

Newborns, Infants, and Toddlers (age 0 to 2 years old)

PILLAR ONE: Exercise

Daily exercise is key to preventing childhood obesity and should begin at an early age. Regular activity also helps infants and toddlers reach developmental milestones like crawling, sitting up, and standing.

Inquire about how much time the child spends every day in active play. Research shows that children ages 1 to 2 should have at least 30 minutes of structured activity and an hour or longer of unstructured playtime each day.

Family routines and regular interactions with parents can impact a child's amount of daily activity and playtime. Educate parents about the importance of proper movement and ways they can increase their child's activity time and limit their sedentary time.

For example, during daily interactions, parents should encourage various types of movements, such as:

- Reaching
- Kicking
- Grabbing
- Rolling
- Tummy time

Parents should also include child-friendly games like peek-a-boo and patty cake, and interactions that include verbal and non-verbal communication like facial expressions, eye contact, hand gestures, and touch.

SIDEBAR BOX

Wellness tip: Watch TV Time

A TV that is always on can disrupt play and activity time and encourage sedentary behavior. Parents should keep the daily TV and other screen time to two hours or less (and no TV exposure for infants). Make sure to turn off all electronics during active play, or change the TV to pleasant background music.

PARENT EDUCATION

To help increase activity and play, limit your child's time spent in positions that restrict movements, such as car seats, strollers, and bouncy seats.

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PILLAR TWO: NUTRITION

Newborns and infants

The American Academy of Pediatrics (AAP) and the World Health Organization both recommend breastfeeding for the first six months of life. The health gains from breastfeeding can lower the risk of obesity later in life.

Promoting and supporting breastfeeding should be the standard of care for all prenatal and routine pediatrician visits.

The AAP notes that breastfeeding cessation often occurs during the transition from hospital to home, at ages 6 to 8 weeks, and when the mother returns to work.

When breastfeeding is not feasible, the alternative is bottle-feeding infant formula. At 2 months of age, an infant will consume 4 to 5 ounces per feeding, every three to four hours, for a total of about six feedings within 24 hours.

This amount of formula volume per feeding gradually increases while the number of meals per day decreases until a peak at 6 months of age. Here, the infant will consume 7 to 8 ounces of formula per feeding, every four to five hours during the day, with no nighttime feedings.

Complementary foods should be introduced at 6 months of age and not before. Introducing solids before 4 months of age is associated with excessive weight gain in infancy as well as childhood obesity.

The initial foods should be high in iron and zinc. Pureed meats and iron-fortified infant cereals best meet the nutritional needs at this age.

Share with parents the **Infant Feed Chart**, which shows the types and amounts of solid foods required in the first year of life.

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Why excessive weight gain occurs

Discuss with the parents the possible reasons for excessive weight gain and how to avoid it:

- Introducing complementary foods too early (it should begin after six months).
- Formula feeding greater than 45 ounces a day if there are no solid foods or 32 ounces a day with solid foods. (Suggest they limit formula to 24 ounces a day if the infant is higher than 85 percentile weight for length and takes solid foods.)
- Review with parents the appropriate intake of complementary foods after 6 months of age, including food selections and portion sizes. (Also, stress the need to maintain regular vegetable and fruit intake and encourage adding a fruit or vegetable to at least one daily snack.)

- Share the handouts, **Introduction to Solids and Spoon Feeding and How to Start Feeding Solids.**

PARENT EDUCATION

Evidence shows that overfeeding is the most common factor for excessive infant weight gain. Parents need to recognize the signs of hunger and satiety. These include:

SIGNS OF HUNGER	SIGNS OF SATIETY
<p>Breast- or bottle-feeding</p> <ul style="list-style-type: none"> • Hand-to-mouth activity • Rooting • Facial grimaces before crying • Fussing sounds • Waking and tossing • Crying (a late sign of hunger) <p>Spoon-feeding</p> <ul style="list-style-type: none"> • Watching food being opened • Making a tight fist or anxiously reaching for the spoon • Showing irritation if the feeding pace is too slow or temporarily stops 	<p>Breast- or bottle-feeding</p> <ul style="list-style-type: none"> • Turning the head away from the nipple • Lack of interest in eating • Closing the mouth • Sealing the lips • Sucking that slows or stops and starts • Spitting out the nipple or falling asleep <p>Spoon-feeding</p> <ul style="list-style-type: none"> • Playing with the spoon or other food • Eating slower or turning away from the food • Spitting out the food

SIDEBAR BOX

Wellness tip: Healthier bottle-feeding

Make sure parents follow these healthy bottle-feeding habits:

- Only use expressed breast milk or formula
- Do not give juice or sweetened beverages like soda or sports drinks
- Do not prop the bottle during feedings and let babies feed alone (this takes away from parent-baby bonding and may increase the risk of choking) Additionally, propping the bottle may lead to overfeeding.
- Do not add cereal or other foods to the bottle
- Learn their infant's hunger and satiety signs to avoid overfeeding

Transition to Toddlerhood

Parents should introduce a variety of foods by the end of the child's first year, which can teach the child healthful food habits and reduce the risk of obesity later in life. Here are some strategies to help parents make a successful food transition.

- As an infant moves from puree foods to more textured table foods, a lower intake of vegetables and fruit is common. Parents should make sure to offer softer, chopped vegetables and fruits to the infant's diet.
- As an infant moves from puree foods to more textured table foods, a lower intake of vegetables and fruit is common. Parents should make sure to offer softer, chopped vegetables and fruits to the infant's diet.
- By 9 months of age, an infant should have two snacks a day and can include easy-to-eat finger foods, such as cereal, crackers, and cookies.
- If the infant/toddler refuses food, try again. It can take 10 to 20 attempts before food is accepted. Also, offer new meals prepared in different ways. For example, vegetables can be served fresh, steamed, roasted, or mashed.
- Share the handout **Infant Feed Chart** for portion sizes and recommended daily servings.

PARENT EDUCATION

The AAP recommends no fruit juice for children younger than 1 year old because it does not provide the necessary nutrients like breast milk, formula, or fruits and vegetables. Excessive juice intake also may contribute to weight gain. Juice can be introduced after 1 year of age but should be limited to no more than four ounces a day. Parents should also avoid sodas, sports drinks, and sugar-sweetened beverages like lemonade, fruit punch, sweet tea, and portable kids drinks, such as Sunny D and Capri Sun.

Other practices also are associated with increased weight gain among infants. Parents should NEVER do the following:

- **Offer food as a reward.** Instead offer age-appropriate non-food related treats, such as reading a favorite book together, visiting the park, or taking a walk.
Force feed. Never force a child to eat during designated mealtimes. Allow the child to self-regulate when he or she is hungry and full.
- **Insist on finishing the plate.** Again, let the child eat until he or she feels full and not until the dish is clean. Serving appropriate portion sizes can help.

SIDEBAR BOX

Wellness Tip: Reduce excessive caloric intake

Here are some other tips to share with parents about managing their child's calories:

- Create a structured daily meal and snack times, such as three meals and one to two snacks a day. This approach encourages regulation of appetite.
- Provide meals and snacks at the table or in a highchair versus eating on the go.

- Use smaller, age-appropriate plate sizes.
- Avoid feeding during non-meal and snack times; for example, waiting for appointments, in the grocery store, and when driving.
- Introduce a spoon at 8 to 9 months of age, and transition to a cup by 1 year of age. A spoon promotes self-feeding behavior. Also, share the handout **Transitions to Cup and Table Food**.

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PILLAR THREE: Behavioral Health

Developmental disabilities and autism can have a significant impact on an infant's eating habits.

Identifying early signs of behavioral issues can help improve a child's nutrition, physical activity, and sleep. Additionally, it can allow infants to receive early intervention.

Inquire if the child experiences any of the following signs, which may warrant further evaluation by a psychologist or team of behavioral experts:

- Trouble relating to others, or not having any interest in people
- Not looking at objects when another person points at them
- Avoiding eye contact and wanting to be alone
- Preferring not to be held or cuddled
- Repeating or echoing words said to him or her in place of regular language
- Engaging in repetitive behaviors
- Problems adapting to routine changes
- Unusual reactions to the way food or objects smell, taste, look, feel, or sound.

