

Eating Behaviors and Nutritional Implications

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Effective nutrition assessment and counseling require an understanding of typical adolescent eating habits and an awareness of the many factors that influence food habits. This chapter will review key aspects of adolescent eating behaviors and nutrition implications for pregnant adolescents.

A PERSPECTIVE ON EATING BEHAVIORS OF PREGNANT ADOLESCENTS

“One of our esteemed colleagues has aptly designated the standard diet selected by these young girls as ‘the jitterbug diet.’ It consists of Coca-Cola or Pepsi-Cola, potato chips, salted peanuts, and hot dogs. What a contrast to the salt-free high-protein diet that is ordered by her obstetrician.”

Marchetti AA, Menaken JS.
Pregnancy and the adolescent. *American Journal of Obstetrics and Gynecology* 1950;59:1013-1019.

This quote from a 1950 research article, one of the first studies examining the course and outcome of adolescent pregnancy, illustrates that while medical advice to pregnant young women has changed over the past 50 years, the concept of the “teenage diet” remains today. Such perceptions point to the need for viewing adolescent eating behaviors within a developmental and psychosocial context.

- Pregnant teenagers have food preferences and eating behaviors similar to those of nonpregnant teenagers and tend to eat what is readily available, affordable and appealing. In order for pregnant adolescents to make changes in their eating habits, they must believe that changes are possible within the context of their lifestyle and environment.
- Common issues that relate to adolescents and apply also to pregnant adolescents include meal skipping, frequent snacking on foods high in fat or sugar and low in nutritional value, being too busy to eat, reliance on convenient and fast foods, and concern about weight.
- It is important to remember that pregnant adolescents may not have a stable and continuous food supply and may have limited food preparation skills or food preparation facilities.

SNACKING: A KEY CHARACTERISTIC OF AN ADOLESCENT’S DIET

- Studies have shown that approximately 80-90% of adolescent females consume at least one snack per day, with a range of one to seven snacks daily.^{1, 2} Almost a quarter of female adolescents (24%) consume four or more snacks a day.² Snacks provide

one-fourth to one-third of the daily energy intake for adolescents.¹

- Snacks chosen by teens tend to be high-sugar or high-fat foods such as potato chips, soft drinks, candy and ice cream, with fruits and vegetables chosen less frequently as snacks.³⁻⁵
- Snacks can contribute positively to nutrient intake. One study of adolescent females found that snacks contributed 52% of the RDA for riboflavin, 43% of the RDA for vitamin C, and 39% of the RDA for thiamin.¹
- Soft drinks are one of the most common snack choices for adolescent females. The average soft drink intake for girls 12-19 years-old is 12 oz per day, and contributes 8% of total calories.⁶ A recent study suggests that the consumption of soft drinks by adolescents is related to a decrease in milk and juice consumption and increase in calorie intake.⁷
- Intake of crackers, popcorn, pretzels and corn chips has doubled among adolescent females over the past 20 years, with 35% of school-aged girls choosing at least one of these snack foods each day.⁶
- Snacking is a way of life for adolescents and can make a positive contribution to the nutrient quality of an adolescent's daily intake. When working with pregnant teens keep in mind that some rarely eat what would be termed "meals."
- Adolescents often snack on what is readily available to them. Encourage adolescents to keep nutritious snacks, such as a piece of fruit, crackers, pretzels or other healthy choices in their bag or locker. Vending machines commonly offer animal crackers, peanuts, wheat crackers, pretzels, juice, yogurt, milk, bagels and puddings and these choices should be encouraged.
- When conducting a dietary assessment, probe carefully about snacks. It is more difficult to remember snacks than meals when recalling a day's intake. Snacking is usually done impulsively or while something else is happening (e.g., watching TV, being with friends) and often occurs at different times each day, making recall difficult. Prompts related to the daily activities of the adolescent can help to increase the recall of snack foods.
- Adolescents may believe snacking to be a bad habit or may tend to eat less healthy foods for snacks and may therefore be hesitant to discuss snacking. Emphasize the positive aspects of snacking and discuss healthy snack choices.

