

# **Prevention of Child Obesity:** **Evidence Based Guidance and Expert Opinion**

1. Pre-conception to Postpartum
  - a. **Promote Physical Activity prior to and during early pregnancy**
    - i. Goal = Reduce incidence of GDM (OR 0.45).
  - b. **Avoid smoking in pregnancy**(OR 1.52-2.22)
  - c. **Prevent Excess Weight Gain in pregnancy**
    - i. Weight gain of >24kg (48 lbs) vs. 8-10 kg (17.6-22 lbs) - OR 226 for baby weighing >4kg at term (macrosomia)
  - d. **Detect and Treat Gestational DM** (OR 1.8-1.9 untreated GDM vs. 1.3-1.38 treated GDM).
2. Infancy and beyond
  - a. **Recommend breastfeeding for at least six months** (OR 0.78; 95%CI 0.71–0.85)
    - i. A dose-dependent effect of breastfeeding duration notes incremental improvements in OR with increased duration of breastfeeding.
  - b. **Avoid premature introduction of solids**—wait until developmentally ready (about 6 mo).
    - i. Give 10 tries with each new food to help baby learn to like a wide variety.
  - c. **Avoid overfeeding/preserve natural satiety** by respecting a child’s appetite.
    - i. Recognize signs of fullness/satiety from early infancy.
    - ii. Allow young child to self-regulate food intake; Teach child to recognize fullness.
    - iii. Eat slower—children who eat for >30 min have less obesity than kids who eat faster.
  - d. **Promote nutrient-rich foods and healthy dietary patterns:**
    - i. Teach parents about portion sizes (size of child’s fist).
    - ii. Recommend a diet balanced with energy from carbohydrates, protein, and fats.
    - iii. Recommend 5-9 servings of fruits and veggies daily.
    - iv. Recommend diet high in fiber, such as from whole grains.
    - v. Recommend low fat milk (1%) after age 2.
    - vi. Avoid sugar-sweetened beverages such as soda and <100% juice drinks.
      1. Limit 100% juice to <6 oz per day.
    - vii. Eat breakfast every day.
    - viii. Eat structured meals at home, and limit eating out.
    - ix. Avoid calorie-dense or nutrient poor snacks, and caution against mindless eating.
    - x. Avoid food rewards.
      1. Promote ways to cope with emotions that do not include eating.
  - e. **Recommend physical activity**—
    - i. Free, safe movement for infants.
    - ii. Active unstructured play for toddlers and preschoolers.
    - iii. Promote 60 min or more daily of vigorous age-appropriate activity.
  - f. **Limit TV or computer screen time**
    - i. None under age 2.
    - ii. <2 hours/day if over age 2.
    - iii. No TV in sleeping areas.

## **References:**

- Barlow, SE and the Expert Committee. Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report. *Pediatrics* 2007;120;S164 -S192(doi: 10.1542/peds.2007-2329C).
- Kim SY, England JL, Sharma JA et al. Gestational Diabetes Mellitus and Risk of Childhood Overweight and Obesity in Offspring: A Systematic Review. *Experimental Diabetes Research* 2011; (doi:10.1155/2011/541308).
- Monasta L, Batty GD, Cattaneo A, et al. Early lifetime determinants of overweight and obesity: a review of systematic reviews. *Obes Rev* 2010,11:695-708.
- AHQR Agency for Healthcare Quality and Research published two relevant guidelines regarding childhood obesity searched 8/27/13 which are referenced as follows:
  - Michigan Quality Improvement Consortium. Prevention and identification of childhood overweight and obesity. Southfield (MI): Michigan Quality Improvement Consortium; 2012 Jun.
  - August GP, Caprio S, Fennoy I, Freemark M, Kaufman FR, Lustig RH, Silverstein JH, Speiser PW, Styne DM, Montori VM. Prevention and treatment of pediatric obesity: an Endocrine Society clinical practice guideline based on expert opinion. *J ClinEndocrinolMetab.* 200893(12):4576-99.