

Activewear

Active Wear Study Guide

Sales of active wear are at an all-time high. According to the market research firm NPD Group, active wear sales generated \$35 billion in 2014 and make up nearly 17% of the entire American clothing market.

Active wear is clothing worn for sport or physical exercise and uses the latest in performance fabrics and technology to ensure that apparel can stand up to the intense demands of sporting disciplines like running, cycling, swimming, and gym-work. Active wear includes tops, shorts, tights, socks, jackets and so much more.

Brand-name active wear, including Under Armour, Nike, and Adidas, is popular with teens and adults. Private-label brands available in department and discount stores might be made of similar materials but cost less than the national brands. Most active wear is made from durable fabrics that can be laundered frequently and still provide long wear.

When selecting active wear, it is important to consider the type of activity you will participate in, activity impact level, your body type and if you will be using it indoors or outdoors. When choosing active wear, consider the fabric content. Choose active wear that contains cotton, cotton blends and moisture wicking fabrics that will assist with moisture absorbency, ventilation, and comfort.

The right active wear can enhance your training and performance. Fabric and fit are probably the most important factors when choosing active wear.

FABRIC

Fabrics are designed for different purposes. Some fabrics pull sweat away from your skin and others absorb it. When it comes to workout clothes, some choices are better than others on your workout.

Wicking:

Wicking fabrics are breathable synthetic fabrics that provide moisture control for an athlete's skin during a mid to high intensity workout. In essence, the fabric "wicks" the sweat away from your skin which can help it evaporate quickly and keep your body cool.

Wicking fabrics tend to be soft, lightweight and stretchy, making them an excellent choice for active wear. This broad category of fabrics is used to make garments like t-shirts, running and cycling jerseys, socks, and polo style shirts for any physical activity where the goal is to keep your skin as cool and dry as possible.

Moisture wicking fabrics are used to make apparel for outdoor activities such as hiking, fishing, mountain biking, snow skiing and mountain climbing.

There are a number of products marketed for their wicking. Many of these products are used as a blend with each other or with cotton. Additionally, these products may be branded under a variety of names such as Dri-Fit, CoolMax, Vapor and Climalite.

- Polyester – polyester is the workhorse of the workout fabrics and is the one you see on labels most often. Basically plastic clothing, it's durable, wrinkle-resistant, lightweight, breathable and non-absorbent.
- Spandex – Also known as elastane and by the brand name Lycra, spandex puts the stretch in workout wear. The synthetic fabric can expand to nearly 600 percent of its size, offers an unrestricted range of motion, and then snaps back in place. Spandex is an anagram for expands.
- Emerging Performance Fabrics – The next big thing in active wear is products that provide even more benefits. Benefits include improved wicking, temperature control, UV protection and anti-odor properties. Bamboo is an example of a new, emerging performance fabric. These products may also be more expensive.

Cotton:

Cotton can also be a good choice when choosing active wear. Cotton is breathable, soft, comfortable and natural fiber that works well for lighter workouts. Cotton also tends to be less expensive than synthetic active wear. However, cotton is very absorbent and is slow to dry. When wet, cotton holds the moisture next to your body.

FIT

Choose active wear that fits your body and your workout. For example, if you are running or biking, avoid wide-leg or loose pants/leggings. Likewise, for activities such as yoga or Pilates, choose stretchy, fitted fabrics. Additionally, avoid fabrics that could chafe or irritate your skin during repetitive movement.

Pay close attention to fit more than size because some workout clothes tend to run smaller and more form-fitting than regular clothes.

COST

There are many factors to consider when shopping for active wear. You may be surprised at how much active wear costs. Paying the top dollar does not necessarily mean that you will get the best active wear for you. Be sure that whatever price you choose to pay for active wear that it is the right active wear for you and that it meets the needs you desire.

Finding the right shoes for your active lifestyle is an important part of your active wear. Athletic shoes will vary based on the activity you are doing and preference. With the many types of athletic shoes that are available, it can be hard to choose the right shoes for you. There are differences in design and variations in material and weight. The American Academy of Orthopedic Surgeons says that these differences have been

developed to protect the areas of the feet that encounter the most stress in a particular athletic activity. Let's review some of the different types of sports shoes available.

Athletic shoes are grouped into the following categories: running, training, and walking; they include shoes for hiking, jogging, and exercise walking. These shoes should have a comfortable soft upper, good shock absorption, smooth tread, and a rocker sole design that encourages the natural roll of the foot during the walking motion. Features of a good jogging shoe should include cushioning, flexibility, control, and stability in the heel counter area, lightness, and good traction. Whereas, cross-training shoes combine several characteristics of other types of shoes so that you can participate in more than one sport and wear the same shoe. A good cross trainer should have flexibility in the forefoot that you need for running, in addition to stability on the inside and outside of the shoe for the control needed for aerobics and tennis. Walking shoes should flex easily at the ball of the foot, which help feet to push forward.

Court sport shoes include shoes for tennis, basketball, and volleyball. Most court sports require the body to move forward, backward, and side-to-side. As a result, most athletic shoes used for court sports are subjected to heavy abuse. The key to finding a good court shoe is the sole. Ask a coach or shoes salesperson to help you select the best type of sole for your sport.

Field sport shoes include shoes for soccer, football, and baseball. These shoes are cleated, studded, or spiked. The spike and stud formations vary from sport to sport, but they generally are replaceable or detachable cleats, spikes, or studs affixed into nylon soles.

Track and field sport shoes are very specific to the sport. The needs of the individual are most important when picking the shoe. For example, foot types, gait patterns, and training styles should always be considered. It is always best to ask a coach about the type of shoe that should be selected for the event in which you are participating. Proper-fitting sports shoes can enhance performance and prevent injuries. Follow these specially designed fitting facts when purchasing a new pair of athletic shoes:

- Try on athletic shoes after a workout or run and at the end of the day. Your feet will be at their largest.
- Wear the same type of sock that you will wear for that sport.
- When the shoe is on your foot, you should be able to freely wiggle all of your toes. There should be a thumb's width from the tip of the toe to the end of the shoe.
- The shoes should be comfortable as soon as you try them on. There is no break-in period. If they're not comfortable in the store, they won't be comfortable when you're exercising.
- Walk or run a few steps in the shoes. They should be comfortable. The heel of the shoe should not slip off the foot as you walk or run.
- Always re-lace the shoes you are trying on. You should lace through each top eyelet as you crisscross the lacing pattern to ensure a more snug fit and decrease slippage. Don't tie the laces too tight as this may cause injury to the nerves or tendons on the top of the foot and ankle.

- There should be a firm grip of the shoe to your heel. Your heel should not slip as you walk or run.

Now that you know what type of shoe to buy and tips to picking out a properly fitting shoe, you need to consider its construction—how well it was made. Understanding the basics of shoe construction can help you choose intelligently from among the thousands of available styles.

- Stitching should be secure, even, and straight. There should be no rough spots, wrinkles, bulky seams, or gummy adhesives.
- Rubber around the base of the shoe should be one continuous strip, tightly attaching the sole to the upper.
- The toe box should be square for adequate toe room.
- The shoe should have side and tongue padding for extra comfort. Cushioning on the cuff around the ankle and at the Achilles tendon helps to reduce friction and irritation.
- The inner sole should be soft and resilient, with adequate arch cushions.
- The reflector should be as big as possible, especially if you will be outside at dusk or dawn.
- The insole should be removable for cleaning and, when it loses springiness, replacement.

In addition to being overwhelmed by all the choices in athletic shoes, you may be surprised at how much they cost. Slick ads and television commercials tout technological features, the latest gimmicks, and shoes named after sports celebrities. Paying more than \$100 does not necessarily get you a better shoe. Good quality shoes may be pricey, but don't overlook the less expensive shoes because they can outperform their costlier brandmates. Be sure that whatever price you decide to pay for the shoes, it's because the shoe has the features that meet your needs—not because it is a certain brand or has a sports celebrity's name on it.

Information for this study guide was compiled, with permission, from:

- Texas 4-H Consumer Decision Making Categories and Descriptions Study Guide 2017-2018
- Choose Active Wear for Comfort and Safety Factsheet – North Dakota State University, written by Linda Manikowske, Ph.D.

Backpacks

OUTDOOR BACKPACKS

The following is a general guide for which pack sizes (measured in liters) typically work well for backpackers during warm-weather hikes of varying lengths. Colder-weather trips usually require a larger pack, while ultralight backpackers may choose to go smaller than the recommendations here. (For more information, see our Expert Advice article on Ultralight Backpacking.)

Length of trip	Pack capacity (liters)
Weekend (1–3 nights)	35–50
Multiday (3–5 nights)	50–80
Extended (5+ nights)	70+

Weekend (1–3 nights; 35–50 liters)



Efficient packers using newer, less-bulky gear can really keep things light on 1- to 3-night trips by using a pack in this range. Be aware that packing light requires self-discipline and careful planning. If you can pull it off, though, the light-on-your-feet rewards are fantastic.

Multiday (3–5 nights; 50–80 liters)



These are the most popular backpacking packs sold at REI, and they're an excellent choice for warm-weather trips lasting 3 or more days. 50–80 liter packs are also used for backcountry skiing, for day trips, overnights and sometimes 2-night trips.

Extended-trip (5+ nights; 70 liters or larger)



Extended trips of 5 days or more usually call for packs of 70 liters or larger. These are also usually the preferred choice for:

- Winter treks lasting more than 1 night. Larger packs can more comfortably accommodate extra clothing, a warmer sleeping bag and a 4-season tent (which typically includes extra poles).
- Adults taking young children backpacking. Mom and Dad wind up carrying a lot of kids' gear to make the experience enjoyable for their young ones.

Climbing Packs



REI also carries packs designed primarily as climbing packs. Most have modest capacities that are appropriate only for day trips or overnights. Common features include:

- The ability to strip down the pack to its minimal weight (removing the lid, framesheet and possibly the hipbelt) for use during a summit push.
- A narrower, sleeker, sometimes higher profile than a usual packbag, permitting unencumbered arm movement.
- Several lash-on points for external tool attachment.
- A daisy chain—a length of webbing stitched to the outside of a pack—to provide multiple gear loops for attaching a helmet or tools.
- A reinforced crampon patch (to prevent crampon points from gouging holes in the packbag).
- Gear loops on the hipbelt or low on the pack body, useful as clip-on points for gear or possibly as attachment points for skis.
- Shop REI's selection of backpacks.

Backpack Fit

Once you've chosen the type of backpack you want, the next step is to work with an REI sales specialist to expertly fit you to your pack.

The right fit is one that offers:

- A size appropriate for your torso length (not your overall height).
- A comfortably snug grip on your hips.

If you're unable to work with a fit specialist in a store, you can enlist a friend and follow the directions provided in the REI Expert Advice article on Finding Your Torso and Hip Size.

Torso Length

Some packs are available in multiple sizes, from extra small to large, which fit a range of torso lengths. These ranges vary by manufacturer and by gender. Check the product specs tab for size details of a specific pack.

Other packs may feature an adjustable suspension, which can be modified to fit your torso, especially if you're in between sizes. The drawback: An adjustable harness adds a little weight to a pack.

Waist Size

The majority of a backpack's weight, 80% or more, should be supported by your hips.

Backpack hipbelts usually accommodate a wide range of hip sizes, from the mid-20 inches to the mid-40 inches.