MEAL SKIPPING: A COMMON PRACTICE IN ADOLESCENCE

- Meal skipping is common among teenagers, especially during middle and late adolescence.
- Busy schedules, dieting, or a lack of food resources may lead to meal skipping. An estimated 20% of adolescents skip lunch.^{8, 9} Older female adolescents eat fewer meals per week than younger adolescents, and only 29% of female adolescents eat breakfast daily.²
- Skipping breakfast is a common practice, often started in adolescence. The frequency of skipped breakfasts increases with age. Studies have shown that skipping breakfast significantly decreases daily energy, calcium and protein intakes.^{10, 11}
- Common reasons for skipping breakfast include lack of time, desire to sleep longer in the morning, and lack of appetite. Pregnant adolescents may skip breakfast for these reasons, as well as others related to pregnancy (e.g., nausea, fatigue).
- An adequate breakfast should supply at least 300 calories and contribute toward meeting the day's nutritional needs. Discuss with the teen quick and easily prepared breakfasts (Table 1).
- Many pregnant adolescents are poor and may lack sufficient or adequate food. If teens are skipping meals, ask whether they have adequate food resources.
- For pregnant teenagers who skip breakfast, give reasons why eating in the morning is important:

"Newborn babies need to eat every few hours. Before they are born they also need to eat on a regular basis and the only way they can get food is from you."

"It is easier to get all the foods you need in a day if you can stretch them out over the day."

"You are more likely to keep up your energy all morning long if you have had some breakfast."

“You won’t be starving and tempted to overeat or eat a lot of sweets if you have had something to eat between last night and lunch today.”

- Suggestions to help teens increase breakfast frequency:
 - Provide a list of quick and easy foods available to the teen for breakfast. Encourage adolescents to come up with ideas on their own. (See Table 1.)
 - Think beyond traditional breakfast foods. Sandwiches and leftovers can be healthy and easy to prepare breakfasts.
 - If nausea is a problem, suggest soothing foods such as soda crackers, dry toast or yogurt.
 - Suggest comfort foods or her favorite food if the teen has a poor appetite.

TABLE 1
Breakfast Ideas

Alternative Breakfast Foods

- Pizza
- Cottage cheese and fruit
- Fruit with cheese or yogurt
- Pudding
- Tortillas with melted cheese
- Rice with raisins and milk
- Sandwiches
- Noodles with cheese
- Yogurt and fruit smoothie
- Leftover chicken

Easy to Carry Breakfast Foods

- Fresh or canned fruit
- Peanut butter and banana sandwich
- Hard cooked eggs
- Dinner rolls with cheese or peanut butter
- Packets of peanuts and raisins
- Peanut butter and jelly toast
- Bagel with cheese or peanut butter
- Chicken or tuna sandwich
- Cereal bars or granola bars
- Graham crackers

FAST FOODS: AN INTEGRAL PART OF THE AMERICAN LIFESTYLE

- Female adolescents eat at least 30% of all their meals away from home and these meals contribute about one-third of their nutritional intake.⁶
- Fast food comprises 31% of all food eaten away from home and represents 83% of restaurant visits for youth.^{9, 12}
- The average teen visits fast food restaurants twice a week. Adolescents spend nearly \$13 billion each year at fast food restaurants.¹³
- Fast food restaurants are popular with adolescents for the following reasons:¹⁴
 - They provide a socially acceptable place to go.
 - The food is relatively inexpensive.
 - They provide familiar foods that are preferred among adolescents.
 - There is an informal and casual atmosphere.
 - The service is quick.
 - The foods can be eaten there or taken out.
 - Ordering requires minimal decision-making.
 - They are a prime employer of adolescents.
- Nutritional quality of fast foods
 - Fast foods can contribute to the nutrient needs of adolescents. The nutritional impact of fast foods depends on the choices made and the frequency of eating fast foods. Appendix A lists the nutrient content of selected fast food choices.
 - Food selection at fast food restaurants has improved over the years. Many now offer salad bars, grilled meat or fish, baked potatoes, healthy soups and lower fat sandwiches.
- Limitations of fast foods
 - Most fast food entrees are high in fat and low in fiber. On average, 40-50% of the calories in a fast food meal are from fat.¹²
 - Nutrient-rich meal accompaniments such as salads, vegetables, fruits, and milk are often not widely promoted or available at fast food restaurants, and are often more expensive than high-fat or high-sugar items.
 - Calcium, riboflavin and vitamin A are often low in fast food meals, but this can be improved by ordering milk or a shake with a meal.