SIDEBAR

PARENT EDUCATION

Effective parenting practices

Every family's approach to parenting is different, but here are some standard methods that can help improve a child's emotional, behavioral, cognitive, and social functioning:

- Show warmth and sensitivity
- Predictably respond to infants when they cry; for example, use a calm tone and react in a consistent amount of time.
- Establish routines and household rules
- Read books to infants and read to toddlers daily
- Talk, play music, and sing with infants and toddlers
- Teach safety behaviors; for instance, show toddlers how to ask for help and identify hazardous objects.
- Distract infants with toys and move them to safe areas when they move and touch objects they should not
- Use appropriate discipline without harshness
- Offer praise and loving attention
- Spend time cuddling and holding
- Encourage a toddler's curiosity and ability to recognize objects by taking him or her to the park or store
- Play matching games and simple puzzles.

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Wellness Tip: Self-Care for parents

Parenting is a constant challenge. Remind parents to take care of their physical and emotional health, too. Here are some self-care tips they can try:

Physical Care

- Aim for seven to nine hours of sleep. Also, try to take a nap whenever the child sleeps. If you have a partner, take turns with nighttime awakenings.
- Exercise and stay active. Join a gym or YMCA center that provides childcare. You can also adopt at-home workouts, such as bodyweight exercises, yoga, and cardio on a treadmill or stationary bike.
- Stay hydrated with water. Buy a fun water bottle and keep it with you throughout the day. Use a mobile app to help track your water intake.
- Spend time outside and get some fresh air. Take your child for a stroller walk, or visit a play ground. If you have a partner, take turns watching the child and enjoy a short walk or some quiet time on the porch.
- Eat nutritious meals. Make sure each meal and snack includes a protein, and eat at least five servings of fruits and vegetables throughout the day. Do your best to avoid processed foods and don't skip meals even when busy. Another option is to use a meal prep service that delivers healthy meals to your home.

Emotional Care

- Spend time with your significant other; for instance, hire a sitter and have a date night
- Spend time with friends, like a casual lunch or coffee
- Talk about and express your feelings with your spouse, a friend, or family member, so you don't keep anything bottled up.
- Engage in an enjoyable activity every day (even if it's only for 10 minutes)
- Say no to extra responsibility
- Take a break from your phone and social media
- Attend a local place of worship, spirituality, or meditation

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PILLAR FOUR: SLEEP

Setting proper sleep habits at an early age can help prevent childhood obesity. Newborns, infants, and toddlers undergo a robust period of maturational changes in their brains and bodies, and adequate sleep is an essential part of their growth. Of course, both the child and parent face many sleep challenges during this period.

GUIDELINES

The National Sleep Foundation (NSF) notes that the evidence behind specific sleep recommendations for newborns, infants, and toddlers is weaker than other age groups. Still, the NSF suggests the following sleep guidelines:

- **Newborns (ages 0 to 3 months):** 14 to 17 hours each day (although 11 to 18 hours may be permissible)
- **Infants (ages 4 to 11 months):** 12 to 15 hours each day (although as few as 10 hours and as many as 18 hours may be appropriate)
- **Toddlers (ages 1 to 2 years):** 11 to 14 hours each day (although as few as nine and as many as 16 hours may be appropriate).

IDENTIFYING PROBLEMS

If a child in this age group has sleep problems, review his or her sleep routine with the parents, and focus on the following common causes of sleep disruptions.

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Nighttime Waking. Nighttime waking is typical among infants and toddlers because they have shorter sleep cycles than older children and adults.

- Introduce bedtime routines by 2 months of age.
- Studies have shown that infants and toddlers often wake up two to four times a night. It is unusual if an infant or toddler sleeps without any disruption for extended periods during the day or night.
- By 6 months of age, infants have a more regular sleep cycle and become better able to self-soothe when they awaken. However, about 50% of all 1-year-olds still require parental soothing to fall back asleep.

Transition From Overnight Feedings. Overnight feeding is regular during infancy and especially for breastfed infants. Most formula-fed infants do not require overnight feedings by 4 months of age, and can sometimes occur as early as 2 months of age, but often no later than 6 months of age.

- If formula-fed infants older than 6 months wake up to feed, this is often not a sign of a problem.
- Parents should not use formula feedings as a soothing strategy.

- Breaking this habit can help the child learn to self-regulate their emotions.
- It is important to counsel parents not to add solids to the child's bottle before bedtime to promote better sleep.

Trained Night Crying. This occurs when infants and toddlers weaned off of overnight feeding still need parental soothing to fall back asleep after waking up.

- Placing the child in the crib after he or she falls asleep is a common cause. Upon waking, the child becomes disoriented and needs soothing.
- The solution is for infants and toddlers to learn to fall asleep on their own in the crib, which teaches them how to self soothe.
- Parents can help the process by waiting longer to check in after the child wakes up. Although it can be stressful for parents to hear prolonged crying, this gives the child the chance to fall back asleep on his or her own.

PARENT EDUCATION

Parents need to understand these common sleep disturbances and know how to address them. Additional areas for troubleshooting with parents include:

- sleep duration
- frequency of naps
- snoring
- amount of juice and other fluids consumed each day ²
- amount of daily screen time exposure (the American Academy of Pediatrics [AAP] recommends zero screen time for children under 18 months of age aside from video chatting).

SIDEBAR BOX

SAFETY TIP

Protect Against SIDS

Adopting safe sleep habits can reduce the incidence of sudden infant death syndrome (SIDS), according to recommendations from the AAP Task Force on SIDS. For example, infants should be placed on their backs to sleep and on a firm surface without any soft objects or materials. They should be tightly swaddled in a thin blanket until they are mobile enough to push out. After that, use a warm onesie. Also, under no circumstance, it is safe for a parent and infant to sleep in the same bed. Parents can learn other sleep safety tips from [Safe Kids Worldwide](#).

Preschool: Ages 2 to 4

PILLAR ONE: PHYSICAL ACTIVITY

Research suggests that increased levels of physical activity in children younger than age 6 is associated with a reduced risk of excessive body weight and obesity.

Daily active play and movement also help children develop their motor skills and increase body awareness and coordination. Other health benefits include improved muscle strength, better mood and cognition, and stronger bones.

Children ages 2 to 5 should engage in at least one hour of structured play and two hours or longer of unstructured physical activity per day. Parents often need coaching and support to help keep preschool-aged children active. Here are some suggestions:

- Children should be encouraged to walk more during family outings and not use strollers as much.
- Parents should limit screen time, discourage eating in front of screens, and avoid placing TVs in children's rooms.
- Parents should persuade children to play more outside.
- Parents should organize regular family activities (spending time being active together as a family makes everyone healthier).

There also are many types of activities, games, and toys that can help increase movement for preschool-age children. Here are some ideas to share with parents:

- Offer different kinds of balls and bean bags that are easy to grasp, hold, throw, and catch.
- Make tunnels from old boxes that children can crawl through.
- Buy a tricycle or other riding toys and push-pull toys like wagons, doll buggies, and lawnmowers.
- Schedule regular time at playgrounds with climbing equipment.
- Do a "movement parade" where you march around the room or outside with your child and then call out different movements he or she has to do, such as twirl, leap, hop, and jump.
- Play simple singing games that involve movement, such as "Hokey-Pokey," "Head, Shoulders, Knees, and Toes," and "If You're Happy and You Know It!"
- Incorporate outdoor running games like "Tag," "Red Light-Green Light," and "Freeze Tag."