People with narrow waists sometimes find they cannot make a standard hipbelt tight enough and need a smaller size. Some packs offer interchangeable hipbelts, making it possible to swap out one size for another.

Women-Specific Backpacks

These are engineered specifically to conform to the female frame. Torso dimensions are generally shorter and narrower than men's packs. And hipbelts and shoulder straps are contoured with the female form in mind.

Youth-Specific Backpacks

These typically offer smaller capacities and include an adjustable suspension to accommodate a child's growth. Women's backpacks, with their smaller frame sizes, often work well for young backpackers of either gender. So do small versions of some men's packs.

Additional Backpack Fit Adjustments

Load lifter straps

Are stitched into the top of the shoulder straps, and they connect to the top of the pack frame. Ideally, they will form a 45° angle between your shoulder straps and the pack. Kept snug (but not too tight), they prevent the upper portion of a pack from pulling away from your body, which would cause the pack to sag on your lumbar region.

Sternum strap

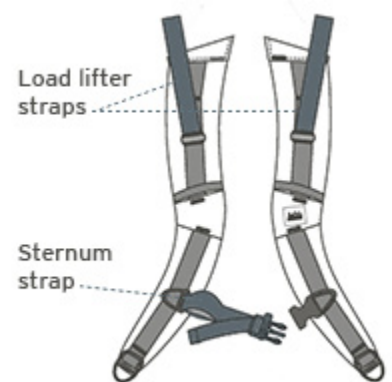
This mid-chest strap allows you to connect your shoulder straps, which can boost your stability. It can be useful to do so when traveling on uneven cross-country terrain where an awkward move could cause your pack to shift abruptly and throw you off-balance.

For tips on pack loading, see the REI Expert Advice article on How to Load a Backpack.

Backpack Frame Type

Internal-frame backpacks

The majority of packs sold at REI today are body-hugging internal frame packs that are designed to keep a hiker stable on uneven, off-trail terrain. They may incorporate a variety of load-support technologies that all function to



transfer the load to the hips.

External-frame backpacks

An external-frame pack may be an appropriate choice if you're carrying a heavy, irregular load. Toting an inflatable kayak to the lake or heading out to the backcountry with surveying tools? An external frame pack will serve you best. External frame packs also offer good ventilation and lots of gear organization options.

Frameless backpacks

Ultralight devotees who like to hike fast and light might choose a frameless pack or a climbing pack where the frame is removable for weight savings.

Backpack Features

Main compartment access:

- Top-loading openings are pretty standard. Items not needed until the end of the day go deep inside.
- Some packs also offer a zippered front panel that folds open exposing the full interior of the pack, or a side zipper, which also makes it easier to reach items deeper in your pack.

Sleeping bag compartment

- This is a zippered stash spot near the bottom of a pack. It's a useful feature if you don't want to use a stuff sack for your sleeping bag. Alternately, this space can hold other gear that you'd like to reach easily.
- Top lid: Many packs offer a zippered top lid where most backpackers store quick-access items: sunscreen, insect repellent, camera, snacks, map. Some lids detach from the main pack and convert into a hipbelt pack for day trips.

Pockets

Typical offerings:

- Elasticized side pockets: They lie flat when empty, but stretch out to hold a water bottle, tent poles or other loose objects.
- Hipbelt pockets: These accommodate small items you want to reach quickly—a smartphone, snacks, packets of energy gel, etc.
- Shovel pockets: These are basically flaps stitched onto the front of a packbag with a buckle closure at the top. Originally intended to hold a snow shovel, they now pop up on many 3-season packs, serving as stash spots for a map, jacket or other loose, lightweight items.
- Front pocket(s): Sometimes added to the exterior of a shovel pocket, these can hold smaller, less bulky items.

Ventilation

This can be a drawback of internal-frame designs. Much of the pack rides on your back, cutting airflow and accelerating sweaty-back syndrome. Designers have addressed this in a variety of ways—ventilation “chimneys” built into back panels, for example.

A few packs have engineered a suspended mesh back panel, sometimes called “tension-mesh suspension.” This is a trampoline-like design where the frame-supported packbag rides along a few inches away from your back, which instead rests against the highly breathable mesh.

Padding

If you're using a lightweight pack with a fairly minimalistic hipbelt and lumbar pad, you can encounter sore spots on your hips and lower back. If this is the case for you, consider using a cushier hipbelt.

Attachment points

If you frequently travel with an ice axe or trekking poles, look for tool loops that allow you to attach them to the exterior of the pack. Rare is the pack that does not offer at least a pair of tool loops.

Backpack Accessories**Raincover**

Pack fabric interiors are usually treated with a waterproof coating. Yet packs have seams and zippers where water can seep through, and the fabric's exterior absorbs some water weight during a downpour.

The solution is a raincover, which could be a plastic garbage bag (cheap but clumsy) to a more customized packcover. If you expect rain on your trip, this is a good item to carry. An alternative: bundling gear internally in waterproof "dry" stuff sacks. Lightweight dry sacks can be a better option in windy conditions; strong gusts have the potential to abruptly peel a cover right off a pack.

Hydration reservoir

Nearly all packs offer an internal sleeve into which you can slip a hydration reservoir (almost always sold separately) plus 1 or 2 "hose portals" through which you can slip the sip tube.

Reference:

REI, <http://www.rei.com/learn/expert-advice/backpack.html>

Bicycles



Selecting Bicycles

FCS Classic Consumer Decision Making Study Guide

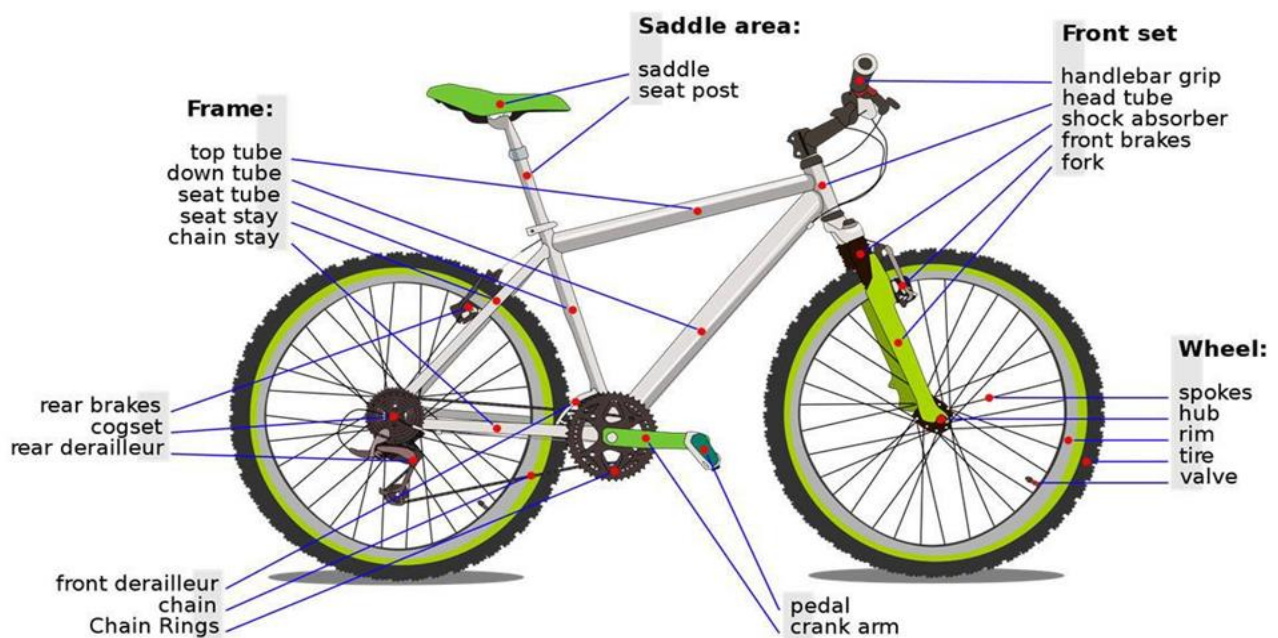
The bicycle has been around in various forms since the early 1800's. Today's bicycles are based on a design introduced in England in 1885. Bicycles are a study in physical science and physics. The main distinguishing feature of a boy's bike is the metal bar connecting the handlebars to the saddle, which 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.

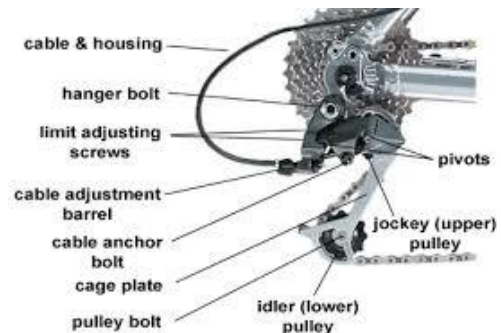
There may be duplicate gears. If your front chain wheel has three rings and your rear cassette has eight rings, you have 24 gears. Yet, you will notice that some gears feel similar even in different combination of front and rear.

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 Canti-Lever</p>	 <p>Hydraulic line Bosses Caliper Adapter Rotor</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.

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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.

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Updated 2012 by Gail Slinde, Ward County Extension Agent and LoAyne Voigt, Renville County Extension Agent Reviewed and updated in 2015 by Linda Haug

Fast Food

FAST FOOD MEALS

Fast foods are quick and easy substitutes for home cooking, and a reality with the busy schedules many families maintain. However, fast foods are almost always high in calories, fat, sugar, and salt.

Fast food used to mean fried food. However, today there are many more healthy alternatives available at fast food restaurants. Some restaurants still use hydrogenated vegetable oils for frying. These oils contain trans fats, which increase your risk for heart disease. Some cities have banned or are trying to ban the use of these fats. Now, many restaurants are preparing foods using other types of fat.

Even with these changes, it is hard to eat healthy when you eat out often. Many foods are still cooked with a lot of fat, and many fast-food restaurants do not offer any lower-fat foods. Large portions also make it easy to overeat, and few restaurants offer many fresh fruits and vegetables.

Before heading out, it is important to know your personal calorie limit. Staying within yours can help you get to or maintain a healthy weight. Most adolescents need 1800 (girls) to 2200 (boys) calories; however, knowing how many calories one needs is based upon age, sex, height, weight, and activity level. When choosing what to eat and drink, it's important to get the right mix – enough nutrients, but not too many calories.

In general, eat at places that offer salads, soups, and vegetables. Select a fast-food restaurant that you know offers a variety of food selections that fit in your healthy eating plan. Along with that, the following tips can help you make healthier selections when dining at fast-food restaurants.

Check and compare nutrition information. Knowing the amount of calories, fat, and salt in fast foods can help you eat healthier. Many restaurants now offer information about their food. This information is much like the nutrition labels on the food that you buy. If it is not posted in the restaurant, ask an employee for a copy.

Have it your way. Remember you don't have to settle for what comes with your sandwich or meal – not even at fast-food restaurants. Ask for healthier options and substitutions. Adding bacon, cheese, or mayonnaise will increase the fat and calories. Ask for vegetables instead, such as lettuce or spinach, and tomatoes. With pizza, get less cheese. Also pick low-fat toppings, such as vegetables. You can also dab the pizza with a paper napkin to get rid of a lot of the fat from the cheese.

