GROUP RIDING

There is a certain cycling etiquette of which you should be aware whenever cycling in a group.

Be Predictable
Group riding requires even more attention to predictability than riding alone. Other riders expect you to continue straight ahead at a constant speed unless you indicate differently.

Use Signals
Use hand and verbal signals to communicate with others in the group and with motorists.

Give Warnings
Warn cyclists behind you of changes in direction or speed. The lead rider should call out "left" or "right," in addition to a hand signal. The lead rider should announce the turn well in advance of the intersection, so members of the group have time to position themselves properly for the turn.

Change Positions Correctly
Try to pass others on their left. Say "on your left" to warn others that you are passing. If you need to pass someone on the right, say "on you right" clearly since this is an unusual maneuver.

Announce Hazards
Most of the cyclists will not have a good view of the road surface ahead, so it is important to announce hazards. Indicate hazards by pointing down to the left or right and shouting, "hole," "bump," etc. Everyone should be made aware of hazards, however everyone does not need to announce them.

Watch For Traffic Coming From The Rear
Even when you are occupying the proper lane position, it often helps to know when a car is coming. Since those in front cannot see traffic approaching from the rear, it is the responsibility of the riders in back to inform the others by saying "car back." Around curves, on narrow roads, or when riding double, it is also helpful to warn of traffic approaching from ahead with "car up."

Watch Out At Intersections
When approaching intersections requiring vehicles to yield or stop, the lead rider should say "slowing" or "stopping" to alert those behind them. When passing through an intersection, some bicyclists say, "clear" if there is no cross traffic. This is a dangerous practice. It encourages riders to let others do their thinking for them. Each bicyclist is responsible for his or her own safety.

Leave a Gap for Cars
When riding up hills or on narrow roads, leave a gap for cars between every three or four bicycles. This way a motorist can use shorter passing intervals and move around the entire group.

Move Off the Road When You Stop
Move well off the road so you do not interfere with traffic. When you start again, each bicyclist should look for, and yield to, traffic.

Ride one or two across
Ride single or double file as appropriate to the roadway, traffic conditions and where allowed by law. Most state vehicle codes permit narrow vehicles such as bicycles and motorcycles to ride double file within the lane. Even where riding double is legal, courtesy dictates that you single up when cars are trying to pass you if the lane is wide enough for them to safely do so.

through a long ride. A meal of pasta should be consumed the day before a long ride. A breakfast of complex carbs (cereal and a bagel) will provide a good energy foundation for your ride.

Fats should be avoided. Fats are difficult for the body to digest and will rob you of needed energy. Eating a hamburger and fries, for example, will overload your body with fat. This overloading will force the body to use energy to digest instead of propelling your bike.

Proteins are important to the body's maintenance and repair of cells. Proteins - meats, peanut butter, etc. - should be consumed moderately. Eating a meal of spaghetti, salad and bread will prepare your body the night before a long ride. Figs, granola bars, dried fruits are excellent natural sources of simple carbohydrates that will help you maintain energy during your ride. Bananas are a bicyclist's mainstay. They provide necessary carbs as well as other vitamins that the body uses in large amounts while bicycling. Plan to snack every 20 minutes or every 10 miles. If you prefer, you may choose a commercially made energy bar.

It is likely that you will perspire more heavily than normal while bicycling. Dehydration is a serious condition and should be avoided. It is advisable to consume more water than normal the day before your ride. This will super-hydrate your body in preparation for the ride. During your ride, plan to drink one water bottle (20 oz.) per hour or every 12 to 14 miles. If the weather is exceptionally hot and humid, increase the amount you drink and drink more often. If you find yourself feeling lightheaded and ill on a very hot day, you may be experiencing the symptoms of dehydration. Get off your bike and get help to re-hydrate before continuing your ride. Sports drinks can greatly improve your riding enjoyment: they contain nutrients that will assist your body in maintaining the nutrient balance it needs.

The best option for an enjoyable ride is to eat and drink at a slow, steady pace. Plan when and what you will consume and you will find that your muscles will enjoy the ride as much as you will. The basic rule of bicycling is:

Eat before you are hungry and drink before you are thirsty.

Energy output

Power for bicycling is generated primarily by the hips, legs, and feet. Individual muscles are active in different parts of each crank revolution, and some of them actually work against each other. The bicycle must be properly adjusted to minimize unnecessary work.

Spinning usually refers to pedal cadence in the range from 75 to 95 RPM or higher. Spinning takes practice, and is made much easier if clipless pedals or toe clips and straps are used to secure the feet to the pedals.

For an individual bicyclist, there will be an optimal cadence at which the least amount of oxygen per minute is used to produce a given power.

Multi-speed bicycles allow the bicyclist to always maintain optimal cadence, regardless of the conditions of wind or grade. The bicyclist merely shifts gears until one is found in which optimal cadence and comfortable pedal forces can be maintained.

ROAD HAZARDS

Dogs and Children
The biggest danger to the bicyclist is a fall caused by a sudden stop. Children and animals usually appear out of nowhere and the bicyclist must make a quick decision on how to deal with the situation. Always maintain control of your bike. Keep both hands on the handlebars in the braking position for best control.

