

Toothpaste



Georgia 4-H Cotton Boll and Consumer
Judging

You can keep all of your teeth healthy and looking good by brushing and flossing and by having regular professional checkups! You should brush your teeth with a soft toothbrush and pick toothpaste that meets your needs.

But which toothpaste should you buy? There are more than 110 toothpastes on the market today! Toothpaste companies try their hardest to sell their brand promising whiter teeth, less sensitive teeth or plaque free teeth! How do you choose?

You should choose a toothpaste to meet the needs of your teeth. Here we will discuss some of the basic things toothpaste can do for us: cleaning vs. plaque fighting, giving us fluoride vs. fighting gingivitis and tartar and if cost should be a determining factor.

Cleaning

Toothpaste's cleaning ability depends on how good it is at removing surface stains resulting from different food and drinks. Your teeth are cleaned by the abrasive ingredients in the toothpaste rubbing against your teeth. One abrasive that can be found in toothpaste is baking soda. Some toothpastes use between 50-60% while others use as little as 1%. You should be careful when choosing toothpaste that has a rough abrasiveness. Tooth enamel is the hardest substance in your body, but once any decay or cracks have formed, enamel will not heal on its own. Tooth enamel can usually take the harshness of a rough abrasive, but your dentin can be damaged by harsh abrasives. Dentin is the softer tissue below your gum line that's exposed as your gums become damaged by improper brushing.

Plaque

Bacteria are always present in your mouth. When they are not removed by brushing and flossing, bacteria stick to your teeth and multiply into larger and larger colonies called plaque. Plaque forms as a soft, sticky film on your teeth. Plaque even begins growing minutes after you brushed. This sticky plaque damages teeth in two ways. First, food particles, especially sugars, stick to it. The plaque uses that food to grow more bacteria and to produce acid. Second, the plaque holds the acid against the tooth surface. If it is not removed, the acid will eventually eat through the tooth enamel, causing a cavity. When you use toothpaste that attacks plaque, it actually fights the germs that cause cavities.

What is fluoride?

It is very important for you to brush with toothpaste that contains fluoride. Fluoride is the ingredient found in toothpaste that actually fights cavities (not the germs). When plaque acids start to dissolve tooth enamel and create the first trace of a cavity, fluoride can help minerals in your saliva reenter the tooth to repair the damage.

You should brush with fluoride toothpaste for 2 minutes at least twice a day using a soft bristled toothbrush. (Most people only brush for a minute-at best!) It is very important to find toothpaste that releases its fluoride within the first minute of brushing. A lucky thing is that most of them do.

So how do we know if toothpaste meets the criteria for quick release of fluoride? Read the label! Look for the ADA (American Dental Association) seal. Read it to see what properties it covers (plaque, tartar, etc.).

Gingivitis

When your gums begin to swell and the bones supporting your teeth get infected this results in tooth loss. This can happen if you don't brush your teeth! The first sign of this disease is called Gingivitis. Gingivitis is marked by swollen, bleeding gums and bad breath. This stage is painless and, unfortunately, many people do not seek help from a dentist. As this disease worsens, the bones supporting the tooth and ligaments become affected and the teeth eventually fall out. Researchers recently found that stannous fluoride (an ingredient in some toothpaste) can reduce gingivitis by perhaps 10-20%. However, this chemical may leave a stain on your teeth that a dentist or hygienist must remove.

Tackling Tartar

Tartar is plaque that has combined with food particles and minerals in saliva to form a hard, yellowish mass only a dentist or hygienist can remove. If you keep plaque away by brushing thoroughly and flossing daily, you may form less tartar between cleanings. Some people do make tartar rapidly, either because of body chemistry or because they do not brush their teeth enough or they brush their teeth wrong. Tartar control toothpastes can help. They contain a chemical that slows the buildup of new tartar above the gum-line. Take note: No tartar control toothpaste can reduce tartar that's already on your teeth or remove tartar that is below your gum line - where tartar causes gum disease.

Sensitive Teeth

As gums recede and expose dentin, the newly uncovered section of tooth may be very sensitive to heat, cold or pressure. Some toothpastes on the market can now block the nerve endings causing the pain. Take note: toothpaste for sensitive teeth is generally appropriate for only a few weeks!

Cost

Toothpastes vary in price from 44 cents to \$10.28 per month, based on the national price average for brushing twice daily. Price does not always correlate to performance!

When weighing claims that toothpaste makes, take the ADA seal seriously! It's a sign for consumers that says exactly what the toothpaste will do. If a toothpaste does not carry the ADA seal, the toothpaste may be making untrue promises or exaggerating.

Types of Toothpaste

There are many “specialty” toothpastes on the market that consumer can select from. Each is designed to meet individual needs. These include:

- *Whitening Toothpaste* -- Whitening toothpastes contain chemical or abrasive ingredients to help remove and/or prevent stains from forming on the teeth. When used regularly, whitening toothpastes can reduce the appearance of stains and make your teeth look whiter.
- *Antimicrobial* -- Antimicrobial toothpastes may contain stannous fluoride, an antibacterial agent that also provides anti-cavity and sensitivity benefits.
- *Tartar Control Toothpaste* -- Tartar-control toothpastes may contain sodium pyrophosphate which helps to keep tartar from forming on teeth or better yet, sodium hexametaphosphate, which helps prevent tartar and stain, above the gum line. But if you already have stubborn tartar, tartar control toothpaste won't remove it. You'll need a professional cleaning from your dental hygienist. It's beneficial to start using tartar-control toothpaste after a dental checkup.
- *Desensitizing Toothpaste* -- Tooth sensitivity often results from weakened enamel or the exposure of roots due to receding gums. Desensitizing toothpastes work by creating a barrier and blocking irritants from reaching the nerves. Avoid whitening toothpaste if you have sensitive teeth as the chemical they contain may cause irritation or worsening of your symptoms.
- *Fluoride Toothpaste* -- Fluoride is important to your dental health and can be added to any type of toothpaste. Not only does fluoride strengthen teeth against dental cavities but it remineralizes teeth worn by acid and fights sensitivity. Fluoride toothpaste is an excellent choice for those who need a little extra help protecting themselves from cavities -- especially children and seniors. Fluoride toothpastes are also recommended for those without the benefit of community water fluoridation.
- *Gum Health Toothpaste* -- Dental plaque found under the gum line can lead to gum disease. Although gum health toothpastes are not a professional gum disease treatment, they can control dental plaque and help prevent the possibility of gum disease in the future.
- *Fresh Breath Toothpaste* -- Like many mouthwashes, fresh breath toothpastes are designed to mask bad breath but do not actually treat halitosis.
- *Natural Toothpaste* -- For those who are uncomfortable brushing with chemicals, natural toothpastes may be an option. These contain all-natural ingredients but have varied results. Some natural toothpastes may not contain fluoride, so you should check the label before buying the product.
- *Children's Toothpaste* -- These toothpastes have been developed to meet the special needs of children. As children are extremely susceptible to dental cavities, their toothpastes often contain fluoride. Younger children should only use a small amount of toothpaste to avoid ingestion and prevent dental fluorosis and should be always supervised during brushing. Many children's toothpastes are especially high in sugar, so be sure to keep an eye on their labels.

- *Baking Soda Toothpaste* -- Baking soda has traditional significance because it was once used to clean teeth. Although baking soda has no therapeutic value, some prefer it because they enjoy the fresh feeling they get after brushing with it.
- *Gels* -- Some gels contain mouthwash which may be why some prefer the consistency or taste of a gel over a toothpaste. While gels may make your mouth feel fresher, there's no proof that they clean teeth better than toothpastes. Also, many gels do not contain fluoride.
- *Tooth Powders* -- Dry powders are also available to clean your teeth but they are often more abrasive than toothpaste.
- *Organic* - Organic toothpaste is derived from the use of all natural ingredients such as mint and other similar herbs that are also natural breath fresheners. They are not formulated to be like a form of "soap" for your teeth like regular toothpaste is. Organic toothpaste contains all of the needed elements without the potentially harmful chemicals. Organic toothpaste can be a wise and healthier choice for those who would like to minimize the amount of chemicals they use for oral health. The all -natural solutions in organic toothpaste contain natural antibacterial ingredients such as spearmint and peppermint oils. These help to eliminate bacteria and keep your mouth healthy.