Keep portion sizes small. If the fast-food restaurant offers several sandwich sizes, pick the smallest. Bypass hamburgers with two or three beef patties, which can pack close to 800 calories and 40 grams of fat. Choose instead a regular- or children's-sized hamburger, which has about 250-300 calories. Ask for extra lettuce, tomatoes, and onions, and omit the cheese and sauce. If a smaller portion is not available, split an item to reduce calories and fat. You can always take some of your food home, and it is okay if you leave extra food on your plate.

Skip the large serving of french fries or onion rings and ask for a small serving instead. This switch alone saves 200 to 300 calories. Or, ask if you can substitute a salad or fruit for the fries.

Strive to make half your plate fruits and vegetables. Take advantage of the healthy side dishes offered at many fast-food restaurants. For example, instead of french fries choose a side salad with low-fat dressing or a baked potato, or add a fruit bowl or a fruit and yogurt option to your meal. Other healthy choices include apple or orange slices, corn on the cob, steamed rice, or baked potato chips.

When choosing an entrée salad, go with grilled chicken, shrimp, or vegetables with fat-free or low-fat dressing on the side, rather than regular salad dressing, which can have 100 to 200 calories per packet. Vinegar or lemon juice are also healthier substitutes for salad dressing. Watch out for high-calorie salads, such as those with deep fried shells or those topped with breaded chicken or other fried toppings. Also skip extras, such as cheese, bacon bits and croutons, which

quickly increase your calorie count. If you forgo the dressing, you can find salads for around 300 calories at most fast food chains.

Opt for grilled items. Fried and breaded foods, such as crispy chicken sandwiches and breaded fish fillets, are high in fat and calories. Select grilled or roasted lean meats – such as turkey or chicken meat, lean ham, or lean roast beef. Look for meat, chicken, and fish that are roasted, grilled, baked, or broiled. Avoid meats that are breaded or fried. If the dish you order comes with a heavy sauce, ask for it on the side and use just a small amount.

Go for whole grains. Select whole-grain breads or bagels. Croissants and biscuits have a lot of fat. People who eat whole grains as part of a healthy diet have a reduced risk of some chronic diseases.

Slow down on sodium. Americans have a taste for salt, but salt plays a role in high blood pressure. Everyone, including kids, should reduce their sodium intake to less than 2,300 milligrams of sodium a day (about 1 tsp of salt). Adults age 51 and older, African Americans of any age, and individuals with high blood pressure, diabetes, or chronic kidney disease should further reduce their sodium intake to 1,500 mg a day.

When eating at a fast food restaurant, pay attention to condiments. Foods like soy sauce, ketchup, pickles, olives, salad dressings, and seasoning packets are high in sodium. Choose low-sodium soy sauce and ketchup. Have a carrot or celery stick instead of olives or pickles. Use only a sprinkling of flavoring packets instead of the entire packet.

Watch what you drink. What you drink is as important as what you eat. Teenagers often drink more carbonated and caffeinated beverages and eat more fast foods. This, along with peer pressure related to eating and exercise, make teenagers particularly vulnerable to becoming sedentary, overweight, and obese. An obese teenager has a greater than 70% risk of becoming an obese adult.

Many beverages are high in calories, contain added sugars and offer little or no nutrients, while others may provide nutrients but too much fat and too many calories. For example, a large regular soda (32 ounces) has about 300 calories. Instead, order diet soda, water, unsweetened iced tea, sparkling water or mineral water. Also, skip the shakes and other ice cream drinks. Large shakes can contain more than 800 calories and all of your saturated fat allotment for the day.

Drink water. This is a better choice over sugary drinks. Regular soda, energy or sports drinks, and other sweet drinks usually contain a lot of added sugar, which provides more calories than needed. Water is usually easy on the wallet. You can save money by drinking water from the tap when eating out. When water just won't do, enjoy the beverage of your choice, but just cut back, avoiding the supersized option.

Don't forget dairy. Many fast food restaurants offer milk as an option for kids' meals, but you can request it! Dairy products provide calcium, vitamin D, potassium, protein, and other nutrients needed for good health throughout life. When you choose milk or milk alternatives, select low-fat or fat-free milk or fortified soymilk. Each type of milk offers the same key nutrients such as calcium, vitamin D, and potassium, but the number of calories are very different. Older children, teens, and adults need 3 cups of milk per day, while children 4 to 8 years old need 2 ½ cups, and children 2 to 3 years old need 2 cups.

The American Heart Association recommends some examples of healthier alternatives to common fast food picks.

Instead of...	Try...
Danish	Small bagel
Jumbo cheeseburger	Grilled chicken, sliced meats or even a regular 2 oz. hamburger on a bun with lettuce, tomato and onion
Fried chicken or tacos	Grilled chicken or salad bar (but watch out for the high-calorie dressing and ingredients)
French fries	Baked potato with vegetables or low-fat or fat-free sour cream topping

Potato chips	Pretzels, baked potato chips
Milkshake	Juice or low-fat or fat-free milk or a diet soft drink (Limit beverages that are high in calories but low in nutrients, such as soft drinks.)

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- Choose My Plate
- Make Half Your Grains Whole
- Salt and Sodium
- Make Better Beverage choices
- Enjoy Your Food, But Eat Less

Choose My Plate – Calories: How Many Can I Have?

<http://choosemyplate.gov/weight-management-calories/calories/empty-calories-amount.html>

Mayo Clinic

www.mayoclinic.com/health/fast-food/MY01268

National Institutes of Health – Medline Plus

www.nlm.nih.gov/medlineplus/ency/patientinstructions/000105.htm

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Formal Wear Rental and Purchase

Study Guide

Formal Wear Rental and Purchase

Oh my gosh! It's time for the biggest dance of the year at school. What will I wear?!?!?

Almost everyone has had a similar thought when a special event is about to happen. The selection of formal wear is associated with exciting times in our lives. We might be headed to a formal dance, a special party, a family wedding, or a number of other occasions that require formal attire. In addition to being exciting, it can also be overwhelming or scary...especially for the first time participant.

Formal wear or other special clothing can be either rented or purchased. Some rules are the same for both options, but others are different. So, how do you decide what to wear?

Costs of Renting vs Buying

In some situations, this decision is the easiest one to make. If you are part of a wedding party where everyone wearing tuxedos or dresses needs to look alike, then it is probably best to rent if that option is available. However, you can shop around for the best price for renting the same dress or tux or suit as many retailers carry the same or similar items. On other occasions, if you simply do not have enough money to purchase what you want, then renting may be your best option. Keep in mind, however, that buying an outfit does not mean that you have to buy something new. Thrift stores, garage sales, resale stores, outlet stores and other similar sources are available as well.

One way to determine whether to rent or buy is to consider the cost per wearing formula. It says that you divide the cost of the outfit by the number of times you will wear it to determine the cost per wearing.

For example, if you need a jacket that costs about \$100, list the number of times you will be able to wear that jacket. If you see that you will wear it three times in the coming year before you outgrow it or become tired of it, then your cost of wearing that jacket is \$100 divided by three....or about \$33.33 per occasion. Compare that amount with the cost of renting a similar jacket. If it costs \$25.00 per event to rent the jacket, then obviously it is less expensive to rent.

However, if you know that you can wear the jacket ten times before outgrowing it, getting tired of it, or having it go out of style, then you would divide \$100 by 10. And, when compared with the \$25.00 rental fee, that \$10.00 per wearing makes it less costly to purchase the jacket.

If you plan to wear the jacket multiple times, you will probably want to include other costs such as dry cleaning in your total cost.

Other Considerations for Renting vs Buying

In addition to cost, there are other things to consider when making your decision to rent or buy formal wear.

Style

If making a purchase, you want to be sure that it can be worn for more than one occasion. You may even want to purchase something that is adaptable for different seasons of the year. For example, the fabric should not be too light for cool weather or too heavy for warm weather. If the outfit is sleeveless, it should have a jacket that can be worn with it during cooler months of the year. You may also want to consider colors that are neutral so your garment will be appropriate for any season or event. And, you will probably want something that is not too trendy so that it doesn't go out of style before you have the chance to wear it again.

On the other hand, rented formal wear can be perfectly customized for the special event. You are not limited by the season of the year, the color or the latest style.

Quality

When buying a garment, quality is definitely a concern. If you are investing your money in an item, then you want something that will maintain its value for several wearings and be appropriate for several different occasions. It is important that your item will look good and last for as long as you plan to use it. Learning to judge quality in clothing and accessories will help you get the most for your money.

On the other hand, a rented garment only needs to hold up for the time you plan to wear it. Of course, you want something that is not damaged or flawed, but you don't need to worry as much about overall quality and durability when renting an outfit.

Budgeting Your Expenses

Whether renting or purchasing clothing, one of the most important variables is how much money is budgeted for the item. Remember, a formal outfit includes more than just the tuxedo or the dress. You must also have shoes, jewelry and other accessories. You may even want to include extras such as flowers, meals, transportation and so forth in your costs.

In terms of budget, you should expect to pay anywhere between \$50 for a conventional tuxedo rental to \$200 for top-notch designer formalwear rental. For ladies, prices range greatly depending on the website or company you rent from.

By planning ahead for special events, you won't be caught off-guard -- or left with empty pockets -- when the time comes. If you start by having a budget in advance of the occasion, you can set a goal for how much money you need and put aside some money at regular intervals to meet that goal. Planning ahead will also give you more opportunity to shop around for the right outfit, do some comparison shopping, take advantage of sales, and check out other available options.

Making Payments

The method you choose to pay for a rented or purchased outfit also makes a difference in the total

cost. If you plan ahead and start saving your money, you should be able to pay cash for your purchases or rented items. This payment method is the least expensive because it does not require any additional fees or finance charges. If you pay cash, be sure you get a receipt marked paid and keep it in a safe place. You will need that receipt in case you need to return or exchange the item, or in case there is a problem when you return the rented item.

You can also use a debit card, checks or money orders to pay for an item. These payment methods are basically the same as paying cash. Checks and money orders can be mailed while debit cards can be used to pay online on secured websites.

If you shop early and put your selections on layaway or reserve, there are probably no additional fees added to your bill. However, if you take the item out of the store before you have finished paying, you generally have additional finance charges.

Most people will choose to use a credit card if they don't have enough money to pay cash at the time of purchase. If you use this method of payment, then be prepared to pay interest on your purchase unless you pay the bill in full when it arrives. These additional finance charges need to be part of your cost comparison formula in order to have an accurate accounting of your total expenses.

Regardless of the payment option selected, be sure you understand all of the conditions. In some cases, you will lose the money you have paid on a layaway if you fail to complete your purchase by a certain date or if you decide to change your mind about the item selected. Some merchants may require payment in cash, down payments, or deposits to place things in layaway or hold them in reserve. Just be sure that you ask questions and understand the agreements you are making before finalizing the transaction.

Purchasing Formal Wear

As with any other item you purchase, high price does not necessarily equal high quality. The following are criteria to use when judging the overall quality of an item:

Fabric

Testing the fabric in several small ways will help you determine the quality of the garment. For example, if you crush a corner of the fabric in your hand for about 30 seconds, how does it look when you release it? If the wrinkles remain, then it will wrinkle as you wear it.

Stretch a small length of fabric against a ruler and release it. It should return to its original length. If not, then it is likely to bag on you as you wear it.

Check the color of the fabric to be sure the dye is even. There should be no dark or light streaks in the color. And, if the item is a two-piece, be sure that they are perfectly matched colors.

Hold the fabric up to the light and examine it for flaws in the weave or snags in the knit.

