



Adolescent Nutrition

Introduction

Adolescence is the only time following infancy when the rate of physical growth actually increases. This sudden growth spurt is associated with hormonal, cognitive, and emotional changes that make adolescence an especially vulnerable period of life. First, there is a greater demand for calories and nutrients due to the dramatic increase in physical growth and development over a relatively short period of time. Second, adolescence is a time of changing lifestyles and food habits that affect both nutrient needs and intake. Third, adolescent drive for individuation means more opportunity to assert food choices and expand or narrow healthy options.

Adolescence can be divided into three stages. Early adolescence (11-14 years of age) is characterized by the onset of puberty and increased cognitive development. Middle adolescence (15-17 years of age) is characterized by increased independence and experimentation. Late adolescence (18-21 years of age) is a time for making important personal and occupational decisions.

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California Nutrition and Physical Activity Guidelines for Adolescents

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Poor nutrition during any of these stages can have lasting consequences on an adolescent's cognitive development, resulting in decreased learning ability, poor concentration, and impaired school performance.

Common Nutrition Concerns

Adolescents of both sexes and in all income and racial/ethnic groups are at risk for dietary excesses and deficiencies. Dietary excesses of total fat, saturated fat, cholesterol, sodium, and sugar commonly occur. Most adolescents do not meet dietary recommendations for fruits, vegetables, and calcium-rich foods.¹ See Figure AN-1 for some factors that contribute to poor eating habits.

Figure AN-1 Factors that Contribute to Poor Eating Habits

- Easily available, low-cost, high-fat and/or high-sugar, low-nutrient foods, such as French fries, candy, chips, or soda
- Limited access to healthy foods that appeal to adolescents
- Perception that healthy, low-in-fat, unprocessed, nutrient-dense foods (high in nutrients compared with their caloric content) are inconvenient and lack taste. Some examples of healthy snacks include fresh fruit, whole grain bread, or lowfat yogurt
- Lack of knowledge regarding appropriate nutrition and the health impact of poor nutrition
- Poor parental role modeling
- Lack of food shopping and preparation classes at school (e.g., home economics), resulting in the lack of relevant skills
- Increased incidence of disordered eating due to 1) fear of weight gain, 2) desire to build muscle mass, 3) to meet sports weight cut-offs, and 4) media and advertising messages

Some nutrition-related concerns for adolescents include consumption of sugar-sweetened beverages (SSBs), iron-deficiency anemia, inadequate calcium intake, unsafe weight-loss methods and eating disorders. Overweight and obesity in children and adolescents is generally caused by poor eating habits and physical inactivity or a combination of the two.²

Nutrition problems may occur as a result of tobacco and alcohol use, pregnancy, disabilities, or chronic health conditions.

Consequences of Poor Eating Habits

Poor or inappropriate dietary habits increase the risk and/or incidence of chronic disease among adolescents. Of great concern is the increasing rate of obesity and obesity-related health risks, such as diabetes and cardiovascular disease. The prevalence of type 2 diabetes among adolescents has increased and is closely linked to overweight and obesity.²

Inadequate iron intake increases the incidence of iron-deficiency anemia, especially among those adolescents at highest risk, such as pregnant adolescents, vegetarians, and competitive athletes. Vegetarianism is popular among some adolescents as they experiment or rebel and individuate. Without appropriate supplementation, these adolescents may be at risk for nutrient deficiencies (see the *Vegetarian Teens* section).

A typical adolescent diet does not include adequate amounts of fruit, vegetables, and grains.¹ These foods are a significant source of vitamins and minerals such as folate. Folate deficiency is a concern for all girls physically capable of becoming pregnant (see the *Folate/Folic Acid* section and *Fruits and Vegetables* section).

Consumption of SSBs (e.g. soda, vitamin water, sports drinks, energy drinks, Kool-Aid etc.) among adolescents has risen dramatically and continues to replace milk and water.³ Health risks associated with this increased intake of sugar-sweetened beverages include excess sugar and caloric intake, which contribute to overweight, obesity and dental caries.

According to the American Academy of Pediatrics (AAP), most children and adolescents do not need to replace their electrolytes by drinking sports drinks. Their electrolyte needs are normally met by consuming a healthy and balanced diet. Water should be the beverage of choice. However, nonfat or lowfat milk can also be consumed after exercise.⁴



Due to their health risks, the AAP recommends that energy drinks should never be consumed by children and adolescents. Energy drinks and sports drinks are significantly different drinks with different risks. The fact that the terms are used interchangeably, possibly indicating confusion, is an additional concern.

One disturbing result of drinking SSBs is the decrease in milk consumption, resulting in insufficient calcium intake. Adequate calcium intake during adolescence is essential for peak bone mass, yet evidence suggests that most female adolescents do not meet the recommended daily intake.⁵ Drinking soda may also interfere with calcium absorption due to high content of phosphorus in soda. For more information, refer to the *Calcium* section.

Nutrition Recommendations

For personalized nutrition recommendations based on age, sex, physical activity level, and other factors, visit the USDA's interactive [SuperTracker](#) website.

Although using the online tool is most convenient, food pattern tables can also be used. Refer to pages 78-82 of [The 2010 Dietary Guidelines for Americans](#). Some tables are included in Appendix A of this document.

Tools for pregnancy and breastfeeding are described on page AN-5.

Energy

Carbohydrates, protein and fat provide energy in the form of calories. Carbohydrates and protein each contain four calories per gram; fat contains nine calories per gram.

Non-pregnant and non-lactating female adolescents usually require between 1,600 and 2,400 calories each day. Adolescent males usually need about 1,800 to 3,200 calories. However, caloric needs vary by age and physical activity level. To identify calorie needs based on such factors, see Appendix A.

Of the total calories needed, about 60% is needed for the body's basic energy needs (basal metabolism). Some examples include tissue

growth and repair as well as heart and lung function.