Overall Recommendations of What to Look for When Buying Toothpaste:

- *ADA Accepted.* When selecting a toothpaste, usually you would look for a product that is ADA accepted. This means that the product has been tested clinically and it is as safe as well as efficient toothpaste or dental product.
- *Fluoride.* The ADA advises everyone to use fluoride toothpaste. Fluoride in toothpaste helps to fight off cavities in your teeth. For the best protection, find a toothpaste with at least 1,000 parts per million fluoride
- *Pick a product that cleans well.* Most people, who do not have special requests of their toothpaste, can choose toothpaste that fits in their price range and personal preference.
- *Plaque or tartar control.* For plaque removal, the best bet is to brush correctly. Plaque and tartar control toothpaste can help people who have problems with plaque built that is excessive.
- *Sensitive teeth.* Less abrasive toothpaste might be a better choice for those people who have tooth or gum erosion or sensitive teeth. Potassium nitrate, is very effective ingredient for sensitive teeth. Potassium nitrate should be listed in the ingredients of good sensitive toothpaste.

- *Whitening:* Containing polishing or chemical agents that remove surface stains, this toothpaste is able to help maintain the natural color of your teeth.
- *Taste.* Some consumer may like bold, fresh-flavored toothpaste, but others may not. Remember that the flavor of the toothpaste has an effect on how much we brush. Avoid heavily sweetened toothpaste.
- *Organic.* Look for one without fluoride, sodium laurel sulfate or saccharin.

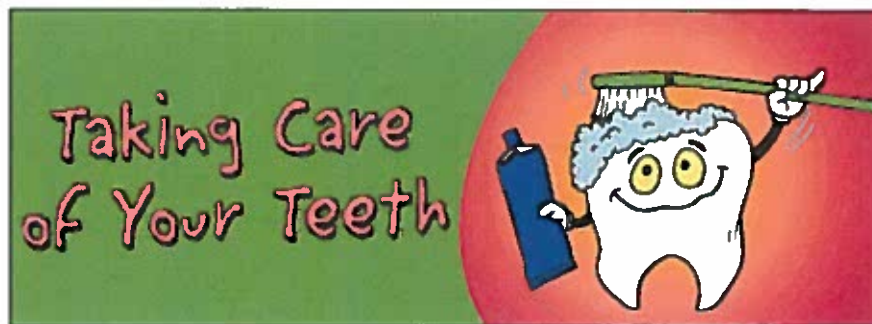
Choosing toothpaste can be a daunting task. There are so many brands and types of toothpaste on the market, and so many advertising claims, that it can be difficult to work your way through the confusion. Understanding the facts behind the hype can make your decision on which toothpaste to choose a bit easier to make. Read the label before purchasing your toothpaste. Look for any unfamiliar ingredients while ensuring that the ingredients that you want are present. Then, choose a toothpaste that best meets your individual needs.

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Consumer Reports

American Dental Association

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Teen Safety in Cyberspace¹

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This publication is part of a series of discussions on understanding teen sexuality.

Introduction: Teens Navigating Cyberspace

If you believe e-mail, blogs, text messaging, instant messaging, social networking sites, and 3-D virtual worlds (with avatars) are a completely harmless way for teens to communicate, think again! Most teens have Internet access at home, school and most everywhere with smart phones (cell phones with texting and Internet access), netbooks, and laptops. The Internet provides opportunities for private communication in the form of text updates, blogs, and chat rooms. These online communication aids are not themselves a problem, but the threat of being sexually solicited or bullied while online is a problem for teens (accessed on 12/22/09 from http://cybersmartcurriculum.org/assets/files/activitysheets/9-12/Making_Good_Decisions.pdf).

While online, teens may be persuaded to do things that they do not want to, such as share private information, be sexually solicited, and/or experience public humiliation. Some worst-case scenarios—take, for example, Megan Meier, who committed suicide after being cyberbullied—got our attention and brought changes in the law and policy. However, adults' (youth staff and parents) skills in preventing cyberbullying and sexual solicitation are not where they need to be (Mesch 2009). This article will

- define online sexual solicitation and cyberbullying;

- explain the risk factors and negative effects of these communications; and
- outline effective ways to protect youth from harm.

Online Sexual Solicitation

Online sexual solicitation is a form of sexual harassment that occurs in cyberspace (in other words, in all electronic forms of communication such as the Internet and text messaging). Incidents of online sexual solicitation include exposure to pornography; being asked to discuss sex online and/or do something sexual; or requests to disclose personal information. This can start when an adult or peer initiates an online nonsexual relationship with a child or adolescent, builds trust, and seduces him into sexual acts.

Several studies have found that:

- 30% of teen girls who used the Internet frequently had been sexually harassed while they were in a chat room.
- 37% of teens (male and female) received links to sexually explicit content online.
- 30% of teens have talked about meeting someone they met online (Dewey 2002; Polly Klaas Foundation 2006).

Online sexual solicitation can be a traumatic experience for victims. About 25% of youth who were sexually solicited felt "extremely afraid or upset" in response to the incident. Those most affected by sexual solicitation included teens that were:

- aged 10–13,

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- solicited more aggressively online,
- sexually solicited on a computer in another person's home,
- currently struggling with major symptoms of depression (Mitchell, Finkelhor, and Wolak 2001).

There are several signs—traits, life circumstances, and actions—that parents and adults should be aware of in order to keep teens from online communication with sexual predators. Studies find that teens at the greatest risk for online sexual solicitation are:

- females between the ages of 13 and 17 years—in fact, 70% of teens who are sexually solicited are girls <http://www.adcouncil.org/Our-Work/Partner-Coalitions/Internet-Safety-coalition> [March 2017].
- teens who behave in risky ways online, including participating in cyberbullying, posting sexy photos of themselves, and discussing sex online with strangers (accessed on March 2017 from http://cybersmartcurriculum.org/assets/files/activitiesheets/9-12/Making_Good_Decisions.pdf).
- teens with major depressive symptoms and/or who have experienced negative life transitions (moving to a new neighborhood, a death or divorce in their family).
- teens that go online more frequently—four or more days a week at two or more hours a day.

Cyberbullying

Bullying, defined as aggression on a continual basis between peers where one has a power advantage over another, is common among children and adolescents. Cyberbullying involves using electronic communication for these ends:

- teach someone a lesson
- put others down
- play pranks
- share personal information publicly
- stalk someone
- commit other overt attacks upon a person

Teens who cyberbully may feel that cyberspace is an impersonal place to vent, and, therefore, consider it less harmful than face-to-face bullying. However, cyberbullying can be very destructive. Examples include middle school teens starting a poll with their classmates, casting online votes for the ugliest girl in the school or unsolicited videos or photos taken in a locker room are posted on YouTube or forwarded by media messaging. In addition, threats or

hateful words travel easily through cyberspace in e-mails or cell phone messages (voice or text) from an unrecognized phone number. Ironically, most cyberbullying takes place within a teen's immediate social circle (Mishna, Saini, and Solomon 2009) and those most likely to be victimized are highly active in social networking sites, blogs, and chat rooms (Reeckman and Cannard 2009).

About 25% of teens report being victims of cyberbullying, and over a third (35%) of teens reported feeling unaffected by it (Reeckman and Cannard 2009). Yet, the vast majority of victims reported feelings of:

- frustration,
- anger,
- sadness, and
- social anxiety (Dempsey, Sulkowski, Nichols, and Storch 2009).

In addition, as is the case with online sexual solicitation, preteens are more likely to suffer psychologically from cyberbullying than older teens (Reeckman and Cannard 2009).

Solutions: Ways to Keep Your Teens Safe

Families and communities (youth-serving organizations, schools) can provide important resources for protecting teens from cyber harm. In fact, a majority (64%) of teen students reported believing that adults in school would try to stop cyberbullying. Still, less than a third (30%) of students reported that if they knew about it happening that they would inform an adult about it (Li 2006). The following research-based tips can help encourage teens to talk with you about cyberbullying and sexual solicitation, as well as keep your teens from being victims or perpetrators.

At-Home/Personal Interaction with Youth

- Get access to “parental block” software that protects your child from exploring inappropriate websites. There are many options you can find by typing “free Internet blocking software” into a search engine (for example, Google).
- Keep computers with Internet access in a centralized location in the home, not in your child's bedroom and set limits on data access on your teen's cell phone.
- Check your child's computer and data use history. (Type in “Internet monitoring software for parents” on a search engine—some options are specifically geared toward

monitoring your child's activity on social networking sites such as Facebook and Myspace).

- Negotiate rules with your teen on cell phone use with regard to text and media messaging, and online data access.
- Set a family Internet and data use policy. Define the ground rules for Internet use, such as scheduled times, permissible websites, and limitations on cyber communication with familiar peers or close friends.
- When setting cyberspace rules, consider how vulnerable your child might be to sexual solicitation and cyberbullying. Base your decision on his or her life circumstances as well as age and stage of development. For example, rules for Internet use for children should be more restrictive than those set for teens.
- Because they value privacy, be prepared to enforce set consequences when teens fail to observe a "family Internet policy" (for example, teens can be held responsible for fixing damages from computer viruses or paying for data minutes overages) and setting appropriate limits and fair consequences.
- Teach your child what cyberbullying is and give some specific examples of what to look for; help them learn to identify and interpret information shared or comments made by the predator. Kids will often think they are the only ones experiencing this and that they should be able to handle it.
- Educate your teen about potential dangers of cyber communication and sharing information. It is very easy for a predator to learn where the child lives and goes to school from only a little bit of information.
- Help teens to role-play effective ways to respond to sexual solicitation and cyberbullying.
- If an incident involving victimization of your teen occurs, reassure him or her that Internet access will not be forever discontinued, nor will their cell phone be confiscated, unless such measures are deemed temporarily necessary for their immediate safety.