Rub two pieces of the fabric together briskly. Watch for small balls or pills that may form. If you see them, it indicates that the fabric will pill when washed or worn.

Construction

Look at the seams inside the garment. If the material ravel easily, the seams should be finished in some way to keep them from raveling. Seams on curves should be firmly stitched and there should be no loose or hanging threads.

The material along the seams should not pucker or buckle. Thread used in the sewing should be a suitable color that is not easily seen.

Plaids, stripes, checks and other patterns should be matched at the seams, whenever possible.

Buttons should be securely attached and buttonholes should not be ragged. Buttons receiving regular use should fit easily into their buttonholes.

Zippers should be sewn securely in the garment, and the material along the zipper should not be puckered or buckled. The zipper should operate smoothly and remain closed at the top when slight pressure is applied.

Check lapels and collars. Seams connecting the under collar with the top should not be visible. The lapel should lay flat and not curl.

Hems should be a uniformed width around the bottom of the garment. They should lay flat hanging smoothly and evenly.

Expensive dress and men=s jackets will probably have a lining or partial lining. They should be sewn smoothly and should not pucker. Lining fabric is lightweight, but it should be firm and resist raveling. If a stretch garment is lined, be sure the lining also stretches.

Merchants

Another consideration when buying a garment is where to make the purchase. Can you shop at discount stores, special sales, resale stores, garage sales, thrift stores or outlet stores? If so, you may be able to save money on your purchase. If making an expensive purchase, however, it is important to buy from a reputable company in case you have problems with the item. Be sure to check their return policies and other procedures that will affect your transaction.

Renting Formal Wear

Renting formal wear is different than buying, so you have different criteria to consider when choosing this option.

Accessories

If you plan to buy accessories to go with your rented outfit, be sure that you will be able to wear them with other items you already own. Otherwise, you may spend a lot of money on something that is worn only once.

Getting your choice

Check with the companies in your area or the websites you have chosen to rent from to be certain

that you can reserve the particular formal wear you want. Prom and wedding season is hectic and the popular styles and sizes will likely be flying off the shelves. Be sure to find out that it will be available at the time you need it, in the color you want and in the style you choose. Don't wait until the last minute. Ask if you will be wearing the exact same garment you try on in the store or if they have several of the same kind. You want to be sure you know what you are getting when you place your order. If renting from an online store, ask if they send two size choices to be certain one garment will fit properly.

You will probably want to pick up the item or receive the items in the mail as early as possible in case there are problems with your order or changes that need to be made. Be certain to look the garment over for damages, missing buttons, missing pieces and other potential flaws. Remember, rental clothes have been previously worn and laundered, so they may have more wear and tear than your clothes at home.

Contracts

Read the contract carefully and ask any questions you may have before signing it or agreeing to it. Be sure you know your rights and responsibilities when renting formal wear. Find out about deposits, alteration fees, and return deadlines. Determine if you need to have the item cleaned before returning it or if cleaning charges are included in the rental fee. Find out when the items need to be returned. Keep in mind, there may be additional fees for late returns. And, be sure you understand who pays for damages and your maximum out of pocket expenses for them. You are agreeing to a legal contract when you rent formal wear, and it is important that you read all the fine print and accept all the liabilities before you make the transaction.

Special events are meant to be fun times. Selecting the right outfit to wear will help you have the confidence you need to put your best foot forward.

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Ground Transportation Selection

Study Guide

Ground Transportation

When traveling, every consumer must decide which form of ground transportation to use. Whether traveling for business or personal reasons, there are several modes of transportation to consider. Consumers can use a combination of these modes during trips or even day-to-day if they live in a larger urban area. In addition to the recommended guidelines below, consumers should always try to plan ahead for travel delays/emergencies, stay aware of their surroundings, and utilize common sense.

Rental Vehicle

Renting a vehicle is a common practice for when consumers need flexible and on-demand transportation during travel. Rental arrangements can be made in advance of travel or on the same day, if vehicles are available. This makes it ideal for larger groups that might require a large van or sports utility vehicle. Renting a vehicle provides flexibility for consumers who must travel outside of urban areas, where some other modes may not be available. When consumers rent, they are paying for the vehicles, even while not in use. Parking and fuel costs also must be considered when using a rental vehicle. Overnight or multiple hourly parking rates can greatly increase the cost of this transportation mode. Oftentimes, variable vehicle sizes are available to accommodate different group sizes and/or space needs; however, there is no guarantee that a certain make or model of vehicle is available at a given location. These vehicles can be picked up and returned to any of a rental company's locations (airports or freestanding stores), but extra fees may apply if the vehicle is returned to a location other than the original rental site. In addition to location-based fees, consumers can also face charges for navigation equipment, going out of state in the vehicle, mileage overages, roadside assistance services, toll roads, supplemental insurance coverage, refueling, early/late returns, additional driver(s), and damage to the vehicle. Most rental companies will only rent to consumers age 21 and older, and many charge premium fees to drivers who are between 21-24 years old.¹

Ride Sharing

While the concept of ride sharing is not new, the latest revolution in this mode of transportation happened because of technological advancements and the increased availability of smart phones that support electronic payments and serve as Global Positioning System (GPS) receivers. Uber and Lyft have emerged as two of the most popular digital ridesharing platforms amongst consumers.² Unlike vehicle rentals, this mode of transportation is only paid for on a "per use" basis and there are no additional fuel or parking charges directly to the consumer. While use of digital ridesharing platforms over the years has expanded, the services are still not readily available in many rural areas. This mode of transportation is best for solo travelers or small groups in larger urban areas. However, many ride sharing companies offer varying sizes of vehicles to accommodate up to four to six passengers. Ride sharing services are

generally available twenty-four hours a day, seven days a week, but consumers may have to wait on a ride if there is a high demand for drivers. Some companies allow consumers to schedule pick-ups at specified times and locations using a mobile application, but most consumers use the services in a less planned manner. Consumers should carefully pay attention to an industry practice called “surge pricing” which can increase the price of their rides during high-demand times or in busy areas (after a sporting event, concert, etc.). There is no additional charge to consumers under the age of 25, but some younger consumers may be limited in their ability to use ridesharing. It requires the use of a smart device with data connection, a mobile application, and a form of pre-payment authorization (credit card, debit card, and/or company-specific gift card) just for a ride pick-up.

Metered Taxi Cab

Taxi services have been a part of the ground transportation lineup since the early days of automobiles. Depending on the city, this mode of transportation can be accessed by calling a taxi company, using a mobile application, using a taxi cab stand at a hotel or airport, and by simply waving one down on the street. Taxis are usually subject to state and/or local regulations, including but not limited to metered fare restrictions.³ These standardized fare rates allow for easier budgeting by consumers because they can plan for charges based on initial rates, distance, and any location surcharges. Unlike ride sharing companies, taxi companies allow cash payments instead of only electronic payments. This mode of transportation is best for solo travelers or small groups. While most taxi cabs are smaller passenger cars or vans, taxi companies in some locations may offer varying sizes of vehicles to accommodate more than four passengers. Taxi cabs are only paid for on a “per use” basis and there are no additional fuel or parking charges directly to the consumer. There are no additional charges for customers under the age of 25, and taxi cabs are often available twenty-four hours a day, seven days a week.

Shuttle Services

A shuttle is a mode of transportation, often in a 12-passenger or larger vehicle, used to carry groups of passengers from one destination to another. For consumers traveling alone, this could mean less privacy since several other consumers will be sharing the same vehicle. For consumers traveling in groups, shuttles can offer an inexpensive alternative to renting a larger vehicle when going to popular destinations with set routes (downtown areas, theme parks, etc.). These hired shuttles can offer fixed rates per seat/per person in the vehicle and generally must be arranged prior to the date of travel. Both solo and group travelers who are staying at a hotel in a city should check with local hotels about complimentary shuttle service to/from the airport and destinations within a certain distance from the hotel. Even though it is a complimentary service to hotel guests, consumers who opt for this will incur the costs of the hotel room. One major drawback to both hired and complimentary shuttles is that there are usually limits due to hours of service, number of available shuttles, and distance of destinations. Although

there are no direct parking or fuel fees for consumers, this is the least flexible ground transportation option.

Public Transportation

Public transportation includes, but is not limited to, buses, ferries, trains, trolleys, trams, and rapid public transit systems. The consumer's cost for this mode of transportation is often lower than other ground transportation options. Travel using public transportation can be incentivized through discounted or free fares for certain groups of consumers such as students, senior citizens, or persons with disabilities.⁴ Public transportation runs along fixed routes with multiple access points, making it easy for small or large groups of consumers to travel between destinations. Depending on the municipality operating the system, there may be multiple payment options: online, mobile application, credit card, debit card, multi-trip passes, and cash. There are no additional fuel costs to the consumer, but fares may vary depending on distance traveled or time of day. Public transportation can have limited hours of service on weekends and holidays, alternate routes due to weather, and delays/closures due to maintenance issues in part of the transit system. Unlike other forms of ground transportation, this is generally not always "door-to-door" service. Consumers may have to rely on navigating routes based on transit maps, time schedules, and connections to another bus, train, etc.

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Healthy Snacks Selection

SELECTING HEALTHY SNACKS +

Snacks can help us meet the nutritional needs that may otherwise go unmet if only consuming three meals per day. Nutrient intake can be improved by including healthy snacks as part of your daily schedule. Learning about proper nutrition and how to read a nutrition facts label can help you make healthy snacking choices.

Key Terms

- **Cost per Serving** – The cost of one serving of a food item. The cost per serving can be determined by dividing the total cost of a food package by the number of servings indicated on the nutrition facts label.
$$\text{Total cost} / \text{Total Number of Servings} = \text{Cost per Serving}$$
- **Daily Values (DVs)** – The amount of a nutrient needed daily as determined by the Food and Drug Administration.
- **Fiber** – the part of plant foods that cannot be digested. Fiber is beneficial because it reduces the risk of coronary heart disease, reduces constipation and promotes a full feeling.
- **Food Group** – The basic food groups are grains, fruits, vegetables, dairy, and protein.
- **Nutrients** – Substances the body needs to grow and function. The six classes of nutrients are: carbohydrates, protein, fats, water, vitamins and minerals. Carbohydrates, protein and fats are the only three nutrients that provide calories.
- **Nutrient-Dense Foods** – Those that provide substantial amounts of vitamins and minerals and relatively fewer calories.
- **Portion Size** – the amount of food eaten at one time.
- **Serving Size** – A standardized amount of a food, such as a cup or an ounce, used in providing dietary guidance or in making comparisons among similar foods.
- **Whole Grains** – Foods made from the entire grain seed, usually called the kernel, which consists of the bran, germ and endosperm. Nutrients found in whole grains offer protective health benefits such as reducing constipation, aiding in weight management and reducing the risk of heart disease.

Reading Labels When Making Snack Choices

To know what you're getting from your snack, be sure to read the nutrition facts label. Try these tips to make smart food choices quickly and easily.

- Keep these low: calories, saturated fats, trans fat, cholesterol and sodium
- Get enough of these: potassium, fiber, vitamins A and C, calcium and iron
- Check for added sugars using the ingredient list.
- Use the % Daily Value (DV) column when possible: 5% DV or less is low, 20% DV or more is high

Additional items to look for on a Nutrition Facts Label include:

Serving size: Look at the serving size and the number of servings per package. Then, determine how many servings you are actually consuming. If you double the servings you eat, you double the calories and nutrients. Remember, the serving size provided on the nutrition facts label is not a recommended amount to eat; it's a way to let you know the calories and nutrients in a certain amount of food.

