



## **UNITED STATES BREASTFEEDING COMMITTEE**

### **STATEMENT ON BREASTFEEDING AS A CRITICAL STRATEGY FOR OBESITY PREVENTION**

**The United States Breastfeeding Committee recommends breastfeeding as a primary prevention strategy to reduce overweight and obesity and promote the maintenance of a healthy weight throughout the life span.**

Obesity is recognized as a major and growing health concern in the United States. Due to its increasing prevalence and the chronic health risks associated with its diagnosis, obesity is a particularly challenging and complex issue to address. Multiple factors contribute to obesity and confound understanding of its progression, including nutritional, genetic, biological, hormonal, and environmental exposures. Exclusive breastfeeding is not a panacea for the obesity epidemic, but it is one of the most easily modifiable and cost-effective strategies available.

Research has identified breastfeeding as a potentially critical strategy in reducing the risk of obesity in adolescence and adult life. The exclusivity, as well as the duration, of breastfeeding must be considered when investigating the relationship between breastfeeding and obesity. All major medical organizations recommend exclusive breastfeeding for the first six months, followed by continued breastfeeding for the first year and beyond, with the gradual introduction of appropriate complementary foods to the infant's diet beginning around six months of age.<sup>1</sup>

A recent systematic review of breastfeeding research conducted by the Agency for Healthcare Research and Quality (AHRQ)<sup>2</sup> reports an association between being breastfed and a reduced risk of being overweight or obese in adolescence and adult life. Exclusive breastfeeding appears to have an even stronger effect than combining breastfeeding with formula feeding. The incidence of childhood overweight and obesity was lower among infants who were exclusively



breastfed for the first six months of life.<sup>3</sup> Studies that controlled for exclusivity and duration of breastfeeding showed a more significant protective effect against childhood obesity.

Possible explanations for the protective effect of breastfeeding against obesity include behavioral mechanisms such as metabolic programming, differences in macronutrient intake, and family environment.<sup>4</sup> It is well documented that formula fed infants consume larger volumes and gain weight more rapidly than breastfed infants, with the increased weight being predominantly adipose tissue in formula fed infants, while breastfed infants gain proportionately more lean body mass. Research shows rapid weight gain during infancy is associated with childhood obesity.<sup>5</sup>

A multinational study of the growth of exclusively breastfed infants conducted by the World Health Organization (WHO) indicates that the 50<sup>th</sup> percentile BMI for exclusively breastfed infants is lower at and after 6-7 months of age.<sup>6</sup> These data indicate that both formula feeding and non-exclusive breastfeeding may be contributing to the obesity epidemic among American children. The estimated population-attributable risk of childhood obesity due to formula feeding is 15-20%.<sup>7</sup>

Newer research has investigated the relationship between breastfeeding and the co-morbidities related to obesity, such as hypertension, cardiovascular disease, and diabetes. AHRQ reports a minimal reduction in adult blood pressure for those adults who were breastfed as infants. Results from a meta-analysis of cohort and case-control studies reported a reduction in total and LDL cholesterol levels in adults who were breastfed.<sup>1</sup> AHRQ also reports evidence to suggest breastfeeding for more than three months is associated with a reduced risk of type 1 diabetes.<sup>1</sup> Another meta-analysis of seven studies reported that breastfeeding was associated with a reduced risk of type 2 diabetes in later life.<sup>1</sup>

Optimal breastfeeding, as recommended by major medical organizations, contributes to normal growth and improved child and adult health outcomes. Policy and research aimed to improve



breastfeeding exclusivity and duration rates, especially among populations at risk for obesity, are essential components of a comprehensive national obesity prevention strategy.

*USBC is an organization of organizations. Opinions expressed by USBC are not necessarily the position of all member organizations and opinions expressed by USBC representatives are not necessarily the position of USBC.*

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<sup>1</sup> American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk (policy statement). *Pediatrics*. 2005;115(2):496-506.

American Academy of Family Physicians. Family physicians supporting breastfeeding (position paper). <http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html>. Accessed May 7, 2007.

Academy of Breastfeeding Medicine Web site. <http://www.bfmed.org>. Accessed June 1, 2007.

James, DC, Dobson B, American Dietetic Association. Position of the American Dietetic Association: promoting and supporting breastfeeding. *J Am Diet Assoc*. 2005;105(5):810-818.

American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women and Committee on Obstetric Practice. Special report from ACOG: breastfeeding: maternal and infant aspects. *ACOG Clin Rev*. 2007;12(1)(suppl):1S-16S.

National Association of Pediatric Nurse Practitioners. NAPNAP position statement on breastfeeding. *J Pediatr Health Care*. 2007; 21(2): A39-A40.

U.S. Department of Health and Human Services. *HHS Blueprint for Action on Breastfeeding*. Washington, D.C.: U.S. Department of Health and Human Services, Office on Women's Health; 2000.

World Health Organization/UNICEF. *Global Strategy for Infant and Young Child Feeding*. Geneva, Switzerland: World Health Organization; 2003.

<sup>2</sup> Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. *Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries*. Rockville, MD: Agency for Healthcare Research and Quality; 2007. Evidence Report/Technology Assessment No. 153.

<sup>3</sup> Gillman MW, Rifas-Shiman SL, Camargo CA, et al. Risk of overweight among adolescents who were breastfed as infants. *JAMA*. 2001;285:2461-2467.

<sup>4</sup> Li R, Fein SB, Grummer-Strawn LM. Do infants fed from bottles lack self-regulation of milk intake compared with directly breastfed infants? *Pediatrics*. 2010;125(6):e1386-e1393.

<sup>5</sup> Dewey KG. Is breastfeeding protective against child obesity? *J Hum Lact*. 2003;19(1):9-18.



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<sup>6</sup> World Health Organization. *WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development*. Geneva, Switzerland: World Health Organization; 2006.

<sup>7</sup> Dietz WH. Breastfeeding may help prevent childhood overweight. *JAMA*. 2001;285:2506-2507.