In the Community

- Promote awareness campaigns in schools to influence policy, acceptable online "netiquette," and support programs for prevention of online sexual solicitation and cyberbullying.
- Collaborate with your local law enforcement agencies. Many police and sheriff departments have officers dedicated to monitoring the Internet for cyber predators and bullies. They can educate your children or group

about what constitutes cyberbullying, what their rights are, and how to respond. Taking action will tell your child you care and you know how to help them resolve the situation. Children are likely to think that parents don't understand and therefore can't be of help.

- As adults, get educated on options available to teens in cyberspace and learn how to use them, too (see resources section that follows). Often, an older teen can serve as a resource to educate adults as well as younger teens and preteens on cyber use and safety. Encourage your teen to report incidents of online sexual solicitation or cyberbullying to adults, and reinforce their beliefs that appropriate action will be taken in response to the event.
- Encourage your teen to get involved in face-to-face activities as alternatives to interaction on the Internet. Youth who are vulnerable, lonely, and low on social skills are most likely candidates for excessive Internet use, increasing the risk for exposure to cyberbullying and online sexual solicitation.

Parents must be alert to the way their children use electronic communications. Talk to your children about the risks involved. Although there is a big, scary cyberworld out there, the family and home can and needs to be a safe haven for children and teens.

Resources on Internet Safety for Parents & Teachers

- **CyberSmart!**—<http://www.cybersmartcurriculum.org>
- **CyberTipline**—<http://www.cybertipline.com/>
- **Family Computing**—<http://familyinternet.about.com/>
- **i-SAFE**—<http://www.isafe.org/>
- **WiredSafety.org**—<http://www.wiredsafety.org/>

Popular Social-Networking Sites for Teens (for parents and teens to look at together)

- MySpace.com
- Facebook.com
- Twitter.com
- Secondlife.com
- HI5.com
- Tagged.com
- Imbee.com
- LiveJournal.com

- Bebo.com
- MyYearbook.com
- Friendster.com
- Spaces.MSN.com
- Xanga.com

Resources on Internet Safety for Teens

- CyberTipline's Don't Believe the Type: Know the Dangers, Situations to Avoid, Surf Safer. <http://cybertipline.com>
- KidsHealth from Nemours: Teaching Kids to be Smart About Social Media for Parents, Kids and Teens <http://kidshealth.org/en/parents/social-media-smarts.html>
- SafeTeens.com. Internet Safety for Teens. <http://www.safeteens.org>
- SafeKids.com. Online Safety & Civility. <http://www.safeteens.org>
- National Center for Missing and Exploited Teens. Internet-Related Safety Tips for Teens. http://www.missingkids.com/missingkids/servlet/PageServlet?LanguageCountry=en_US&PageId=207

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Families with Teens

Parent Resources

Teens and the internet

This fact sheet is part of the *Teen talk: A survival guide for parents of teenagers* series.

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Use of the internet is a big part of teens' lives. According to a 2015 Pew Internet and American Life Project survey, 92% of teens age 13 to 17 go online daily and 71% of teens use more than one social networking site (SNS). Social media platforms — such as Facebook, Twitter, Instagram, Snapchat, Google+, Vine, and Tumblr — along with gaming sites and instant messaging, allow teens to have 24/7 access to peer networks through cell phones and other mobile devices. That allows teens to extend the time they spend with people they already know — and sometimes with those they don't.

Typically teens stay online for longer periods than adults, are more likely to access the internet from different locations, participate in a wider range of online activities, and are more likely to try new technologies. This contributes to both potential opportunities and challenges for young people online.

The Positives

The internet provides many opportunities to teens for connection and information gathering. From the teen's viewpoint, the internet is a place to "hang out." According to the Pew survey (Lenhart, Madden, Smith, & MacGill, 2007), the top five activities teens use the internet for are:

- Going to websites about movies, TV shows, music groups or sports stars (81%).
- Getting information about news and current events (77%).
- Sending or receiving instant messages (68%).
- Watching videos on video sharing sites (57%).
- Using an online social networking site and getting information about a college or university they are thinking of attending (both 55%).

If teens need to find information, they look to the internet first. Access to a wide variety of resources helps them with school projects, as well as pursuing personal interests such as pop culture, sports, and music. Looking at large amounts of data via the internet can enhance teens' abilities to interpret and manipulate information. Other benefits include developing thinking and writing skills as they post to blogs or other online forums, and connecting with others to discuss shared interests.

The Risks

Just as parents are encouraged to monitor where teens are going, who they are with, and what they are doing, parents also need to be knowledgeable about teens' internet activities, and talk with teens about the

potential dangers of sharing personal information online (e.g., phone number, address, passwords). Here are examples of risks the internet poses.

- **Bullying and harassment.** Unmonitored social networking could provide a forum for messages that are indecent, demeaning, violent, or racist. Sometimes comments are misinterpreted or intentionally hurtful and the conversation can quickly turn into bullying or harassment.
- **Inappropriate relationships.** A teen may not realize that the 15-year-old boy asking to be an online “friend” is really a 45-year-old man. Teens may find themselves in online relationships for which they are unprepared.
- **Victimization.** Teens are even more likely than younger children to get in trouble with child molesters or other exploiters. An online relationship may move into the real world if teens are persuaded to give out personal information that allows predators to stalk or meet them in person.
- **Pornography.** Natural curiosity might lead to searching for websites with inappropriate or sexually explicit information. Even searching for age-appropriate information on sexuality and development can lead a teen to inappropriate content.
- **Financial risk.** Giving out personal information, parents’ credit card, banking, or other financial information could lead to trouble. If an offer appears to be “too good to be true,” then it probably is.

What Parents Can Do

Most parents check what their teen does online and on social media by using web browsers’ history to check which websites their teen visited, checking their teen’s social media profile, looking through their teen’s phone calls and messages, and using parental controls for teen’s online activities (Anderson, 2016).

In addition, parents can monitor their teens’ use of the internet and make it safer by:

- Learning as much as possible about the internet and becoming familiar with SNS, blogs, and other tools.
- Talking about internet use no matter how it is accessed. Approach the topic in a positive way with interest in what teens are doing and respect for their knowledge of technology, as opposed to “checking up” on them.
- Establishing basic rules about amount of internet use and what kinds of information should not be given out, including personal details (full name, address, phone number, and information that would enable strangers to find a teen’s physical location or determine their schedule); social security number; pictures that could lead to identification of self, family, or friends; and financial information.
- Reminding teens to use secure settings. For younger teens’ online activities, parents should keep their own list of passwords and remind teens they will be monitoring their activities occasionally.
- Not allowing teens to sleep with their cell phone nearby. When teens are always connected, their rest will be interrupted.
- Paying attention to any behavioral changes that might be related to internet use. Signs to watch for include secretiveness, spending increasing amounts of time on the internet, inappropriate sexual knowledge, or sleeping problems.
- Monitoring teens’ online purchases, whether material or downloadable. Encourage teens to buy only from reputable companies.

For home computers, parents should consider:

- Locating the computer in a common area in the home accessible to everyone.
- Checking the history of what internet sites have been accessed. Telling teens that you will monitor histories helps them monitor themselves.
- Installing protective software for blocking, monitoring, or filtering websites.

If parents discover their teen has visited an unacceptable website, it is important not to overreact. A conversation about how the website was found and what kind of information was being sought will help sort out the situation. For example, a teen may have accidentally found a porn site when seeking health information. Parents can help teens find credible, helpful websites and teach them to be critical consumers of information. The websites listed under "Related Resources" are a good place to start.

How Parents Can Advise Teens

In addition to establishing basic rules, parents should advise teens to:

- Never agree to meet someone in person they have met online. Teens need to talk with a parent or trusted adult first.
- Avoid chat rooms or discussion areas that look risky or provocative. Encourage teens to trust their instincts.
- Be wary of those who want too much information. There is no rule that says personal information must be given out.
- Log off, close a browser window, or navigate away if something online doesn't seem right or causes uncomfortable feelings.
- Never give out passwords, even to friends.

Some parents may have challenges keeping up with their technologically savvy teen. Adults consider themselves more technologically capable than children perceive them to be. Teens can teach their parents a great deal about use of information technologies; this can be a good way for parents and teens to interact with the teen as the expert. However, parents still need to use their own life experiences to provide guidance to their children on safe internet use.