Dogs
It is your choice to either act aggressive or calmly. Much of your decision will rest on what you may know about the dog and your experience with animals. It is very important that you maintain control of your bicycle. The possibility of a dog bite is better than falling AND getting a dog bite.

Wind Blasts
Gusting wind and gusts caused by vehicles can affect cyclists. You will need to be aware that vehicles can deliver gusts of varying force based on the speed they are traveling. Your bicycle could be pulled or swerve. You need to hang on to the bike and be ready to compensate for the effect the gust will have on you. Practice and experience will help you gain confidence in dealing with this situation.

Railroad Tracks and Surface Defects
Stay alert to the road surface and the hazards it may present. Extra caution needs to be taken, as metal obstacles are very slippery when wet. Knowing how to handle these various obstacles can help you prevent a close encounter. Wider tires on your bike will improve its stability.

Railroad tracks, pavement cracks
Be conscious of the angle of the tracks as you approach them. Your bicycle needs to cross tracks with its wheels perpendicular (at a right angle) to the rail of the tracks.

Storm grates
Storm grates and sewer drains are slippery when wet. Some designs may swallow your front wheel. Exercise caution when riding over grates. If at all possible, avoid them.

Steel plates and uneven road surfaces
Steel plates are used by construction crews to cover work in-progress. They present a particular type of obstacle to bicyclists. They can have sharp edges running parallel to your travel and steer your bike out from under you or have a sharp edge to climb over that is perpendicular to you. If this straight-ahead obstacle cannot be safely avoided, you will need to un-weight your front wheel and hop it onto the plate. These straight-ahead obstacles can pinch a tire and cause a flat. The uneven road surface needs to be addressed just as a railroad track or pavement crack. Turn your front wheel to cross onto a different level of pavement at a sharp angle.

Be conscientious: most bike riders know these principles in the abstract, but forget to stay alert and practice them on the road.

BICYCLE CRASH AVOIDANCE

In 50% of all bicycle crashes, the bicyclist falls. Falls occur from hitting a hole, grate or curb, skidding on manhole covers, paint lines, wet road surfaces, loose gravel or dirt, or being diverted when your front wheel is involuntarily turned by railroad track, expansion joints or other cracks in the pavement.

Did you know?

Most car/bike collisions involving child cyclists are caused by the child.
Most car/bike collisions involving adult cyclists are caused by the motorist.

COLLISIONS

Who is at Fault?	**Action**	
Bicyclist 14%	**Wrong Side to the Street Riding - Facing Traffic**	
Motorist	Left turn in front of the bicyclist	13%
Motorist	Right turn in front of the bicyclist	11%
Bicyclist	**Left turn from the right side of the road**	**11%**
Bicyclist	**Failure to yield from driveway**	**9%**
Bicyclist	**Running a stop sign or signal**	**8%**
Motorist	Running a stop sign or signal	8%
Motorist	Opening car door into path of the bicyclist	7%
Motorist	Failure to yield from driveway	6%
All Others		8%

The Kaplan study revealed that bicyclist crash rates decrease with experience derived from miles or years of cycling. Bicyclists who ride regularly under adverse conditions (rain, darkness, in the mountains, etc) have lower crash rates than primarily fair weather riders.

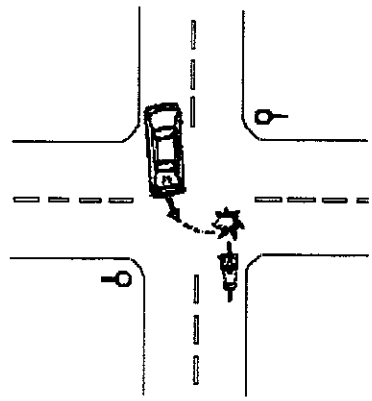
For both child and adult bicyclists, riding safely in traffic doesn't have to be a hit or miss (pun intended) situation. There are **preventive measures** that can be taken to reduce the likelihood of a crash and **avoidance techniques** that can be employed if a crash is imminent.
As a cyclist, you are likely to encounter the following motorist errors at intersections:

Motorist Left Turn Without Yielding to Straight-through Cyclist

Prevention:

- Be visible - wear bright-colored clothing, establish eye contact, use lights at night
- Be predictable - maintain proper lane position, ride a straight line
- Be assertive - plan to take your appropriate right-of-way, and act accordingly
- Be alert - assess the situation and be prepared to take evasive action

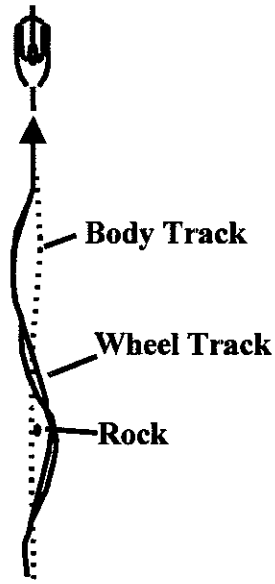
Avoidance: Quick Stop, Instant Turn.



EMERGENCY MANEUVERS

ROCK DODGE

Riding safely on the road requires knowledge and understanding of traffic laws and the principles that determine and govern these laws. However, even when you ride predictably and occupy your proper place on the roadway, situations may arise that necessitate an emergency maneuver. The ability to execute an evasive maneuver could mean the difference between a close call and a crash.



