

American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Calcium: An Important Part of a Healthy Body

As you grow, you need calcium to build a healthy body. It keeps you strong so you can do well at things like sports, dancing and school activities.

Getting plenty of calcium while you are young also makes you strong and keeps you looking good for your entire lifetime.

In fact, your body's need for calcium is very high between the ages of 9 and 18 years. However, most young people in the United States do not get enough calcium in their diets.

Calcium is a mineral that many parts of your body require. Its main job is to build strong bones and teeth. About 99 percent of your body's calcium is in your bones and teeth. A very small amount of calcium is in body fluids, such as blood. But this small amount performs vital functions, including the following:

- Keeping a strong heart beat
- Controlling blood pressure
- Making muscles move
- Helping blood clot
- Sending nerve messages

If you make the right choices, the food you eat will provide the calcium you need. If you do not get enough calcium, your body will take calcium from your bones to support other vital functions, weakening the bones.

Although bones may appear lifeless, they are alive and growing. Existing bone constantly is being renewed through a process called remodeling. Your body needs a good supply of calcium to fuel this process.

Bones serve as a "bank" for calcium. When you are young, your body can deposit calcium in your "bone bank" by increasing your bone density. Density means how closely packed together the materials in your bones are. Dense bones are strong bones.

As you get older, you lose the ability to bank calcium. By the time you reach about 30 years of age, your bones reach their peak bone density. That means your bones are as dense (or packed with calcium) as they will get — for life.

After that time, you can no longer deposit extra calcium in your bone bank. Instead your body withdraws calcium from your bone bank.

American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Nutritional Needs of School-Age Children

Is your child eating a healthy diet?

Proper nutrition is one of the most important influences on your youngster's well-being. A varied, balanced diet-containing vitamins, minerals, protein, carbohydrates, and even some fat-promotes growth, energy and overall health.

Food preferences are developed early in life, mostly during early and middle childhood. Once they are established, they are hard to break. Thus, the earlier you encourage healthful food choices for your child, the better.

From early on, your child will watch you for clues to proper food choices. She will copy many of your habits, likes and dislikes. During the middle years, the model you provide at home will be extremely important in both guiding and reinforcing good eating habits. However, as children spend many hours a day away from home, in school and with friends, a variety of social and other factors influence what and when children eat. As they hurry to catch the school bus in the morning, they may speed through breakfast, leaving a half-full plate as they rush out the door. For lunch at school - despite the school's effort to offer healthy choices - youngsters might choose high-fat or sugar-laden foods that do not contribute to a balanced diet. They also might become much more susceptible to pressures from friends to choose soft drinks rather than milk, or a candy bar instead of fresh fruit.

Even at this young age, children in competitive sports may be misled by a Little League coach or other authority figure to adopt certain questionable eating habits, on the premise that these might improve performance. A major influence on children is television advertising, which often promotes unhealthy food selections.

Monitoring Food Needs

In general, it is the parents' job to monitor what their child eats, while the child is in the best position to decide how much to eat. Normally, healthy and active children's bodies do a good job of "asking" for just the right amount of food, although their minds may lead them astray when choosing which foods to eat.

You can easily overestimate the amount of food your child actually needs, especially during the younger years of middle childhood. Youngsters of this age do not need adult-sized servings of food. However, if you are unaware of this, you might place almost as much food on your child's plate as on your own. As a result, your child must choose between being criticized for leaving food on his plate, or for overeating and running the risk of obesity.

Weighing your children occasionally is one way for you to monitor your youngsters' nutrition. There is rarely a reason for you to count calories for your children, since most youngsters control their intake quite well. As the middle years progress, children's total energy needs will increase and thus their food intake will rise, especially as they approach puberty. Between ages 7 and 10, both boys and girls consume about 1,600 to 2,400 calories per day, although caloric needs obviously vary considerably even under normal circumstances. Most girls experience a significant

increase in their growth rate between ages 10 and 12 and will take in about 200 calories more each day, while boys go through their growth spurt about two years later and increase their food intake by nearly 500 calories a day. During this time of rapid growth, they will probably require more total calories and nutrients than at any other period in their lives - from calcium to encourage bone growth, to protein to build body tissue.