SIDEBAR

All-around health

Parents should ensure their children participate in different kinds of activities to improve their overall wellness. Here is a summary of everyday activities and their specific health benefits:

ACTIVITY LEVELS	TYPES OF ACTIVITY
Moderate- and Vigorous-Intensity Aerobic Activities	<ul style="list-style-type: none"> • Schoolyard games like tag and "Follow the Leader" • Playing on a playground • Tricycle or bicycle riding • Walking, running, skipping, jumping, and dancing • Swimming • Playing games that require catching, throwing, and kicking • Gymnastics and tumbling
Muscle-Strengthening Activities	<ul style="list-style-type: none"> • Tug-of-war • Climbing on playground equipment • Gymnastics
Bone-Strengthening Activities	<ul style="list-style-type: none"> • Hopping, skipping, and jumping • Jumping rope • Running • Gymnastics

SIDEBAR

Wellness Tips

Another way for parents to increase a child's daily activity is to involve him or her in household tasks, such as setting the table, sorting laundry, folding clothes, putting away toys, cleaning the house, packing for a trip, or doing yard work. Make the activity a game so it will not feel like a chore.

Preschool: Ages 2 to 4

PILLAR TWO: NUTRITION

The most common nutrition-related causes of obesity among preschool-age children are drinking too much juice and sugar-sweetened beverages, eating large portions, and consuming high-calorie, low-nutrient processed junk food.

The parents' responsibility is to offer the right foods, drinks, and portions while the child should learn to regulate their appetite. (See the **“Parenting and Creating an Environment to Promote Healthy Meal Patterns”** handout for more information.)

Preschool-age children should eat three healthy meals and two snacks a day at structured times. It is essential to focus on age-appropriate portion sizes with no sugar-sweetened beverages. The American Academy of Pediatrics (AAP) also recommends no more than 4 ounces of juice per day. Healthier drink options are low-fat milk and water.

Advise parents that meals should consist of healthy foods from the five food groups (fruits, vegetables, grains, protein, and dairy) instead of prepackaged, low-nutrient foods. Snacks are an opportunity to provide additional nutrients and should include at least two food groups (fruit or vegetable and protein). Picking eating is frequent in this age group, so parents need to be careful not to offer only favorite foods.

Here is a breakdown of the recommended daily intake and portion sizes for preschool-age children:

Daily Intake:

- 3 ounces protein
- 2 to 2½ cups dairy
- ¾ cup to 1½ cups non-starchy vegetables
- 1 cup whole fruit
- 1 cup whole grains

Portion Sizes for Meals and Snacks:

Protein	1 ounce
Fruit	¼ cup
Vegetable	¼-½ cup
Dairy	½ cup
Grains	¼ cup

See the **“Toddler meal plans” handout** for more examples of healthy meals and snacks.

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Watch the carbohydrates

When a preschooler has a body mass index (BMI) greater than 95th percentile, the child's diet should limit carbohydrates and focus on low glycemic index foods. See the "Go-Slow-Whoa Plan" handout for more details.

SIDEBAR

Wellness Tips

Encourage parents to adopt the following healthy eating habits for their children:

- Limit high sugar desserts to special occasions to meet the American Heart Association's recommendation of only 3 teaspoons of sugar per day for young children.
- Limit fast foods
- Have children try new foods, which can expand their healthy food choices. (See the "**Fruits & Veggies for Toddlers**" handout for ideas.)
- Don't tell children to "finish their plate," which can cause overeating. Instead, let them say when they are full.
- Eat structured meals as a family whenever possible. Avoid distractions at the table, like watching TV or electronic devices.
- Never use food as a reward or to soothe an emotional outburst.

Preschool: Ages 2-4

PILLAR THREE: BEHAVIORAL HEALTH

During early childhood, 13 to 22 percent of children are considered picky eaters where they only eat certain foods, don't always eat during meals, or refuse to try new foods (especially healthy ones). Picky eating can be a challenging phase for parents and turn mealtime from relaxing family time into a tense battle.

It is important to intervene early in children who are picky eaters. This ensures they expand their diet to include the variety of foods they need to help combat obesity and improve health outcomes.

Parents often need support and guidance during picky eating moments. Here are some strategies that may help:

- **Offer new foods first.** Encourage children to try at least three to five bites of a new food before allowing them to eat their preferred food. Research suggests that it takes from 10 to 20 bites for a child to adjust to different food. Allowing children to touch or lick their food also can be helpful.
- **Demonstrate eating new foods.** Parents should set a good example and try new foods with their children.
- **Do not force feed.** While it is frustrating when children will not eat, never force them, which can make children even more reluctant to eat. Instead, parents should be patient and wait it out. Eventually, the child will get hungry enough.
- **Avoid guilt and use positive statements.** Do not guilt children into eating by comparing them to other children, or reminding them of how fortunate they are to have food. Guilt only intensifies negative feelings about eating. Instead, offer words of praise and encourage, especially after every bite, like “I know you can do this! You’re really trying!”

Preschool: Ages 2 to 4

PILLAR FOUR: SLEEP

The National Sleep Foundation recommends that preschool-age children get 10 to 13 hours of sleep each night; however, as few as eight hours and as many as 14 hours may be appropriate.

Preschool age is when children learn bedtime routines. Offer guidelines that can help parents make the transition to sleep less of a challenge for both them and their child. For example:

- Parents should establish consistent routines, such as dinnertime, bath time, brushing teeth, and reading books.
- Parents should resist protests from a crying child no matter how difficult.
- Parents might consider minimizing the duration of the bedtime routine.
- Parents can use comforting objects like blankets and stuffed animals when putting the child to bed.

Parents also need guidance with the following bedtime issues:

Prolonged bedtime routines. These occur when the routine extends longer than usual because the child attempts to delay bedtime because they fear separation. Parents often exacerbated the situation by feeling guilty about leaving a fearful or crying child. Parents need to understand that allowing this period to draw out makes exiting the child's bedroom even more difficult.

Nightmares. Children can experience dreaming as young as 1 year old. However, nightmares occur in children by ages 3 to 6. Nightmares often happen during rapid eye movement (REM) sleep early in the mornings. Children still have a clear recollection of their bad dream when they wake up and feel anxious and frightened. They are often hesitant to return to sleep after a nightmare but respond well to consoling.

Night terrors. These can occur in toddlers but are more common in preschool-age children. There is often a family history of night terrors, or other sleep-related issues, like sleepwalking or talking in one's sleep. Night terrors are characterized by arousals (not awakenings) and often happen after an hour to an hour and a half of sleep. Common traits include extreme fear and panic, along with screaming and shrieking, sweating, and heart racing. Children should NOT be forced awake in these situations, but instead protected from any potential bodily injury. Parents should allow the terror to run its course (most last about 10 minutes), and the child should subsequently be allowed to fall back asleep. Children do not recall the events, as they occur during deeper sleep stages.

SIDEBAR

PARENT EDUCATION

Soothing an awakened child

Parents should always console their child in his or her bedroom. This reinforces the room as a

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Look out for Obstructive Sleep Apnea (OSA)

OSA is a disorder in which a sleeping person experiences either partial upper airway obstruction for prolonged periods or complete upper airway obstruction intermittently. Among children, OSA is most common in children ages 2 to 6 as this is when tonsils and adenoids are largest relative to the size of the oropharynx.

Children with OSA frequently snore with periodic pauses or gasps in their breathing. Snoring can disrupt their sleep and cause problems with attention, concentration, and daytime sleepiness.

Always screen children for snoring during wellness checks. Refer any child who snores three or more nights per week and has any OSA symptoms to a sleep medicine physician/sleep lab, or a pediatric ear, nose, and throat physician. A polysomnography—a test used to diagnose sleep disorders—can diagnose OSA.

can be detrimental to the regular sleeping routine.

Early Childhood: Ages 5 to 9

PILLAR ONE: PHYSICAL ACTIVITY

Ongoing research supports that regular daily physical activity in early childhood improves crucial health factors, such as cardiovascular and muscular fitness, and greater bone mass and strength. It can also help children reduce their risk of obesity and maintain a healthy weight.

Research also suggests that the benefits gained from regular activity during youth carry forward into adulthood, and also can include improved memory and cognitive function, sharper attention, healthier sleep, better moods, and increased academic performance.

It's essential to help parents understand the various benefits of keeping their children physically active. Also, point out that parents are the best role models when it comes to fitness. Children are more likely to be engaged if they see their parents doing the same.