Figure AN-2 MyPlate

The MyPlate symbol and website, www.choosemyplate.gov, were launched by the United States Department of Agriculture (USDA) in 2011. MyPlate serves as a reminder to eat healthfully and illustrates the five food groups using a familiar mealtime visual, a place setting. MyPlate encourages individuals to make healthier meal choices by building their plate like in the graphic below.



Each of the food groups depicted provides some, but not all of the nutrients that an individual needs. Foods in one group cannot replace foods from another group.

In addition to consuming healthy foods, daily physical activity is important for a healthy lifestyle.

MyPlate displays food proportions, not quantities. The recommended quantity of each food group varies from person to person based on age, sex, and other factors. For personalized recommendations, use the USDA's [SuperTracker](#) website or the tables included in Appendix A.

Resources that are available on the [ChooseMyPlate](#) and [SuperTracker](#) websites include:

- Daily food plans tailored to individuals of varying ages, beginning at age two
- A tool to access food information (food groups, calories and comparisons)
- A tracker that provides feedback on food and physical activity levels
- Planners that help in reaching personal goals

Pregnant and lactating adolescents generally have higher caloric needs. These needs depend on factors such as age, height, weight, and physical activity level. After entering in personal information, the [SuperTracker](#) website provides caloric recommendations for pregnancy and breastfeeding.

Carbohydrates

Carbohydrates are an essential part of a healthy diet. They should not be eliminated from one’s diet as part of a weight loss diet, such as the popular “no-carb diets.” The best sources of carbohydrates are whole grains, fruits, vegetables, and beans. These are also excellent sources of vitamins, minerals, and fiber.

Protein

Protein needs depend on the individual’s rate of growth. Most adolescents meet or exceed recommended levels. Adolescents at risk for protein deficiency include strict vegetarians and those using extreme measures to restrict their food intake to lose weight.

Fat

Fat is a necessary nutrient but most adolescents exceed recommended levels for fat intake.⁵ Some adolescents, especially girls, are at risk for deficiency due to their efforts to lose or avoid gaining weight by severely reducing their fat intake. The USDA recommends that for adolescents aged 14-18 years, fat from all sources should be limited to 25%- 35% of all calories consumed that day. Most fats given to adolescents should be unsaturated fats. Examples are fish, nuts, and vegetable oils.



Vitamins and Minerals

Vitamins and minerals have a role in most or all processes that take place in the body. The demands of growth and development, coupled with poor eating habits, place many adolescents at risk for vitamin and mineral deficiencies, such as calcium and vitamin D (see Figure AN-3). Calcium requirements are higher for adolescents (see the *Calcium* section).

Figure AN-3 Vitamin D

This vitamin is found in foods such as fortified milk, fish, eggs, and cod liver oil. Sunshine also contributes to vitamin D intake. Vitamin D is important for the body to build strong and healthy bones.⁶

For people aged 1-70 years of age, the Recommended Dietary Allowance is 600 IU of vitamin D per day, regardless of sex, pregnancy, or breastfeeding status.⁷ If this recommendation is not met through foods and fortified milk, taking a vitamin D supplement may be recommended by their health care provider. Adolescents, especially those pregnant and breastfeeding should check with their primary healthcare provider before taking a vitamin supplement.

Adolescents who may become pregnant or are pregnant need to consume folic acid daily to help prevent birth defects (see the *Folate* section). Adolescents who are pregnant have increased needs for certain vitamins and minerals. They should talk to their primary health care provider about taking a prenatal vitamin. See other sections for *Iron, Fruits and Vegetables, and Vegetarian Teens*.

Fiber

Fiber is the non-digestible edible material found in fruits, vegetables, beans, and some grains, such as whole-grain cereal or oatmeal. Fiber helps with digestion and may reduce cholesterol levels. See Table AN-1 for recommended daily values.

Table AN-1 Adequate Intake for Fiber (grams per day)

Age	Females	Males
9-13	26	31
14-18	26	38
19-30	25	38
Pregnancy		
14-18	28	
19-30	28	
Lactation		
14-18	29	
19-30	29	

Source: Institute of Medicine, Food and Nutrition Board, 2005⁹

Average fiber intake for female adolescents is approximately 13 grams per day,¹⁰ which is well below recommended intakes. Fiber intake can be increased by consuming more fruits, vegetables, beans and whole grains.

To check if recommended daily intakes are met, an [interactive calculator](#) can be used.



Water

Water is involved in almost every life-sustaining body process. It carries nutrients and oxygen to body cells, takes waste products away, and regulates body temperature. It provides no energy and thus has no calories.

The body loses water through urination, sweat, breathing, and feces. Drinking water and other beverages is the best way to replace body water. Solid foods, especially fruits and vegetables, also provide water, however this amount is difficult to measure.

When adolescents are physically active for less than three hours in mild weather conditions, only water is needed for re-hydration. However, if physical activity lasts longer than three hours and the weather is hot and humid, athletes may need to replace electrolytes, such as sodium, potassium, and chloride that help regulate the body's balance of fluids. When adolescents participate in prolonged physical activity, they should drink water; commercial sports drinks are rarely necessary. Salt pills should not be used, as they can be dangerous.

Nutrition for Pregnancy & Breastfeeding

The USDA's [SuperTracker](#) website provides personalized nutrition recommendations during pregnancy and breastfeeding.

[MyPlate for Moms](#) (also available in [Spanish](#)) provides general nutrition recommendations for an average pregnant or breastfeeding woman* (the document is available at the end of this section).



*Pregnant adolescents require 4 cups of milk.

Pregnancy

During pregnancy, there is a higher need for some vitamins and minerals. These can be obtained through eating healthy foods, such as fruits, vegetables, whole grains, etc. Use the [SuperTracker](#) website or [MyPlate for Moms](#) (also available in [Spanish](#)) to identify the quantity and types of foods to be eaten. A healthy diet plan should also be discussed with the primary healthcare provider.