- Vitamin C and folate are often low in fast food meals, but including orange juice with a meal substantially increases both nutrient intakes.
- Fiber content is usually low in fast foods. Adolescents can be encouraged to include a salad with their meals to increase fiber intake.

Counseling Tips

- Provide education on making good fast food choices rather than trying to convince adolescents to avoid fast food altogether. Fast food consumption is a reality, and providing skills for better decision-making will help an adolescent make more nutritious choices without passing judgement on her eating habits.
 - Adolescents who eat an excessive number of meals in fast food restaurants may have little knowledge or skill in food preparation, or little interest in healthy eating. These possibilities should be assessed.
 - Provide suggestions on how to “round out” a fast food meal and “pick up” nutrients missing in fast food meals and other foods eaten during the day.
 - To limit excess fat and calories and increase nutrient content of fast food meals encourage adolescents to:
 - order milk or juice instead of soft drinks
 - add salads
 - choose a small hamburger or cheeseburger rather than a super-sized one
 - bring fruit along with them to have for dessert instead of a cookie or pie
 - share fries with a friend
 - choose the salad bar as their main meal and supplement with breadsticks, crackers, or a roll
 - order a grilled chicken sandwich, chili, a bean burrito, cheese pizza or a baked potato instead of a burger or a fried chicken or fish sandwich
 - skip the mayonnaise-based sauces on sandwiches and burgers and use barbecue sauce or mustard instead
- adolescent females. Societal and cultural pressures that emphasize thinness contribute to the body weight and shape-related stress experienced by adolescent females.
 - Studies have shown that almost 75% of adolescent females consider themselves overweight or “too fat” and want to lose weight, while only 22% of adolescent females are overweight by standard definitions.¹⁵
 - Many white adolescent females believe they must be thin to be accepted by their peers, conform to society’s ideals, and be attractive to others, and make food choices in accordance with these beliefs.¹⁶
 - Unhealthy dieting and weight control strategies used by female adolescents include: restricting intake of meals and snacks, skipping meals, vomiting after meals, taking laxatives, diuretics or diet pills, excessive exercise and fad diets. Collectively, these are referred to as disordered eating behaviors.
 - Body dissatisfaction and weight loss attempts may vary among adolescents of different sociodemographic and racial/ethnic groups. Studies have shown less dieting among black than among white and Hispanic adolescent girls.¹⁷
 - Disordered eating behaviors such as vomiting, laxative use, diet pill use, and excessive exercise have been reported by an estimated 10-20% of adolescent females and dieting behaviors by an estimated 40-60%.¹⁸
 - A primary concern for pregnant adolescents is weight gain. The reasons for weight gain and the components of weight gain should be clearly explained to adolescents. If an adolescent is a frequent dieter or has high body dissatisfaction before pregnancy, she may need additional support to cope with the weight gain.
 - For all pregnant adolescents, dieting and disordered eating practices should be assessed in the initial prenatal visit.