For the best results, children ages 5 to 9 should get at least 60 minutes per day of moderate-to-vigorous physical activity. They also should do vigorous exercise and muscle- and bone-strengthening movements at least three days per week.

Keep in mind that exercise does not always have to be a structured activity. Running around and playing counts towards the recommended amount of exercise.

Here are some examples of the various activities children ages 5 to 9 can do:

ACTIVITY LEVELS	TYPES OF ACTIVITY
Moderate- and Vigorous-Intensity Aerobic Activities (You breathe hard but still maintain a conversation)	<ul style="list-style-type: none">• Brisk walking• Bicycle riding• Active recreation, such as hiking, riding a self-propelled scooter, and swimming• Playing games that require catching and throwing, such as baseball, softball, and Frisbee
Vigorous (You can only say a few words before taking another breath)	<ul style="list-style-type: none">• Running• Bicycle riding• Active games involving running and chasing like tag and flag football• Jumping rope• Organized sports such as soccer, basketball, swimming, and tennis• Martial arts• Vigorous dancing

<p>Muscle-Strengthening (Anything that makes the muscles work harder)</p>	<ul style="list-style-type: none"> • Games like tug of war • Resistance exercises using body weight or bands (push-ups, squats, pull-ups, etc.) • Rope or tree climbing • Climbing and swinging on playground equipment like monkey bars • Some forms of yoga
<p>Bone-Strengthening (High impact, dynamic, short-duration activities)</p>	<ul style="list-style-type: none"> • Gymnastics • Hopping, skipping, and jumping • Running • Tumbling • Sports that involve a rapid change in direction, such as flag football, soccer, basketball, and martial art

SIDEBAR

PARENT EDUCATION

Physical activity strategies

The best activities are the ones that children enjoy, so ask them if they want to do more of a favorite one, or try something new. Keep in mind that anything is better than nothing, and small steps often lead to lasting changes. Here are some strategies that parents can try to encourage more daily activity for their children:

- Limit TV watching and screen time to two hours per day.
- Adopt low-cost or free activities, like playing at parks and recreation centers, community sports leagues, and after-school programs.
- Incorporate more child-friendly equipment and games that encourage activity into their daily life. For example:
 - Balance beams
 - Relay races
 - Bean bags
 - Hula hoops
 - Monkey bars
 - Climbing toys
 - Balls
 - Yoga mats
 - Obstacle courses

SIDEBAR

Wellness Tip

Do more family activities

Another way to help children be more active is to turn daily living experiences into fun family affairs. For example:

ACTIVITIES OF DAILY LIVING		
<ul style="list-style-type: none">• Walking the dog• Helping with household chores• Playing outside	<ul style="list-style-type: none">• Taking the stairs instead of the elevator• Gardening/yard work• Flying a kite	<ul style="list-style-type: none">• Helping wash the car• Walking or biking to/from school

Early Childhood: Ages 5-9

PILLAR TWO: NUTRITION

As with preschool-age kids, the most common nutrition-related causes of obesity in early childhood (ages 5 to 9) are drinking too many sugar-sweetened beverages, choosing high energy, low nutrient “junk foods,” consuming large portion size, and snacking too often.

Children in this age group should eat three meals and up to two healthy snacks a day at structured times. Families should focus on age-appropriate portion sizes and no sugar-sweetened beverages, like soda and juice drinks. In terms of fruit juice, the American Academy of Pediatrics suggests 4 to 6 ounces per day for children ages 4 to 6. For kids ages 7 and older, the advice is no more than 8 ounces, or 1 cup of the recommended 2 to 2.5 cups of fruit servings per day. Here is a breakdown of the recommended daily intake and portion sizes for early childhood:

Daily Intake:

- 6 ounces protein
- 2 to 3 cups of dairy
- 3 cups non-starchy vegetables
- 2 cups fruit
- No more than 1 ½ cups whole grains

Portion Sizes for Meals and Snacks:

Protein	2 ounce
Fruit	½ cup
Vegetable	½ to 1 cup
Dairy	1 cup
Grains	½ cup

SIDEBAR

Wellness Tips

Encourage parents to adopt the following healthy eating habits for their children, which can help curb the risk of obesity:

- Make healthy foods easily accessible. Keep the kitchen well stocked with whole fruits and vegetables and healthy snacks like nuts. See the handout “**25 Healthy Snacks**” for suggestions.
- Allow children to help with meal planning and preparation. The practice can teach them what foods and ingredients are healthiest.
- Whenever possible, eat meals as a family. Avoid watching TV and do not allow any distracting electronic devices at the table.
- Fill half of their plates with colorful whole fruits and vegetables.

- Provide water and milk to drink throughout the day, which helps children from filling up on junk food and processed snack.
- Meals and snacks should center around healthy proteins, vegetables, and fruits with less emphasis on grains.
- Offer dessert only on special occasions.
- Review food labels and avoid products with high amounts of added sugars. The American Heart Association recommends children should limit daily sugar intake to 12 to 25 grams.
- Reduce fast food meals.
- Praise children for trying new healthy foods.
- Don't tell children to "finish their plate," which can cause overeating. Instead, let them say when they are full.

SIDEBAR

Watch the carbohydrates

When a child has a body mass index (BMI) greater than the 95th percentile, the child's diet should limit carbs and focus more on low glycemic index foods, such as oats, quinoa, 100 percent whole-wheat pasta, and low-fat dairy foods. Low glycemic index foods can help control blood sugar levels and manage cravings. See the "Go-Slow-Whoa Plan" handout for more details.

Early Childhood: Ages 5 to 9

PILLAR THREE: BEHAVIORAL HEALTH

As children enter the early school-age years, from kindergarten to fourth grade, it is vital to help parents monitor and improve their child's behavioral, emotional, and social functioning. Anxiety and fears often develop during this age range. Additionally, it is essential to maximize social support for school-age children to promote positive coping skills, resiliency, and healthy lifestyle habits. These changes can protect children from emotional or chaotic eating that can raise their risk for weight gain.

Anxiety and fear is a natural part of the body's fight-or-flight response and protects us from possible danger. In some children, these feelings can arise during non-dangerous situations, like when teased at school and having parents go through a divorce. They also can occur during stressful situations, such as test-taking and speaking in front of the class.

Anxiety and fear can appear in many forms. For example:

- Constant worry about specific people, places, or events
- Afraid that something terrible or embarrassing may occur
- Frequent stomach or headaches
- Series of ritualized behaviors, such as rechecking locks, washing hands excessively, and counting or reciting phrases.

Managing anxiety and fear

Parents often need help with managing their children's anxiety and fears. Here are some strategies you can share with them.

- Never force your child to face a fearful situation all at once—throwing him or her into a swimming pool when afraid of water, for example—as this will often make the fear worse instead of better.
- Instead, encourage your child to approach fearful situations gradually. This tactic can help him or her breakdown the event into smaller, more manageable parts and help them progress at a less stressful pace. For example, if your child is afraid of a new family pet, suggest he or she first look at the animal from afar. When the child has less anxiety and feels more comfortable, he or she can slowly approach the animal. When the child feels more confident, they then can touch the animal.
- Help your child share his or her common fears and worries and offer solutions when those situations arise. For example, call a parent or seek help from a police officer or another adult if he or she is lost. If your child resists talking about their fears, ask him or her to write or draw about them.

- Do not provide false reassurance about your child's realistic fears. For instance, never say, "You will never throw up again" when your child fears getting sick. Instead, be truthful and explain why and how specific measures can prevent the feared event in the future, such as "That's why we take our vitamins to help keep our body healthy."
- Teach your child relaxation techniques to calm the mind and body when he or she feels anxious or afraid. Examples include deep breathing (inhale for three to four seconds and then exhale for four to six seconds) and squeezing a small stress ball.
- Praise your child when he or she overcomes any fear or anxiety. For example, say, "Great job reading your project to the class!" if he or she resists standing in front of people.
- Create bravery statements to help instill confidence, such as "I can do this!" and "I am strong and brave!" and have your child repeat them whenever he or she feels anxious.