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Related resources

[TV Watching](#) — Find out how much TV your children should be watching and get ideas for limiting TV time.

[Video Games: A Problem or a Blessing?](#) — Follow these guidelines to ensure that your children's video game usage works *for* rather than *against* them.

[Teens and Social Networking Websites](#) — Get more information about social networking sites and how to

monitor what your teen does on them.

[Get Net Wise](#) — *Internet Education Foundation* — Find articles on technology use from two blogs: "Connect Safely" and "Net Family News."

[Parent Further: A Search Institute Resource for Families](#) — Strengthen you family's relationships through shared activities from ParentFurther.

[Resources on Cyberbullying](#) — *KidsHealth, from the Nemours Foundation* — Get familiar with the signs and effects of cyberbullying, as well as tips for how to help and what to do when your child is the bully.

[Internet Safety: What do I need to know about the internet and my child?](#) — *University of Michigan Health System* — Find detailed instructions on teaching your children about internet safety, taking an active role in your child's internet activities, and more.

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SMOOTHIES

CONSUMER DECISION MAKING 2018

Smoothies have become a popular choice for snacks and meals. While once something that you could only get from your home blender and a few basic ingredients, now smoothies can be purchased in ready-to-drink form at grocery and convenience stores, purchased frozen ingredients in pouches that you must add milk, water, or juice to, or from a fast food restaurant or coffee shop counter or drive through window. There are even entire stores devoted to selling smoothies where customers can choose everything from fruits, to caffeine, to added protein powders and vitamins and minerals.

The good news is that smoothies can be very nutritious and provide a convenient way to get a few of daily MyPlate food group needs met, as well as vitamins and minerals. However, some restaurants and food manufacturers add lots of extra sugar, fat, or other unnecessary ingredients with few vitamins, minerals, protein, or fiber. Smoothies can be economical or can be very costly. With all the options, it can be hard to know which smoothie is the best choice for you and your situation. The following information will help you choose a healthy and affordable smoothie to meet your specific needs.



Cost

The cost of smoothies varies a lot. The packaging, brand name, ingredients, and whether you're buying them at a store ready-to-drink, to make at home, or at a restaurant, coffee shop or fast food location all contribute to the cost. When you're on the go and buying your smoothie ready-to-drink from a store or restaurant, you probably plan to drink the whole smoothie at one time. In this situation, you should compare cost per unit (i.e. large smoothie at a fast food restaurant, one bottle purchased at a store). Some smoothies may cost a little more than others, but spending a little more money to make a healthier choice is generally a better investment in your health.

When buying smoothies to have at home, you might buy a larger, "family size" bottle containing many servings. In this case, you can compare price per serving. To determine the price per serving, check the Nutrition Facts label to see how many servings are in the container (Servings per container). Divide the price by the number of servings to determine the price per serving. For example, a large family sized smoothie costs \$4 and has 8 servings would cost \$0.50 per serving ($\$4/8$ servings = \$0.50 per serving). If you are mixing ingredients yourself, then you have an extra step of adding the price per serving of each ingredient together to get the total cost per serving.

Nutritional Value

Whether you are choosing your smoothie for a snack or to have as a meal will influence the nutritional value you should expect from your smoothie. Remember, meals are where we get most of our energy (calories) and nutrition (MyPlate food groups, carbohydrates, protein, fats, vitamins, minerals). Snacks should provide fewer calories, carbohydrates, protein, and fat, and may contain only one MyPlate food group. Let's review each of these topics.

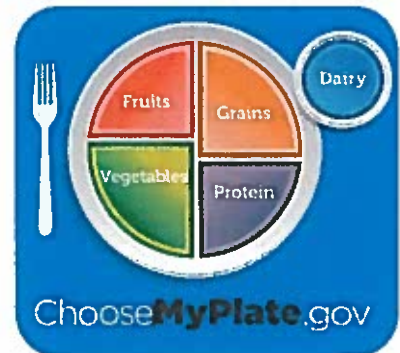
MyPlate Food Groups: Smoothies typically are made primarily from fruit and/or dairy (usually yogurt or milk). Some smoothies have vegetables or additional protein.

- Smoothies that are a meal should provide foods from at least two food groups (dairy and fruit).
- Smoothies that are a snack can provide only one food group (dairy or fruit)

Remember, dairy foods provide calcium, protein, vitamin A, vitamin D, potassium, and much more. Vegetables and fruits are good sources of vitamins A & C and minerals, such as potassium. Look for smoothies that have more of these healthy nutrients.

Calories: Carbohydrates, Fat, and Protein

When a smoothie will be a meal, you will need a few more calories, carbohydrates, protein, and fat than when a smoothie might be a snack. Reading the Nutrition Facts label on products lets you know how many total calories are in each serving and where the calories come from. Carbohydrate and protein provide 4 calories per gram, while fat provides 9 calories per gram.



Calories: Consider the calories per amount you or someone plans to drink. This might be per unit (like when you buy a medium sized smoothie from a fast food restaurant, or one 8 ounce serving out of a 48 ounce family sized bottle).

- Smoothies that are a meal can provide more than 300 calories. But remember, you want to maximize vitamins and minerals, for the amount of calories, fat, and sugar.
- When having a smoothie as a snack, the amount you plan to drink should provide about 300 calories or less.

Carbohydrates: Carbohydrates are our bodies' favorite source of energy and the only source of energy that your brain can use. It's important to get carbohydrates from your food, but our bodies like some sources more than others. Look on the nutrition label to see how much total carbohydrate, sugar, and fiber per serving of smoothie.

Fiber: Carbohydrates from fiber are beneficial to your health by causing you to feel full for longer and helping with digestion. Eating enough fiber can also reduce your risk for

heart disease. Smoothies that use whole fruits will have more fiber than smoothies that use fruit juices. Look for smoothies with more fiber.

Sugars: Carbohydrates from sugar are present in naturally sweet foods like fruits, but may also be added as an additional ingredient to further sweeten the food. Many smoothies contain fruits like bananas, berries, oranges, and pineapple. Some contain fruit juices. These fruits provide a quick energy boost from the natural sugar and often bring some vitamins and fiber along with them. Added sugars only supply calories with few or no nutrients and no dietary fiber. Sugars are listed on the nutrition label under carbohydrates. Added sugars may be listed in the ingredient list as dextrose, cane sugar, and high fructose corn syrup. When comparing smoothies, you want to look for the smoothies with less sugar, particularly when the smoothie will be a snack.

Fat

Our bodies need fat to provide energy and carry nutrients, but not too much. Some types of fat are better for our health than others. Saturated fat and trans fat are bad for your heart health. The 2015 Dietary Guidelines for Americans by the United States Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) recommends that you limit saturated fat to less than 10% of calories, and avoid trans fat. Look for smoothies lower in saturated fat and contain 0 grams trans fat. If you look at the ingredient list, you do NOT want to find “partially hydrogenated oils” listed, as these are sources of trans fat.

Protein

Protein does so many things in your body, but it’s best known for helping you build muscle. Protein also may help you feel full for longer. When a smoothie is going to be a meal, you’ll definitely want it to have some protein. If a smoothie will be a snack, it may not have much protein, and that’s OK. In general, choose smoothies with more protein.

Vitamins and Minerals

Vitamins and minerals are listed on nutrition labels as a percent daily value (%DV). The goal is to get 100% of the DV from foods each day. A vitamin and mineral-rich smoothie provides all four that are listed on the Nutrition label: Vitamin A, which is good for eyes and skin; Vitamin C, which helps the immune system protect from disease; Calcium, which helps build strong bones; Iron, which helps circulation and energy levels. When a smoothie has calcium in the amount of 10% or more, it probably contains some foods from the dairy group, such as milk or yogurt. In general, you want to choose smoothies with more vitamins and minerals.

Salt

Our bodies need sodium (salt) to function, but getting too much leads to high blood pressure and is harmful to your health. The 2015 Dietary Guidelines for Americans and MyPlate recommend that you consume no more than 2300 milligrams (mg) of sodium per day. Be sure to check the label and look for smoothies that are lower in sodium.

Ingredients:

Smoothies are typically made from fruit, fruit juices, dairy (milk or yogurt), and some might contain vegetables. Much of the “designer” type smoothies contain more additives than is necessary to get your daily nutrition needs met.

Fruit juices: It’s best if a smoothie contains whole fruit. If a smoothie contains juice, it is best if that is 100% fruit juice.

Sugar, sugar substitutes/non-nutritive sweeteners: There are several sugar substitutes and non-nutritive sweeteners that are used to make foods sweet with fewer calories. The non-nutritive sweeteners on the market today used in soft drinks, with table top version listed in parentheses, include aspartame (Equal® or Nutrasweet®), sucralose (Splenda®), acesulfame potassium (Sunette®) and saccharin (Sweet’n Low®). All of these non-nutritive sweeteners have been approved by the Food and Drug Administration (FDA). However, the long term health effects for children and adolescents are unknown, so it may be best to avoid smoothies that use these non-nutritive sweeteners.