Vitamins: Before and during pregnancy, folic acid must be consumed to help prevent certain birth defects (see the *Folate* section for details). A prenatal vitamin containing folic acid may be recommended during pregnancy. Vitamin, mineral and other supplements should be discussed with the primary healthcare provider at prenatal visits. However, taking too much or giving them to someone else can be very dangerous. Vitamins should not replace a healthy diet.

Alcohol: Pregnant women and women who may become pregnant should not drink any alcohol. No amount of alcohol has been determined as safe during pregnancy. Drinks

containing alcohol include beer, wine, liquor, and mixed drinks.

Breastfeeding

Although similar to pregnancy, there are slight differences in nutrient requirements, which also vary by degree of breastfeeding. Use the [SuperTracker](#) website and [MyPlate for Moms](#) (also available in [Spanish](#)) to identify the quantity and types of foods to be eaten.

Water: As with everyone, while breastfeeding, one should drink to thirst. Most people get more thirsty while breastfeeding, so preparing a glass of water in advance is helpful. Drinking extra liquids does not produce more milk.

Milk: Drinking milk is not necessary for producing breast milk. Most mammals do not drink milk, but are capable of breastfeeding their young. Individuals who do not consume milk should have an alternate source of calcium. See the *Calcium* section for examples.

Vegetarians: Vegetarians are perfectly capable of producing quality breast milk and should breastfeed. Vegetarian diets should include alternate sources of protein, Vitamin B₁₂, Vitamin D, and calcium.¹² Refer to the *Vegetarian Teens* and *Calcium* sections for examples.

See the *Physical Activity* section for physical activity recommendations for pregnancy or parenting.

Adolescent Eating Behaviors

Adolescents spend a good deal of time away from home and many consume fast foods, which are convenient, but are often high in calories and fat. It is common for adolescents to skip meals and snack frequently. Some factors influencing adolescent food choices are described in Figure AN-4.

The California Department of Public Health conducts a dietary practices survey of 12- to 17-year-olds in California. It is called the California Teen Eating, Exercise and Nutrition Survey (CalTEENS). As part of this survey, Healthy Eating Practice Scores are analyzed. This score

reflects fruit, vegetable, fiber, whole grain, and dairy consumption, in addition to low-fat dairy intakes. Scores range from potentially zero to a maximum of seven. In 2002, the average Healthy Eating Practice Score was approximately three out of seven for California adolescents (3.1 for females and 2.9 for males). The score for African-American adolescents was significantly lower than that of White adolescents at 2.6 (versus 3.1).¹³

Figure AN-4 Food Choices and Self-Regulation¹¹

Adolescents are provided with several different messages that may affect their daily food choices. In one study, researchers sought to understand the factors that influence the decision-making process of adolescents when it comes to food selection. Adolescents aged 11-18 years participated in a simulated task in which they chose particular items for a meal and then described why they chose particular foods.

Findings include:

- The primary reasons for adolescent food selection include: taste, familiarity/habit, health, dieting, and satiety.
- Adolescents reported eating a more healthy and varied meal at dinner.
- When adolescents made food choices, they followed self-made food decision-making rules to resolve conflicting values. Within a meal, “taste” was more influential for the core item, but “health” rose up in influence for the secondary or side item. When having lunch with peers, “taste” may be the primary reason for a food choice, but when with family at dinners, health may be more influential than it would be with peers.
- Other factors that influenced food selection are negotiation patterns within the family and interactions with peers.

When promoting healthy eating, educators should recognize the many dilemmas that adolescents face in making food choices. Educators can help adolescents eat healthy by providing guidance on: (1) developing food decisions, (2) effectively negotiating with family members and (3) appropriate peer interactions.

Approximately forty-eight percent of adolescents surveyed by the California Health Interview Survey (CHIS) in 2009* reported eating at a fast food restaurant two or more times in the past week.¹⁴ In 2006, 60.3% of California adolescents had eaten 2 or more servings of high-fat, low-nutrient foods the previous day.¹⁵ On a positive note, adolescents who had been taught to cook in healthy ways reported more healthy eating practices.¹³

To encourage adolescents to learn how to prepare healthy foods, [recipes for adolescents](#) are available online.



Nutrition Supplements

Dietary supplements may supply some vitamins and minerals, but they cannot provide all the nutritional components that food offers for good health. No supplement can fix an ongoing pattern of poor food choices.

Some adolescents may be intrigued by over-the-counter nutrition supplements such as vitamins, minerals, herbs and protein powders. The Food and Drug Administration (FDA) does not regulate the purity or dosages of most of these products, their claims are seldom proven, and overuse may be dangerous.

Expensive nutrition products — such as energy or power bars and shakes — are popular, but their effects on performance have not been widely studied and these may cause harm to adolescents. Creatine, a popular supplement among athletes, has not been evaluated for its effects on the growth, development, or health of adolescents.

Cultural Factors

One's cultural background often influences one's food choices and preferences. People from different cultures may also view body weight differently. For example, some cultures may see excess weight as a sign of social status and health.

One's culture may also affect diet during pregnancy and infant feeding practices. Some cultures traditionally use herbal supplements and teas during pregnancy. These are not regulated and are not routinely recommended for use. See the *Infant Feeding* section for infant feeding recommendations.

Some cultures may also practice “good/bad” and/or “hot/cold” labeling of foods. According to this belief, certain foods cannot be eaten at certain times of the day or during a specific life stage (such as in pregnancy). If this is practiced, meal planning may be slightly more difficult, but plans can still be made.

Cultural influences are not limited to one's ethnic background. They can include religion, social and economic status, and where one was raised or currently lives (urban, rural, or suburban lifestyle). Adolescents also have their own culture that can strongly influence their food choices, especially away from home (see “Adolescent Eating Behaviors,” earlier in this section).

For more information, refer to the following online resources:

- [Celebrating Diversity: Approaching Families through Food](#)
- [The California Food Guide](#) (also contains dietary information for several cultural groups in California)

The social pressure to be thin and the stigma of obesity can lead to unhealthy eating practices and poor body image, particularly among young female adolescents. Some adolescents, especially males, may want to build muscle mass. Their methods should be evaluated by their healthcare provider.