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PARENT EDUCATION

Social Support

It's also essential for children in this age range to have adequate social support from family and friends. Positive social support helps with their emotional self-regulation. Parents can offer this kind of support in many ways. Examples include:

- **Emotional support:** Listen when your child shares their difficulties with you.
- **Practical help:** Help your child with basic daily chores, such as packing lunches and doing homework.
- **Sharing information:** Teach your child new facts and life skills.

Here are some other strategies parents can adopt to increase social support for their children.

- Enroll your children in extracurricular activities or sports. They do not need to be expensive activities either; for example, try school clubs, school sports, church youth groups, and volunteering.
- Keep your children active and engaged with their peers, like spending time with friends outside of school, attending birthday parties for friends and family, and going to school events.
- Practice social skills with children at home. For example, have them create a list of questions they may ask a new person ("Where are you from? How was your weekend?").
- Teach your children to be kind, caring, and considerate when interacting with others. Coach them on proper communication and social skills, like replying to questions, using polite language, and complimenting others.
- Encourage your children to invite friends over for play days or sleepovers. This kind of interaction helps parents monitor how their children socially interact, so they can provide additional support and coaching, as needed.

Early Childhood: Ages 5 to 9

PILLAR FOUR: SLEEP

Adequate sleep helps to reduce the risk of obesity for both adults and children.

The National Sleep Foundation recommends nine to 11 hours of sleep for children ages 6 to 9, although as few as seven hours and as much as 12 hours also may be appropriate. (Five-year-olds need 10 to 13 hours with as few as eight and as much as 14.)

Sleep disturbances often can keep this age group from getting their required rest. Two of the more common are sleepwalking and obstructive sleep apnea.

Sleepwalking. About 15 percent of children sleepwalk at some point. It is also more common among early school-age kids than any other age group as 6 percent have several sleepwalking events each week.

Sleepwalking is characterized by behaviors like sitting up in bed abruptly and navigating clumsily around the home. It typically occurs one to two hours after the onset of sleep during Sleep Stage IV when the deepest sleep occurs.


Safety is paramount in sleepwalking scenarios. Here is what parents should know if they experience their child sleepwalking:

- Secure windows and doors to the outside or any potentially hazardous areas. Installing safety alarms also may be necessary.
- A child is often unresponsive and difficult to arouse while sleepwalking. Do not force the child awake. Instead, redirect him or her to bed.
- Sleepwalking is sometimes associated with nocturnal enuresis (bed wetting).

Obstructive Sleep Apnea (OSA). OSA is a disorder in which a sleeping person experiences either partial upper airway obstruction for prolonged periods or complete upper airway obstruction intermittently.

OSA can occur in all age groups, but it is most common between the ages of 2 to 6. Children with OSA frequently snore with periodic pauses or gasps in their breathing. Snoring can disrupt their sleep and cause problems with attention, concentration, and daytime sleepiness.

Always screen children for snoring during wellness checks. Refer any child who snores three or more nights per week, and has any OSA symptoms, to a sleep medicine physician/sleep lab, or a pediatric ear, nose, and throat physician. A polysomnography—a test used to diagnose sleep disorders—can diagnose OSA.



School-age children who are overweight or obese are at higher risk for OSA, although this becomes more apparent in preadolescents and adolescents. OSA symptoms can improve with a healthier weight.

Children with OSA also may require an adenotonsillectomy as early childhood is when tonsils and adenoids are most massive relative to the size of the oropharynx.

Some children with OSA may need to use a Continuous Positive Airway Pressure (CPAP) machine at night. However, this is a second-line option for children who are not surgical candidates as it is often poorly tolerated.

PRE-ADOLESCENCE: Ages 10 to 14

PILLAR ONE: PHYSICAL ACTIVITY

Science continues to show that increased physical activity in pre-adolescence children (ages 10 to 14) can improve their cardiovascular and muscular fitness, and lead to higher bone mass and strength. The effect on bone health, in particular, is most significant around puberty and can benefit both boys and girls.

Besides helping to lower the risk of obesity and maintain a healthy weight, regular bouts of activity can enhance children's mental and emotional skills, such as cognition, memory, attention, and social and motor skills. Active children also tend to have higher academic performance, self-esteem, and quality of life.

Guidelines suggest this age group get 60 minutes or more per day of moderate-to-vigorous intensity activity. They also should spend at least three days per week doing specific muscle- and bone-strengthening exercises and more vigorous activity.

Here are some examples:

ACTIVITY LEVELS	TYPES OF ACTIVITY
Moderate- and Vigorous-Intensity Aerobic Activities (You breathe hard but still maintain a conversation)	<ul style="list-style-type: none">• Brisk walking• Bicycle riding• Active recreation, such as kayaking, hiking, and swimming• House and yard work, such as sweeping or pushing a lawnmower• Video games that include continuous movement
Vigorous (You can only say a few words before taking another breath)	<ul style="list-style-type: none">• Running• Bicycle riding• Active games that involve running and chasing like tag and flag football• Jumping rope• Cross-country skiing• Organized sports, such as soccer, basketball, swimming, and tennis• Martial arts• Dancing

<p>Muscle-Strengthening (Anything that makes the muscles work harder)</p>	<ul style="list-style-type: none"> • Playground games like tug of war • Resistance exercises using body weight or bands (push-ups, squats, pull-ups, etc.) • Rope or tree climbing • Some forms of yoga
<p>Bone-Strengthening (High impact, dynamic, short-duration activities)</p>	<ul style="list-style-type: none"> • Jumping rope • Running • Sports that involve a rapid change in direction, such as flag football, soccer, basketball, and martial arts

SIDEBAR

PARENT EDUCATION

Physical activity strategies

As with other age groups, pre-adolescence children are more likely to do activities they enjoy. If they need inspiration, work with them to find something they may like to try. Always be mindful that any movement is better than nothing, and 10 to 30 minutes of activity at first is okay. Here are some other strategies parents should adopt to encourage more daily activity:

- Limit TV watching and computer and phone time to two hours per day. Sedentary time is associated with poorer health outcomes and a higher risk of weight gain.
- Include more low-cost or free activities, like playing at parks and recreation centers, and joining community sports leagues and after-school programs. Not only do these outings save you money, but they also can expose your child to new friends and experiences.
- Children are more motivated to exercise when they see their parents doing the same. Organize more family activities; for example, lead neighborhood walks and trips to the park and bike together to school or the store instead of driving.
- Enlist your child's help with household chores, such as walking the dog, helping to wash the car, and assisting with yard work.

SIDEBAR

Wellness tip

Time for endurance and resistance

Physical endurance improves during the pre-adolescence years, which allows children to participate in longer and more sustained activities like organized sports. This age group also can begin light resistance training using exercise bands and dumbbells, depending on their skill and maturity level. Children should learn and understand proper form, technique, and body position to ensure they perform exercises correctly and avoid injury.

PRE-ADOLESCENCE: AGES 10 TO 14

PILLAR TWO: NUTRITION

The most common nutrition-related causes of obesity in pre-adolescence children are similar to other age groups: eating processed and fast foods, drinking sugar-sweetened beverages, consuming large portion sizes, and excessive snacking.

Pre-adolescents should eat three healthy meals and one-to-two snacks a day at structured times. Parents should focus on age-appropriate portion sizes and cut out or limit sugar-sweetened beverages, like soda and juice drinks. In terms of fruit juice, the American Academy of Pediatrics suggests no more than 8 ounces per day.

Here is a breakdown of the recommended daily intake and suggested meal portion sizes for pre-adolescence children:

Daily Intake:

- 9 ounces protein
- 3 cups dairy
- 3 cups non-starchy vegetables
- 2 cups fruit
- No more than 2 cups whole grains

Portion Sizes for Meals and Snacks:

Protein	3 ounce
Fruit	½ cup
Vegetable	½ to 1 cup
Dairy	1 cup
Grains	½ cup

SIDEBAR

Talk about healthy food choices

Since this age group eats more meals on their own—breakfast and lunch at school and snacks when they get home—encourage parents to speak with their children about how to make healthier choices. For example:

- Discuss the health risks of consuming sugar-sweetened beverages and foods with added sugar. The American Heart Association recommends children younger than age 18 consume no more than 25 grams of added sugar per day. Refer to the "**Rethink Your Drink**" handout for more information.