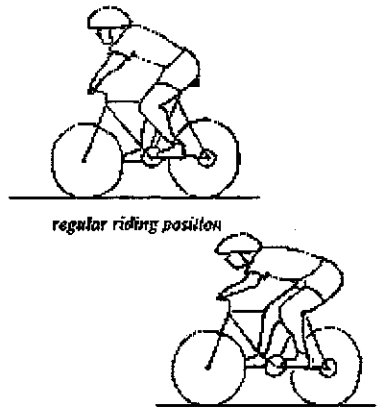
Rock Dodging is an essential skill for any cyclist to master. Picture yourself riding along when suddenly you see a rock in your path. There is a ditch to your right and a car or another cyclist to your left. You don't have to hit the rock - there is a way to go around it.

To execute a rock dodge, keep riding straight until you are very close to the rock. Just before the rock, turn the handlebars suddenly without leaning so the front wheel goes around the rock. For example, if you steer to the right of the rock you will automatically start to lean left. However, you will catch yourself as soon as your wheels have passed the rock by steering more to the left than is natural. Your wheel snakes around the rock, but your body and handlebars have barely moved. The entire action happens in a split second.

This technique will feel unnatural at first and will take practice before you can do it smoothly. Once you master the Rock Dodge, practice it regularly. While out riding, dodge rocks that you would otherwise be able to avoid or make use of time spent waiting for a ride to begin by practicing in the parking lot. For an emergency maneuver to work in an emergency, it has to come naturally.

QUICK STOP

There is an art to stopping a bicycle in an emergency. Doing it incorrectly could cause you to: 1) hit the object you are trying to avoid; 2) somersault over the handlebars; or 3) lose control of the bike as the rear wheel skids out from under you. If you are like many people, you instinctively grab both brakes in an emergency and apply them equally until the bike begins to skid. You have no control over a locked wheel and a wheel that is skidding offers you virtually no stopping power.

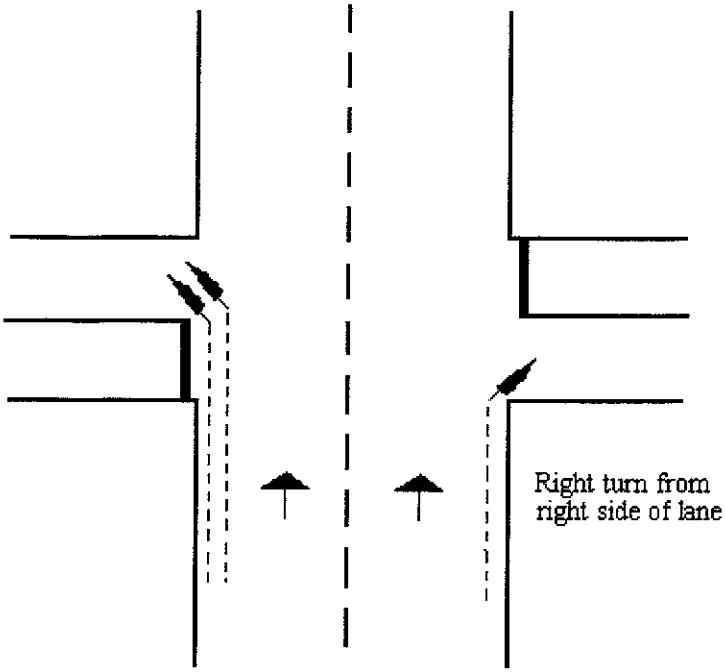


When you apply either the front or rear brake, the bicycle begins to slow down and your weight transfers forward. The more weight on a wheel, the more effective the braking and the less tendency to skid.

If you apply the rear brake hard, your weight is shifted to the front wheel, decreasing weight on the rear wheel. Since the rear wheel is supporting less weight, it will skid as you brake, decreasing the effectiveness of the brake.

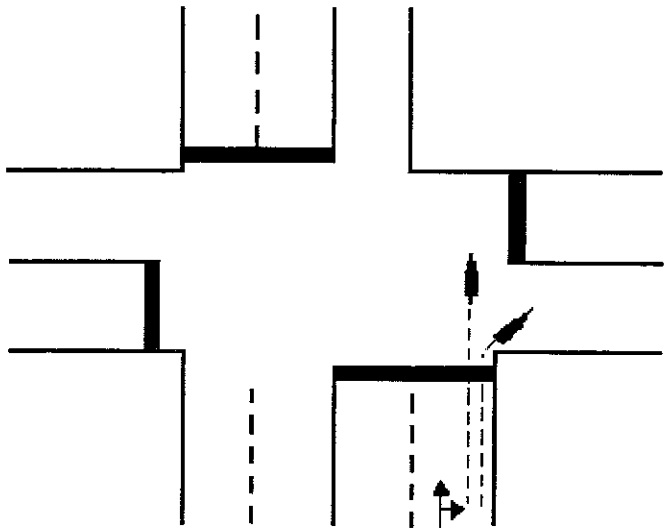
Applying the front brake also shifts weight to the front wheel. In this case, however, the weight transfer increases the effectiveness of the brake and the tendency of the front wheel to skid is