* 12-17 years of age



What Can Case Managers Do?

Suggested Interventions

Interventions planned to address adolescent nutrition and physical activity topics should include concrete, practical experiences that address immediate concerns. Although having accurate nutrition knowledge is important, especially for adolescents, it is very important to remember that knowledge alone is not enough to change dietary behavior.

Adolescents are more attentive to information if it is presented in an interactive way; they prefer not to simply listen to a speaker or read a pamphlet or booklet. Education activities should be quick and fun, and should demonstrate that healthy foods are affordable, easy to prepare and can be flavorful.

Encourage these eating practices:

- Drinking water or nonfat/lowfat milk when thirsty
- Eating with family members
- Selecting healthy foods when eating out
- Visiting farmers' markets if they are available in the community. Find a market using this [online search tool](#)
- Selecting fresh fruits and vegetables when they are in season and prices are lower
- Eating at fast food restaurants less frequently and learning to make healthier choices when doing so. Encourage reviewing nutritional content, as chain restaurants are required to have this information. It is unrealistic to expect adolescents to not frequent fast food restaurants
- Avoiding eating while watching TV or playing computer games

Hands-on activities are very effective. Such activities include:

- Cooking demonstrations and food sampling
- Meal planning, including snacks and party foods
- Grocery store tours
- Planning a menu and shopping for ingredients within a limited dollar amount
- Tips on how to eat healthfully in restaurants
- Learning basic food preparation techniques using [recipes for teens](#)
- Serving healthy foods and providing a physical activity break. Use the resources available [here](#)
- Using applications (“apps”) on phones to encourage healthy eating practices

Nutrition Screening

Case managers can screen their clients for nutrition risk (see the *Nutrition Risk Screening* section). They can provide education, offer nonjudgmental feedback on current habits, and recommend reasonable lifestyle changes. Concrete approaches are best. “Try a whole wheat bagel for breakfast” is clearer than “eat more grains,” or “gradually switch from whole or lowfat milk to 1% or nonfat milk” is more concrete than “eat less fat.” Using information gathered during the screening process, case managers can assist clients to set goals and develop an action plan.

Goal Setting

Goals must be descriptive and concrete. They should be realistic, reasonable, and achievable. Avoid goals that are too ambitious or long term; make them small with short-term results.

It is important that the client chooses which goals are most important and realistic for her. Use [MyPlate for Moms](#) (also available in [Spanish](#)) to help the client identify nutrition goals that she would like to try.

Referrals

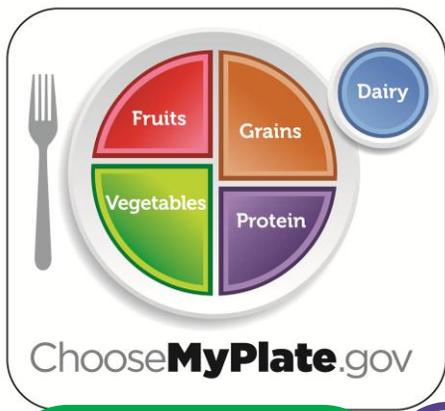
Each section/guideline includes, when appropriate, recommendations for when and to whom referrals should be made.

Web Links Referenced/Additional Resources

Title	Resource Type	URL
SuperTracker	Webpage - interactive tool	www.choosemyplate.gov/SuperTracker/createprofile.aspx
The Dietary Guidelines for Americans	Document (PDF)	www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/PolicyDoc/PolicyDoc.pdf
MyPlate for Moms	Document (PDF)	www.cdph.ca.gov/programs/NutritionandPhysicalActivity/Documents/MO-NUPA-MyPlateForMoms.pdf
MyPlate for Moms (Spanish)	Document (PDF)	www.cdph.ca.gov/programs/NutritionandPhysicalActivity/Documents/MO-NUPA-SP_MyPlateHandout.pdf
Fiber calculator	Webpage - interactive tool	www.healthcalculators.org/calculators/fiber.asp
Celebrating Diversity: Approaching Families through Food	Document (PDF)	www.mchlibrary.info/pubs/pdfs/CelebratingDiversity.pdf
California Food Guide: Fulfilling the Dietary Guidelines for Americans	Webpage	www.dhcs.ca.gov/formsandpubs/publications/Pages/CFGTableofContents.aspx
California Food Guide: Fulfilling the Dietary Guidelines for Americans – Life Cycle: 9-18 Year Olds	Document (PDF)	www.dhcs.ca.gov/dataandstats/reports/Documents/CaliforniaFoodGuide/12.9-18YearOlds.pdf
Recipes/cookbooks for adolescents	Webpage	www.cdph.ca.gov/programs/NutritionandPhysicalActivity/Pages/EasyMealsandSnacks.aspx
Farmers markets search tool	Webpage - interactive tool	http://apps.ams.usda.gov/FarmersMarkets/
Worksite nutrition and physical activity	Webpage - resources	www.cdph.ca.gov/HealthInfo/healthyliving/nutrition/Pages/WorksiteNutritionandPhysicalActivity.aspx
Nutrition and Physical Activity Initiative - Maternal, Child and Adolescent Health	Webpage	www.cdph.ca.gov/programs/nutritionandphysicalactivity/Pages/default.aspx
Comprehensive website for adolescent girls' health	Website	www.girlshealth.gov/
Los Angeles obesity campaign website	Website	http://www.choosehealthla.com/

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California MyPlate for Moms

Make half your plate vegetables and fruits, about one quarter grains and one quarter protein. Choose foods that are high in fiber and low in sugar, solid fats and salt (sodium). For most women, these are the average food amounts for one day.

Vegetables

Eat more vegetables.

Use fresh, frozen or low-sodium canned vegetables. Avoid French fries.

Daily Amount

3 or more of these choices:

- 2 cups raw leafy vegetables
- 1 cup raw vegetables or juice
- 1 cup cooked vegetables



Protein

Choose healthy protein.

Eat vegetable protein daily. Avoid bacon, hot dogs and bologna.