Stevia comes from a plant, tastes very sweet, and is used as sugar substitute in some foods. A highly processed form is allowed to be used in foods in the US. Because the long term health effects of stevia are unknown, particularly for children and adolescents, it is best to avoid smoothies that use stevia.

Caffeine: Caffeine, a stimulant, is added to some smoothies and must be listed as an ingredient if it is added. Caffeine is not necessary for health, and little is known about the safety of caffeine for children and adolescents. It’s best to avoid caffeine in smoothies.

Additional B vitamins: many smoothie companies add additional B vitamins that they advertise as “giving you more energy.” Vitamins don’t provide energy, but they help your body use the energy you get from carbohydrates, protein, and fats. We can get plenty of B vitamins from the foods we eat. We don’t need additional vitamin supplements and powders, unless recommended by your doctor.

Amino acids like Taurine, Arginine, and Creatine: Many smoothie companies add additional amino acids that they advertise as “giving you more energy,” “help with recovery,” or “build muscle.” Protein from food is made up of amino acids, and we can get plenty of protein from the foods we eat. We don’t need additional amino acid supplements and powders, unless recommended by your doctor.

Other Additional Ingredients: If you eat a well-balanced diet, you truly don’t need additional ingredients in your smoothie other than those that add taste, not calories. Cinnamon, turmeric, ginger, coconut water, vegetables like kale or spinach, or raw cacao can add lots of taste for more satisfaction and variety.

Reading a Smoothie Label

Practice by reading these various smoothie labels. Pay attention to sugars, calories, fat, protein, ingredients, serving sizes, etc.

Nutrition Facts

Serving Size ½ pouch (107g)
8 FL OZ Prepared
Servings Per Container 2

Amount Per Serving	As packaged	Prepared
Calories	70	110
Calories from Fat	10	15
	% Daily Value**	
Total Fat 1.5g*	2%	2%
Saturated Fat 0g	0%	0%
Trans Fat 0g		
Cholesterol 0mg	0%	1%
Sodium 30mg	1%	4%
Total Carbohydrate 14g	5%	7%
Dietary Fiber 2g	8%	8%
Sugars 10g		
Protein 2g		
Vitamin A	0%	4%
Vitamin C	25%	25%
Calcium	50%	60%
Iron	4%	4%

* Amount as packaged. As prepared with skim milk, one serving provides 1.5g total fat, less than 5mg cholesterol, 90mg sodium, 20g total carbohydrate (15g sugars), and 5g protein.
** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Ingredients: Strawberries, Blueberries, Water, Raspberries, Nonfat Yogurt (skim milk, yogurt cultures), Sugar, Fructose, Calcium Phosphate, Milkfat, Corn Starch, Banana Puree, Natural Flavor, Nonfat Milk, Gelatin, Xanthan Gum, Pectin, Carrageenan, Sucralose, Citric Acid.

CONTAINS MILK INGREDIENTS.
DISTRIBUTED BY YOPLAIT USA, INC., MINNEAPOLIS, MN 55440
**one full serving of fruit = ½ cup of fruit
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Item

**McDonald's®, McCafe Mango
Pineapple Smoothie**

Price	\$2.25
Size	16 oz
Calories	250
Fat (g)	1
Saturated Fat (g)	0
Trans Fat (g)	0
Carbohydrates (g)	57
Sugar (g)	52
Fiber (g)	1
Protein (g)	3
Sodium (mg)	45
Vitamin A (%)	35
Vitamin C (%)	25
Calcium (%)	8
Iron (%)	2
Caffeine (mg)	0



Item **Bolthouse® Farms, green goodness**

Cost per bottle	\$3.12
Bottle size	15.2 oz
Serving Size	8 fl oz
Cost per oz	\$0.21
Cost per serving	\$1.64

Nutrition information (per 8 fl oz serving)

Calories	130
Fat (g)	0
Saturated Fat (g)	0
Trans Fat (g)	0
Carbohydrates (g)	30
Sugar (g)	26
Fiber (g)	1
Protein (g)	2
Sodium (mg)	20
Caffeine (mg)	0



Item

Smoothie King®, Acai Adventure

Price	\$3.50
Size	16 oz
Calories	435
Fat (g)	5
Saturated Fat (g)	2
Trans Fat (g)	0
Carbohydrates (g)	92
Sugar (g)	75
Fiber (g)	2
Protein (g)	2
Sodium (mg)	163
Vitamin A (%)	0
Vitamin C (%)	0
Calcium (%)	15
Iron (%)	0
Caffeine (mg)	0

CHECK YOUR KNOWLEDGE (answers below)

1. If you are looking only at price, and you plan to drink 2 servings from a family sized bottle, which smoothie is the better buy?
 - a. Arthur's Juicy Smoothie - \$4 for 6 servings.
 - b. Blueberry Blast - \$5 for 8 servings.
2. If you wanted a smoothie to be your breakfast, how many MyPlate food groups should it have?
 - a. 1
 - b. 2 or more
3. If a smoothie has 450 calories, does it make a better meal or snack?
 - a. Meal
 - b. Snack
4. Which smoothie is the best choice in regard to salt/sodium?
 - a. 240 mg
 - b. 900 mg
5. Which smoothie is the best choice in regard to Saturated fat?
 - a. 0.5 grams
 - b. 2 grams

References

ChooseMyPlate.gov. USDA. Retrieved from www.choosemyplate.gov

Dietary Guidelines for Americans, 2015. (2015). U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <http://health.gov/dietaryguidelines/2015/guidelines/>.

Check Your Knowledge Answers

1. B
 - a. $\$4 \text{ per bottle} \div 6 \text{ servings per bottle} = \$0.67 \text{ per serving}; \times 2 \text{ servings} = \1.33
 - b. $\$5 \text{ per bottle} \div 8 \text{ servings per bottle} = \$0.63 \text{ per serving}; \times 2 \text{ servings} = \1.25
2. b
3. a
4. a
5. a

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Selecting Bicycles FCS Classic Consumer Decision Making Study Guide

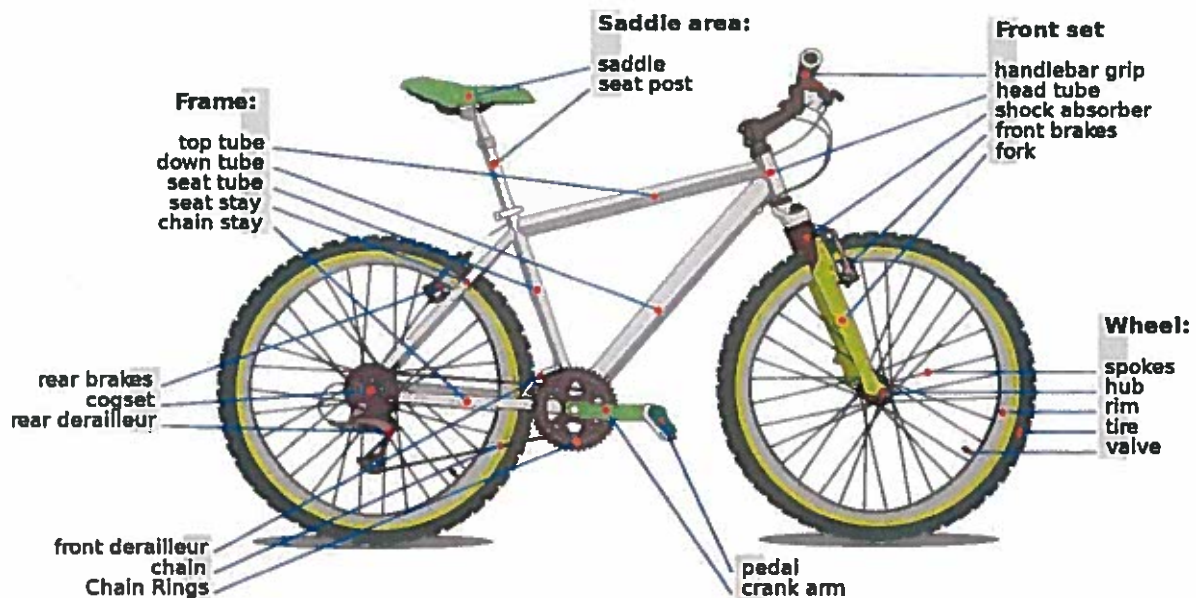
The bicycle has been around in various forms since the early 1800's. Today's bicycles are based on a design introduced in England in 1885. Bicycles are a study in physical science and physics. The main distinguishing feature of a boy's bike is the metal bar connecting the handlebars to the saddle, which bicycles for girls usually do not have. The frame style of girls' bicycles dates to the earliest years of bicycle design, when step-through frames accommodated the long skirts and dresses that women wore in the late 19th and early 20th century.

