15, 12:47 PM ET

NEW YORK (Reuters Health) - A drug approved for the treatment of arthritis may have a role in reducing the risk of diabetes and heart trouble developing in young obese individuals, Harvard researchers report.

Compared with an inactive placebo, the anti-inflammatory drug salsalate reduced glucose levels by an average of 13 percent in 20 non-diabetic adults no older than 30 years of age with a body mass index (BMI) of at least 30 (classified as obese).

For the study, Dr. Allison B. Goldfine of the Joslin Diabetes Center in Boston and colleagues randomly assigned the participants to take 4 milligrams of salsalate daily in two divided doses, or placebo, for 4 weeks.

As well as reducing fasting glucose levels, salsalate decreased the glycemic response after an oral glucose tolerance test, improved insulin sensitivity and curbed markers of inflammation, the researchers report in the medical journal Diabetes Care.

"This proof-of-principle study demonstrates that salsalate reduces glycemia and may improve inflammatory cardiovascular risk indexes in overweight individuals," Goldfine and colleagues conclude. They say the findings support the idea of targeting inflammation to help prevent diabetes.

"Salsalate is marketed in the United States for the treatment of arthritic pain. It is not approved for use in obesity," Goldfine emphasized in an interview with Reuters Health.

"The drug has a good safety profile in people with arthritis. We are examining the safety profile specifically in people with this different cluster of disease," she continued.

Several clinical trials with salsalate are ongoing. "If it is efficacious to treat or prevent diabetes, and/or cardiovascular disease, the health economic implications are exciting," Goldfine noted, "as the product is inexpensive to manufacture and generic, which is important as the number of persons with these health issues is large."

SOURCE: Diabetes Care, February 2008.