Improving Nutrition in Pregnant Adolescents: Recommendations for Clinical Practitioners

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Abstract

Pregnancy represents an ideal time for health promotion activities. Many women, including adolescents, are interested and willing to change health behaviors to improve the chance that they will deliver a healthy infant. This paper focuses on improving nutrition in pregnant adolescents. Seven recommendations are presented to help achieve this goal: 1) Focus on foods, not nutrients; 2) individualize and work within the pregnant adolescent's current eating habits; 3) consider the context of family and peer groups; 4) reward efforts; 5) make it easy; 6) focus on weight gain patterns for optimal birth outcomes; and 7) refer to a dietician, as needed. Use of these recommendations comprehensively addresses adolescent developmental needs to improve nutrition during pregnancy. These recommendations are not meant to be all-inclusive; rather, they are meant to serve as a guide for clinical management of nutrition for pregnant adolescents.

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Adequate nutrition is essential to maintain health at every stage of life. Nutritional needs differ across various age groups and with certain health conditions. Pregnancy is one such instance in which nutritional needs differ. The growing adolescent also has distinct nutritional needs. Comprehensively addressing the developmental characteristics of adolescents to improve nutrition during pregnancy is likely to improve eating habits. Improving nutritional habits during pregnancy may also improve birth outcomes and develop positive eating habits in the adolescent (Lenders, McElrath, & Scholl, 2000). The purpose of this paper is to discuss characteristics of

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adolescence and identify recommendations to improve nutrition among pregnant adolescents by using a comprehensive developmental approach.

Characteristics of Adolescence

Adolescence represents the second major growth phase in an individual's life. While no longer experiencing the rapid changes associated with early childhood, adolescents undergo a period of rapid growth and maturation as the ability to reproduce is gained. The increase in growth generally begins around the early adolescent years (10 or 11 years of age for girls and 12–13 years of age for boys) and can last until early adulthood (Dudek, 2001). Adolescence is characterized by an invincibility that is often heard in the phrase, "It won't happen to me." Adolescents often exhibit risky behavior, and early adolescents, in particular, are often unable to see future consequences of their current behaviors (Gullota, Adams, & Markstrom, 1999). Adolescents tend to be self-focused, and many believe that no one understands them or their situation (Gullota et al., 1999). Peer-group pressures and the acceptance of those around them often determine adolescent behavior. Adolescents are very careful about their behavior and try hard to fit into established groups to be accepted among their peers.

Pregnancy during Adolescence

Adolescents who become pregnant can be nutritionally at risk (Lenders et al., 2000). Many adolescents do not have good eating habits, and their diets are often high in fat and calories. Convenience foods that are high in fat and low in nutritional value are often eaten (e.g., fast food, snack food) (Gutierrez & King, 1993). Lifestyle factors characteristic of adolescence (e.g., school attendance, after-school jobs, hanging out with friends) often contribute to these food habits. Adolescents may not have adequate knowledge of nutrition (Lenders et al.,

2000), and their present-focused orientation may inhibit them from easily linking current behaviors (e.g., eating poorly) to later outcomes (e.g., obesity, cardiovascular disease). Adolescents often do not believe they are at risk. They have difficulty imagining negative consequences happening to them (Gullota et al., 1999).

Improving Nutrition during Adolescent Pregnancy

Pregnancy can be an opportune time to improve nutrition, particularly for older adolescents (16–18 years old) who are cognitively more mature. Most adolescents who decide to maintain their pregnancy desire to have a healthy baby. In general, adolescents know that nutrition during pregnancy is important to achieve this goal. However, adolescents often lack adequate knowledge of exactly what is needed nutritionally or precisely how to find out (Lenders et al., 2000). Pregnant adolescents may need some assistance to cope with the peer group and make healthy nutrition choices a reality in their complex lives. Therefore, the purpose of this paper is to provide the clinician with some basic recommendations to improve nutrition in pregnant adolescents who present for prenatal care. These recommendations are based on an in-depth review of current and past research and clinical experience working with pregnant adolescents.