ONE-WAY STREET



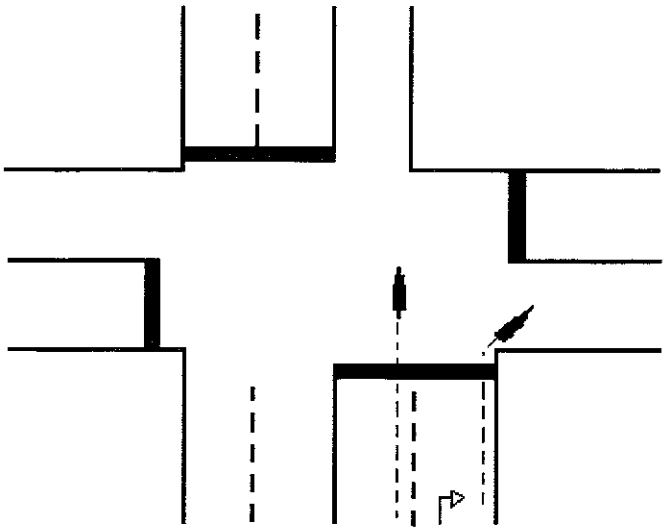
Left turn from left side of lane if there is little turning traffic, from center or right side of lane if both left and straight traffic is heavy.

DUAL-DESTINATION RIGHT-TURN LANE



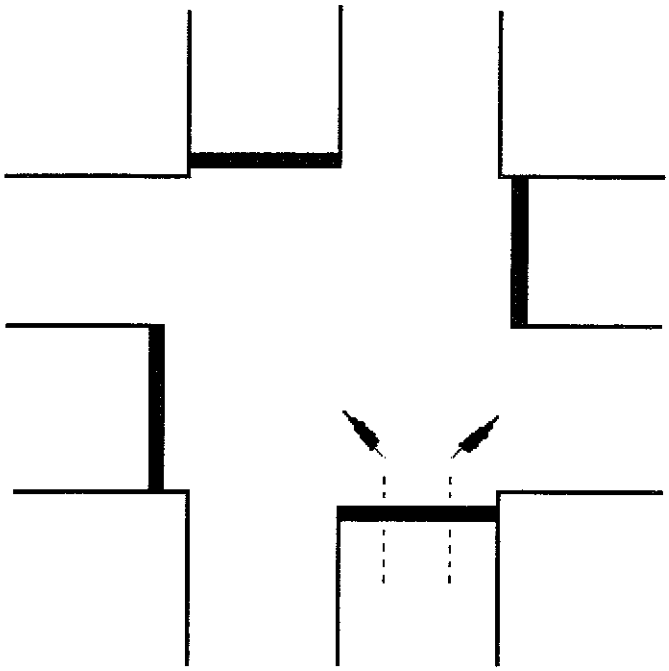
Right turn from right side of right-turn lane
Straight from center of lane.

RIGHT-TURN ONLY LANE



Right turn from right side of right-turn-only lane
Straight from right side of next lane left

TWO-WAY STREETS



Left turn from left side of lane
Right turn from right side of lane

BICYCLING IN TRAFFIC

As a bicycle rider, you are recognized as a legal driver of a vehicle in all states. Therefore, drive your bicycle as you would any vehicle. **Obey all traffic laws**. Even though the bicycle is very maneuverable, this does not mean that the cyclist should violate traffic laws.

Lane Position Rule
Ride just to the right of the motorized traffic when the lane is wide enough to safely share. When lanes are too narrow to safely share, ride in the center of the lane or just to the right of the center in the right hand tire track.

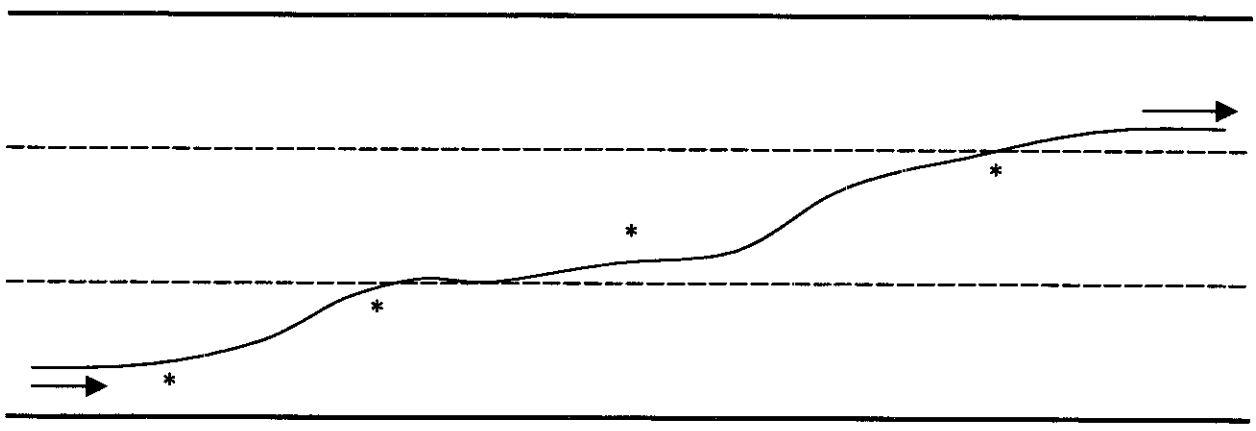
If the bicyclist is traveling at the same speed of the flow of traffic, use the entire lane (take the lane).

