

# Breastfeeding babies offers them long-term heart-health benefits

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Breastfed babies are less likely to have certain cardiovascular disease (CVD) risk factors in adulthood than their bottle-fed counterparts, researchers reported at the American Heart Association's Scientific Sessions 2007.

“Having been breastfed in infancy is associated with a lower average body mass index (BMI) and a higher average HDL (high-density lipoprotein or “good” cholesterol) level in adulthood, even after accounting for personal and maternal demographic and CVD risk factors that could influence the results,” said Nisha I. Parikh, M.D., M.P.H., author of the study and a cardiovascular fellow at the Beth Israel Deaconess Medical Center in Boston, Mass.

A lower BMI and high HDL both protect against CVD. The study, which used data from two generations of participants in the Framingham Heart Study, showed that middle-aged adults who were breastfed as infants were 55 percent more likely to have high HDL cholesterol than to have low HDL cholesterol. Low HDL was defined as levels of less than 50 mg/dL for women and less than 40 mg/dL for men. HDL is known as “good” cholesterol because high levels help protect against heart disease and stroke.

After adjustment for factors that could potentially influence the results (such as use of blood pressure-lowering medication, maternal education, maternal smoking, maternal body mass index, etc.), breastfed offspring had higher average HDL cholesterol levels in adulthood: 56.6 mg/dL vs.

53.7 mg/dL for the bottle-fed participants (though this was not significantly different once participant BMI was considered in later analysis).

The breastfed infants also had a significantly lower mean BMI in adulthood: 26.1 kg/m<sup>2</sup> vs. 26.9 kg/m<sup>2</sup> for bottle-fed infants. Adults with a BMI higher than 25 are considered overweight and are at increased risk for cardiovascular disease.

“This was a modest reduction in BMI, but even a modest reduction leads to a significantly reduced risk of cardiovascular disease-related death,” Parikh said.

Breastfeeding was not associated with any other adult CVD risk factor.

Parikh said she got the idea for the study after returning from maternity leave. “The benefits of breastfeeding in infancy and childhood are well established. But I wondered if it were as helpful for health in adulthood,” she said.

While other studies have hinted that breastfeeding is protective against several CVD risk factors in adulthood, several prior studies were limited by a lack of adjustment for factors that could potentially influence the results, Parikh said.

By using data from the Framingham Health Study, in which these risk factors are directly measured at regular intervals, Parikh said her team overcame this problem.

The study included 393 mothers enrolled in the Framingham Offspring Study and 962 of their offspring participating in the Framingham Third Generation Study. The average age of the offspring was 41 and 54 percent were women.

Mothers reported whether they breastfed each of their children and for how long using a mailed questionnaire. Overall, 26 percent of the offspring were breastfed.

“The findings show that early environmental exposures have long-term health effects,” Parikh said. “They also underscore that atherosclerosis and cardiovascular disease are life-course diseases that have their roots early in life.”

Source: American Heart Association

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