Daily Amount

6-7 of these choices:

- 1 ounce fish, poultry or lean meat
- 1 egg
- ½ ounce nuts
- ¼ cup cooked dry beans, lentils or peas
- ¼ cup tofu
- 1 tablespoon nut butter



Grains

Eat mostly whole grains

like brown rice. Limit bread, noodles and rice that are white.

Daily Amount

6 of these choices in the 1st trimester, **8** in the 2nd/3rd trimester and while breastfeeding:

- 1 slice whole wheat bread or ½ bagel
- 1 small (6-inch), whole wheat tortilla
- 1 cup cereal
- ½ cup cooked pasta, rice or cereal



Fruits

Add color with fruit.

Make most choices fruit, not juice.

Daily Amount

2 of these choices:

- 1 cup fresh fruit
- 1 cup unsweetened frozen or canned fruit
- ½ - ¾ cup juice
- ½ cup dried fruit



Dairy

Enjoy calcium-rich foods.

Choose pasteurized nonfat or lowfat milk, yogurt and cheese.

Daily Amount

3 of these choices for women

or

4 of these choices for teens:

- 1 cup milk
- 1 cup soy milk with calcium
- 1 cup of plain yogurt
- 1½ ounces cheese



Choose Healthy Fats & Oils

- Use plant oils like canola, safflower and olive oil for cooking.
- Read food labels to avoid saturated and trans fats (hydrogenated fats).
- Avoid solid fats such as lard and butter.
- Eat cooked fish at two meals each week.
- Limit oils to 6 teaspoons each day.

Choose Healthy Beverages

- Drink water, nonfat or lowfat milk instead of soda, fruit drinks and juice.
- Limit caffeine drinks like coffee and tea. Avoid energy drinks.
- Do not drink alcohol when you are pregnant or may become pregnant.
- Alcohol passes through breast milk. If breastfeeding, talk with your healthcare provider about alcohol use.

My Nutrition Plan for Moms

These tips can help you to eat well and have a healthy weight during and after your pregnancy. Fill in your weight goals and check off which tips you are willing to try.

Pregnancy: My recommended weight gain in pregnancy is _____ pounds. My current weight gain is _____ pounds.

After Pregnancy: A healthy weight range for me is _____ pounds. My goal is to weigh _____ pounds.

Vegetables

Each day I will:

- Try to eat at least 3 choices of fresh, frozen or low-sodium canned vegetables.
- Flavor vegetables with herbs and spices instead of fat or salt.
- Eat many dark green and orange vegetables.

Protein

Each day I will:

- Try to eat 6-7 choices.
- Grill, broil or bake meat instead of fry.
- Eat beans, nuts, tofu, seeds and nut butter.
- Eat lean meat (15% fat or less).
- Take skin off poultry.
- Eat 12 oz. of fish per week.
- Limit bacon, hot dogs and bologna.

Grains

Each day I will:

- Try to eat 6-8 choices.
- Choose whole grains at least half of the time.
- Eat WIC-approved cereals.

Fruits

Each day I will:

- Try to eat 2 choices.
- Eat a variety of fresh, frozen or canned fruits.
- Choose fresh, frozen and canned fruits without added sugars.
- Limit fruit juice to ½ - ¾ cup juice each day.

Dairy

Each day I will:

- Try to eat 3 choices.
- Choose pasteurized nonfat or lowfat (1%) milk and cheeses.
- Eat plain yogurt. For sweetness, add fruit.
- Choose soy products, with calcium, like tofu.

Fats & Oils

I will:

- Use 6 teaspoons of plant oils like canola, safflower and olive oil daily.
- Bake, broil, steam, or microwave instead of frying.

Beverages

I will:

- Drink water, nonfat or lowfat milk instead of sugary drinks.
- Limit caffeine drinks like coffee and tea. Avoid energy drinks.

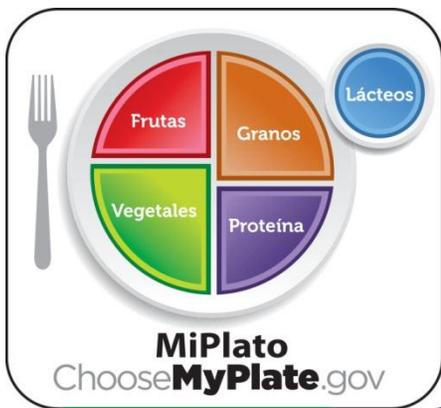
Extras (Solid Fats, Sugars and Salt)

I will:

- Choose foods low in fat, sugar and salt.
- Read nutrition labels to limit fat, sugar and salt (sodium).
- Choose fruits, vegetables, unsalted nuts and seeds for snacks.

My Other Ideas

- Make a daily food plan. Go to www.choosemyplate.gov/SuperTracker/createprofile.aspx.



California MiPlato para Mamás

Haga que la mitad de su plato contenga vegetales y frutas, alrededor de un cuarto del plato granos y el otro cuarto alimentos con proteína. Elija alimentos ricos en fibras y de bajo contenido de azúcar, grasas sólidas y sal (sodio). Estas cantidades de alimentos son para el consumo diario de una mujer de tamaño promedio. Usted puede necesitar más o menos de las cantidades sugeridas.

Vegetales

Coma más vegetales.

Coma vegetales frescas, congeladas o vegetales enlatadas bajas en sodio. Evite comer las papas fritas.

Cantidad Diaria

3 o más de estas opciones:

- 2 tazas de vegetales de hoja crudas
- 1 taza de vegetales crudas o jugo
- 1 taza de vegetales cocidas



Proteína

Elija proteínas saludables.

Coma proteínas vegetales a diario. Evite el tocino, las salchichas y la mortadela.

Cantidad Diaria

6-7 de estas opciones:

- 1 onza de pescado, pollo o carne magra
- 1 huevo
- ½ onza de nueces
- ¼ de taza de frijol, lenteja o chícharo seco cocido
- ¼ de taza de tofu
- 1 cucharada de crema de cacahuete



Granos

Coma mayormente granos **integrales** como arroz integral. Limite su consumo de pan, fideos y arroz que no sean integrales.