- Explain the benefits of consuming more whole fruits and vegetables and encourage them to try new ones and revisit foods they avoided in the past.
- Pre-adolescents sometimes can be swayed by food and diet trends and celebrity endorsements.
- Parents should teach their children how to identify trustworthy sources for nutrition information.
- Encourage children not to bow to peer pressure when eating with friends and instead make healthier selections, such as:
 - Drink water instead of soda or milkshakes
 - Watch portion sizes like large and “super” sizes
 - Choose grilled foods instead of fried or other breaded options
 - Avoid sauces packed with extra calories, salt, sugar, and fat

SIDEBAR

PARENT EDUCATION

Healthy eating strategies

Here are some ways to help your children and the entire family eat healthier:

- Meals and snacks should include healthy proteins with whole vegetables and fruits with less emphasis on grains.
- Choose low glycemic index foods, such as oats, quinoa, 100 percent whole-wheat pasta, and low-fat dairy foods. Low glycemic index foods can help control blood sugar levels and manage cravings.
- Make healthy foods easily accessible. Keep the kitchen well stocked with their favorite fruits and vegetables and healthy snacks. See the handout “25 Healthy Snacks” for suggestions.
- Serve desserts only on a special occasion and not with every dinner.
- Review food labels to look for hidden added sugar and other additives. See the “Nutrition Facts Label” handout for more information.
- Limit the number of fast-food meals.
- Whenever possible, eat structured meals as a family. Avoid TV viewing and keep phones and other electronic devices away from the table.

PRE-ADOLESCENCE: AGES 10 TO 14

PILLAR THREE: BEHAVIORAL HEALTH

Approximately 3 percent of children ages 3 to 17 have diagnosed depression, according to the Centers for Disease Control and Prevention. However, the condition is more likely to occur between the ages of 12 and 17.

As children enter pre-adolescence, it is essential to watch for early warning signs of depression to make appropriate treatment recommendations.

All children experience sadness at some point, especially after a significant stressor like the unexpected death of a pet or family member. It also can occur as a result of problems at school, like bullying and poor academic performance.

Depression may be an issue if sadness persists for an extended period, and there are behavioral changes, such as tearfulness, lack of interest in activities, low self-esteem, social withdrawal, and problems sleeping.

These symptoms of depression often can alter children's eating patterns, so they eat larger portions or engage in more frequent emotional eating, like eating to cope with negative feelings, which can lead to weight gain and increase their risk of obesity. However, it is important to note that children with depressive symptoms also may begin to eat significantly less, which is a risk factor for future disordered eating and health problems.

Providers should encourage parents to take their child to a therapist and/or psychiatrist if there is any concern for depression. Cognitive-behavioral therapy and interpersonal therapy are the recommended evidence-based treatments for childhood depression.

SIDEBAR

Watch for eating pattern changes

It is common for depression or prolonged sadness to affect eating behavior and body image. For children without mental health concerns, disordered eating can often emerge during pre-adolescence. Therefore, you want to be mindful of the following warning signs and symptoms:

- Preoccupation with weight, food, and calories
- Refusal to eat certain foods (the child may begin with specific foods and then restrict whole categories, like no carbs, no sugar, and no dairy)
- Appears uncomfortable eating around others
- Frequent dieting
- Skipping meals or eating smaller than usual portions
- Difficulty controlling portions
- Hiding or sneaking extra food, like eating in the bedroom or when others are not around
- Compensatory behaviors, such as excessive exercise, purging food, restrictive eating, and taking laxatives or diet pills

- Shame and guilt associated with eating “too much” or eating unhealthy or undesirable foods
- Withdrawal from friends and activities
- A concern with body size and shape
- Frequently comparing their body to others

SIDEBAR

PARENT EDUCATION

Help your child during low times

Children often need support and encouragement during rough patches. Here are some ways you can help them process their emotions and improve their mood.

- Encourage children to talk about their feelings and provide age-appropriate support and comfort (for instance, “I miss Grandma, too. It’s okay to miss her”).
- Let them talk when you are alone together. Children may feel embarrassed to discuss their feelings when others are around.
- Teach them how to express emotions by labeling and discussing your feelings of sadness. For instance, “I’m feeling sad right now because this didn’t work out how I planned it.”
- Suggest that your child write about his or her feelings in a journal or draw pictures about what makes them feel sad.
- Schedule a daily fun activity. It can be something simple, like listening to music, doing arts and crafts, or playing a board game. You also could take them somewhere like the park, pool, or museum. Let your child choose the activity.
- Build your child’s confidence. Give them a chore or task and then offer praise when it is completed, like “Thank you for putting your clothes away. That was a big help!”
- Let your child be a mentor. Pair him or her with younger or less-experienced children on a game or activity. This interaction gives your child a chance to lead and teach, which can improve self-esteem.
- Get active with your child. Take him or her for a walk or play an outdoor game. Regular exercise can help improve your child’s mood.
- Consult with teachers and school administrators if your child’s sadness appears to be because of bullying or other school problems.

PRE-ADOLESCENCE: 10-14 YEARS

PILLAR FOUR: SLEEP

As with the other age groups, adequate sleep is essential to reduce the risk of obesity for pre-adolescence children ages 10 to 14. The National Sleep Foundation recommends they get nine to 11 hours of sleep nightly.

This group can encounter the same sleep disturbances as when they were younger, especially obstructive sleep apnea, but also may have sleep difficulties from excessive screen time from TVs, phones, laptops, and tablets. Here is how both can interfere with their sleep.

Screen time. Overexposure to screen time is a constant issue with all school-age children; however, it is more relevant among pre-adolescents as they become tech-savvy and more interested in social media. One [study](#) found that 89 percent of adolescents have at least one electronic device in their bedroom, and most use it close to bedtime.

Much research has shown that too much screen time during the day, especially before sleep, can affect sleep duration and quality. Two possible reasons are psychological stimulation from social media and the Internet, and exposure to blue (short wavelength) light emission from screens, which can disrupt the body's natural circadian rhythm and suppress the sleep hormone melatonin. Parents can address these problems by monitoring their children's daily screen time and blocking all electronic devices at least two hours before bedtime.

Obstructive Sleep Apnea (OSA). OSA is a disorder in which a sleeping person experiences either partial upper airway obstruction for prolonged periods or complete upper airway obstruction intermittently.

Children with OSA frequently snore with periodic pauses or gasps in their breathing. Snoring can disrupt their sleep and cause problems with attention, concentration, and daytime sleepiness.

Overweight or obese children are at higher risk for OSA, yet symptoms often improve when children maintain a healthier weight.

Always screen children for snoring during wellness checks. Refer any child who snores three or more nights per week, and has any OSA symptoms, to a sleep medicine physician/sleep lab, or a pediatric ear, nose, and throat physician. A polysomnography—a test used to diagnose sleep disorders—can diagnose OSA.

Some children with OSA may need to use a Continuous Positive Airway Pressure (CPAP) machine at night. However, this is a second-line option for children who are not surgical candidates as it is often poorly tolerated.

ADOLESCENCE: Ages 15 to 18

PILLAR ONE: PHYSICAL ACTIVITY

Guidelines suggest adolescents ages 15 to 18 get 60 minutes or more per day of moderate-to-vigorous intensity activity. This doesn't need to be done all at once and can be broken down into several segments throughout the day.

They also should spend at least three days per week performing muscle- and bone-strengthening exercises and more vigorous activity. These activities can include everything from recreational games and organized sports to around-the-house chores and structured workouts with exercise equipment.

Adolescents who do regular exercise are more likely to maintain a healthy weight and avoid excess adiposity. Frequent bouts of activity also increase many aspects of their health, such as cardiorespiratory fitness, muscle growth, and bone strength. Active adolescents also tend to perform better in school and have higher self-esteem, a lower risk of depression, and enjoy a better quality of life.