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Recommendations to Improve Nutrition during Adolescent Pregnancy

Focus on Foods, Not Nutrients

Adolescents tend to think concretely and can relate to specific foods better than vague nutrients of which they have little knowledge. Pregnant adolescents have identified that nutrition messages should include information on eating appropriately for the baby's and mother's health, offer advice on foods for physical comfort, and

emphasize specific foods rather than nutrients (Skinner, Carruth, Ezell, & Shaw, 1996). Pregnant adolescents have also recommended that foods used in educational materials be shown as they are eaten (e.g., salad, not the whole head of lettuce), be appealing, and emphasize multiple food choices (Skinner et al., 1996). These techniques can assist adolescents to grasp the intended nutrition concepts. This is a first step to assisting pregnant adolescents to choose healthy food options. Focusing on foods also relieves them of the need to calculate certain nutrients or how much food is needed to get the required nutrient. This method is simple and clear. If adolescents are going to choose health foods, the process must be easy and convenient. Focusing on food provides the convenience and structure that adolescents often need.

Individualize and Work within the Pregnant Adolescent's Current Eating Habits

Adolescents are not going to change their eating habits overnight just because they are told to do so. In order to bring about change, the health care provider should work within the context of the pregnant adolescent's current eating habits (Dudek, 2001). For example, adolescents often eat fast food and other convenience foods (Gutierrez & King, 1993). While these may not be the best options, pregnant adolescents can be assisted to choose healthier options when eating at fast-food restaurants. Adolescents can be encouraged to eat less food at these establishments, but can still go to the facility for the purposes of socializing with their friends. The peer group is extremely important during adolescence and can be quite influential in an adolescent's decision-making. Pregnant adolescents who are hesitant to give up aspects of their social life may find this suggestion a reasonable alternative. In addition to choosing healthier foods such as salad at fast-food restaurants, pregnant adolescents can be encouraged to drink water or juice rather than soda pop.

Frequent meals and snacking are another common characteristic of adolescent eating behaviors (Gutierrez & King, 1993). Working within this habit, pregnant adolescents can be encouraged to carry healthy snacks with them for munching. Fresh fruit and vegetables, crackers, or granola bars are possible options that are easily transportable. Many grocery stores now carry vegetables that are already cut up into snack size. While

purchasing them this way may be more expensive, it is another option. The latest fashion of carrying bottled water can also be reinforced with pregnant adolescents who are often very conscious of what is happening in the popular media.

Pregnant adolescents have identified that a talking baby and adolescent actresses are useful mediums to present nutritional content during pregnancy (Skinner et al., 1996). This is another way to work within an adolescent's current lifestyle. Participants in this study indicated that they could not relate to figures that were older, employed in professional jobs (instead of going to school), and married. Therefore, targeting the nutritional education to the pregnant adolescent is essential. The Higgins Nutrition Intervention program, which is tailored to individual adolescent needs, has been successful in improving pregnant adolescents' eating behavior and birth outcomes (Dubois, Coulombe, Pencharz, Pinsonneault, & Duquette, 1997).

Consider the Context of Family and Peer Groups

In addition to the consideration of peers, integration of familial structure and context is important to improving the nutrition of pregnant adolescents (Story, 1997). Most pregnant adolescents do not live alone; rather, they live with their immediate or extended family or both. These relationships can greatly influence not only what the pregnant adolescent eats but also when and under what circumstances (Dudek, 2001). Family lifestyle often dictates the content of the food as well as meal times and frequency of meals. Cultural variations can significantly impact which foods are consumed in the home. In addition, familial rules may dictate who does the cooking and shopping. These rules can significantly impact the nutrition of the pregnant adolescent who resides within the household (Story, 1997). One's upbringing and beliefs about gender roles can also dictate food intake patterns. For example, if the maternal figure in the home

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is employed, others may assume responsibility for meal planning. These individuals may or may not be well prepared to assume this role, particularly if it is the pregnant adolescent herself. She may not have nutrition knowledge or the skills and experience with meal preparation. If food preparation falls to an inexperienced, unknowledgeable individual, meals may not be prepared appropriately and a variety of foodstuffs may not be available to adequately meet the needs of the body and, in the case of the pregnant adolescent, the fetus.