Cantidad Diaria

6 de estas opciones en el 1er trimestre
8 en el 2o o 3er trimestre y mientras esté amamantando:

- 1 rebanada de pan integral o ½ bagel
- 1 tortilla pequeña de trigo integral (6-pulgadas)
- 1 taza de cereal
- ½ taza de fideos, arroz o cerea cocidos



Frutas

Agregue color con frutas.

Escoja frutas enteras en lugar de jugos de frutas.

Cantidad Diaria

2 de estas opciones:

- 1 taza de fruta fresca
- 1 taza de fruta congelada o enlatada sin azúcar
- ½ - ¾ taza de jugo
- ½ taza de fruta seca



Lácteos

Coma alimentos ricos en calcio.

Elija leche, yogur y queso pasteurizados descremados o bajos en grasa.

Cantidad Diaria

3 de estas opciones para las mujeres

o
4 de estas opciones para los adolescentes:

- 1 taza de leche
- 1 taza de leche de soya enriquecida con calcio
- 1 taza de yogur natural
- 1½ onza de queso



Elija Grasas y Aceites Saludables

- Use aceites vegetales para cocinar como el aceite de alazor (safflower), canola y oliva.
- Lea las etiquetas de los alimentos para evitar consumir grasas saturadas y trans (grasas hidrogenadas).
- Evite las grasas sólidas como la manteca y la mantequilla.
- Coma pescado cocido en dos de sus comidas cada semana.
- Limite su consumo de aceites a 6 cucharaditas por día.

Elija Bebidas Saludables

- Beba agua, leche descremada o baja en grasa en lugar de refrescos, bebidas de frutas y jugo.
- Limite su consumo de bebidas con cafeína como el café o el té. Evite las bebidas energizantes.
- No beba alcohol si está embarazada o pudiera estar embarazada.
- El alcohol pasa al bebé a través de la leche materna. Si está amamantando, hable con su médico acerca del consumo de alcohol.

Mi Plan Nutricional para Mamás

Estas sugerencias pueden ayudarla a comer bien y a mantener un peso saludable durante y después del embarazo. Llene los espacios en blanco con el peso que le gustaría llegar a tener y marque las opciones que está dispuesta a probar.

Embarazo: Me recomendaron subir _____ libras durante mi embarazo. Hasta la fecha, he subido _____ libras.

Después del embarazo: Un peso saludable para mi es _____ libras. Mi meta es pesar _____ libras.

Vegetales

Cada día trataré de:

- Comer al menos 3 porciones de vegetales frescas, congeladas o enlatadas bajas en sodio.
- Condimentar las vegetales con hierbas y especias en lugar de grasas o sal.
- Comer mucha verdura de color verde oscuro y anaranjado.

Proteína

Cada día trataré de:

- Comer 6 a 7 de porciones.
- Asar u hornear carnes en lugar de freírlas.
- Comer frijoles, nueces, semillas, tofu o crema de cacahuete.
- Comer carne magra (con el 15% de grasa, o menos).
- Quitarle la piel al pollo.
- Comer 12 onzas de pescado por semana.
- Limitar mi consumo de tocino, salchichas y mortadela.

Granos

Cada día trataré de:

- Comer 6 a 8 porciones.
- Elegir granos integrales al menos la mitad del tiempo.
- Comer cereales aprobados por el programa de WIC.

Frutas

Cada día trataré de:

- Comer 2 porciones.
- Comer una variedad de frutas frescas, congeladas o enlatadas.
- Elegir frutas frescas, congeladas y enlatadas sin azúcares añadidos.
- Limitar el consumo de jugos de frutas a $\frac{1}{2}$ - $\frac{3}{4}$ de taza por día.

Lácteos

Cada día trataré de:

- Comer 3 porciones.
- Elegir leche y quesos pasteurizados descremados o bajos en grasa (1%).
- Comer yogur natural (para endulzarlo, le pondré fruta).
- Elegir productos de soya enriquecidos con calcio, como el tofu.

Grasas y Aceites

- Usaré 6 cucharaditas diarias de aceite vegetal como el aceite de alazor (safflower), canola y oliva.
- Cocinaré los alimentos al horno, asados, al vapor o en el microondas, en lugar de freírlos.

Bebidas

- Beberé agua, leche descremada o baja en grasa en lugar de bebidas azucaradas.
- Limitaré mi consumo de bebidas con cafeína como el café y el té. Evitaré las bebidas energizantes.

Extras (Grasas Sólidas, Azúcares y Sal)

- Elegiré alimentos bajos en grasas, azúcares y sal.
- Leeré las etiquetas con la información nutricional para poder limitar mi consumo de grasas, azúcares y sal (sodio).
- Para mis bocadillos, elegiré frutas, vegetales, nueces y semillas sin sal.

Mis Otras Ideas

- Hacer un plan diario alimenticio. Visite esta página: www.choosemyplate.gov/SuperTracker/createprofile.aspx.
- _____

Appendix A

Dietary Tables for Ages 9-30 Years, Non-Pregnant

Instructions

Step 1

Use Table A-1a to determine the client’s Estimated Calorie Needs.

- a. You will need the following client information:
 - Age
 - Gender
 - Physical Activity Level (definitions to the right)
- b. Use the age, gender and physical activity level identified in “a” to obtain the client’s Estimated Calorie Needs from the table below.

Physical Activity Levels

- **Sedentary:** lifestyle that includes only the light physical activity associated with typical day-to-day life.
- **Moderately active:** lifestyle that includes physical activity equivalent to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.
- **Active:** lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

Table A-1a Estimated Calorie Needs Per Day by Age, Gender, and Physical Activity Level
 Estimated amounts of calories^a needed to maintain calorie balance for various gender and age groups at three different levels of physical activity. The estimates are rounded to the nearest 200 calories. An individual’s calorie needs may be higher or lower than these average estimates.