At most ages boys require more calories than girls, primarily because of their larger body size. But appetites can vary, even from day to day, depending on factors like activity levels. A child who spends the afternoon doing homework, for example, may have fewer caloric needs than one who plays outdoors after school. Every child's caloric needs are different.

Picky Eaters

Some parents worry that their child is not eating as much as she should. However, even with what seems to be relatively low food intake, children can grow at normal rates. Some children simply do not eat as much as their peers. Their appetite may not be as large, and/or they may be finicky eaters, unwilling even to taste certain types of foods.

At one time or another these characteristics seem to be a normal part of middle childhood. You do not usually have to worry that this frustrating behavior is impairing her growth. Appetites may fluctuate as youngsters grow. Even within the same family, brothers and sisters may vary considerably in the amounts and types of food they desire. Generally, children increase their food consumption considerably as they enter the growth spurts associated with puberty; until then, however, a child's appetite may be unpredictable.

Some children are less open to trying new foods than others. You might have more success introducing new foods as part of familiar foods that your child already enjoys. For instance, a child who dislikes hot cereal may be more receptive if you add bananas or raisins to it. While she may not enjoy cooked carrots, she still might eat them when they are part of a stew, meat loaf or soup. Do not fall into the trap of feeling she will starve and thus give in to her desire for junk food. Avoid special rewards or strong, coercive encouragement for trying something new ("You're going to bed early tonight unless you try the chicken!"). If you introduce foods in a confrontational way, you and your child may become caught up in a battle, and she may stubbornly resist these foods even more. Offering rewards for particular foods may give your youngster the impression that the food would otherwise be undesirable.

As frustrating as your child's picky eating habits may be, keep in mind that you, too, may have foods you like and dislike. In general, youngsters outgrow these food preferences without any harm to their physical well-being.

In most cases, go along with your child's wishes, as long as she likes enough foods to achieve a balanced diet. In our relatively affluent society severe malnutrition is uncommon. Nevertheless, when a child's caloric intake is severely restricted - as in an eating disorder, or during a chronic illness - then her development and her overall health can be seriously harmed. Certainly if your child is losing weight, discuss this situation with your doctor.

Excerpted from "[Caring for Your School-Age Child: Ages 5-12](#)" Bantam 1999

© Copyright 2000 American Academy of Pediatrics



Fitness and Your 6-12 Year Old

Fitness that begins in childhood is a lifelong investment. The regular habit of exercise is important to develop during this stage to prevent obesity. Kids should learn to develop exercise as a lifelong habit. Studies have shown that children who participate in fitness activities continue to stay active throughout their lives. In addition, regular physical activity helps your child to play and meet challenges, and it's perfect for children of all ages.

Part of committing your child to fitness is limiting your own excessive computer or television time, as well as becoming a role model by getting regular exercise on your own or with your children. Moms or dads can show children the importance of sports activities by playing along, coaching teams, or simply coming out to support their child's games. Remember that you are your child's best role model, so always pay attention to safety in sports and recreation.

Physical Fitness and Chronic Health Conditions

Children with chronic health conditions and disabilities should not be excluded from fitness activities; they receive the same positive benefits from exercise. Some activities may need to be modified or adapted to your child's disability. Certain activities are dangerous for some health conditions. Consult your child's doctor about the safety of fitness activities for your child with a disability.

What exercises can kids in this age group do to stay fit?

As children develop, so do their abilities to participate in a variety of sporting activities. Elementary-school-aged children, particularly those between the ages of 10 and 12, are poised for new learning experiences and have the ability to absorb new skills required for both team and individual sports quickly.

Even children who prefer not to participate in organized teams need regular exercise. Any number of noncompetitive sports, such as swimming, ice-skating, gymnastics, dance and nonviolent martial arts, can help keep your child healthy and fit. At age 11, children who are interested may begin to lift light weights (under supervision) to build muscle to help prevent future sports injuries.

What should parents do if they're concerned about their child's fitness?

If your child refuses to participate in any fitness activity, it can be an indication of a physical or psychological problem. Children who complain of pain when they play or consistently refuse to join other children in outdoor play may need to be seen by a doctor. Even a shy child needs to play with other kids.