Calories: 2,000 calories is the value used as a general reference on the food label. However, the amount of calories you need each day depends on your age, gender, activity level and whether you are trying to gain, maintain or lose weight. Be sure to look at the serving size and how many servings you are actually consuming. If you double the servings you eat, you double the calories.

You can easily consume your calories on a few high-calorie food items, but you most likely will not get the vitamins and nutrients your body needs. Instead, choose nutrient-rich foods that are packed with vitamins, minerals, fiber and other nutrients but are lower in calories.

Look at the calories on the label and compare them with what nutrients you are also getting to decide whether the food is worth eating. When one serving of a single food item contains 400 or more calories, it is high; 40 calories is low.

Food packages also contain information about the amount of calories in the food, including various claims, such as:

- Calorie free – means there is less than 5 calories per serving.
- Low calorie – means there is 40 calories or less per serving.
- Reduced calorie or lower in calories – means there is at least 25 percent fewer calories than the regular version.
- Light or lite – means there is half the fat or a third of the calories of the regular version.

Remember that calories come from both food and beverages, so make your calories count!

Sugars: The 2015 Dietary Guidelines for Americans recommends consuming less than 10 percent of calories per day from added sugars. Since sugars contribute calories with few, if any, nutrients, one should look for foods and beverages low in added sugars. The Nutrition Facts label lists how many grams of sugar the food contains, but does not list added sugars separately. The amount listed includes sugars that are naturally present in foods and sugars added to the food during processing or preparation. Although the body's response to sugars does not depend on whether they are naturally present in food or added to foods, sugars found naturally in foods are part of the food's total package of nutrients and other healthful components. In contrast, many foods that contain added sugars often supply calories, but few or no essential nutrients and no dietary fiber.

High sugar snacks can serve as a quick energy boost but are followed by a drop in blood sugar, which can cause you to feel hungry and tired. Read the ingredient list and make sure that added sugars are not one of the first few ingredients. Some names for added sugars (caloric sweeteners) include sucrose, glucose, high fructose corn syrup, corn syrup, corn sweetener, honey, dextrose, fruit juice concentrates, lactose, maltose, malt syrup, molasses, maple syrup and fructose. These added sugars provide calories but few or no vitamins and minerals.

The food package can also provide guidance. Sometimes the label will say "sugar-free" or "no added sugars." Even with these claims, it is important to read the Nutrition Facts label.

Fats: Look for foods low in saturated fats, trans fats and cholesterol to help reduce the risk of heart disease. Most of the fats you eat should be polyunsaturated and monounsaturated fats. The Dietary Guidelines for Americans (2015) suggest that a healthy eating pattern limits saturated fats and trans fats. The guidelines also recommend that less than 10 percent of calories per day come from saturated fats. Foods that are high in fats are usually high in calories.

Many food packages also contain various claims regarding the amount of fat in the food. Some examples of these claims are "fat free," "low saturated fat" or "light."

Sodium: Sodium is an essential nutrient and is needed by the body in relatively small quantities, provided that substantial sweating does not occur. Reducing sodium intake can reduce one's blood pressure. Keeping blood pressure in normal range reduces an individual's risk of cardiovascular disease, congestive heart failure, and kidney disease.

The Dietary Guidelines for Americans (2015) recommends consuming less than 2,300 milligrams (mg) of sodium per day. Most of the sodium people eat comes from processed foods, not from the salt shaker. Take a look at the sodium content on the Nutrition Facts label, using it to make selections that are lower in sodium. Use the % DV to determine the levels of sodium in the food product – 5% DV or less is low and 20% DV or more is considered high.

Claims on the food packaging, such as “low sodium,” can also be used to quickly identify foods that contain less salt. However, such claims should still prompt a look at the Nutrition Facts label.

Protein-Packed Snacks

The idea of eating more protein has gained popularity in recent years. Some people may think the way to build body muscle is to eat high-protein diets and use protein powders, supplements and shakes. However, most of us get what we need from the foods we eat. Protein is in many foods that you eat, including snacks, and plays a key role in our bodies. They function as building blocks for bones, muscles, cartilage, skin, and blood. They are also building blocks for enzymes, hormones, and vitamins. They help build and repair all body tissue, build blood, and form antibodies to fight infection. Proteins are also digested more slowly and, therefore, act as longer lasting fuel.



Source: www.1hourathlete.com

The photograph above is only provided as an example of common protein powders and is not being endorsed or condoned.

Proteins are one of three nutrients that provide calories, supplying food energy at 4 calories per gram. To keep calories in check, it's good to have higher-protein foods in place of other foods. For example, choose a glass of skim or low-fat milk instead of drinking a sweetened beverage and you'll take in 8 extra grams of protein. You can add lean protein at any meal, but research has shown that adding it to your breakfast may be especially helpful. Lean protein incorporated into meals and snacks is also an easy strategy for working a hunger-fighting food into your diet.

The Dietary Guidelines for Americans recommends eating a variety of protein foods, including seafood, lean meats and poultry, eggs, legumes, and nuts, seeds, and soy products. While meat, in general, is a good source of protein, it can be high in fat. That's why it is always good to check the Nutrition Facts Label for the saturated fat, trans fat, cholesterol, and sodium content of packaged foods. Processed meats have added sodium, so it's best to choose lean turkey, roast beef, ham or low-fat luncheon meats. Eating peanuts and certain tree nuts (i.e. walnuts, almonds, and pistachios) may reduce the risk of heart disease when consumed as part of a diet that is nutritionally adequate and within calorie needs. Because nuts and seeds are high in calories, eat them in small portions and use them to replace other protein foods, like some meat or poultry, rather than adding them to what you already eat. In addition, choose unsalted nuts and seeds to help reduce sodium intakes.

Energy/Power Bars

A variety of what is referred to as sports bars, energy bars or power bars are offered at grocery stores and in vending machines. Marketing for these bars often leads many people to believe they can work wonders with some purported benefits including burning of fat, buildup of muscle, and improved athletic performance. In terms of nutritional benefits, it depends on the benefits you are looking for.

All energy bars provide energy because energy refers to calories. Energy bars were actually first developed for endurance athletes who had difficulty taking in enough calories to sustain them during their athletic endeavors. It's true that they are a quick and convenient form of energy or calories. However, will these bars energize you? Probably not. If one has not eaten in a while and is feeling slightly fatigued, one of these bars may help take away that sluggishness, but so would a slice of whole wheat toast and a cup of skim milk or juice. However, if one is exhausted due to lack of sleep, for example, an energy bar won't provide any more pep.



Source: breakingmuscle.com

The photograph above is only provided as an example of common protein powders and is not being endorsed or condoned.

On the nutrition side of things, some energy bars contain over 400 calories (more than many candy bars) and up to ten grams of fat. For many people, this may be more than they need or want to take in before exercising. Many energy bars do contain added vitamins, minerals, amino acids, and other important substances, but they are not meal replacements. They do not contain natural fibers, phytochemicals, and high quality protein found in less-processed foods.

For a fraction of the cost, and just as convenient to eat, one might consider some other snacking options, such as:

Granola bars	Bananas	Oranges	Carrot sticks
Juice	Skim milk	Low-fat yogurt	Whole grain crackers
Graham crackers	Mini-bagels		

Energy bars are not a replacement for a healthy lifestyle; it's still important to eat a balanced diet, sleep, manage stress, and be physically active in order to achieve optimum performance. So rather than banking on bars, it's important to be a smart consumer and consider your caloric needs, choose to eat a balanced diet, read energy bar labels carefully (checking for calories, fat and sugar content and think how they fit in with your overall diet).

Nutritious Snacking Tips

- Choose foods high in nutrients and low in fat.
- Eat snacks that include at least two food groups. For example, pair apple slices with cheese or a mini bagel with peanut butter.
- Plan ahead! Plan and pack snacks for when you are on the go so you can avoid less healthful snack choices such as chips and soda.
- Incorporate fruits and vegetables into your snacking plans.
- Aim for whole grain snacks, as at least half of your grains should be whole.
- Remember that calories come from both food and beverages. So, consider for overall, daily caloric needs when choosing snacks. Water and milk are your best beverage choices at snack time.

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4-H Youth Development

Smoothies

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 $\frac{1}{2}$ 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 = $\frac{1}{2}$ cup of fruit**

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Item	McDonald's®, McCafe Mango Pineapple Smoothie
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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

Written by: Cheryl Varnadoe, Georgia 4-H Extension 4-H Specialist, Kasey Christian, MEd, Program Coordinator, and Elizabeth L. Andress, PhD, Professor and Extension Food Safety Specialist, Foods and Nutrition Extension. University of Georgia, Athens.

Place Settings

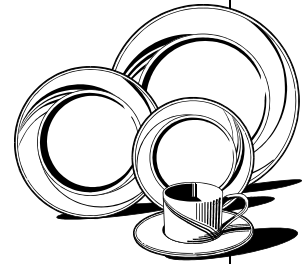


Place Settings

The purpose of a place setting is to make the act of eating easier. A properly set table helps guests feel more at ease.

Table setting depends on:

- What food will be served
- How many persons will be seated
- What the table covering will be



Common sense tells us that a proper place setting provides the necessary utensils for eating a meal and that they will be placed in convenient positions for use. Table appointments need not be expensive, but all items should be clean and dishes and glassware should be free of cracks and chips.

A *cover* is another name for a place setting. It consists of a combination of flatware, dishes, glasses, and linens that are appropriate for the foods served. A cover is approximately 20 to 24 inches long by 15 inches deep. It is the individual's place at the table.

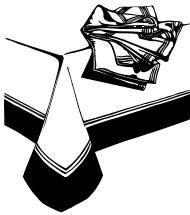
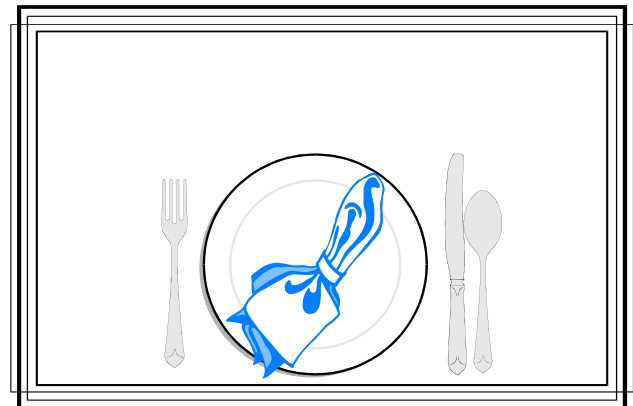
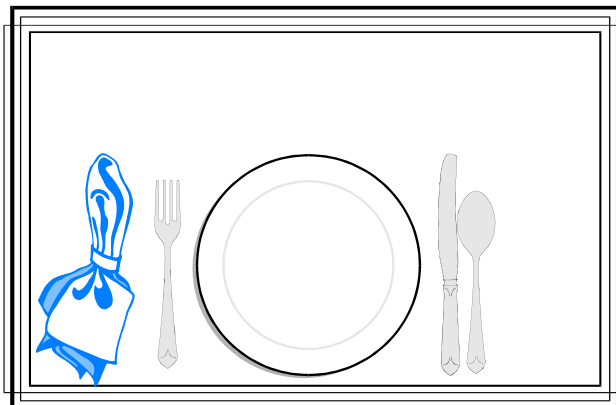


Table linens may be napkins, place mats, table-cloths or runners. It is not necessary to have a mat or cloth on your table if the surface will not be damaged by heat, water or abrasion.

