Low serum adiponectin levels predict an increased future risk for developing asthma in middle-aged women, particularly among smokers, according to a new study.

"Adiposity is known to be related to asthma. Although a causal link between adiponectin (a protein produced by adipose tissue) and asthma has been demonstrated in mice, the evidence in humans has been conflicting," said lead author Akshay Sood, MD, MPH, associate professor in the Division of Pulmonary and Critical Care Medicine at the University of New Mexico Health Sciences Center School of Medicine.

"In an earlier cross-sectional study, we found an association between low serum adiponectin levels and prevalent asthma among women, but the direction of this association is not known," Dr. Sood continued. "In the current study, we examined the longitudinal association between asthma and adiponectin and found that low serum adiponectin concentrations, independent of obesity, predicted a higher risk for developing asthma."

The findings were published online ahead of print publication in the American Thoracic Society's *American Journal of Respirator ... itical Care Medicine*.

The researchers analyzed data on 1,450 women, including 1,011 pre-menopausal women, from the 10, 15, and 20 year examinations of the Coronary Artery Risk Development in Young Adults (CARDIA) study.

Being in the lowest tertile of serum adiponectin concentrations (}