Once children begin to participate in sports, injuries may occur. Many of these arise from the overuse of certain muscles, or because children's skeletal and muscular systems are not yet fully developed. These growing muscles, ligaments and tendons are vulnerable to injury. During puberty, which can begin as early as 8 1/2 years in girls and 9 years in boys, children experience

a growth spurt, when bones grow more quickly than muscles and tendons, making muscles and tendons short, tight and easily injured.

In addition, preteens going through puberty may also become less coordinated as they adjust to their physical changes, which can increase the risk of injury. Although many injuries will respond to RICE (Rest, Ice, Compression and Elevation) if your child seems to be in severe pain or the injury doesn't seem to be getting any better, you should see your child's doctor. Appropriate warm-ups and stretching will decrease the chance of muscle and tendon injury.

Young athletes, particularly those in gymnastics, wrestling or dance, may develop eating disorders. If your son or daughter refuses to eat certain food groups (such as fats), becomes overly concerned with their body image, or experiences a sudden loss or gain in weight, you should talk to your child about your concerns. If your child doesn't respond to your discussion, consult your child's doctor. Early intervention is vital.

Family Fitness Tips

Any number of activities can be incorporated into a family fitness activity. Walking, bike riding, camping and hiking provide opportunities for fitness and fun. Tennis, skiing, dancing and ice-skating offer children a chance to build skills in sports that can bring them pleasure for a lifetime.

Whether children are participating in sports or individual fitness activities, safety should be paramount. When engaging in family fitness outings, keep these tips in mind:

- Parents should be sure that kids always wear safety helmets when on wheeled vehicles.
- Young athletes should be taught the importance of stretching their growing muscles before any strenuous physical activity to prevent tears and strains.
- Your child's coach or trainer should be familiar with how to deal with injuries such as concussions. Children who have had even a mild concussion and who did not lose consciousness may only be confused, but may still be at risk of serious injury if they have another concussion before complete recovery.
- Always apply sunscreen when playing outdoors, even on overcast days.
- One common activity that is not recommended is the use of trampolines. The American Academy of Pediatrics recommends that all trampolines, including home trampolines, be avoided due to the high number of injuries at all ages.

© Copyright 1999 American Medical Association. All rights reserved.



Puberty Information for Boys

Girls are not the only ones who go through changes during puberty. Puberty for boys usually starts with a growth spurt at about 10 to 16 years of age. You may notice that you grow out of your clothes or shoes a lot faster than you used to. Don't worry, just as with girls, your hormones will balance out and your body will catch up.

How will my body change?

Following are some other changes you will notice during puberty:

Body size:

Arms, legs, hands, and feet may grow faster than the rest of your body. Until the rest of your body catches up, you may feel a little clumsy.

Body shape:

You will get taller and your shoulders will get broader. You will gain a lot of weight. During this time, many boys experience swelling under their nipples. This may cause them to worry that they are growing breasts. If you experience this, don't worry. It is common among boys your age and is a temporary condition. If you are worried about it, talk to your pediatrician.

During puberty, your muscles will also get bigger. Try not to rush this part of your growth. You may have friends who work out with weights and equipment to build up muscles, and you may want to begin this type of training yourself - often before your body is ready for it. If you are interested in these activities, talk to your pediatrician about a safe time for you to begin weight training.

Voice:

Your voice will get deeper. This may start with voice cracking. As you continue to grow, the cracking will stop and your voice will stay at the lower range.

Hair:

Hair will appear under your arms, on your legs and face, and above your penis. Chest hair may appear during puberty or years after, although not all men have chest hair. Some men shave the hair on their faces. There is no medical reason to shave, it is simply a personal choice. If you decide to shave, be sure to use shaving cream and a clean razor made for men. It is a good idea to use your own personal razor or electric shaver and not to share one with your family or friends.

Skin:

Skin may get more oily and you may notice you perspire more. This is because your glands are growing too. It is important to wash every day to keep your skin clean and to use a deodorant or antiperspirant to keep odor and wetness under control. Despite your best efforts to keep your

face clean, you still may get pimples. This is called acne and is normal during this time when your hormone levels are high. Almost all teenage boys get acne at one time or another. Whether your case is mild or severe, there are things you can do to keep it under control. For more information on controlling acne, talk to your pediatrician.