When selecting a bicycle you will need to think about how you will be using the bicycle. No matter which bicycle you choose, you still need to think about the things you need to be safe on your bicycle. Bicycles come in many shapes and sizes and everyone should be able to find a bicycle for their needs. Bicycles can be purchased used for a few dollars or you can spend thousands of dollars on a special built bicycle for racing.

Usually the more expensive bikes are made from lightweight expensive metals, like titanium and super strength steel or they have frames made with carbon fibers. These bikes usually weight less than 18 pounds.

Bike Parts:

The frame is the main part of a bike. It is a triangular shape, is very sturdy and can be found on all bikes. The top of the seat post is very important– the seat, or saddle, that you sit on. The crank is what you make go round and round when your feet are on the pedals. The chain and the chain rings are part of the system that helps transfer the energy from you to



make the bike go forward. The fork is what the front wheel is connected to. The rim is the outermost part of the wheel where the tire is. The spokes keep the wheel round. The valve stem is the part of the tube where you attach a pump to put air in the tire. Brakes are used when you want to stop. Lastly, the reflectors on the front (white), rear (red) and in your wheels are the part of the bike that help make you more visible to others.

Saddles or Seats: Seats come in a variety of shapes and sizes. Some are springy and wide while others are hard and narrow. Some have two little pads, one for each cheek and without the front part of the saddle.

Wheels: The bigger the wheel, the faster you go and the harder it is to turn the wheel. The smaller the wheel the slower you go, making it easier to push the pedal with one revolution of your leg. In one revolution of a small wheel, you go a short distance, but it is easier. In one revolution of a large wheel you go a further distance but it's harder to push because you are covering more ground. The smaller the wheel the closer to the ground and more stable you are. The larger the wheel the faster you will go and the higher up you will sit.

Handlebars: The handlebars are what you use to steer the bike. If adjusted correctly, you should not have to stretch too far to put your hands on the handlebars. Your elbows should be slightly bent and you should be comfortable.

Gears and Shifting: A gear is part of a bicycle that helps with speed and ease of pedaling. The more gears you have the easier ride you will have while pedaling up and down hills and in rough areas like trails. Using bicycle gears allows you to pedal with the same amount of effort whether you are riding uphill, downhill or on the flat.

Old-fashioned bicycles had the pedals attached directly to the front of wheel. The wheel would be able to make one revolution only when the bicyclist's feet on the pedals would make one revolution. Inventors then designed a bicycle with a big front wheel so the bicyclist could go a longer distance with each pedal revolution and coast. The bigger the front wheel, the further one could go per revolution. Next, they designed a bike with the pedals connected to the rear wheel by a chain. This new design allowed the bicycle with smaller wheels to travel farther with one revolution of the pedal. Today, all bicycles have at least one gear, providing for more efficient riding.

Gearing uses basic math ratios. For bicycle gears, the ratio is the number of teeth in the front divided by the number of teeth in the rear cog that is engaged. The ratio would be front teeth:rear teeth. A larger ratio indicates the pedal requires more force to turn. So, a ratio of 40:8 is harder to turn than 30:15. So in general, the "high gear" combination of the larger ring in the front and the smaller ring in the back makes it hard to pedal. The "low gear" combination of the smaller ring in the front and the larger ring in the back makes it easier to pedal.

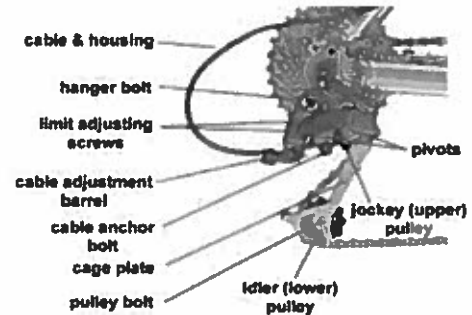
There may be duplicate gears. If your front chain wheel has three rings and your rear cassette has eight rings, you have 24 gears. Yet, you will notice that some gears feel similar even in different combination of front and rear.

Shift Levers:

The Left shift lever controls the front derailleur and which chain ring your chain is on. It is not used as much as the rear derailleur. You will need to pay more attention when shifting with the front derailleur.

The Right shifter controls the rear derailleur. This is the fine tuning of the gear range. It is used most often to adjust to minor terrain changes. Two or three shifts down is equal to one shift down on the front derailleur.

Modern **Front and Rear Derailleurs** typically consist of a moveable chain-guide that is operated remotely by a cable attached to a shifter mounted on the down tube, handlebar stem, or handlebar. When a rider operates the lever while pedaling, the change in cable tension moves the chain-guide from side to side, "derailing" the chain onto different sprockets.



Chain Rings: Bicycles come with two or three chain rings. Three rings are for mountain biking and touring. These are low, medium, and high range or low and high for road bikes with two chain rings. The small ring is low gear for climbs, the middle ring for flat stretches and the big ring for descents. Bicycles today are available with as many as ten cogs on the rear and three chain rings up front.

Pedaling: Pedal at about 90 revolutions per minutes both while climbing and descending. 90 rpm's are faster than you think. Shift into an easier gear before you need it, before climbing instead of during one. You should use the same pedal force and cadence to climb as you do to descent.

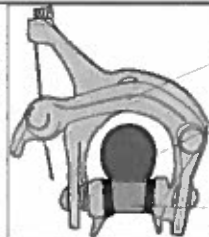
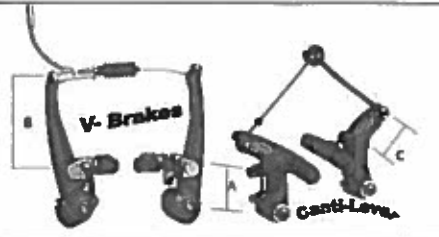
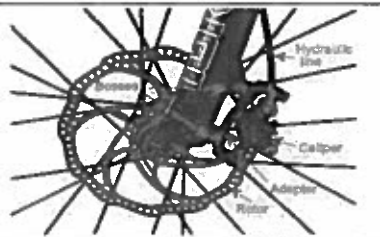
Brakes: The brakes on a bicycle are the part that stops or slows the wheels. There are many types of brakes to choose from when purchasing a bicycle.

Coaster brakes are a type of brake that works by pedaling backward. This is a good brake for the beginning rider or the trick rider.





Handbrakes are engaged by a grip on the handlebars that engages the brakes. There are 4 types of hand brakes:







- Caliper brake move calipers inward toward the rim. A caliper brakes moves both sides of the caliper to the rim in one motion. Never pull the front brake without the back brake to avoid a head over heels crash. They don't work as well as others when they get wet.
- Cantilever brakes have two separate arms one on each side of the rim. Cantilever brakes require less hand force to stop the bicycle than a caliper brake. One style is called the "V" brake or Shimano brake system.
- Hydraulic Disc brakes are a closed system of hoses and reservoirs containing a special hydraulic fluid to operate the brakes. A plunger pushes fluid into the caliper where pads push on the rotor and stop the bike. Advantages: system is closed to water, dirt and debris. There is a good feel at the lever and gripping power at the wheel. Disadvantages: Disc brakes must be inspected on a regular basis. Air bubbles in the system can cause the brakes to fail.

- Drum Brakes are less common. They work by applying friction from a pad in an enclosed drum. The drum is a part of the wheel. Do not touch the hub of the wheel until it cools off. Drum brakes generate a lot of heat.