Age/Activity Level ^b	Male Sedentary	Male Moderately Active	Male Active	Female ^c Sedentary	Female ^c Moderately Active	Female ^c Active
9	1,600	1,800	2,000	1,400	1,600	1,800
10	1,600	1,800	2,200	1,400	1,800	2,000
11	1,800	2,000	2,200	1,600	1,800	2,000
12	1,800	2,200	2,400	1,600	2,000	2,200
13	2,000	2,200	2,600	1,600	2,000	2,200
14	2,000	2,400	2,800	1,800	2,000	2,400
15	2,200	2,600	3,000	1,800	2,000	2,400
16	2,400	2,800	3,200	1,800	2,000	2,400
17	2,400	2,800	3,200	1,800	2,000	2,400
18	2,400	2,800	3,200	1,800	2,000	2,400
19–20	2,600	2,800	3,000	2,000	2,200	2,400
21–25	2,400	2,800	3,000	2,000	2,200	2,400
26–30	2,400	2,600	3,000	1,800	2,000	2,400

a. Based on Estimated Energy Requirements (EER) equations, using reference heights (average) and reference weights (healthy) for each age-gender group. For children and adolescents, reference height and weight vary. For adults, the reference man is 5 feet 10 inches tall and weighs 154 pounds. The reference woman is 5 feet 4 inches tall and weighs 126 pounds. EER equations are from the Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington (DC): The National Academies Press; 2002.

b. Sedentary means a lifestyle that includes only the light physical activity associated with typical day-to-day life. Moderately active means a lifestyle that includes physical activity equivalent to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life. Active means a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the light physical activity associated with typical day-to-day life.

c. Estimates for females do not include women who are pregnant or breastfeeding. Source: Britten P, Marcoe K, Yamini S, Davis C. Development of food intake patterns for the MyPyramid Food Guidance System. J Nutr Educ Behav 2006;38(6 Suppl):S78-S92.

Source: 2010 Dietary Guidelines for Americans¹

c. **Estimated Calorie Needs:** _____ calories

Step 2

Use Table A-1b to identify the client's food group recommendations.

- Begin with the Estimated Calorie Needs (obtained in Step 1): _____ calories
- Use the Estimated Calorie Needs to identify daily recommendations for fruits, vegetables, grains, protein foods, dairy and oils from the table below. Subgroups (e.g., type of vegetable) are listed in weekly amounts. Limits for solid fats and added sugars (SoFAS) are also available.

Table A-1b Dietary Recommendations Based on Calorie Level

For each food group or subgroup,^a recommended average daily intake amounts^b at all calorie levels. Recommended intakes from vegetable and protein foods subgroups are per week. For more information and tools for application, go to ChooseMyPlate.gov.

Calorie Level of Pattern ^c	1,000	1,200	1,400	1,600	1,800	2,000	2,200	2,400	2,600	2,800	3,000	3,200
Fruits	1 c	1 c	1½ c	1½ c	1½ c	2 c	2 c	2 c	2 c	2½ c	2½ c	2½ c
Vegetables^d	1 c	1½ c	1½ c	2 c	2½ c	2½ c	3 c	3 c	3½ c	3½ c	4 c	4 c
Dark-green vegetables	½ c/wk	1 c/wk	1 c/wk	1½ c/wk	1½ c/wk	1½ c/wk	2 c/wk	2 c/wk	2½ c/wk	2½ c/wk	2½ c/wk	2½ c/wk
Red and orange vegetables	2½ c/wk	3 c/wk	3 c/wk	4 c/wk	5½ c/wk	5½ c/wk	6 c/wk	6 c/wk	7 c/wk	7 c/wk	7½ c/wk	7½ c/wk
Beans and peas (legumes)	½ c/wk	½ c/wk	½ c/wk	1 c/wk	1½ c/wk	1½ c/wk	2 c/wk	2 c/wk	2½ c/wk	2½ c/wk	3 c/wk	3 c/wk
Starchy vegetables	2 c/wk	3½ c/wk	3½ c/wk	4 c/wk	5 c/wk	5 c/wk	6 c/wk	6 c/wk	7 c/wk	7 c/wk	8 c/wk	8 c/wk
Other vegetables	1½ c/wk	2½ c/wk	2½ c/wk	3½ c/wk	4 c/wk	4 c/wk	5 c/wk	5 c/wk	5½ c/wk	5½ c/wk	7 c/wk	7 c/wk
Grains^e	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	6 oz-eq	6 oz-eq	7 oz-eq	8 oz-eq	9 oz-eq	10 oz-eq	10 oz-eq	10 oz-eq
Whole grains	1½ oz-eq	2 oz-eq	2½ oz-eq	3 oz-eq	3 oz-eq	3 oz-eq	3½ oz-eq	4 oz-eq	4½ oz-eq	5 oz-eq	5 oz-eq	5 oz-eq
Enriched grains	1½ oz-eq	2 oz-eq	2½ oz-eq	2 oz-eq	3 oz-eq	3 oz-eq	3½ oz-eq	4 oz-eq	4½ oz-eq	5 oz-eq	5 oz-eq	5 oz-eq
Protein foods^d	2 oz-eq	3 oz-eq	4 oz-eq	5 oz-eq	5 oz-eq	5½ oz-eq	6 oz-eq	6½ oz-eq	6½ oz-eq	7 oz-eq	7 oz-eq	7 oz-eq
Seafood	3 oz/wk	5 oz/wk	6 oz/wk	8 oz/wk	8 oz/wk	8 oz/wk	9 oz/wk	10 oz/wk	10 oz/wk	11 oz/wk	11 oz/wk	11 oz/wk
Meat, poultry, eggs	10 oz/wk	14 oz/wk	19 oz/wk	24 oz/wk	24 oz/wk	26 oz/wk	29 oz/wk	31 oz/wk	31 oz/wk	34 oz/wk	34 oz/wk	34 oz/wk
Nuts, seeds, soy products	1 oz/wk	2 oz/wk	3 oz/wk	4 oz/wk	4 oz/wk	4 oz/wk	4 oz/wk	5 oz/wk				
Dairy^f	2 c	2½ c	2½ c	3 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c
Oils^g	15 g	17 g	17 g	22 g	24 g	27 g	29 g	31 g	34 g	36 g	44 g	51 g
Maximum SoFAS^h limit, calories (% of calories)	137 (14%)	121 (10%)	121 (9%)	121 (8%)	161 (9%)	258 (13%)	266 (12%)	330 (14%)	362 (14%)	395 (14%)	459 (15%)	596 (19%)

