

Leslie Ashlock, SPT
Ben Liegl, SPT
Jennifer Patterson, SPT

HELPFUL HINTS FOR HEALTHY CHILDREN: NUTRITIONAL INFORMATION

Objectives

- Provide statistical evidence related to childhood nutrition and associated risk factors
- To provide information pertaining to childhood nutrition specifically in Texas
- Inform the audience of the need to increase family awareness for proper childhood nutrition
- To provide solutions and suggestions for proper eating habits and nutritional intake

Statistics

- Prevalence of childhood obesity among children ages 6-11 has more than doubled in the past 20 years, going from 6.5% in 1980 to 17.0% in 2006^{1,2}

Statistics

- In Texas between 2004-2005, 23% of 4th graders were obese, 19% were overweight, and 42% were both overweight and obese.³
 - Greater percentage among minority populations (African Americans/Hispanics)
- In 2007, 21.3% of low income children enrolled in WIC program were overweight or obese.³
 - Rates highest among Hispanic and American Indian/Pacific Islanders.

Diet and Disease Stats

- Overweight and obesity, influenced by poor diet and inactivity are significantly associated with an increased risk of DM, high BP, high cholesterol, asthma, joint problems, and poor health status.⁴
- Type II DM has become increasingly more common among youth and adolescents.⁵
- 1 in 3 children born in 2000 will develop DM in their lifetime⁶

Eating behavior of Youths

- ◎ <40% of children in the US meet the US dietary guidelines for saturated fats ⁷
 - Less than 10% of calorie intake
- ◎ Only 39% of children ages 2-17 meet the USDAs recommendation for fiber (primarily in dried beans, peas, fruits, vegetables and whole grains) ⁸
 - Fiber decreases risk of diabetes and heart disease

Benefits of Healthy Eating

- Contributes to overall healthy growth and development (healthy bones, skin and energy levels), and a decreased risk of dental cavities, eating disorders, constipation, malnutrition and iron deficiency anemia ⁹
- Hunger and food insufficiency in children are associated with poor behavioral and academic functioning. ^{10,11}
 - Overweight kids miss school 4X as much as normal weight kids

What's Already Being Done?

- ◎ Harkin/Murkowski School Nutrition Amendment to the Farm Bill ¹²
 - Tried to establish the types of food and beverage products that may be offered for sale in school
- ◎ Action For Healthy Kids ¹³
 - www.actionforhealthykids.org

What's Already Being Done?

- ① US Department of Health and Human Services
- ① USDA
- ① CDC
- ① American Heart Association
- ① Twitter
- ① Nutrition.gov

Our Project!

- Laminated/Magnetic “Grocery List” with Food Guide Pyramid and suggested serving size/portions to go on parent’s refrigerator
- “Helpful Hints for Healthy Children” Nutritional brochure to be given to Mrs. Williams 4th grade class
 - Wednesday December 9, 2009

What Can We Do? 14

- Get active- CDC recommends at least 60 min of physical activity every day (include cardio, strengthening and stretching)
- Be a good role model (eat healthy)
- Involve your child in cooking/preparation of meals
- Eat meals together at the table
- Be creative in the kitchen
- Be an advocate for children's health in the community
 - Become a member of Action For Healthy Kids

Make Fast Foods Healthier ¹⁴

- ◎ “Pass” on value size
- ◎ Skip the size
- ◎ Avoid double meat/bacon
- ◎ Pick grilled chicken
- ◎ Eat sandwiches open faced
- ◎ Skip the mayo and other calorie laden dressings
- ◎ Drink water or low fat milk instead of sodas
- ◎ Choose a wheat bun if available

Big Hints

- ① Lead by example!
- ① Promote health and wellness, both as a parent/family member/friend and practicing clinician
- ① Provide educational information about nutrition to friends/family/patients when necessary
- ① Have resources available to help

Lit Review #1

- ◎ Family Dinner and Diet Quality Among Older Children and Adolescents ¹⁵
 - Objective-to examine association between frequency of eating dinner with family and measures of diet quality
 - Cross sectional-national convenience sample
 - Data collected from self-administered mailed survey. Outcome measures included: servings per day of selected foods and food groups, daily intake of macro/micro nutrients and frequency of vitamin use

Lit Review

◎ Results

- Approximately 17% ate dinner with members of family never or some days
- 40% on most days and 43% every day
- Linear regression showed that increased frequency of family dinner was associated with higher intake of several nutrients, including fiber, calcium, folate, iron, vitamins B, C and E, as well as lower intake of saturated fats and glycemic load.
- No effect on dairy, red meat or snack food intake

Lit Review

◎ Conclusion

- Eating family dinners was associated with healthful dietary intake patterns, including more fruits and vegetables, less fried food and soda, less saturated and trans fat, lower glycemic load, more fiber and micronutrients from food, and no material differences in red meat or snack foods.

Lit Review #2

- Preventing Childhood Obesity by Reducing Consumption of Carbonated Drinks: Cluster Randomized Controlled Trial ¹⁶
 - Obj: To determine if a school based education program aimed at reducing consumption of carbonated drinks can prevent excessive weight gain in children
 - 6 Primary schools in Dorset, England (644 children ages 7-11)
 - Outcome measures: drink consumption and number of overweight/obese children over a 3 day period

Lit Review

- Results: Consumption of carbonated drinks decreased .6 glasses in intervention group/ Increased by .2 glasses in control group
- Conclusion: A targeted school based education program produced a modest reduction in the number of carbonated drinks consumed, which was associated with a reduction in the number of overweight/obese children.

References

1. Ogden CL, Flegal KM, Carroll MD, Johnson CL. Prevalence and trends in overweight among US children and adolescents, 1999-2000. *Journal of the American Medical Assoc.*2002;288:1728-1732.
2. Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999-2004. *Journal of the American Medical Assoc.*2006;295:1549-1555.
3. www.dshs.state.tx.us
4. Mokdad AH, Ford ES, Bowman BA, et al. Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *Journal of the American Medical Assoc.* 2003;289(1):76-79.
5. Rosenbloom AL, Joe JR, Young Rs, Winter WE. Emerging epidemic of type 2 diabetes in youth. *Diabetes Care.* 1999;22(2);345-354.
6. Venkat Narayan KM, Boyle JP, thompson TJ, Sorensen SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. *Journal of the American Medical Assoc.* 2000;290(14):1884-1890.
7. U.S Department of Agriculture. *Continuing Survey of Food Intakes by Individuals 1994-96.* 1998.
8. Lin BH, Guthrie J, Frazao E. American children's diets not making the grade. *Food Review.* 2001;24(2):8-17.
9. U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for American, 6th Edition, 2005. Washington, DC, U.S. Government Printing Office.
10. Alaimo K, Olson CM, Frongillo EA. "Food Insufficiency and American School-Aged Children's Cognitive, Academic and Psychosocial Developments." *Pediatrics* 108.1. 2001:44-53.
11. Kleinman RE, et al. Hunger in children in the United States: Potential behavioral and emotional correlates. *Pediatrics* 101. 1998:1-6.
12. www.obesityaction.org
13. www.actionforhealthykids.org
14. www.cdc.gov
15. Gillman M, Rifas-Shiman SL, Frazier L, et al. Family dinner and diet quality among older children and adolescents. *Arch Fam Med.*2000;9:235-239.
16. James J, Thomas P, Cavan D, Kerr D. Preventing childhood obesity by reducing consumption of carbonated drinks: cluster randomised controlled trial. *BMJ.* 2004;10:1-5.

Days till Graduation!!