DIETING AND WEIGHT CONCERNS: NORMATIVE DISCONTENT

- Adolescence is a time of preoccupation with appearance, especially body weight. Body dissatisfaction has become a distressing normative experience among

DIETARY FADS AND UNCONVENTIONAL DIETS

A central issue in adolescence is establishing identity. Food choices convey strong messages about the individual to family, friends, and the outside world. During

adolescence, eating patterns such as vegetarianism or dietary fads may be adopted as a way of exploring new roles and lifestyles, rejecting conformity, asserting control over one's life, or rebelling against adult conventions. Adoption of nontraditional diets may have positive or negative health effects. (Vegetarian diets are discussed in Chapter 14.)

Assessment

- The following aspects should be assessed in pregnant adolescents who follow an unconventional or fad diet.
 - Why has the particular diet been adopted?
 - What are the underlying reasons and motivating factors?
 - What is the diet comprised of and what foods does it limit, if any? Diets comprised of a limited number of foods or those that exclude entire food groups are not nutritionally sound and place the adolescent at risk for poor nutritional status.
 - What is the nutritional adequacy of the diet and is it adequate for a pregnant adolescent?
 - What are the health risks or benefits involved with the diet?

Management

When working with an adolescent who has chosen to adopt an alternative eating pattern, the following strategies may be helpful.

- Recognize that nutritional needs may be met in a variety of ways with a variety of foods.
- Maintain a non-judgmental, accepting attitude with the adolescent.
- Discuss and reinforce the positive aspects of the diet and address those aspects of the diet that may be harmful or compromise the nutritional quality of the diet or the developing fetus.
- Stress the importance of healthy eating during pregnancy and the link between good nutrition and fetal growth and development.
- Prioritize and devise an intervention to address nutritional concerns.
- Brainstorm positive alternatives with the adolescent and assist her in choosing the alternatives most

appropriate for her and her lifestyle. Encourage the adolescent to formulate ideas for change.

- Discuss confusing aspects of both the current diet and the recommended changes.
- Monitor nutritional status and eating behaviors at follow-up visits.

CULTURAL FOOD PATTERNS

- Eating is a personal matter, carrying with it great cultural significance. When working with pregnant adolescents from other cultures, health professionals should demonstrate respect and an understanding of cultural values, health beliefs, and nutrition practices.
- It is important to become familiar with cultural food habits of client groups routinely seen so that nutrient-rich sources of foods in different food groups can be recommended. However, cultural generalizations about food habits should be avoided. Food habits will vary greatly within any one cultural group, and careful exploration of individual food patterns is necessary. Keep in mind that differences in groups are distinct. For example, great differences in foodways exist among Native American tribes.
- When conducting a dietary assessment or providing counseling, try to categorize nutrition practices as beneficial, neutral, or harmful. Reinforce those practices which are beneficial and try to promote change only in those that are harmful.
- Always build on cultural practices. For example, if you want to encourage fluid intake with a Hispanic adolescent, suggest drinking more herbal tea, a common cultural beverage.
- Become familiar with cultural health-related attitudes and dietary practices during pregnancy and postpartum. Folk medicine is common, often related to beliefs that certain foods are health enhancing to the fetus, while others are perceived to be damaging or make delivery difficult. Also, adolescents may alter their diets due to “cravings” for specific foods, believing that unfulfilled food desires result in “birthmarks” (i.e., unsatisfied craving for strawberries may cause red birthmarks; chocolate cravings cause brown marks).
- Historically, Asian and Hispanic cultures subscribe to a “hot-cold” theory of health and diet. The hot-cold

theory describes intrinsic properties of a food, beverage, or medicine and its effect on the body. The hot-cold dichotomy may exert a strong influence on dietary practices in the prenatal and postpartum periods. For example, the third trimester of pregnancy is often regarded as “hot.” Therefore, hot foods and medications, such as iron supplements, may be avoided during this time.