A thorough assessment of the family's food dynamics and meals is essential for the health care provider to work within established family norms. Assessment can often reveal specific deficits that can be easily resolved through simple instruction or attendance at a skill-building class. For example, if the pregnant adolescent reveals that she likes to eat after school because she has heartburn if she eats dinner too late in the evening, she can be taught some remedies to alleviate heartburn (e.g., Tums®) or the skills to prepare simple meals on her own if she does not have past cooking experience. Another common problem may be that the pregnant adolescent does not eat well because foods are not prepared how she likes them or she simply dislikes the food that is offered. Again, issues of this type can be remedied by using simple meal-preparation skills, purchasing one's own food, or negotiating with other family members to determine if others might be willing to try some new ideas. Assisting pregnant adolescents to problem-solve and determine viable ways to address their needs related to nutrition can make valuable lifelong contributions to the adolescent and her infant.

Socioeconomic status is another potential variable that influences nutrition during pregnancy (Henderson & Lenders, 1999; Story, 1997). Finances of the family unit may influence the total family's eating patterns; specifically, if the pregnant adolescent does not have adequate finances, she may be more dependent on the family to meet nutritional needs. Options are more limited when this occurs. However, pregnant adolescents can be encouraged to utilize governmental resources (e.g., Women, Infants, and Children's [WIC] programs) to supplement current food sources.

Reward Efforts

Positive reinforcement is a strategy that can be effective in improving nutrition behavior. Initial prenatal care ap-

pointments with the pregnant adolescent can be an ideal time to discuss goal-setting and potential rewards for meeting nutrition-related aims. Positive reinforcement can be administered by the adolescent and by the health care provider (e.g., the adolescent can reward herself). For example, a pregnant adolescent can decide what reward she wants to give herself if she can meet a predetermined nutrition goal, such as eating at least two vegetable servings each day. Rewards can be simple and inexpensive and can be individualized to meet each pregnant adolescent's personal preferences. Ideas include rewarding one's self with a trip to the movies, taking time to do something one enjoys (e.g., bike riding, window shopping, walking in the park), and participating in other similar activities.

Motivation to achieve one's goals via self-reward can be useful, but it often fades quickly. Reinforcement by the health care provider can help encourage the pregnant adolescent to meet her goals. Positive reinforcement by the health care provider can include offering free samples of baby care products, childbirth education magazines, hospital and nursery tours, and other similar prizes. The key to success is determining what motivates the pregnant adolescent and using enough constructive reinforcement and encouragement to continue the positive behavior.

Make It Easy

Compared to past generations, today's adolescents have grown up in a world of ease and convenience. The recent technological explosion has always been a part of their lives and has certainly contributed to their need for ease, speed, and convenience in everyday life. Adolescents are often "on the go" and, hence, need products and services that fit into their active lifestyle (Gutierrez & King, 1993). Any type of successful health promotion intervention will need to address an adolescent's lifestyle.

Nutrition and eating habits are particularly of concern with regard to convenience. Any type of nutritional intervention must be able to adequately compete with the abundant fast-food market and clever advertising of poor nutritional quality foods and snacks available to adolescents. Nutritional intervention for pregnant adolescents begins with the advantage that many adolescent women already realize they need to eat well for their baby's health. Most adolescents who decide to maintain

their pregnancy want to have a healthy baby. Thus, clinicians working with pregnant adolescents have a distinct advantage over those working with the general adolescent population, given that the first group has a built-in “baby motivation.” Adolescents (and adult women) are more likely to make positive health choices during pregnancy, for the sake of the fetus they are carrying.