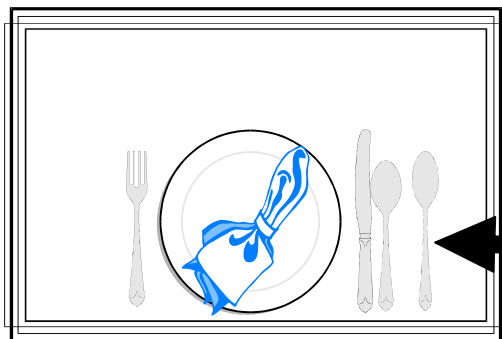
The flatware, napkin and plate for each cover are placed as though they belonged together, about one inch from the edge of the table. The plate forms the center, with the spoon and the knife on the right and the fork on the left. The cutting edge of the knife should face the plate. The bowl of the spoon and the tines of the fork are up.

Basic Place Settings:

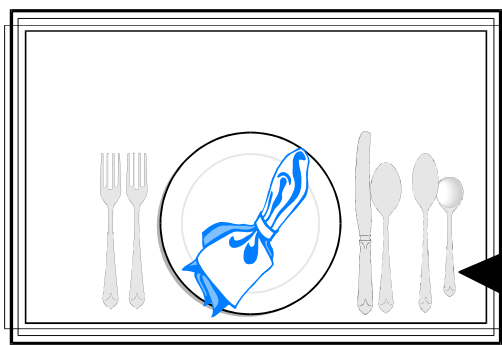


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Flatware is placed in order of its use. Pieces that are used first go on the outside and those that are used last are placed nearest the plate.

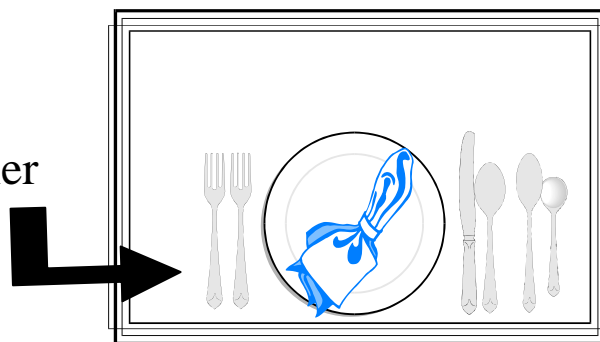


If you are serving iced tea, the teaspoon goes to the right of the other spoons.

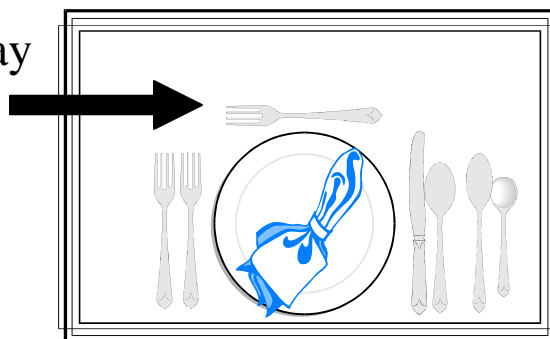


If a soup spoon is used, it is placed to the right of the teaspoon.

If a salad fork is used, it is placed to the left of the dinner fork.

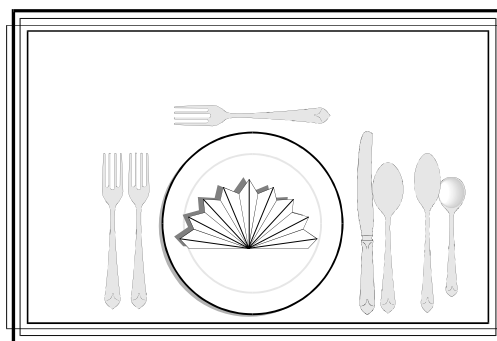
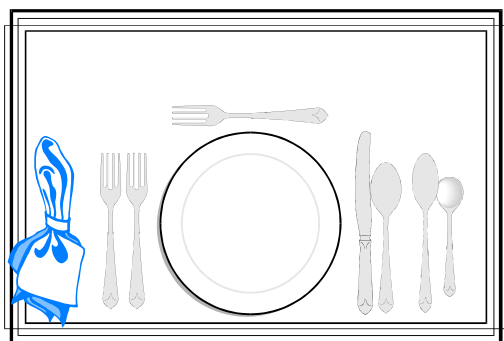
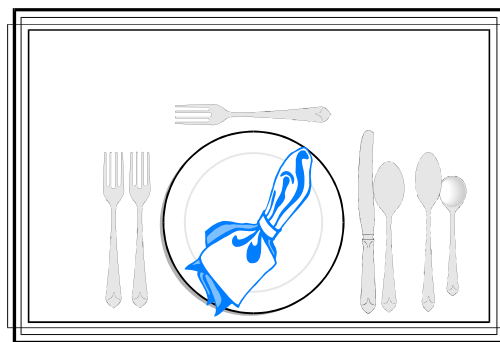


Flatware for dessert may or may not be placed on the table when the table is set. Commonly dessert utensils are placed above the dinner plate.

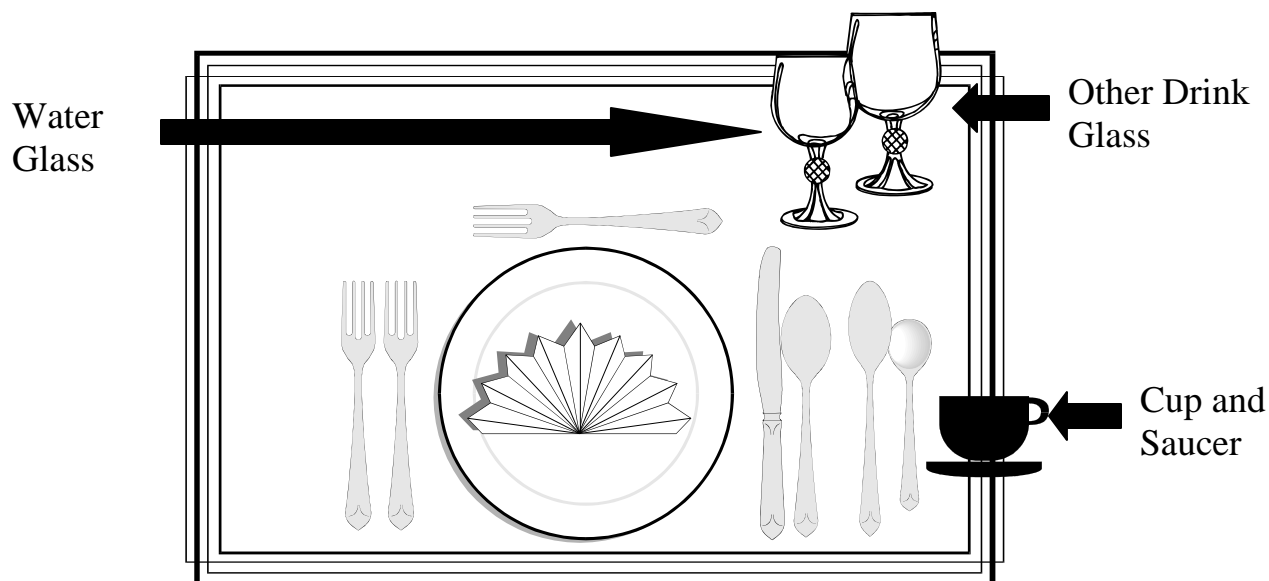


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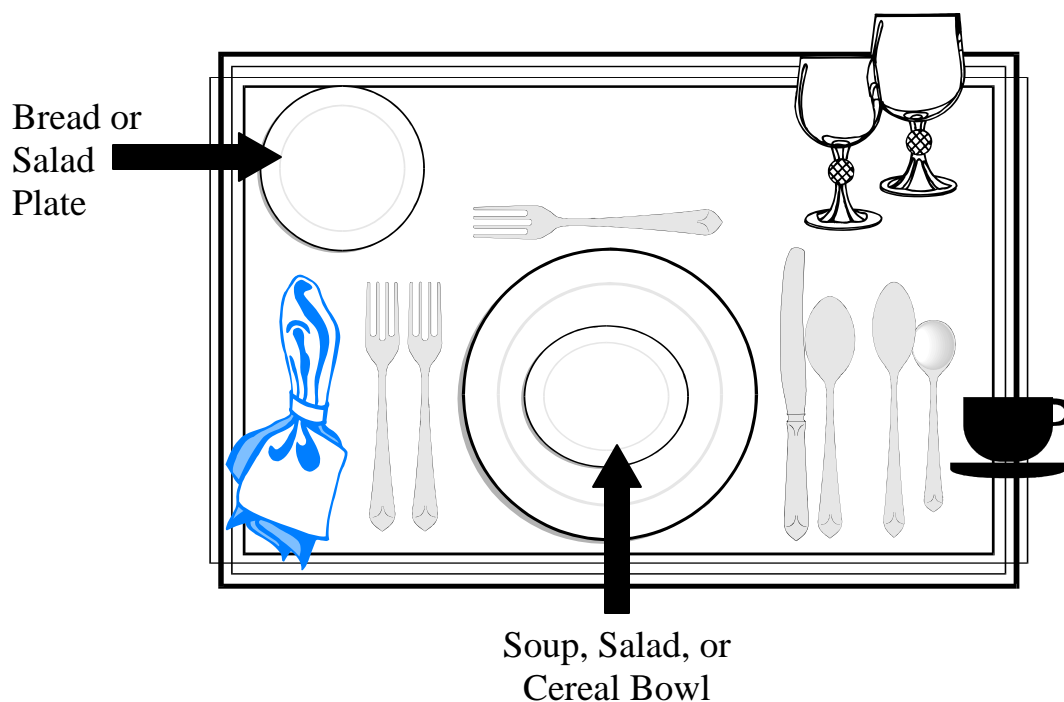
Usually the napkin is laid at the left of the fork. However when covers are close together, it can be placed in the center of the plate. Place the napkin so that the open corner is at either the lower right or lower left, whichever gives the better appearance. Traditional position is to have the open corner at the lower right. Napkins can also be rolled and placed in a napkin ring. Position it as you would a folded napkin.



The glass for water is placed at the tip of the knife; the glass for other drinks to the right of the water glass and a little nearer the edge of the table. Drinks always go to the right, just remember: Drink starts with “DR” which stands for “drink right”. The cup and saucer are placed to the right of the spoons. The handle of the cup points a little to the right of the edge of the table so that the guest can take hold of it without turning the cup.