ADOLESCENT PERCEPTIONS ABOUT FOOD AND EATING

- Food-related views of adolescents have been examined using focus groups.^{18, 19} The majority of adolescents feel their food choices and eating behaviors are influenced by factors such as hunger, food cravings, taste, convenience, food availability, and parental and cultural influences.
- Many adolescents feel that healthy eating is not a primary concern during the teenage years. In general, the quality of the adolescent diet is a reflection of this lack of concern. Adolescents say that in order to improve their eating, healthy foods should be appealing and taste good, and be more widely available.
- In general, adolescents know what they should and should not be eating. In focus groups with adolescents, the following four themes emerged as major barriers to improving their diets.¹⁹
 - Lack of time. This was a major factor. Adolescents said they were too busy to worry about food and eating right. Common remarks were: “People our age are so busy that we don’t have enough time to change bad habits.” “We have too many pressures on us.”
 - Inconvenience of eating healthy. Adolescents felt that healthy foods are more difficult to prepare, take longer to prepare, and are difficult to obtain in certain settings. The prevailing view among adolescents was that while good nutrition was important, it was too much of a bother.
 - Lack of self-discipline. Many adolescents felt they did not have adequate self-discipline to eat healthy foods, since they had a strong preference for “junk foods.”
 - Lack of a sense of urgency. Some adolescents indicated that healthy eating didn’t rank high enough

in importance for them to worry about it at this time in their lives.

Implications for Pregnant Adolescents

- Unlike their peers who are not pregnant, pregnant adolescents have an immediate incentive to improve their diets. Pregnant adolescents want to have healthy babies. This desire should be viewed as a “teachable moment” or “a window of opportunity” to motivate teenagers to improve their diets.
- Many adolescents change their dietary practices during pregnancy and try to eat more healthfully.
 - Schneck et al.²⁰ reported that 60% of low-income pregnant adolescents had made dietary changes, with 12% increasing consumption of fruits or vegetables, 8% increasing milk, and 16% decreasing non-nutrient dense foods.
 - Pope et al.²¹ conducted focus groups with pregnant adolescents and found that the majority increased their food intake during pregnancy, and that many started drinking milk and changed to decaffeinated sodas. Meal patterns (e.g., skipping meals) tended to stay the same.
 - Adolescents’ motivations for dietary changes during pregnancy included food craving, increased appetite, improved taste of food and concern for the baby.²¹

EATING BEHAVIOR MESSAGES

- Every pregnant adolescent needs to hear that two of the most important things she can do to have a healthy baby are to eat well and gain an appropriate amount of weight.
- Health professionals can play a critical facilitative role in helping pregnant adolescents learn skills that will enable them to make healthy and informed food choices.
- Counseling needs to be relevant to the adolescent lifestyle, emphasizing how to make healthful food choices when eating in fast food restaurants, selecting snacks, preparing breakfasts or choosing quick-fix meals.

- Eating pattern messages should be simple and positive, focusing on foods rather than nutrients.
- Most adolescents want “how to” information and less “why” information. For eating behavior change, information and activities should be behaviorally oriented, focusing on the following:
 - What to eat
 - How much and how often to eat
 - How to prepare foods (especially fast and easy to prepare foods)