Intersections - Turn Lane Rule
Ride in the right most lane that goes to your destination. In single-destination lanes, ride on the right-hand side of the lane. In multiple-destination lanes, ride in the side of the lane appropriate for your destination and current traffic conditions.

Changing Lanes Safely
The theory is really an attitude; a strong belief in the rights cyclists have as legitimate users of the roadways. The cyclist needs to have this attitude as well as the necessary knowledge and skills. You must be confident and assertive, but not reckless. In order to successfully change lanes in traffic the cyclist must:

- Plan ahead
- Look behind, perhaps several times
- Signal your intention
- Act carefully, smoothly and deliberately
- Negotiate as necessary
- Never move in front of another vehicle so close as to constitute a hazard

The method that is employed to change lanes is dependent upon the cyclist's speed relative to the speed of the traffic. When the surrounding traffic is moving at least as fast as the cyclist but not more than 15 miles faster than the cyclist, the cyclist should negotiate with overtaking motorists and make two moves per lane (as shown in the following illustration).



*Indicates: Look behind and change position as traffic permits.

SCANNING AND SIGNALING

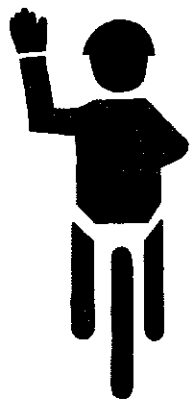
Scanning refers to looking over your shoulder to check for overtaking traffic. This is a skill that requires practice to accomplish without the bicycle steering itself in an unplanned direction while you are looking behind. You will need to practice looking over both shoulders until it becomes a habit and you are able to maintain a straight line of travel while looking back. Scanning also provides the opportunity for the rider to make eye contact with overtaking motorists, thus providing a vital communication tool to let the motorist know your plans.

Hand Signals

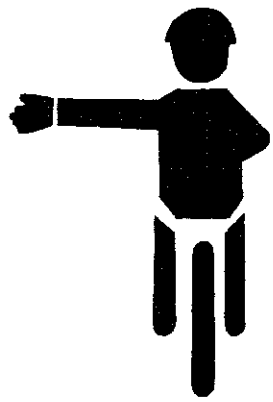
A large part of being predictable in your actions on the highway is letting others know what you plan to do before you do it - hand signals are a vital communication tool.

The right turn signal has historically be the left arm outstretched and bent upward at the elbow. This action completed by a motorist sitting upright in a car is clearly visible. For a bicyclist in riding position, this signal may be difficult to for motorists to see. Some states now allow the right outstretched arm to indicate a right turn. Always use hand signals when turning, changing lanes and even when changing position in a given lane. Motorists will appreciate the courtesy and respond in kind.

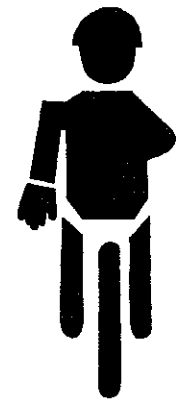
Be sure to stop signaling immediately before entering the intersection. At this point, it is more important for you to have both hands on the handlebar for maximum control and maneuverability.



Right Turn



Left Turn



Stopping

Water Bottle
Your bike should have water bottle cages to carry water. Other types of water carrying devices allow you to drink hands-free while riding. Choose either bottles or a hydration pack that will allow you to carry enough water for your ride between water sources.

Cycling shorts
By cushioning your tailbone and reducing chafe in sensitive areas, cycling shorts add comfort to your ride. Choose traditional tight shorts or find a pair of casual, loose-fitting cycling shorts with padding and Lycra on the inside.

Cycling Jerseys
Jerseys are made of technical fabrics that keep moisture away from your skin. Depending on what fabric you choose, it can either help keep you warm or cool. Jerseys usually have pockets on the back to carry food, tools, money or other items you want to keep accessible. Select jerseys that are light colored to improve rider visibility on the road.

Riding Tights
To prevent sore aching muscles and possible injury, it is important to keep your legs warm. Tights are designed for cool to cold weather conditions.

Rainwear
The most important consideration when purchasing rainwear is color. Yellow, orange or red in the gloomy rain, fog and spray from trucks is very visible. Seeing in the rain is difficult for both you and others - **be visible** and be safe.

Cold Weather Wear
Cold weather clothing should be made of fabrics that wick moisture away from your body, insulate, or break the wind. The weather conditions you elect to ride in will determine how many layers of clothing you put on.

Glasses
Sunglasses offer protection from wind, grit, and ultraviolet light. Look for glasses that wrap around your field of vision, permitting a good peripheral view. Lenses should be distortion-free and made of a high-impact, shatterproof material. Clear or amber lenses are recommended for cloudy, gloomy or rainy weather.