Penis:

Your penis and testes will get larger. You may have erections more often due to an increase in sex hormones. Erections occur when the penis gets stiff and hard - sometimes for no reason. This is normal. Even though you may feel embarrassed, try to remember that most people will not even notice your erection unless you draw attention to it. Many boys become concerned about their penis size; a boy may compare his own penis size with that of his friends. It is important to remember that the size of a man's penis has nothing to do with his manliness or sexual functioning.

Your body will also begin to produce sperm during puberty. This means that during an erection, you may also experience ejaculation. This occurs when semen (made up of sperm and other fluids) is released through the penis. This could happen while you are sleeping. You might wake up to find your sheets or pajamas are wet. This is called a nocturnal emission or "wet dream." This is normal and will stop as you get older.

© Copyright 2000 American Academy of Pediatrics



Puberty Information For Girls

Puberty is the time in a girl's life when her body changes from that of a young girl to that of a woman. It is also the time when a girl becomes physically able to have babies. Although there is no "right" time for puberty to begin, it generally starts earlier for a girl than it does for a boy - usually between 9 and 13 years of age. This is why many girls are taller and may act more mature than boys for a few years until the boys catch up.

How will my body change?

Following are some of the changes your body will go through during puberty:

Breasts:

In most girls, puberty starts with breast growth. When your breasts start to develop, you may notice small, tender lumps under one or both nipples that will get bigger over the next few years. When breasts first begin to develop, it is not unusual for one breast to be larger than the other. However, as they develop, they will most likely even out before they reach their final size and shape.

As your breasts develop, you may need a bra. Some girls feel that wearing a bra for the first time is exciting - it is the first step toward becoming a woman! However, some girls feel embarrassed, especially if they are among the first of their friends to need a bra. If the people around you make a bigger deal of your first bra than you would like, try to remember that they do not mean to embarrass you, they are just proud of how much you have grown.

Hair:

Soft hair will start to grow in the pubic area (the area between your legs). This hair will eventually become thick and very curly. You may also notice hair under your arms and on your legs. Many women shave this hair. There is no medical reason to shave, it is simply a personal choice. If you decide to shave, be sure to use a lot of soap and water and a clean razor made for women. It is a good idea to use your own personal razor or electric shaver and not to share one with your family or friends.

Body shape:

Hips get wider and your waist will get smaller. Your body will also begin to build up fat in the stomach, buttocks, and legs. This is normal and gives your body the curvier shape of a woman.

Body size:

Arms, legs, hands, and feet may grow faster than the rest of your body. Until the rest of your body catches up, you may feel a little clumsier than usual.

Skin:

Skin may get more oily and you may notice you sweat more. This is because your glands are growing too. It is important to wash every day to keep your skin clean and to use a deodorant or antiperspirant to keep odor and wetness under control. Despite your best efforts to keep your face clean, you still may get pimples. This is called acne and is normal during this time when your hormone levels are high. Almost all teenagers get acne at one time or another. Whether your case is mild or severe, there are things you can do to keep it under control. For more information on controlling acne, talk to your pediatrician.

Menstruation:

Your menstrual cycle, or "period," begins. Most girls get their periods between 9 and 16 years of age.

© Copyright 2000 American Academy of Pediatrics

Buckle Up and Ride Safe

One of the easiest ways to protect our children is to buckle them up every time they are in the car. While it may seem harmless to take them out of their car seats or let them loose from under their safety belts in response to the occasional tantrum or fit of tears, it could cost them their lives. The most common cause of injury and death from birth to age 14 is automobile accidents.

Just as important as using child safety seats and safety belts is the proper use of such devices. Installing a car seat or using it improperly can be as dangerous as not using one at all. According to statistics, four out of five child safety seats are used improperly.