Here are examples of the different types of activities adolescents can do to meet their daily and weekly quotas. Also, be mindful that any amount of movement is better than nothing, and doing 10 to 30 minutes at first is fine. Small steps can lead to lasting change.

ACTIVITY LEVELS	TYPES OF ACTIVITY
Moderate- and Vigorous-Intensity Aerobic Activities (You breathe hard but still maintain a conversation)	<ul style="list-style-type: none">• Brisk walking• Bicycle riding• Active recreation, such as kayaking, hiking, and swimming• House and yard work, such as sweeping or pushing a lawnmower• Video games that include continuous movement
Vigorous (You can only say a few words before taking another breath)	<ul style="list-style-type: none">• Running• Bicycle riding• Active games that involve running and chasing like tag and flag football• Jumping rope• Cross-country skiing• Organized sports, such as soccer, basketball, swimming, and tennis• Martial arts• Dancing

Muscle-Strengthening (Anything that makes the muscles work harder)	<ul style="list-style-type: none"> • Resistance exercises using bodyweight, bands, weight machines, and free weights • Some forms of yoga • Climbing
Bone-Strengthening (High impact, dynamic, short-duration activities)	<ul style="list-style-type: none"> • Jumping rope • Running • Sports that involve a rapid change in direction, such as flag football, soccer, basketball, and martial arts

SIDEBAR

Strategies to increase physical activity

It can be a challenge to keep teens active. Here are some plans to share with parents about how to motivate their adolescents:

- Restrict screen time to two hours per day. TV watching and screen time are associated with a higher risk of weight gain and poor overall health.
- The best activities for adolescents are the ones they enjoy, so work together to find something they want to explore.
- Replace sedentary behavior with activity whenever possible. This can include many at-home chores, such as walking the dog, helping with yard and garden work, and washing the car.
- Include low-cost or free activities at recreation centers, community sports leagues, and after school programs.
- Encourage activities that don't require equipment, like running or doing calisthenics.
- Overweight or obese adolescents benefit from non-weight bearing exercise, such as riding a stationary bike, doing resistance training (see below), or adopting a simple walking program.

SIDEBAR

PARENT EDUCATION

Lead by example

Kids are more motivated to exercise if their parents follow an active lifestyle, so lead by example. You can further encourage them by planning active family outings, such as bike rides (especially to places a short drive away, like the library or grocery store), neighborhood walks, and hikes in the park.

SIDEBAR

Wellness tip

Try resistance training

Adolescence is an ideal time to begin resistance training as it can help build growing muscle and bone as well as increase activity time. Resistance training can include exercises with weight machines, free weights, kettlebells, resistance bands, and even bodyweight. What kind of workout program teens adopt depends on their physical level and whether they also play a specific sport. Parents can help by signing up for a family or individual gym membership. It also is important that teens learn proper form and technique to avoid injury. Encourage parents to teach their adolescents how to perform specific exercises, or suggest they hire a personal trainer. Another option is for parents to explore physical education courses at their children's high school as many offer weightlifting classes.

Adolescence: Ages 15 to 18

PILLAR TWO: NUTRITION

The most common nutrition-related causes of obesity among adolescents is not much different than the younger age groups. These include consuming too many high-calorie sugar-sweetened beverages, eating “super-size” portions, and relying on low nutrient “junk foods.”

Teenagers also have more autonomy and independence as they begin to drive and spend more time away from home. As a result, they are exposed to unhealthy temptations, such as fast food, vending machine snacks, and fad diets.

Teenagers need to follow a similar balance of daily nutrients as other children. Here is a breakdown of the recommended daily intake and suggested meal portion sizes for adolescents:

Daily Intake:

- 11 ounces protein
- 3 cups dairy
- 3 cups non-starchy vegetables
- 2 cups fruit
- No more than 2 cups whole grains

Portion Sizes for Meals and Snacks:

Protein	3 ounce
Fruit	½ cup
Vegetable	½ to 1 cup
Dairy	1 cup
Grains	½ cup

Since teenagers often eat more meals on their own, or outside the home, encourage parents to speak with their adolescent about how and why to make healthier nutrition choices. Here are the main topics parents should address:

- Discuss the health risks of consuming sugar-sweetened beverages and foods with added sugar. The American Heart Association recommends children age 18 and younger consume no more than 25 grams of added sugar per day. Refer to the “Rethink Your Drink” handout for more information about how to curb high-sugar drinks.
- Explain the benefits of consuming more whole fruits and vegetables and encourage them to try new ones and revisit foods they avoided in the past.
- Explore different cooking methods. If children do like steamed broccoli, they may enjoy roasted broccoli.

- Teach children how to identify trustworthy sources for nutrition information, so food trends and marketing health claims won't tempt them.
- Help children make healthier choices when eating with friends at school and in restaurants, such as:
 - Drink water instead of soda or milkshakes
 - Choose smaller portion sizes instead of large and "super" size
 - Select grilled or steamed foods instead of fried or breaded options
 - Avoid meals that come with sauces packed with extra calories, salt, sugar, and fat. Instead, ask that they are left out or placed on the side.

SIDEBAR

PARENT EDUCATION

Healthy eating strategies

Children are much more likely to eat healthier if they see their parents also follow good nutritional habits. Here are some ways to help both you and your teenager eat healthier at home:

- Meals and snacks should include healthy proteins with whole vegetables and fruits with less emphasis on grains.
- Choose low glycemic index foods, such as oats, quinoa, 100 percent whole-wheat pasta, and low-fat dairy foods. Low glycemic index foods can help control blood sugar levels and manage cravings.
- Make healthy foods easily accessible. Keep the kitchen well stocked with their favorite fruits and vegetables and healthy snacks. See the handout "25 Healthy Snacks" for suggestions.
- Serve desserts only on a special occasion and not with every dinner.
- Review food labels to look for hidden added sugar and other additives, and show teenagers how to do the same. See the "Nutrition Facts Label" handout for more information.
- Limit the number of fast-food meals.
- Whenever possible, eat structured meals as a family. Keep distractions away from the table, such as TV watching, phones, and other electronic devices. This helps avoid overeating as everyone is more focused on their food.

ADOLESCENCE: Ages 15 to 18

PILLAR THREE: BEHAVIORAL HEALTH

Several behavioral factors during adolescence can raise the risk of disordered eating and contribute to weight gain and obesity. These include depression and anxiety, a poor relationship with food, and substance use like drugs and alcohol. Here is a look at each one.

Depression and anxiety

Approximately 3 percent of children ages 3 to 17 have diagnosed depression, according to the Centers for Disease Control and Prevention. However, the condition is more likely to occur between the ages of 12 and 17.

Depression and anxiety can arise from stressors like the unexpected death of a family member and problems at school, like bullying and poor grades. Depression may be an issue if sadness persists for a long time, and there are other behavioral changes, such as tearfulness, lack of interest in activities, low self-esteem, social withdrawal, and problems sleeping.

Depression and anxiety symptoms can alter children's eating patterns. They may eat larger portions or eat significantly less. You want to be mindful of the following warning signs and symptoms of disordered eating:

- Preoccupation with weight, food, and calories
- Refusal to eat certain foods (the child may begin with specific foods and then restrict whole categories, like no carbs, no sugar, and no dairy)
- Appears uncomfortable eating around others
- Frequent dieting
- Skipping meals or eating smaller than usual portions
- Difficulty controlling portions
- Hiding or sneaking extra food, like eating in the bedroom or when others are not around
- Compensatory behaviors, such as excessive exercise, purging food, restrictive eating, and taking laxatives or diet pills
- Shame and guilt associated with eating “too much” or eating unhealthy or undesirable foods
- Withdrawal from friends and activities
- A concern with body size and shape
- Frequently comparing their body to others

SIDEBAR

PARENT EDUCATION

Help your child during low times

Children often need support and encouragement during tough times. Here are some ways you can help them process their emotions and improve their mood.