Source: 2010 Dietary Guidelines for Americans¹

Notes for Table A-1b

^a . All foods are assumed to be in nutrient-dense forms, lean or low-fat and prepared without added fats, sugars, or salt. Solid fats and added sugars may be included up to the daily maximum limit identified in the table. Food items in each group and subgroup are:	
Fruits	All fresh, frozen, canned, and dried fruits and fruit juices: for example, oranges and orange juice, apples and apple juice, bananas, grapes, melons, berries, raisins.
Vegetables	
• Dark-Green Vegetables	All fresh, frozen, and canned dark-green leafy vegetables and broccoli, cooked or raw: for example, broccoli; spinach; romaine; collard, turnip, and mustard greens.
• Red and Orange Vegetables	All fresh, frozen, and canned red and orange vegetables, cooked or raw: for example, tomatoes, red peppers, carrots, sweet potatoes, winter squash, and pumpkin.
• Beans and Peas (legumes)	All cooked beans and peas: for example, kidney beans, lentils, chickpeas, and pinto beans. Does not include green beans or green peas. (See additional comment under protein foods group.)
• Starchy vegetables	All fresh, frozen, and canned starchy vegetables: for example, white potatoes, corn, green peas.
• Other Vegetables	All fresh, frozen, and canned other vegetables, cooked or raw: for example, iceberg lettuce, green beans, and onions.
Grains	
• Whole Grains	All whole-grain products and whole grains used as ingredients: for example, whole-wheat bread, whole-grain cereals and crackers, oatmeal, and brown rice.
• Enriched Grains	All enriched refined-grain products and enriched refined grains used as ingredients: for example, white breads, enriched grain cereals and crackers, enriched pasta, white rice.
Protein Foods	All meat, poultry, seafood, eggs, nuts, seeds, and processed soy products. Meat and poultry should be lean or low-fat and nuts should be unsalted. Beans and peas are considered part of this group as well as the vegetable group, but should be counted in one group only.
Dairy	All milks, including lactose-free and lactose-reduced products and fortified soy beverages, yogurts, frozen yo-gurts, dairy desserts, and cheeses. Most choices should be fat-free or low-fat. Cream, sour cream, and cream cheese are not included due to their low calcium content.
^b . Food group amounts are shown in cup (c) or ounce-equivalents (oz-eq). Oils are shown in grams (g). Quantity equivalents for each food group are: Grains, 1 ounce-equivalent is: 1 one-ounce slice bread; 1 ounce uncooked pasta or rice; ½ cup cooked rice, pasta, or cereal; 1 tortilla (6" diameter); 1 pancake (5" diameter); 1 ounce ready-to-eat cereal (about 1 cup cereal flakes). • Vegetables and fruits, 1 cup equivalent is: 1 cup raw or cooked vegetable or fruit; ½ cup dried vegetable or fruit; 1 cup vegetable or fruit juice; 2 cups leafy salad greens. • Protein foods, 1 ounce-equivalent is: 1 ounce lean meat, poultry, seafood; 1 egg; 1 Tbsp peanut butter; ½ ounce nuts or seeds. Also, ¼ cup cooked beans or peas may also be counted as 1 ounce-equivalent. • Dairy, 1 cup equivalent is: 1 cup milk, fortified soy beverage, or yogurt; 1½ ounces natural cheese (e.g., cheddar); 2 ounces of processed cheese (e.g., American).	
^c . See Appendix 6 for estimated calorie needs per day by age, gender, and physical activity level. Food intake patterns at 1,000, 1,200, and 1,400 calories meet the nutritional needs of children ages 2 to 8 years. Patterns from 1,600 to 3,200 calories meet the nutritional needs of children ages 9 years and older and adults. If a child ages 4 to 8 years needs more calories and, therefore, is following a pattern at 1,600 calories or more, the recommended amount from the dairy group can be 2½ cups per day. Children ages 9 years and older and adults should not use the 1,000, 1,200, or 1,400 calorie patterns.	
^d . Vegetable and protein foods subgroup amounts are shown in this table as weekly amounts, because it would be difficult for consumers to select foods from all subgroups daily.	
^e . Whole-grain subgroup amounts shown in this table are minimums. More whole grains up to all of the grains recommended may be selected, with offsetting decreases in the amounts of enriched refined grains.	
^f . The amount of dairy foods in the 1,200 and 1,400 calorie patterns have increased to reflect new RDAs for calcium that are higher than previous recommendations for children ages 4 to 8 years.	
^g . Oils and soft margarines include vegetable, nut, and fish oils and soft vegetable oil table spreads that have no <i>trans</i> fats.	
^h . SoFAS are calories from solid fats and added sugars. The limit for SoFAS is the remaining amount of calories in each food pattern after selecting the specified amounts in each food group in nutrient-dense forms (forms that are fat-free or low-fat and with no added sugars). The number of SoFAS is lower in the 1,200, 1,400, and 1,600 calorie patterns than in the 1,000 calorie pattern. The nutrient goals for the 1,200 to 1,600 calorie patterns are higher and require that more calories be used for nutrient-dense foods from the food groups.	
Source: 2010 Dietary Guidelines for Americans ¹	

Reference

1. Dietary Guidelines for Americans, 2010. In: U.S. Department of Agriculture and U.S. Department of Health and Human Services, ed. 7 ed. Washington, DC: U.S. Government Printing Office; 2010.