Rather than a particular brand being the "best," the safest car seat for your child is the one that fits him or her properly and is installed correctly. Here are a few general guidelines:

- **Birth to 20 pounds/ 1 year.** Use a rear-facing infant safety seat. Some manufacturers now offer seats that have a higher weight limit, making it easier for you to keep your child in a rear-facing seat for the full first year. The American Academy of Pediatrics (AAP) recommends that a rear-facing infant safety seat be used as long as possible. If your infant exceeds the weight limit before their first birthday, many convertible seats now go up to 30 pounds or higher.
- **20 to 40 pounds/ 1 to 4 years.** Use a forward-facing child safety seat. A convertible seat can be changed from the rear-facing to the forward-facing position once your child has reached the rear-facing weight limit and is at least 1 year of age. Once your child has reached the weight limit on their forward-facing or convertible safety seat, or their ears line up with the top of the car seat, it is time to transition into a belt-positioning booster seat.
- **40 to 80 pounds/4 years of age and older.** Use a belt-positioning booster child safety seat. A belt-positioning booster seat raises your child so that the lap and shoulder belt fit properly, while protecting the child's head and upper body. Be aware that a different type of booster seat called a "shield booster" is not approved for children more than 40 pounds. For children less than 40 pounds, shield boosters pose a risk of ejection in a rollover crash. Shield boosters should be ONLY used without their shields as a belt-positioning booster for children over 40 pounds.
- **80 pounds and over/4'9" and taller.** When children are able to sit with their feet on the ground, back straight against the back seat cushion, and legs over knees over the edge of the seat cushion without slouching, it is time for them to use a seat belt. The lap belt should lie on their hips, rather than their stomach, and the shoulder belt should fit across the shoulder, not the neck or throat. Both the lap AND the shoulder belt should always be used.

Finally, a few tips to remember. It is always safest to have children ride in the back seat of the car. Never place a back-facing care seat in the front seat of a car that has airbags. Make sure to return the registration card when you purchase a child safety seat so the manufacturer can contact you if the product is recalled. Never have children share seat belts. Have a set of rules for riding in the car and enforce them. And, when your child is old enough, make sure to discuss the dangers of riding in the back of pickup trucks.

It is important for us all to continue efforts to keep our children safe. By buckling yourself up for each ride, you will help teach your child the life-saving habit of using a seat belt. Even if it is only a quick jaunt to the grocery store, taking the few minutes to buckle up everyone in the family helps ensure a safe return home.

The AAP has just issued a new "Car Seat Guide." In it, you will find details on the various care seats I have outlined above. To read this important information, http://www.medem.com/MedLB/article_detaillb.cfm?article_ID=ZZZT24LYQMC&sub_cat=104

To check on whether your child's car seat has been recalled, visit the National Highway Traffic Safety Administration's Child Seat Safety Recall Campaign listing at <http://www-odi.nhtsa.dot.gov/cars/problems/recalls/childseat.cfm>.

Nancy W. Dickey, M.D., is a recognized leader in medicine. She is a past president of the American Medical Association and served on the board of the *Archives of Family Medicine*, a medical journal published by the AMA. She is President and Vice Chancellor for Health Affairs at the Texas A&M University Medical School System Health Science Center in Bryan, Texas, where she maintains an active practice as a board certified family physician.

Copyright © December 2002 Medem Inc.

Column by Editor-in-Chief, Nancy W. Dickey, M.D.

American Academy of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Responsibilities and Chores

As children enter and move through their school years, they become increasingly able to manage matters like homework and school projects on their own. Consequently, each year they should take on more responsibilities in the classroom and at home. During the middle years of childhood most youngsters can help clean their rooms, make their beds, pick up their toys, and help out in the kitchen or the yard. Some feed and care for pets. These daily chores and responsibilities are an important part of learning that life requires work, not just play.

Normally, of course, children are still preoccupied with their desire to have fun. While they may pitch in, particularly if helping out gives them time with their parents, children are not likely to ask for household tasks, and parents often need to assign responsibilities as part of belonging to the family. At this age, many children find it difficult to follow through and complete their chores, at least initially. Responsibility and initiative are learned through a gradual process of guidance and reward.

Procrastinating and Dawdling

As your own child takes on more responsibilities, he will probably have periods of acting irresponsibly, procrastinating and dawdling. Most children do. During these times you need to step in and, with encouragement and gentle guidance, point him in the right direction.