 <p>Caliper Pads Rim(rotor)</p>	 <p>V-Brakes Cantilever</p>	 <p>Hydraulic line Caliper Rotor Adapter</p>
Caliper Brake	Cantilever "V" Brake	Hydraulic Disc Brake

There are many styles of bicycles,

	<p>Mountain Bikes are designed for "off road" riding. They also work great on paved and rocky trails because of their toughness. The big, knobby tires on mountain bikes give you good traction so you do not slip. On paved roads, the tires will make lots of noise. The handlebars are upright and straight so you can sit upright. They usually have a 26 inch tire and the frame sizes vary to match the size of the rider. Some mountain bikes have shock absorbing suspensions, lockouts, and disc brakes. They usually have 21 to 27 speeds to help along the trail.</p>
	<p>Trail Bicycles or Light Duty Mountain Bikes are good for trails and roads. These bicycles are ideal for fun and family riding. The tires for kids trail bikes are 20-inches and 24-inches and for adults, 26-inches. Trail bikes have 21 – 24 gears. Their frames are not strong enough for mountain biking. The handle bars are upright.</p>
	<p>Road/Distance bicycles are designed for use on roads and smooth trails. They are popular for commuting and exercising. They typically have a 27-inch tire. They are built for speed with narrow smooth high-pressure tires for a highly efficient ride. The handlebars are bent and the rider leans lower while riding to keep air from slowing the bike down. There can be many speeds. Road bicycles can be purchased with an aluminum frame which is lighter than steel.</p>
	<p>BMX is often considered a stunt bicycle and needs a stronger lightweight bicycle frame for racing. The tires are usually 20-inch and are knobby. They are one-speed bikes with a short wheel and are mostly used for general purpose and dirt riding. BMX bikes have a single handbrake for the rear wheel. They have a light weight guard, kickstand and front and back wheel pegs.</p>

	<p>BMX jumping bicycles are just like the regular BMX bike, but the frames and axels are heavy duty to make jumping safer. They have 48 spoke wheels. BMX jumpers need additional safety gear such as a full face helmet, shin pads, gloves, elbow and knee pads and wrist guards.</p>
	<p>Free style or trick bicycles have handlebars that can spin around. The frame has pegs for the rider to stand on while performing tricks. They feature handbrakes for each wheel. The tires are 20" and have many spokes (48) to make the wheels strong. The tires on trick bikes are smooth. These bikes have only one speed.</p>
	<p>Comfort bikes have 26 inch wheels and 7 to 24 gears. They are similar to mountain/trail bikes but are shorter from the seat to the handlebars (wheelbase) for more upright riding. Shock absorbing seat posts provide more riding comfort along with shock absorbing handlebar stems or telescoping shock absorbing front forks. They have wider softer saddles (seats) and wide pedals. They are ideal for comfortable recreational trails or commuting. Any bike can be used as a commuter bike, however with some adaptation. Commuter bikes also have a bell or horn, fenders, durable wheels and tires, lights and panniers.</p>
	<p>Children's bicycles have smaller wheels (less than 20-inches) and either coaster brakes or handbrakes. The handlebars are straight or bent. Children's bikes have only one speed.</p>
	<p>Recumbent bicycles are specially designed bicycles with 20 – 24 inch wheels and 21-100 gears which allow the rider to sit in a reclining positions with the feet forward. The seats are more like lounge chairs with less leaning forward. These bicycles sit low to the ground. They are made by specialty manufacturers and are very expensive. Recumbent bikes are available in a variety of shapes and sizes and from two to four wheels. People with back and neck problems like this type of bike.</p>
	<p>Tandem Bikes or bicycles built for two are designed for on or off road as well as recumbent riding. Tandem refers to the in-line position of the riders. Because of the extra weight and stresses, tandem wheels may use a higher spoke count, sturdier rims, higher pressure tires, and a stronger freewheel.</p>

Safety: make sure that the bicycle fits you now and it isn't something that you will grow into. Be sure to follow the rules of the road, stopping at stop signs. Pay attention to those around you. You don't want to hit someone and you don't want a car to hit you.

Safety Gear: Remember professional bicyclists always wear safety gear. If you are just learning or are stunt riding you need knee and elbow pads and wrist guards too. Make sure you also wear good shoes. Flip-flops are not a good choice of shoes for bicycling because they do not protect your feet. Always wear a properly fitted bicycle helmet. It will protect your head from unwanted bumps and accidents on your bicycle.



Make sure your helmet fits properly and the pads hold it in place. Then get the side straps up under your ears. You should be able to put two fingers between the chinstrap and your chin. (see photo) In the last picture, you can see how a bicycle helmet should fit to protect all parts of your head.

Accessories: Your bicycle may have a light, a basket, a bell, a water bottle holder or any other item that will meet your needs as a bicyclist. Choose what you need, what you enjoy, and what you can afford.

The NDSU Extension Service does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names.

References:

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<http://bicycleworldandfitness.com> www.nhtsa.dot.gov
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Wikipedia www.wikipedia.com

This publication was revised by Brenda Bishop, New Mexico State University Quay County Extension Service Program Director in 2016 from North Dakota State University publications: 2007 Consumer Choices Study Guide Junior and Senior Bicycles and 2016 4-H Consumer Choices Study Guide Beginner Bicycles. Used with permission.

Originally publication was compiled and written by Julie Hudson-Schenfisch, NDSU 4-H Consumer Choices Coordinator 2006
Updated 2012 by Gail Slinde, Ward County Extension Agent and LoAyne Voigt, Renville County Extension Agent Reviewed and updated in 2015 by Linda Haug



TOYS

Toys bring a great deal of joy to children, and they also can be valuable learning tools. Exploring, pretending, and sharing are just a few of the important skills children develop when they play. Toys don't have to be expensive. A variety of toys for children exist. Some of them are safe and some of them are dangerous. How do you know which is which? The main idea is to pick the right toy for a particular child at the right time.



Here are a few helpful suggestions related to purchasing toys in general:

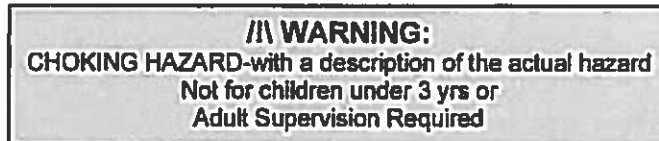
Acceptable Toys
Are safe. Any toy can be unsafe if given to the wrong child, to a child at the wrong age, or when it is misused. A child's safety depends on the types of toys selected, the way they are maintained, and the amount of safe handling taught and practiced in the home.
Are durable. Toys are mauled, hugged, dropped, stood on, chewed on, washed and dried. They need to stand up to all this normal wear and tear.
Work like they're supposed to. Nothing causes loss of interest as readily as a toy that fails to perform. It often results in frustration, anger and discouragement.
Are appropriate for the child's age. Toys should suit the physical, mental, and emotional abilities of the child. For example, an infant can not play with a two-wheeled bicycle; a school-aged child does not need a mobile for a crib. Many toys can be used by children at different stages, like blocks and modeling dough.
Stimulate creativity. The toy can be used in several ways and leaves room for imagining and learning.
Capture the child's interest and are fun. Children are drawn to appropriate toys and play with them spontaneously. Toys should reflect the child's interests.
Involve interaction with others. Encourages or even requires others like friends, siblings, or adults to play along with.
Can be kept clean easy.

Unacceptable Toys
Are dangerous. Unsafe toys have sharp corners, edges, and protrusions; are flammable; have easily lost or broken parts; toxic paint; might give an electrical shock; use glass instead of plastic in toy vehicle windows; have detachable parts that can be put into mouth, ears, nose; have fluffy trimmings that can be pulled off and swallowed; or are stuffed with toxic or unclean materials.
Are poorly constructed. Do not have proper labeling.
Cause anger or frustration by not working properly.
Are too mature for a particular child related to their physical, mental, and emotional abilities.
Have only one purpose and can be used only one way. Foster values the parents do not have. Cost too much.
Appear to contribute to misbehavior. They may stimulate too much excitement, aggression, or dangerous play.
Offer little chance of interaction. Wind-up or automated toys do not allow the child to be in control. The child merely becomes a passive observer of the toy's repetitive actions. These toys are often easily broken and irreparable, dangerous and expensive.
Cannot be cleaned with soap and water.

New Mexico 4-H Consumer Decision Making Classes R-2006

Read the Label

The U.S. Consumer Product Safety Commission requires toy manufacturers to meet stringent safety standards and to label certain toys that could be a hazard for younger children. Look for labels that give age recommendations and use that information as a guide. Labels on toys that state "not recommended for children under three ... contains small parts," are labeled that way because they may pose a choking hazard to children under three. Toys should be developmentally appropriate to suit the skills, abilities and interests of the child. Effective January 1, 1995 products that are manufactured in or imported into the United States must comply with the Child Safety Protection Act. Look for this symbol on toy packaging:



When purchasing art materials and supplies, including crayons and paint sets, look for the designation "ASTM D-4236." This means the product has been reviewed by a toxicologist and, if necessary, labeled with cautionary information.

When purchasing electronic toys, look for the Underwriter's Laboratories (UL) seal. This means the toy has been tested for safety. The labeling requirements specify that certain precautionary information shall be listed on labels on children's electrical products. The labeling is designed to help buyers choose the right toy for the right age and to warn the user of potential hazards. The package of every such product must carry a cautionary message and a minimum age recommendation. No item with a heating element may be recommended for children under 8 years of age. There are some hobby items, such as wood burning kits, that reach very high temperatures and have been exempted from certain maximum surface temperature regulations. These items cannot be recommended for, and should be kept out of reach of, children under 12 years of age.

Certain areas of electronic products also must be labeled:

- accessible surfaces that exceed certain specified temperatures must carry a warning of the danger
- toys with replaceable electric lights must carry a warning of the maximum safe wattage for a replacement bulb and a notice to disconnect the plug before changing the bulb
- products with non-replaceable lights will be so marked
- products not designed to be immersed in water must carry a notice to that effect.