Several simple strategies are worthy of mention to help pregnant adolescents improve their nutrition. One of the easiest and most practical strategies is using tear-off sheets or a wipe-away board that lists the daily servings of all food groups. The pregnant adolescent can mark off the servings she has consumed throughout the day. This strategy is most effective for adolescents who have an available space to keep this device. Some forms come with magnets that can be easily placed on a refrigerator or other magnetic surface. In some instances, a school locker may work well. A pad of paper or spiral notebook can easily be carried with schoolbooks or in one's bag. Another strategy is to encourage the pregnant adolescent simply to keep a list of foods she has eaten on a plain sheet of paper. This list can then be compared to a food pyramid or other nutrient list at home or another convenient location. While both of these strategies are viable ideas, some effort is required of the pregnant adolescent who must remember to record the foods she consumes or write them down from recall at a later date. These methods will be effective for some pregnant adolescents, but certainly not all.

A third and equally important strategy is simply teaching the pregnant adolescent to eat well. Recommendations about what types of food are required (e.g., vegetables) and what types of foods should be minimized or avoided (e.g., fast foods and convenience foods) can be especially helpful decision-making tools for all pregnant adolescents, especially for those for whom the crossing-off or listing methods are not effective. Some adolescents will simply not want to be bothered with lists; it is essential that these individuals have the appropriate knowledge to make healthy meal choices and not be confined only to making lists.

While making nutrition easy is paramount, making it fun can help the pregnant adolescent retain important concepts. For example, a helpful saying from the first letters of the major foodstuffs (fruits, vegetables, breads, beef, chicken, milk, and cheese) can be used to create the slogan, “For Very Beautiful Babies, Chug Milk and

Cheese.” While this is not the easiest phrase to remember, it can be a useful aid to individual or group nutrition instruction.

Focus on Weight Gain Patterns for Optimal Birth Outcomes

Poor pregnancy outcomes—namely, low birth weight and premature delivery—have long been associated with inadequate weight gain during pregnancy. More recently, nutrition has been examined as a factor in the adequacy of weight gain and overall pregnancy outcomes. Pregravid weight and pregnancy weight gain have independent and additive influences on birth weight and the incidence of low birth weight declines with increased total weight gain (Scholl & Hediger, 1995).

Pregravid weight and pregnancy weight gain have independent and additive influences on birth weight.

Maternal weight gain is the single most important modifiable influence of infant birth weight (Stevens-Simon & McAnarney, 1992). Weight gain during the first two trimesters of pregnancy is mostly attributed to maternal stores, and weight gain during the third trimester is predominantly attributed to fetal growth (Scholl & Hediger, 1995). This pattern of weight gain is significant because the timing of nutritional intervention must take this pattern into consideration to adequately assess effectiveness. For adult women, the rate of weight gain during the first trimester is 2 1/2 lb/month and increases to 1 lb/week for the second and third trimesters (Scholl & Hediger, 1995). Weight gain for pregnant adolescents is comparable, though rates of gain are typically higher throughout gestation, especially from mid-pregnancy until term (Scholl & Hediger, 1995). Maternal characteristics can also influence pregnancy weight gain. Characteristics include unmodifiable factors such as race and age, body structure, and socioeconomic and marital status, which are not easily modified during pregnancy (Stevens-Simon & McAnarney, 1992). Maternal characteristics can also include cigarette smoking, drug and alcohol abuse, depression, and social support, which

may be modifiable during pregnancy (Stevens-Simon & McAnarney, 1992).