- Let them talk when you are alone together. Children may feel embarrassed to discuss their feelings when others are around.
- Encourage children to talk about their feelings and provide support and comfort; for instance, “I miss Grandma, too. It’s okay to miss her.”
- Teach them how to express emotions by labeling and discussing your feelings of sadness. For example, “I’m feeling sad right now because this didn’t work out how I planned it.”
- Suggest that your child write about his or her feelings in a journal or draw pictures about what makes them feel sad.
- Schedule a fun activity. It can be something simple, like listening to music, doing an art project, or playing a board game. You also could take them to the park, pool, or museum. Let your child choose the activity.
- Build your child’s confidence. Give them a chore or task and then offer praise when it is completed, like “Thank you for putting your clothes away. That was a big help!”
- Let your child be a mentor. Pair him or her with younger or less-experienced children on a game or activity. This interaction gives your child a chance to lead and teach, which can improve self-esteem.
- Get active with your child. Take him or her for a walk or play an outdoor game. Regular exercise can help improve your child’s mood.
- Consult with teachers and school administrators if your child’s sadness is related to bullying or other school work.

Poor food relationship

Parents can help teens improve their relationship with food, and lower their risk of disordered eating, by encouraging healthy eating habits during mealtimes. Here are some strategies to share with parents:

- **Be consistent:** Sit down to family dinners regularly, so teens view eating as a social event.
- **Stay positive.** Do not discuss eating healthy during meals, such as suggestions for meals and snacks, and how much to eat. Instead, have these conversations away from the table.
- **Offer encouragement.** Praise the adolescent’s effort to eat healthy rather than what they accomplished; for instance, say, “I’m proud of you. I can tell you worked hard.”

SIDEBAR

TEEN EDUCATION

How to be mindful about eating

Adolescents can protect themselves from disordered eating by practicing mindful eating. For example:

- **Focus on the present.** Don’t dwell on the past (what you previously ate) or worry about the future (how much weight you want to gain or lose). Focus only on the meal you are about to enjoy.

- **Announce intentions.** Tell family and friends about your new healthy changes. For example, “I’m going to eat two vegetables at dinner tonight,” and “I’m packing a healthy lunch for school tomorrow.”
- **Self-compassion.** Use kind words to block your inner critic. Examples include: “I can do it,” “It’s okay,” “I’ll make a better decision at the next meal,” “I’m proud of myself for making ____ (healthy choice).”
- **Invest in support.** Exercise at the gym, play sports with friends, and cook with siblings and parents.
- **Own your fears:** Focus on addressing obstacles. For instance, if you tend to overeat, cut back on portions, or eliminate foods you often overindulge or do stress-relief activities before eating.
- **Look at the big picture.** Remind yourself how you feel after making healthier choices like proud, confident, and in control.

SIDEBAR

PARENT EDUCATION

Encourage greater teen participation with meals

Another way parents can instill healthy eating habits is to involve their adolescents with family meals. This type of interaction also improves their relationship with food since they have more input on food selection and meal preparation. Encourage parents to approach this team effort in stages where the adolescent and parent work together to complete a food task or activity and then progress to the teen taking over while the parent supervises. Here are some examples parents and adolescents can follow:

Meal planning

- Create a weekly meal plan together. Parents can ask for the adolescent’s input and provide feedback about healthy meals.
- During the planning, the parent should encourage discussion about healthy choices.
- Allow the adolescent to write down the meals on a weekly calendar.

Grocery shopping

- Create a shopping list using the meal plan as a guide.
- Both parents and adolescents should grocery shop together.
- Allow the adolescent to take the lead during shopping, but encourage him or her to stick to the list.
- Eventually, allow the adolescent to drive to the store (if they have a license) and shop themselves.

Meal prepping and cooking

- The parent should teach necessary cooking skills, such as chopping, slicing, and cutting, and how to measure portion sizes.
- At first, have the adolescent do meal specific prep tasks, like chopping bell peppers or cooking pasta.

- As the adolescent gets more comfortable, have him or her take on more meal prep and cooking tasks with parent supervision as needed.

Substance use

Encourage families to adopt lifestyle strategies to help reduce the risk of substance use, such as alcohol and drugs, which can contribute to disordered eating. Here are some suggestions:

- **Create an open environment.** The family environment should encourage open dialogues, so teens feel comfortable discussing substance use without fear, guilt, or remorse.
- **Talk freely about substance use.** Discuss the effects of drugs and alcohol using facts and not emotion. Encourage your adolescent to ask questions.
- **Engage in their adolescent's life.** Parents should always talk with their teens about their daily lives, including their school life and friends.
- **Support and acknowledge academic success.** Parents should supervise their school work, help with homework and studying, and assist with educational support like personal tutors or in-school tutoring programs if needed.
- **Encourage teens to stay socially active.** Parents should help them participate in school clubs, organized sports, community events, volunteer programs, or church activities.

ADOLESCENCE: AGE 15 to 18

PILLAR FOUR: SLEEP

The National Sleep Foundation and the American Academy of Sleep Medicine both recommend that teenagers ages 15 to 18 get eight to 10 hours of sleep per night; seven to 11 hours also may be appropriate, although this is less than ideal.

[Studies](#) show that 73 percent of high school students do not get enough sleep. African-American and Asian teenagers get the least amounts of sleep. Girls often sleep less than boys.

Research also has shown that children who sleep less than the recommended amounts are at a higher risk for obesity. According to one [study](#), sleeping fewer than 7.5 hours each night increases the risk of obesity three-fold compared with sleeping nine or more hours.

It also matters what time adolescents go to sleep. Teens who go to bed earlier (closer to 9 p.m.) tend to have healthier weights than those who stay up later (closer to 11 p.m.), even if they sleep the same number of hours.

Poor sleep can affect teens in other ways, like poor school performance and a higher likelihood of drowsy driving, which can be as dangerous as drinking and driving. Lack of sleep also can impair their judgment and make them more likely to engage in risk-taking behavior.

There are many reasons for poor sleep among adolescents. Two of the most common are shifting circadian rhythm and overusing electronic devices.

A shifting circadian rhythm. Children's circadian rhythm changes as they age and makes them naturally prefer a delayed sleep phase during their teenage years. This shift is why teenagers stay awake longer and wake up later. Their circadian rhythm can be affected by personal habits, such as caffeine consumption and irregular bedtimes, like staying up too late and sleeping in on weekends.

Screen time. Teenagers spend more time with electronic devices, like phones, laptops, and tablets, than any other age group. All that screen exposure can affect their sleep quality. The most common causes, according to much research, are mental and emotional stimulation from browsing social media and the Internet, and over-exposure to blue (short wavelength) light emissions from screens, which can further disrupt their natural circadian rhythm.

Both parents and teens should learn how to follow better healthy sleep hygiene. For example:

- Teens should watch their caffeine consumption during the day and don't consume any caffeine drinks or foods at least two hours before bedtime.
- Teens should follow regular sleep schedules, especially during the school week, and avoid staying up too late.
- Parents should make efforts to curb their teen's screen time at home, such as ban phones and tablets during meals, and cut off all screen time at least an hour before bedtime.

SIDEBAR

Check for Obstructive Sleep Apnea (OSA)

OSA also can affect sleep quality in teenagers. OSA is a disorder in which a sleeping person experiences either partial upper airway obstruction for prolonged periods or complete upper airway obstruction intermittently.

With OSA, teens frequently snore with periodic pauses or gasps in their breathing. Snoring can disrupt their sleep and cause problems with attention, concentration, and daytime sleepiness.

Overweight or obese children are at higher risk for OSA, but OSA symptoms often improve when children maintain a healthier weight.

Always screen children for snoring during wellness checks. Refer any child who snores three or more nights per week, and has any OSA symptoms, to a sleep medicine physician/sleep lab, or a pediatric ear, nose, and throat physician. A polysomnography—a test used to diagnose sleep disorders—can diagnose OSA.

Some children with OSA may need to use a Continuous Positive Airway Pressure (CPAP) machine at night. However, this is a second-line option for children who are not surgical candidates as it is often poorly tolerated.