Storing and Caring for Toys

Toy safety involves choosing the right toy, checking it regularly for damage, and storing it safely. One of the greatest dangers in toy storage is the toy chest with a free-falling lid. Children are injured when the lid falls on their head, neck, or arms. Upright lids in trunks and footlockers pose this kind of hazard. Open chests or bins, chests with lightweight removable lids, or chests with sliding doors or panels do not present the hazard of a falling lid. Low, open shelves where toys can be reached easily and put away are a safer alternative and are often preferred by children. Caring properly for toys will extend their usefulness and avoid accidents and injuries. Don't leave indoor toys outdoors overnight. Rain or dew could damage them, making them unsafe. Store toys in a special closet or shelf so they won't be tripped over or broken. Train toddlers to put their toys away. Throw away broken toys; they are hazardous.



New Mexico 4-H Consumer Decision Making Classes R-2006

Think Toy Safety

More than 120,000 children are taken to hospital emergency rooms each year for treatment of toy-related injuries. Evaluate toys for your children from the standpoint of safety. The following are some guidelines:

- Choose toys appropriate to the child's age. Some toys intended for children more than 3 years old may contain small parts, which could present a choking hazard for infants and toddlers.
- Toddlers should never play with any object that is smaller than a half dollar.
- Think BIG when selecting toys, especially for children under age three. Big toys without small parts can be enjoyed by youngsters of different ages. Keep toys intended for older children, such as games with small pieces, marbles, or small balls, away from younger children.
- Keep uninflated balloons out of reach for children under age 6, and discard pieces of broken balloons because of the choking hazard.
- Explain and show your child the proper use of safety equipment such as bicycle helmets. Studies show that helmets can reduce severe injuries from a fall.
- Check all toys periodically for breakage and potential hazards. Damaged toys can be dangerous and should be repaired or thrown away immediately.
- Store toys safely. Teach children to put toys away so they are not tripping hazards. Periodically check toy boxes and shelves for safety. Visit the Web sites listed on page 5 for more information.
- Some toys require adult supervision. Supervise children when playing with pull toys with long cords; they could strangle a child. Check toys with moving parts for safety. Make sure the child is mature enough for the toy.
- Follow instructions carefully and supervise children using any electronic toys. Failure to follow manufactures instructions may result in injury.
- Give outdoor play equipment and toys such as gym sets, skates and bikes to children who are old enough to use them safely.
- Teach children not to use bicycles, tricycles, or sleds where there is traffic, and to use them carefully in areas where other children play.
- Have children take off roller skates or in-line skates before crossing the street. They should always wear a helmet and other safety gear.



Age Appropriate Toys


There are many toys to choose from, but most can be grouped into specific developmental categories: physical or muscle; sensory (sight, sound, hearing, touch); social; and intellectual or creative development. Finding age appropriate toys for children enables them to grow and develop at a level suitable for them. Refer to the table on the next two pages for information on which toys are best for which ages.

New Mexico 4-H Consumer Decision Making Classes R-2006

Age	Toys to Choose	Toys to Avoid	Age	Toys to Choose	Toys to Avoid
Newborn to 1 year Age of Awareness <ul style="list-style-type: none"> • Need toys with bright colors and texture • Toys should be washable, unbreakable, and large enough so they won't be swallowed. • Enjoy toys to look at, feel, chew on, and drop. 	<ul style="list-style-type: none"> • Brightly colored objects • Pictures within view but out of reach • Mobiles that have objects attached with cords less than 12 inches long • Unbreakable toys that rattle or squeak • Washable dolls or animals with embroidered eyes • Stacking ring cones • Tapes or CDs with gentle music 	<ul style="list-style-type: none"> • Toys with parts smaller than 1 ¼ inch • Toys with sharp edges • Toys with detachable small parts • Toys with toxic paint • Toys with cords more than 12 inches long • Stuffed animals with glass or button eyes • Balloons • Flammable items 	2 to 3 years Explorative Age <ul style="list-style-type: none"> • need "hands on" toys that require little coordination 	<ul style="list-style-type: none"> • Play dough • Large crayons • Pegboards with large pieces • Low rocking horses • Sandbox toys • Soft balls or different sizes • Cars or wagons to push • Simple musical instruments • Simple dress-up items like hats, scarves, and shoes • Sturdy riding toys • Books that rhyme 	<ul style="list-style-type: none"> • Toys with sharp edges • Toys with removable parts • Small objects such as beads, coins, or marbles • Electronic toys • Tricycles with seats more than 12 inches high • Riding toys • Flammable items
1 to 2 years Investigative Age Along with the items listed for infants, this age group also enjoys any item that can be <ul style="list-style-type: none"> • stacked • poured • opened • closed • pushed • pulled 	<ul style="list-style-type: none"> • Push and pull toys • Books with cloth or stiff pasteboard pages • Nonglass mirrors • Take-apart toys with large pieces • Blocks-foam, plastic, or cardboard • Nested boxes or cups • Musical and chime toys • Floating tub toys • Pounding and stacking toys 	<ul style="list-style-type: none"> • Small toys that can be swallowed • Toys with small removable parts • Stuffed animals with glass or button eyes • Toys with sharp edges • Flammable items 	3 to 4 years Imitative Age <ul style="list-style-type: none"> • Learn by doing • Becoming more social • Enjoy realistic toys 	<ul style="list-style-type: none"> • Dolls with simple cloths • Balls, any size • Non-electrical trucks, trains • Building blocks • Toy telephone • Dress-up clothes • Sturdy tea sets • Plastic interlocking blocks • Blunt scissors • Play dough • Washable markers, large crayons • Sewing cards • Simple board games • Books 	<ul style="list-style-type: none"> • Electronic toys • Flammable costumes • Toys with sharp edges or small, removable parts • Riding toys used in hilly or inclined driveways • Heavy toys



New Mexico 4-H Consumer Decision Making Classes R-2006

Age	Toys to Choose	Toys to Avoid	Age	Toys to Choose	Toys to Avoid
4 to 5 years Beginning of Creative Age <ul style="list-style-type: none"> • Enjoy painting and drawing • Enjoy building • Are energetic and active in their play 	<ul style="list-style-type: none"> • Building blocks • Simple construction sets • Modeling clay • Nonelectrical trains, battery operated toys • Puppets and puppet theater • Finger paints • Stencils • Board and card games • Simple musical instruments • Small sports equipment • Books • Bicycles with 20 inch wheels and training wheels 	<ul style="list-style-type: none"> • Toxic or oil based paint sets • Flammable costumes or ones that can be easily tripped over • Kites made of aluminized polyester film • Electronic toys (unless battery operated) • Shooting toys and darts with pointed tips • Fireworks of any kind 	6 to 8 years Beginning of Dexterity Age <ul style="list-style-type: none"> • Enjoy activities with a finished product • Develop keen interest in sports • Better understanding of rules and enjoy playing with others 	<ul style="list-style-type: none"> • Construction sets • Sled, roller skates • Sewing materials • Simple camera • Printing and stamp sets • Paints, colored pencils • Sketch pad • Kites • Battery powered electronic toys • Jigsaw puzzles • Dominoes • Board games • Simple toy sets • Dolls 	<ul style="list-style-type: none"> • Kites made of aluminized polyester film • Shooting toys and toys with loud noises like cap guns • Fireworks of any kind • Sharp-edged tools • Electronic toys that plug in • Bikes or skateboards without helmets
8 to 12 years Specialization of Tastes and Skills <ul style="list-style-type: none"> • Enjoy many of the same types of toys as younger children with more complex activities • Can learn math and problem solving skills through card and board games • Enjoy active and social toys 	<ul style="list-style-type: none"> • Hobby materials • Arts and crafts materials • Musical instruments • Sports equipment • Camping equipment • Construction sets • Electronic trains • Bicycles (26 inch wheels for children age 10 and older) 	<ul style="list-style-type: none"> • Fireworks of any kind • Air rifles • Chemistry sets • Darts • Skateboards • Arrows 	Web Resources for More Information on Selecting Toys American Academy of Pediatrics http://www.aap.org/ Toy Manufacturers of America http://www.toy-ma.org/consumer/parents/safety/4toysafety.html U.S. Consumer Product Safety Commission http://www.cpsc.gov References <i>Understanding Children – Toys</i> , by Lesia Oesterreich, Iowa State University, University Extension <i>Buying Age Appropriate Toys</i> , The Neblin, University of Nebraska, Cooperative Extension US Consumer Product Safety Commission, <ul style="list-style-type: none"> • <i>Child Safety Protection Act Fact Sheet</i> • <i>The Dangers of Electric Toys</i> • <i>Toy Safety Shopping Tips</i> 		
					

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