A positive association between pregnancy weight gain and birth weight has been strongly established for some time (Scholl & Hediger, 1995). A significant association between weight gain at 12 weeks' gestation and birth weight at the time of delivery has been noted (Scholl & Hediger, 1995). At 16 weeks' gestation, women with pregnancy weight gain below the 25th percentile for their prepregnancy weight had a greater risk of delivering a low birth weight infant (Scholl & Hediger, 1995). Pregnancy weight gain that continued to be below the 25th percentile at 20 weeks' gestation doubled a woman's risk of delivering a low birth weight infant, and this risk continued to increase through 36 weeks' gestation (Scholl & Hediger, 1995). These data suggest that an increased risk of poor pregnancy outcome is related to low pregnancy weight gain as early as the end of the first trimester (Scholl & Hediger, 1995). Inadequate early pregnancy weight gain in adolescents has been associated with an increased risk of small-for-gestational-age (SGA) infants (below the 10th percentile) that is not reversed by later adequate or compensatory weight gain (Scholl & Hediger, 1995). Even if total weight gain is achieved within recommended limits, the risk of an SGA infant nearly doubles when early pregnancy weight gain is inadequate.

In contrast, preterm delivery (before the completed 37th gestational week) does not seem to be affected by inadequate early weight gain (Scholl & Hediger, 1995). However, researchers have found that preterm delivery rates increase among pregnant adolescents who have inadequate weight gain later in pregnancy (Scholl & Hediger, 1995). This occurs despite weight gains that were within normal limits for total weight gain for that point in gestation.

When intake is poor or inadequate, the risk of preterm delivery and low birth weight is increased (Hediger, Scholl, Belsky, Ances, & Salmon, 1989; Scholl & Hediger, 1995). Significantly lower intake of calories, grams of food, protein, and carbohydrate are associated with inadequate pregnancy weight gain (Scholl & Hediger, 1995). Decreased intake of both protein and carbohydrate is associated mainly with reduced caloric intake (Scholl & Hediger, 1995). Women with inadequate pregnancy weight gain consume fewer calories per day than women with adequate pregnancy weight gain. Energy is

Table 1 Recommended Weight Gain during Pregnancy*

Preconceputal Body Mass Index (BMI)	Recommended Weight Gain
Less than 19.8	28–40 lb (12.5–18 kg)
19–26	25–35 lb (11.5–16 kg)
26–29	15–25 lb (7–11.5 kg)
Over 29	15 lb or less (7 kg or less)

*Adapted from Wardlaw, G. M. (2000). *Contemporary nutrition* (4th ed.). Boston: McGraw Hill.

the prime dietary requirement and, when inadequate, available protein, vitamins, and minerals cannot be used effectively for metabolic function (Scholl & Hediger, 1995). See Table 1 for current weight gain recommendations and Table 2 for additional weight gain considerations.

On the opposite end of the spectrum, excessive weight gain may also be problematic. Women who gain too much weight during pregnancy are at risk for larger babies and postpartum weight retention (Polley, Wing, & Sims, 2002; Scholl & Chen, 2002). Larger babies can result in additional maternal complications including vaginal or cervical lacerations, shoulder dystocia, cesarean birth for cephalopelvic disproportion (Young & Woodmansee, 2002), and a more difficult labor (Habek, 2002). Fetal/infant complications can include trauma related to the birth, brachial plexus injury, clavicle fracture, and hypoglycemia. Women who gain excessive weight during pregnancy can have a more difficult time shedding the weight postpartum (Scholl & Chen, 2002). Retained pregnancy weight can contribute to obesity in later life and include complications such as cardiac disease and diabetes (Hediger, Scholl, & Schall, 1997; Lenders et al., 2000; Scholl, Hediger, Schall, Khoo, & Fischer, 1994).

Table 2 Additional Considerations for Weight Gain during Pregnancy*

Ideal Birth Weight	7.5 lb (3.5 kg)
Twin Gestation	Recommended weight gain: 35–45 lb
Adolescents and African Americans	Should aim for slightly higher weight gain since low birth weight is common among these groups

*Adapted from Wardlaw, G. M. (2000). *Contemporary nutrition* (4th ed.). Boston: McGraw Hill.