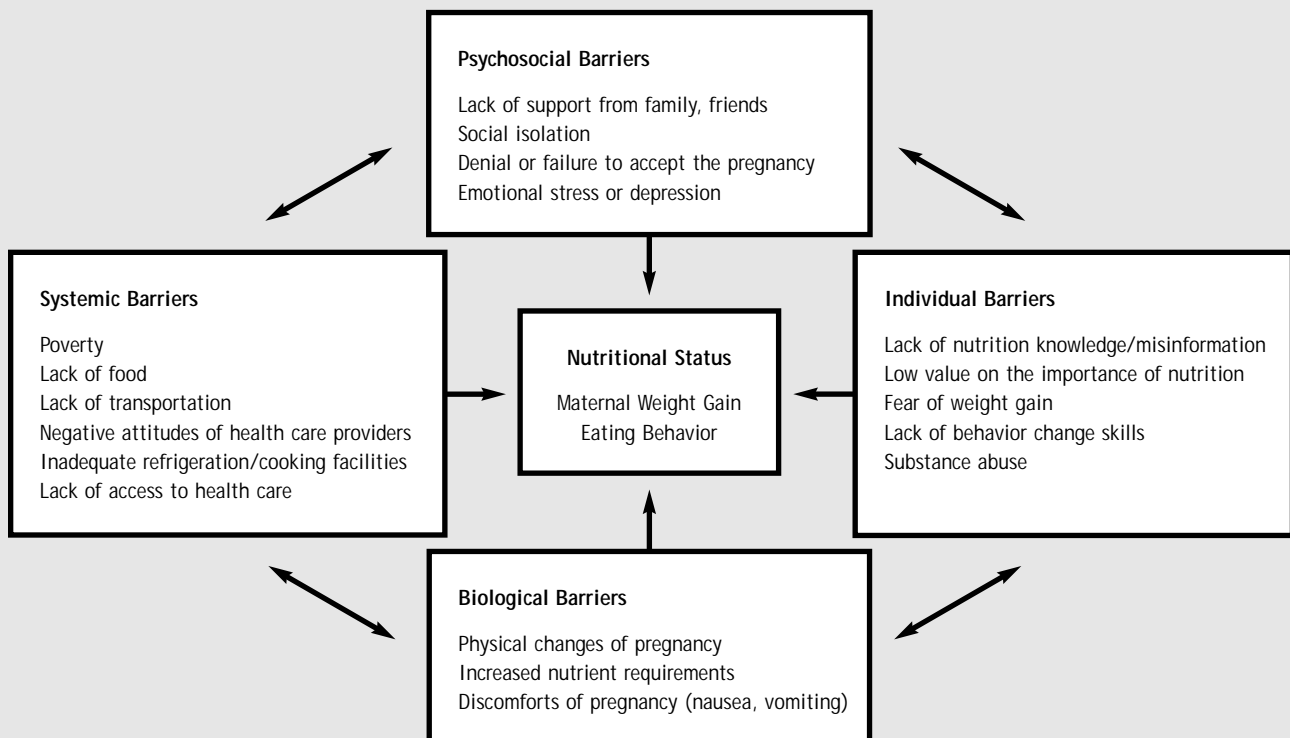
AN ECOLOGICAL PERSPECTIVE

- Efforts to improve the nutritional status of pregnant adolescents benefit from an ecological perspective that considers the multiple dimensions influencing youth eating behaviors. An ecological approach is

based on the premise that to fully understand human behavior one must understand the context in which behavior occurs.²²

- Ecological models consider the connections between people and their environments, specifically physical, social, and cultural environments and intrapersonal factors. Levels of physical, social and cultural influences include family, peers, organizations, communities, institutions, and public policies.²³ Efforts to understand and modify eating behaviors must be based on a realization of the dynamic interplay among diverse environmental and personal factors.
- Practitioners need to identify and address the major barriers that prevent pregnant adolescents from eating healthfully and gaining adequate weight. Figure 1 outlines the many potential barriers to eating behavior change. Improving the nutritional health of pregnant adolescents will require not only addressing

FIGURE 1
Barriers to Eating Behavior Change in Pregnant Adolescents



individual barriers, such as improving nutrition knowledge and skills, but also addressing psychosocial and systemic barriers.

Chomitz, Cheung and Lieberman²⁴ note that many pregnant women who eat poorly and engage in risk behaviors also live surrounded by poverty and violence. Under such circumstances, living a healthy lifestyle may not be a priority compared to day-to-day survival. Expecting pregnant adolescents to simply change or modify their behavior without resources, support, and attention from the health care system, society, and supportive people in their lives is unrealistic and may foster the belief that they are solely to blame for their undesirable behaviors.²⁴ Health professionals need to advocate for and support policy efforts to address the economic, social and familial issues that impact health and adolescent pregnancy.

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