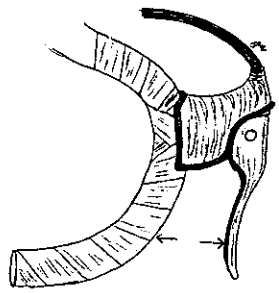
Security System
Along with a water bottle, the standard equipment on a bicycle should include a good lock. Many are available to select from at your local bicycle dealer.

ADJUSTING BRAKES

Bicycle brakes come in three major types - rim, coaster and disc. Coaster brakes require you to push backwards on the pedals to stop. Rim brakes are available in a variety of types including cantilever, vee and sidepull. Disc brakes use metal surfaces attached to the hubs to stop.

Brakes are one of the most important parts of your bike. You need to be aware of what brakes should feel like and how they should behave.

Brake System Inspection



1. Check to make sure the rim and the brake pads are clean. Wipe rim clean and sand the brake pad with sandpaper.
2. Check cables for freedom of movement. Enlist the assistance of a bicycle mechanic if you find difficulties with the cables.
3. Inspect the levers - they must be firmly installed and there must be at least 2 cm (3/4 inch) clearance between the lever and handlebars when the brake is fully applied. If necessary, tighten, lubricate, and adjust.
4. Make sure the brake arms move freely without resistance, and that they return to clear the wheel fully when the lever is released. If necessary, adjust, lubricate or replace.

Brake Pad Adjustment

This job is not only the solution to squealing, but may also solve inadequate braking performance. As the brake pad wears, its position relative to the rim changes. You should regularly check the position of the brake pads as they contact the rim and readjust them if they don't align.

It is also preferable if the front end of the brake pad is about 1-2 mm closer to the rim than the rear. Only when you adjust them this way, referred to as 'toed in,' will the brake force be equally distributed over the entire length of the brake pad.

Tools needed

5 mm Allen wrench and/or 10 mm wrench

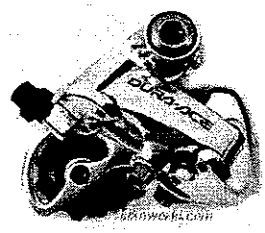
Procedure

1. Loosen the nut or bolt that holds the brake pad to the brake arm by about one turn.
2. While applying the corresponding brake lever with modest hand force, move the brake pads in the position illustrated, then increase lever force. You may have to twist the brake pad and the underlying spherical and cupped washers to achieve this position.
3. Check to make sure the brake works correctly and fine-tune the adjustment if necessary.

Brake Adjustment

The most common type of brake adjustment involves compensating for brake pad wear. Carry out brake pad adjustments first. Then proceed with other adjustments. If the brake does not perform adequately, the cable tension has to be increased. Do that initially by loosening the barrel adjuster on your brake lever until you reach the desired feel. Verify whether the brake now engages when 2 cm (3/4 inch) clearance remains between lever and handlebars. If the correct adjustment cannot be obtained, you should enlist the assistance of a bike mechanic.

GEARS AND GEAR SELECTION

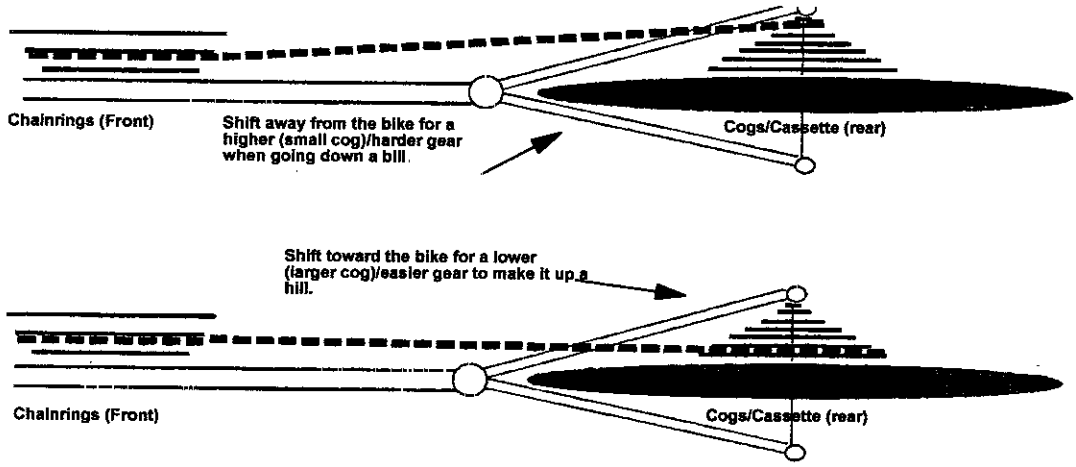


Why does my bike have 24, 27 or 30 gears? Whether you use them all or not, the gears are on your bike so that you can exert nearly the same amount of pedaling effort whether you're riding up a hill, down a hill, or on flatland.

For maximum efficiency and speed on the bike and the least amount of impact on your knees, you should maintain a pedaling cadence of 75-95 revolutions per minute (rpm). You can determine your cadence with the help of a cycle computer or by counting how many times one pedal goes around in fifteen seconds, multiplying by four to determine revolutions per minute. When you are maintaining a steady cadence, the bike will travel different distances depending on the gear you select. For example, when a bike is in high gear, each revolution of the pedals propels it a long distance – perhaps 25 feet or so – but pedaling effort is very high. When the bike is in low gear, each revolution propels it only a short distance – perhaps as little as five feet – but the pedals are easier to turn.