This is more problematic for adolescents who are still in a stage of growth (Hediger et al., 1997; Scholl et al., 1994). Recent evidence suggests that pregnant adolescents who are still growing are more likely to retain extra weight because their bodies are particularly susceptible while they are in a growth mode (Casanueva, Labastida, Sanz, & Morales-Carmona, 2000; Hediger et al., 1997; Scholl et al., 1994).

In a study of 622 healthy adult women in upstate New York, Olson and Strawderman (2003) found that prepregnancy changes in food intake and physical activity, as well as cigarette smoking during pregnancy, were significantly related to both excessive weight gain and inadequate weight gain. In a study of insulin levels in nondiabetic, low-income, pregnant women of various racial and ethnic groups, women with the highest insulin levels (4th quartile) had an increased risk of excessive pregnancy weight gain (Scholl & Chen, 2002).

In a study that examined the effect of an educational intervention on maternal weight gain among normal weight, adult pregnant women ($n = 120$), fewer women who received the intervention experienced excessive weight gain (Polley et al., 2002). The educational intervention included information on weight gain in pregnancy, healthy eating, and exercise. Women were also given individual graphs of their gains. Women who were exceeding weight gain parameters were given more intensive intervention. This type of individualized approach is likely to have better outcomes than a standard intervention that is given to all women.

Maternal carbohydrate intake can also influence weight gain and pregnancy outcomes. In a study that examined substrate delivery to the placenta, Clapp (2002) found that adult pregnant women who ate mostly

high-glycemic carbohydrates showed feto-placental overgrowth and excessive weight gain. Women who ate low-glycemic carbohydrates had normal weight gain and infants with birth weights between the 25th and 50th percentile (Clapp, 2002).

In a study to determine weight gain during pregnancy and weight changes postpartum in first-time mothers delivering at or near term, Lederman, Alfasi, and Deckelbaum (2002) found that two-thirds of the women in their sample and 100% of obese and overweight women gained excessive weight. At two months postpartum, women in the study were an average of 18 pounds heavier than prepregnancy and did not lose any additional weight by 6 months postpartum. The majority of women in their sample were formula feeding. The authors recommended interventions to help women gain appropriate weight during pregnancy, lose weight for longer periods postpartum, and initiate and maintain exclusive breastfeeding.

Refer to a Dietician, as Needed

The recommendations presented in this article are not meant to be all-inclusive; rather, they are meant to serve as general guidelines to improve nutrition among pregnant adolescents. A clinician likely will be presented with pregnant adolescents who exhibit various histories or nutritional preferences that are beyond the scope of this paper. For example, individuals with inherited disorders that were previously fatal or life limiting (e.g., cystic fibrosis, phenylketonuria [PKU]) are now surviving to reproductive age and may require special nutrition considerations. Additionally, pregnant adolescents may present with specific food dislikes or intolerances that

Table 3 Resources for Additional Information on Nutrition during Pregnancy

Basic Resources:

- Brown, K. M. (2000). *Management guidelines for women's health nurse practitioners*. Philadelphia: F. A. Davis.
- Dudek, S. G. (2001). *Nutrition essentials for nursing practice* (4th ed.). Philadelphia: Lippincott.
- Morrison, G., & Hark, L. (1999). *Medical nutrition and disease* (2nd ed.). Malden, MA: Blackwell Science.
- Wardlaw, G. M. (2000). *Contemporary nutrition* (4th ed.). Boston: McGraw Hill.
- Whitney, E. N., & Rolfes, S. R. (2002). *Understanding nutrition* (9th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Advanced Resources:

- Journal of the American Dietetic Association*—The American Dietetic Association, P.O. Box 97215, Chicago, IL 60678-7215. Retrieved Dec. 11, 2002, from <http://www.eatright.org/journal/index.html>
- Journal of Nutrition Education and Behavior*—Department of Nutrition, University of North Carolina at Chapel Hill, 800 Eastowne Drive, Suite 100, Chapel Hill, NC 27514. Phone: 919-408-3320, ext 34. Retrieved Dec. 11, 2002, from <http://www.jneb.org/index.htm>
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Table 4 Summary of Recommendations