Sometimes parents may demand too much of their children, or may see a problem in everything their children do. They may burden them with too many responsibilities - an unfair number of chores, excess hours of taking care of younger siblings or a too rigorous schedule of after-school activities. When that happens, children may feel overwhelmed and resist taking on any responsibilities at all. Parents need to guard against this kind of overloading, while still making sure that their youngsters are assuming an appropriate level of responsibility. Children, of course, differ in the personal traits and temperament they bring to tasks. Some are simply not very persistent and drift away in the middle of chores. Others have difficulty getting organized. Still others have trouble shifting from one activity to another. You should have a good sense of your child's style, and shape your expectations accordingly.

Children need to have some obligations and duties within the family, or they will not learn to accept responsibility. In unstructured home environments, or in families that are very permissive and where little is expected of children, youngsters are losing out on some valuable learning experiences, and their development of a sense of responsibility and initiative may not happen until later in life, if ever. As a result, whenever demands are placed upon these children, they appear to procrastinate or dawdle, never having learned to get started meeting their responsibilities and completing them.

What Parents Can Do

If your own child procrastinates and dawdles, especially around responsibilities and chores, here are some simple management techniques that are often helpful:

1. Carefully spell out the tasks your child must perform. Make sure she understands what is expected of her on a daily and a weekly basis. Star charts or chore lists posted in your youngster's room or on the refrigerator should clearly show what your expectations are. With a school-age child, particularly one who has not taken on responsibilities before, you should introduce one new task at a time; if you spring a long list on her, she will probably fail and rebel.
2. Honest praise from you can be the most effective way of motivating your child and guaranteeing her success. As your youngster completes a regular task, praise her and the job she did. Initiating tasks on her own without a reminder, completing a special task or doing an unusually good job with a regular one might merit a reward of some sort. You may also want to consider tangible rewards like allowances and stickers tied to completed chores.
3. Your child may be greatly helped in remembering to do chores if your family life has a structure and routines. Encourage her to do her chores at the same time each day. Routines of other activities - including meals, homework, play and bedtime - also can teach organization and help her develop responsibility.
4. Schedule weekly family meetings to review your child's progress. Ask her to discuss her ideas about chores and other responsibilities. Create new or modified "contracts" of the chores that are expected of her. Most important, supervise and support your child, which is the best way to ensure that she is being responsible.
5. When your youngster does not complete her chores and other responsibilities, it may be necessary to discipline her. For example, you might decide to revoke certain privileges or special activities that mean a lot to her. Although some parents may feel that badgering or scolding a child to the point of starting an argument will get her to accept more responsibility, this approach is rarely effective. Rewarding successes and providing encouragement is always much more effective.

Seeking Outside Help

In some cases a procrastinating youngster may be helped by professional intervention. Review your concerns with your own pediatrician, who may be able to reassure you that your child is behaving normally. On the other hand, the pediatrician may consider a referral to a child psychiatrist or psychologist for an evaluation, not only if your child consistently fails to complete everyday home responsibilities but also if irresponsibility is evident at school.

This evaluation might also help determine if other problems are present that may only appear to be procrastination. For example, a youngster with an attention difficulty may have trouble concentrating on her homework; for this child, procrastination is not the problem. Treatment in this situation should be aimed at managing the attention deficit itself.

Early efforts to help children who consistently avoid responsibility are important for their future success.

Allowances for the Middle-Years Child

For children in this age group, an allowance serves two purposes:

- An allowance motivates children to assume responsibilities around the home. These tasks should contribute to the family's (and not just the child's) well-being. Yes, children need to learn to care for themselves (clean up their room), but they also need to contribute to the family.
- An allowance introduces children to the value of money - to saving, budgeting and planning. These are life skills that are important to acquire. School-age children are not ready to assume the responsibility for purchasing necessary items, from clothing to

school supplies, but their allowance can be used for discretionary purchases. For that reason, it should be only a modest amount. However, since discretionary purchases tend to increase with age, so should a child's allowance.

Make sure your child clearly understands the purpose of an allowance. If you use it as a reward or payment for chores, then the rules should be clear about what your youngster needs to do to earn that money, and you need to abide by the agreement that you make. If the allowance is provided for discretionary spending and to teach money management, then a different set of rules apply. Spell out the amount, purpose and expectations for the money in advance, and monitor the spending to teach important decision-making lessons.

Excerpted from "[Caring for Your School-Age Child: Ages 5-12](#)" Bantam 1999

© Copyright 2000 American Academy of Pediatrics