If your bike has three chainrings in the front you will do much of your riding in the middle one. That means that you only have to shift the rear derailleur to find a comfortable gear. To do so, use the shifter at your right hand to move the chain while pedaling.

If the change in terrain is more pronounced, you will need to shift the front derailleur as well. The chain has the opposite effect here: Move it onto a smaller chainring (although still toward the bike) for a lower gear, and onto a larger chainring (away from the bike) for a higher gear.



TOOLS FOR THE ROAD

There is no official list of what tools a bicyclist should always carry with them on every bike ride. To determine what tools are right for you, ask yourself these three questions:

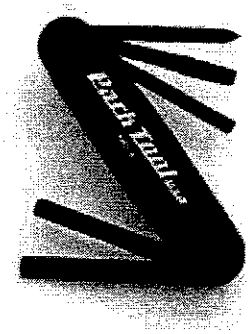
What do I know how to repair?
Carrying tools that you don't know how to use will help only if someone who knows about bikes happens along. Only carry tools for work that you know how to do.

How well do I maintain my bike?
A lack of maintenance at home ensures a greater likelihood of a specific bike failure occurring. Be sure to check your tires for proper inflation before each ride and maintain adequate lubrication of the chain.

How far from civilization will I be riding?
If you only ride close to home, flat tire tools and money for the phone may be enough. For loaded touring, you'll probably want a larger kit with more repair parts.

Although each bike has different tool needs, most bikes today are standard to the extent that the following list will handle the majority of on-road repairs and adjustments:

- Allen wrenches of 4, 5 and 6 mm
- Spare tube and patch kit
- Tire pump
- Tire levers

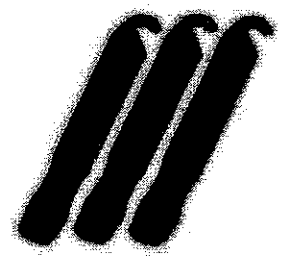


Bicycle specific multi-tools usually have everything that you need, including a chain tool.

Look this list over and compare it with your needs for such things as your derailleurs, brakes, handlebar or rack, wheel removal, and saddle. Be sure you understand what tool is needed for each fitting on your bike and then alter the above list of tools as needed. Remember that tools don't fix things - people fix things.

Some additional items should also always be carried for safety's sake:

- Identification – if you are riding alone, the attendants need to know who to contact
- Small first aid items – at least one Band-Aid and prepackaged antiseptic
- Dollar bill – to boot a tire if needed
- Two quarters – for a phone call



ADJUSTING YOUR BICYCLE

Bicycle fit summarized: ***It shouldn't hurt!*** Riding should be fun, not painful. A few minor adjustments can dramatically improve the pleasure of the experience.

Seat Height
With the ball of the foot on the pedal, there should be a slight flex in the knee when the pedal is at the very bottom of the pedal stroke. If your hips rock when pedaling, the seat is too high.

Seat Angle
The nose of the saddle should be level with the rear of the saddle.

Seat Position
The forward or backward position of the saddle should be adjusted so that your knee is directly above the pedal spindle when the cranks are horizontal.

Handlebars
Handlebar angle should be adjusted for comfort in the top or up position. The top of the handlebar, when viewed from the side, should be approximately level.

Brake Position
Adjust for comfortable reach to apply brakes in forward position and comfortable hand position on brake hoods, if desired.

Additional adjustments may be made to your bike to further enhance your riding pleasure. These may require the purchase of new components.

Handlebar stem
Length and rise should be determined on the basis of riding style. Generally, longer and lower for more aggressive riders, shorter and higher for more relaxed riding.

Saddle
A saddle should support your pelvic bones and be narrow enough to prevent chafing when pedaling. Saddles are available for male or female anatomy.

Handlebars
Come in a variety of shapes and sizes. Select handlebars that are approximately the same width as your shoulders or wider.

Toe Clips/Clipless Pedals
Provide comfort (keep feet aligned on the pedals), more power with each stroke, safety (keep your feet from slipping off the pedals), and convenience (enable you to raise a pedal when stopped).

Cranks
Different lengths, chainring combinations and crank set-ups are available.

BICYCLE SELECTION

Purchasing a bicycle with which you will have a very close and long-term relationship is a big job! Several key decisions need to be made before you begin to shop.

How much to spend?

Bicycles are available in a wide range of prices from under $100 to several thousand dollars. What is the difference between a $300 bike and a $2000 bike? As the price of the bicycle increases, the overall quality of the workmanship, frame materials and components improves. Know your personal budget.

What kind of bicycle to buy?

Ask your self several questions:

- How fit am I?
- Where will I ride?
- What kind of terrain will I be riding? How hilly is it?
- Will I need carrying capacity?
- Will I ride with a group?
- Do I want to ride off-road?

Where to buy?

Toy store, warehouse store, discount store?