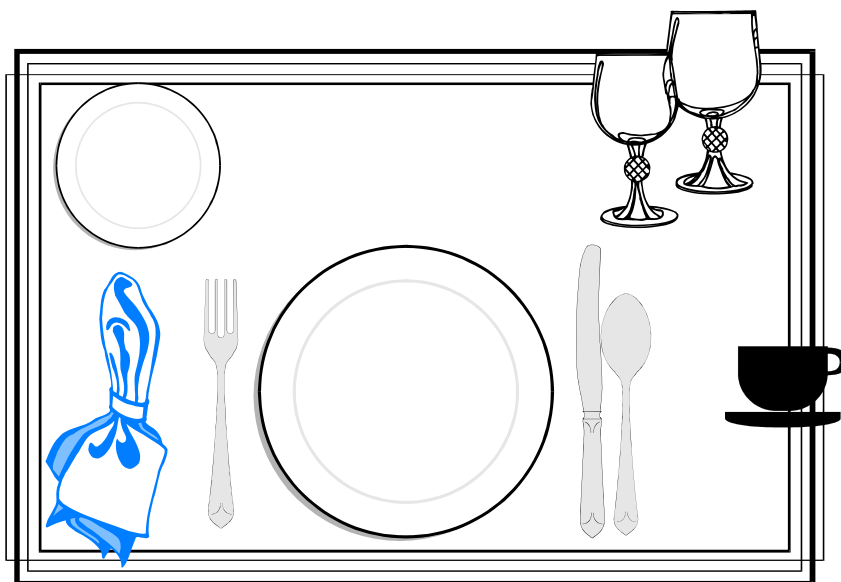
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Place a soup or cereal bowl on a plate. When a bread-and-butter plate is used, place it a little to the left of the tip of the fork. A single salad plate may be placed there or to the left of the fork. The additional plate should be directly opposite the drink glasses, so again, remember: Plate starts with "PL" which stands for "plate left". Bowls and plates used for early courses in the meal may be placed in the center of the dinner plate.

A cover ready for use.

Napkin
Fork
Plate
Knife
Spoon
Glass of water
Glass of milk
Cup and saucer, or mug
Bread and butter plate

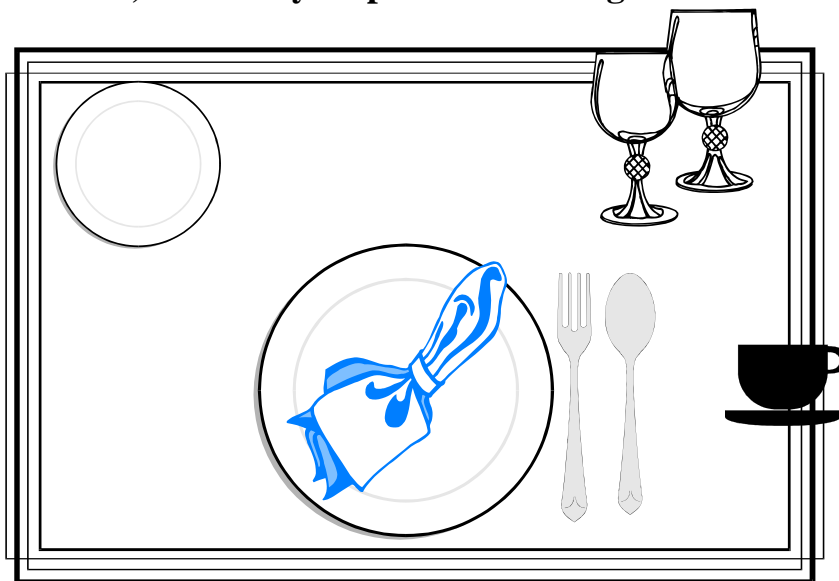


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Only the flatware that will be needed for the meal should be placed on the table. If the menu does not call for knives, forks may be placed at the right of the plate. Note the following illustrations.

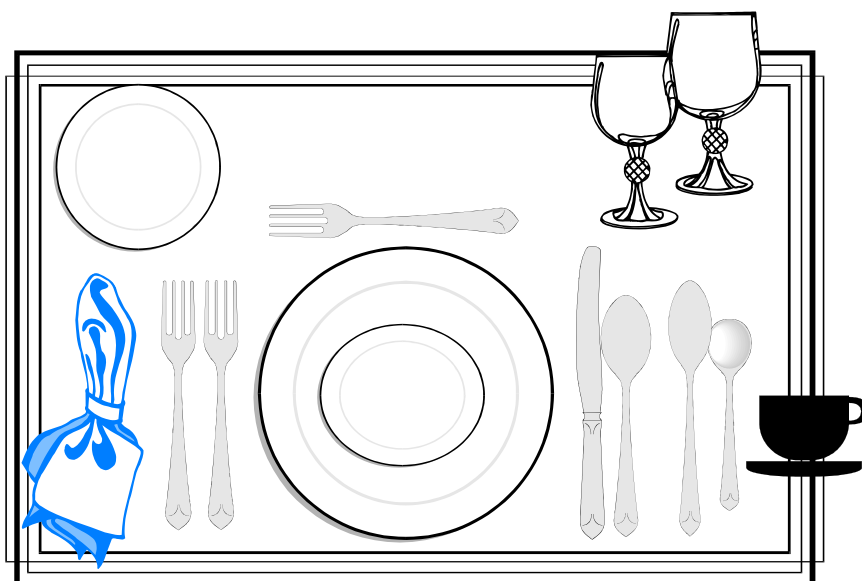
If the menu does not call for knives, forks may be placed at the right of the plate.

Napkin
Fork
Plate
Spoon
Glass of water
Glass of milk
Cup and saucer, or mug
Bread and butter plate



More courses call for more dishes in the cover. Consider all the foods to be served and what is needed based on the menu.

Napkin
Rolls (Bread Plate)
Water (Water Glass)
Iced Tea (Tea Glass & Tea Spoon)
Soup (Soup Bowl and Soup Spoon)
Salad (Salad Plate and Salad Fork)
Main Course (Dinner Plate, Fork, Knife, Spoon)
Dessert (Dessert Fork or Spoon)
Coffee (Cup and Saucer)



Turner, 2006

Guidelines for Creating Your Table Setting

Do you know that you can be a designer each time you set the table? A designer chooses and arranges things according to a plan for beauty and order. A neat, interesting, clean and attractive table setting makes any meal more enjoyable.

Actually, there is more than one way to set a table. The usual way to set a table is to put all the dishes, flatware, and food on the table before anyone sits down. When there is company or for a special meal, part of the food and dishes may be left in the kitchen and served later. Diners at a buffet or a picnic may fill their plates and glasses before they are seated. The way to set your table depends upon the way the meal is to be served. Be creative and have fun! Color texture, design and creativity are important.

For the Table Setting Contest, one place setting is to be displayed. Include table covering, dinnerware, stemware, flatware, centerpiece and menu. Select and make one food from your menu. You MUST bring a standard size card table for the display.

Select a Theme - What is the occasion...a family dinner, a holiday, or lunch with friends? Is this a casual or formal occasion? Select a theme which fits the occasion. Possibilities can run from a casual fishing party sack lunch to a formal Mother's Day dinner.

- Formal — use candles (lit only while being judged), more than three pieces of flatware, china (no stoneware), tablecloth and/or mats are acceptable and cloth napkins.
- Casual — be creative! Theme can be indoors or outdoors. Use any type of cover (tablecloth, paper, etc.) and any type of table service. Overall place setting should be an expression of your creativity; homemade touches are encouraged.

Table Appointments - These include any item used to set a table: tablecloth, placemats, dinnerware, glassware, flatware, and centerpiece. Choose table appointments to fit the occasion and carry out the theme. Paper plates, plasticware, and paper napkins may be used for a picnic but they would not be appropriate for a formal dinner. Flatware and dishware must be safe to eat from i.e., no glitter, glue, etc. is to be used on eating surfaces.

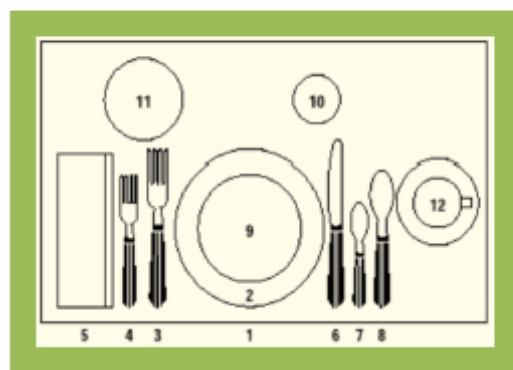
Table Covering - This is the background for the food and table appointments placed on it. It protects the table and makes for less noise. Placemats and/or

tablecloths may be used. Sometimes the table is left bare. Choose a covering which is appropriate for the occasion and the other table appointments. You may match or blend colors and textures in the dishes — or use something quite different for contrast.

Place Setting — Allow at least 20 inches of space for each person's dishes. This is called a cover and each cover is set exactly the same. A cover contains the dinnerware and flatware for the meal.

The following rules for setting a table correspond to the numbers seen in the table setting illustration shown here.

1. The flatware, plate, and napkin should be one inch from the edge of the table.
2. The plate is always in the center of the place



setting.

3. The dinner fork is placed at the left of the plate.
4. If a salad fork is used, it is placed to the left of the dinner fork.
5. The napkin is placed to the left of the fork, with the fold on the left (unless a decorative/creative fold is used). The napkin may also go under a fork or on top of the plate.
6. The knife is placed to the right of the plate with the sharp blade facing in towards the plate.
7. The teaspoon is placed to the right of the knife.
8. If a soup spoon is needed, it is placed to the right of the teaspoon.
9. The soup bowl may be placed on the dinner plate.
10. The drinking glass is placed at the tip of the knife.
11. If salad, bread and/or dessert plate(s) — or bowl(s) — is used, place at the top of the fork(s).
12. If coffee or tea is served, the cup is placed on the saucer and set to the right of the spoon. Have the handle pointing to the right.

Note: Only the utensils needed are placed on the table.

Centerpiece - The centerpiece should be coordinated with the table appointment and be appropriate for the occasion. Even though a single place setting is set, the centerpiece should be visible to all as if the entire table was set and should not obstruct anyone's view of each other. Centerpiece can be purchased or arranged by the exhibitor. Centerpiece candles are only to be lit while being judged.

Tips and Reminders for Setting a Table

- The table should be clean; it can be left bare or a table covering can be used as the background for the food and the items may be placed on top of it. A table covering helps protect the table and muffles the noise of clanking glassware and dishes.
- Placemats or tablecloths can be used for special occasions.
- Dinnerware and flatware should be chosen as appropriate for the occasion and that complement each other. Matching or blended colors or textures in the dishes or contrast something different make a table setting look attractive.
- Table setting items should be appropriate for the meal served. Snacks on paper plates are appropriate while a home-cooked dinner should be served on attractive dishes to help show it off.
- Only the utensils needed are placed on the table.
- The centerpiece should be attractive. Simple ones, such as fresh flowers, a plant, or fruit can be used. If candles are used, they should be of the length so that if they were lit, they would be above eye level.
- The centerpiece should be low enough so that the people at the table can see over it; it should be colorful and blend with the tablecloth and the dishes; and be fresh and clean looking.

Menu Planning - An appropriately planned menu should follow the Dietary Guidelines for Americans and MyPlate. As a general guideline, a meal should have at

least three different food groups to help balance what the body needs every day to get all the nutrients needed. MyPlate illustrates the five food groups that are the building blocks for a healthy diet using a familiar image—a place setting for a meal. For more information about MyPlate, go to www.choosemyplate.gov/.



When planning a menu, first decide on the main dish. Select appropriate vegetables, appetizer, soup or salad. Add a bread, dessert and beverage, if desired. Breakfast, party, and picnic menus should contain two or three food groups. Other meals should contain five food groups. Participants are encouraged to develop interesting and creative menus. For example, you might name a food to fit your theme. Note: The use of alcoholic beverages in any menu will disqualify the table setting.