<ol style="list-style-type: none">1. Focus on foods, not nutrients.<ul style="list-style-type: none">• Adolescents think concretely and are better able to focus on specific foods• Focus on eating well for baby's and mother's health and on eating foods for physical comfort• Show foods as they are eaten• Emphasize multiple food choices• Provide simple and clear instruction• Provide needed structure2. Individualize and work within the pregnant adolescent's current eating habits.<ul style="list-style-type: none">• Assists in adolescent understanding• Allows health care providers to establish rapport and respect for the adolescent• Assists pregnant adolescents to choose healthier options• Preserves important social context and relationships• Promotes adolescent autonomy and decision-making• Helps the adolescent to problem-solve3. Consider the context of family and peer groups.<ul style="list-style-type: none">• Integrates family structure and life context• Addresses who purchases food and prepares meals• Addresses where the family lives and what resources are available• Addresses cultural variations for food• Addresses gender roles• Identifies individual preparing menu and/or meals• Examines socioeconomic status and family finances• Encourages use of governmental resources (e.g., Women, Infants, and Children [WIC] programs), as appropriate	<ol style="list-style-type: none">4. Reward efforts.<ul style="list-style-type: none">• Establishes principle of positive reinforcement• Provides opportunities for self and provider rewarding when goals are met• Offers rewards that are simple and inexpensive• Addresses motivation to attain nutritional goal(s)5. Make it easy.<ul style="list-style-type: none">• Adolescents have grown up in a world of ease and convenience• The technological explosion has always been a part of their lives• Adolescents are often "on the go"• Assist the adolescent to find alternatives to convenience foods, which are often high in fat6. Focus on weight gain patterns for optimal birth outcomes.<ul style="list-style-type: none">• Low birth weight and preterm delivery are associated with inadequate weight gain during pregnancy• Inadequate early pregnancy weight gain is associated with small-for-gestational-age (SGA) infants• Inadequate later pregnancy weight gain is associated with preterm delivery• Discrepancies continue to exist, even when weight gain achieves a normal rate or compensates• Inadequate weight gain is associated with lower intake of calories and grams of food, protein, and carbohydrate7. Refer to a dietician, as needed.<ul style="list-style-type: none">• Any individuals on a special diet prior to pregnancy• Any individual with a history of previously fatal or life threatening disease (e.g., cystic fibrosis, phenylketonuria [PKU])• Adolescents with specific food dislikes or intolerances
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have developed with the pregnancy (e.g., milk) and, thus, may need additional consultation from a dietician.

Summary

Pregnancy is an ideal time to improve nutrition in adolescents. Many adolescents will be motivated to eat better for the sake of their fetus. The recommendations presented in this paper are meant to serve as a guide for clinicians to improve nutrition among pregnant adolescents. Recommendations include 1) focus on foods not nutrients, 2) individualize and work within the pregnant adolescent's current eating habits, 3) consider the context of family and peer groups, 4) reward efforts, 5) make it easy, 6) focus on weight gain patterns for optimal birth outcomes, and 7) refer to a dietician, as needed. Implementation of these recommendations into practice may assist the health care provider to improve nutrition in

pregnant adolescents that present for prenatal care in a variety of settings. Resources for additional basic and more advanced information on nutrition during pregnancy can be found in Table 3. Table 4 provides a concise summary of the recommendations and points presented in this paper.

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Food for Thought

You don't have to cook fancy or complicated masterpieces—just good food from fresh ingredients.

—Julia Child

Tell me what you eat, and I will tell you what you are.

—Anthelme Brillat-Savarain
The Physiology of Taste (1825)

Water is the most neglected nutrient in your diet, but one of the most vital.

—Kelly Barton

A compromise is the art of dividing a cake in such a way that everyone believes he has the biggest piece.

—Ludwig Erhard