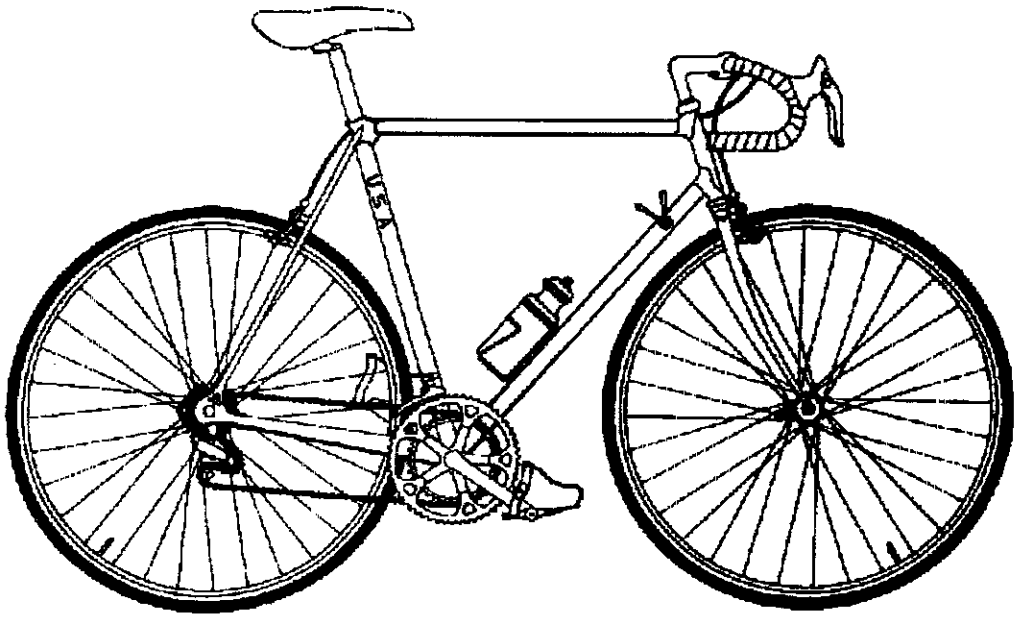
Bicycles available through these vendors are usually heavy with components that do not work well. Couple that with improper and sometimes dangerous assembly, no mechanical service and a lack of knowledgeable salespeople and your riding enthusiasm will soon lag. Bicycle shops carry a wide range of quality products and have skilled personnel who can help you select a bike that fits your needs. And, they provide skilled assembly, fit and maintenance that are unavailable from other retailers. Specialty bicycle retailers are your one stop shop for equipment, riding tips and local information.

What kind of bike is right for me?

The basic qualities of a good bike that will serve you well for many miles:

- Frame – Strong, but light: steel, aluminum, titanium or carbon fiber
- Wheels – Aluminum rims, stainless steel spokes
- Bearings – Sealed for long life and ease of maintenance
- Brakes – Powerful and easy to use
- Shifters – indexed and at your fingertips

THE BICYCLE: Parts Identification



Label the parts of the bicycle: Place the letter of the bicycle part at the appropriate location on the diagram.

Frame

A. Top Tube
B. Head Tube
C. Seat Tube
D. Down Tube
E. Fork
F. Seat Stays
G. Chain Stays
H. Dropouts
I. Headset
J. Bottom Bracket

Drive train

K. Pedal
L. Cranks
M. Chainrings
N. Chain
O. Rear Derailleur
P. Cassette
Q. Front Derailleur

Other Components

R. Wheel - hub, spokes, rim, tire, tube, valve
S. Saddle
T. Seat Post
U. Handlebar stem
V. Handlebar
W. Brake Lever
X. Brake Cables
Y. Brakes
Z. Shifter

WELCOME TO ROAD I

The BikeEd program is designed to develop the craft and science of bicycling - the ability to use a bicycle with confidence and competence for pleasure, utility and/or sport under various highway, climate, terrain and traffic conditions.

This course combines classroom discussion/activities and on-road practice of the principles of vehicular-style bicycling. The instructor for this course is certified by the League of American Bicyclists, and as such, has under gone extensive training.

The League of American Bicyclists was founded in 1880 as the League of American Wheelmen. The founding members of the organization found the unpaved roadway conditions of the era unacceptable for the pleasurable pursuit of their sport. The roadway surfaces we enjoy today are the result of the advocacy and education efforts of the first members. Today's membership is in excess of 300,000 individual bicyclists and affiliated organizations. The League operates as a 501(c)(3) non-profit organization advancing the rights of bicyclists nationwide through advocacy and education programs. The BikeEd program is the League's major education initiative. It began over 25 years ago and continues to be the only nationally recognized program with certified instructors.

Road I is the foundation of the program. It provides instruction and guidance in the implementation of the basic principles of vehicular bicycling. Bicyclists benefit from development of basic bicycling knowledge that will assist them in enjoying many memorable miles on their bicycles in all types of situations.

Length of this course: Total of 9 hours
4 hours in classroom instruction
5 hours of hands-on and on-road instruction

Location of On-road Experiences:
Quiet residential streets, minor arterials, multi-lane low and moderate speed arterioles with posted speeds not greater than 35 mph, protected (Left Turn Only lane and/or Left Turn signal phase) and unprotected left turns, and narrow and wide roads