Common Errors in Menu Planning

COLOR

- Too many foods of same color
- No contrast or variation
- Clashing or unpleasant color scheme

TEXTURE

- Too many soft foods
- Too many chewy foods
- Too many crispy or crunchy foods
- Lack of variety in texture

SIZE

- Too many mixtures
- Too many small pieces of the same size and shape
- Too many similar shapes
- Lack of variety in shape

PREPARATION AND TYPE OF FOOD

- No main dish
- More than one main dish
- Too many foods prepared in the same way, such as fried foods, creamed food, or foods with sauces
- Too many starchy foods
- Same fruit or vegetable more than once
- Too many high protein foods

NUTRITION

- Too many foods from one food group
- Missing food groups
- Contain a variety of foods not meeting the nutritional needs of those for whom it is planned

TEMPERATURE

- Too many foods of the same temperature
- Not enough time allotted for preparation
- Need to keep hot foods hot and cold foods cold
- Food not stored at safe temperature (special consideration needed for picnics)

FLAVOR

- All bland flavor
- Too many strong flavors
- Repetition of food or flavor
- No tart or acid-flavor
- Too many sweet or too many sour foods



Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska—Lincoln cooperating with the Counties and the United States Department of Agriculture.

The 4-H Youth Development program abides with the nondiscrimination policies of the University of Nebraska—Lincoln and the United States Department of Agriculture.

Writing the Menu

The menu should be displayed on any medium of choice (card, ceramic tile, chalkboard, etc.) printed or typed by the exhibitor. The menu may be decorated and/or propped up. The following guidelines are suggested when writing or planning a menu:

- Menus should be written in symmetrical arrangement on the page with the foods listed in the order they are served. (Every menu will not include all the foods listed here.)

Appetizer
Main Dish
Starchy Vegetable
Other Vegetables
Salad
Bread
Dessert
Beverage

- Foods should be grouped by courses. Extra spacing should be allowed between courses.
- Descriptive terms should be used that give information about the temperature, texture, color, or other special characteristics of the food or method of preparation such as *Chilled Apple Cider*, *Broiled Sirloin Steak*, *Cream of Asparagus Soup*
- Words should be capitalized except articles and prepositions. Words such as *or*, *and*, *of*, *with*, etc. should not be capitalized.
- Foods served with an accompaniment should have the food listed first.

Baked Potato Sour Cream
OR
Cheddar Cheese Cubes
Rye Chips

- When the main dish has two or more accompaniments, the main dish should be centered on one line and the accompaniments should be on the same line on either side or written on the line below.

Rye Crisp Chicken Soup Saltines
OR
Chicken Soup
Rye Crisp Saltines

- Butter, cream, sugar, or salad dressings are not written on the menu unless they are special in some way such as *Whipped Butter* or *Thousand Island Dressing*
- The beverage(s) should be listed last.
- The following is an example of how a three-course meal is properly written:

French Onion Soup
Whole Wheat Wafers
Celery Sticks Assorted Olives

Prime Rib of Roast Beef au Jus
Potato Soufflé
Asparagus with Hollandaise Sauce
Mixed Green Salad
Hot Rolls Whipped Butter

Lemon Ice
Coffee Hot Tea



Dining Etiquette

Posture

- Place personal items (purse, hat, gloves) in a place other than on the table.
- Sit up straight with arms and elbows off the table.
- All four legs of your chair should rest on the floor.
- Don't fidget or squirm.
- Ask for items to be passed rather than reach across the table.
- Hats and caps are to be removed upon entering a building.

Table Service

- Hold flatware between thumb and forefinger.
- Avoid gesturing with your flatware.
- Use the flatware from the outside first.
- After using a fork, knife or spoon, place it on the plate. Never lay a used utensil on the table.
- Service is from the left and dishes are passed to the right.
- Place the napkin in your lap. When leaving the table, place the napkin to the left of your plate.



While Eating

- Chew quietly with your mouth closed. Avoid slurping soup or noodles.
- Butter bread one bite at a time.
- Cut meat one bite at a time.
- Dip soup spoon into the bowl using a motion that moves the spoon away from you.
- Remove alien objects from your mouth with your fingers and place them on the side of your plate.
- Avoid talking with a full mouth. Take small bites.
- If the food is too hot, wait for it to cool rather than blowing on it.
- Take small portions at buffets. You may return for seconds.
- Keep table conversation pleasant and at a low volume.
- Discuss appropriate subjects at the table. Include all diners in the conversation.

Finishing the Meal

- When you have finished eating, leave your plate and other service items where they are. Place the fork and knife on the plate resting next to each other with the tines and blade toward the middle of the plate.

- Don't pick your teeth at the table.
- Don't fuss with hair or makeup at the table. Excuse yourself to the restroom for repairs.

Social Occasions

Being a Good Host - As the host, you are responsible for issuing invitations in a timely manner and having the event well organized so you can also enjoy the party. The host makes sure that all of the guests are greeted and introduced to the people they do not know. When you are hosting a social event, it's your job to make sure that all of your guests are comfortable and are having a reasonably good time. The host is in charge of the conversation and makes sure that it stays at an acceptable level. Be sure that everyone is included in the conversation. Avoid crude and hurtful jokes as well as vulgar topics that may be offensive.

Being a Good Guest - When you receive an invitation, you must respond in a timely manner. Arrive within a few minutes of the designated time. Try not to arrive too early. Arriving "fashionably late" is not fashionable at all. If a meal is being served, it might be ruined by your tardiness. As a guest, it's your responsibility to be respectful and pleasant. Make an effort to visit with everyone at the party.

RSVP - RSVP is the abbreviation for the French phrase *repondez s'il vous plait* which means *please reply*. If an invitation requests an RSVP, it is your responsibility to reply in a timely manner in the fashion the host indicates. This may be by returning an enclosed card, making a phone call or sending an email. A response is for the host's convenience, not yours. This helps the host know how many people to plan for, especially if food will be served or if space is an issue.

Thank You Notes - Following the party, you should phone the host or write a short thank you note expressing your appreciation of the time you spent with them. It is appropriate to return the invitation within a month or so. Thank you notes should also be sent when you receive a gift even if you have given a verbal thank you at the time.



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Toothpaste

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, tarter, 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 tarter 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 tarter control.* For plaque removal, the best bet is to brush correctly. Plaque and tarter 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.

Sources:

Consumer Reports

American Dental Association

Prepared by: Cheryl Varnadoe, Georgia 4-H Faculty, February, 2018



Toys



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:

//\ WARNING:
CHOKING HAZARD-with a description of the actual hazard
Not for children under 3 yrs or
Adult Supervision Required

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

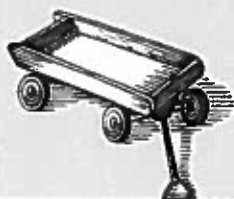
There are many toys to choose from, but most can be grouped into specific developmental categories: physical or muscle; sensory (sight, sound, hearing, touch); social; and intellectual or creative development. Finding age appropriate toys for children enables them to grow and develop at a level suitable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

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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

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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-tma.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> 		



Turner, 2006

Wearable Technology

Study Guide

Wearable Technology

What is Wearable Technology?

Wearable technology describes any electronic device that consumers can wear on their body. "Wearables" have currently grown to include items ranging from pedometers, watches, glasses, etc... Wearables can meet a variety of needs for consumers: fitness trackers, fashionable accessories, communication devices, sources for additional news and social media, etc.

How Does Wearable Technology Work?

Wearable gear in the form of watches, eyeglasses, and more, integrates the form and function of multiple devices. Most of these work in a similar manner. Multiple sensors capture changes in position, temperature, etc. and translate them into data. Then, microprocessors extract, transform, and load data to a transmittable format. Finally, transmitters wirelessly send data to cloud storage for further processing and reporting.

A Variety of Applications (& Apps)

Driven by the healthcare industry, the corporate sector, and consumer demand, the wide array and number of applications ranging from health and fitness monitoring to employee monitoring and safety will increase very quickly. According to PricewaterhouseCoopers, over 80 percent of consumers believe that an important benefit of wearable technology is its potential to make healthcare more convenient. Moreover, 68 percent said in exchange for lower health insurance costs, they would be willing to wear employer-provided wearables that streamed anonymous data to an information pool.

What are some different types of wearable tech?

Pedometers, fitness trackers, smart watches, smart glasses, and action cameras are all popular wearables. Pedometers are some of the original technology in this industry. While their main feature is only to track movements and steps, pedometers have historically been the most widely available and mass produced type of wearable technology. Fitness tracking wristbands are a more modern and complex device that built upon the success of pedometers. They measure and record data related to the wearer's physical state and performance, such as heart rate, speed and distance traveled, sleep patterns, and more. Smart watches primarily tell time while also displaying information supplied by the wearer's smartphone, such as email, SMS, call info, and media controls. Some smart watches also make and receive calls, take pictures, play games, and provide some of the features of a fitness tracker. Smart glasses can allow users to search the web, see maps, send messages, take photos, and play music, among many other features. Consumers need to make sure the glasses are both light and comfortable, and see if they come with either regular or sunglasses-style lenses. Rugged action cameras mount to a helmet, chest harness, or to the sporting equipment itself, capturing video under strenuous, adventurous conditions.

How can wearable tech help improve your health?

Fitness trackers gather in-depth information about wearers' physical activity that they would not otherwise know, helping them monitor their progress towards or away from their health, fitness, and athletic goals. Some fitness wearables sync with apps that help users stick to healthier eating and sleeping habits as well.

What are some important features to look for in an activity tracker?

A heart rate monitor, timer, GPS tracker, and convenient connectivity features are some basic essentials to consider. Although most fitness trackers monitor steps taken, the advanced models take speed and altitude into account. Accelerometers are small motion sensors inside wearables that detect the orientation of the device. By analyzing motion and GPS information, the device can assess if the user is sitting, standing, or running. Additionally, the accelerometers can be used to interact with apps and/or games. An attractive interface and automatic charting of performance data are both helpful. For example, some trackers convert physical activity to calories burned. A long-lasting battery is another advantage, as is a waterproof design for use while swimming.

The Future for Wearables

The future for wearables is very bright. The potential to help people get and stay healthy using wearables is huge. The other opportunity is for monitoring people with long-term chronic diseases, so that they may be medicated appropriately. We have only begun to see the power of wearables.

What Are the Risks?

There are three main categories of risks the wearable tech companies and consumers face:

- 1 Cyber risks. The data transmitted via wearables must be properly secured; otherwise, companies are at risk of class action lawsuits, costly fines, and injury to their reputation.
- 2 Bodily injury risks. Malfunctioning devices can cause injuries, illnesses, and even death to wearers or patients. Manufacturers of defective devices may even face product liability lawsuits.
- 3 Technology errors and omissions risks. Companies can be held liable for economic losses from the failure of their devices to work as intended.

What Consumers Must Do

Make sure that any wearable device you wear already has a good track record. Keep your own information protected by using strong passwords and changing them regularly. Ask the question, "Do I need another device (i.e.- a mobile phone) to make my wearable device have full functionality? Since the price of wearables can vary depending on the type of device, consumers must be aware of what features they most need in relation to the price for those features. The same goes for battery life. Consumers must look for a wearable that has enough battery life to meet their needs. They may consider: the type of charger needed, the length of time to a full charge, and if the device is still useable with a minimal or empty charge.