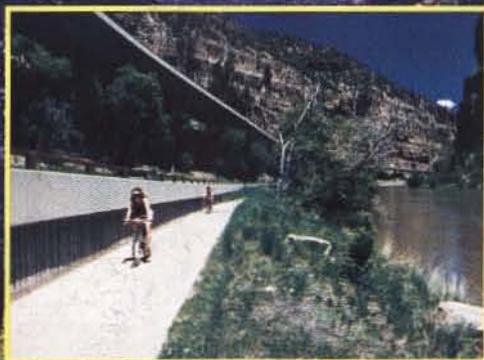


# COLORADO

## BICYCLING MANUAL

A GUIDE FOR USING ROADS AND TRAILS



Colorado Department of Transportation  
Bicycle / Pedestrian Program  
7th Edition  
1999

*This edition of the  
Colorado  
Bicycling Manual  
is dedicated  
to  
Jerry Nagel  
in appreciation  
of his many years  
of service and  
commitment  
to the bicycling  
community  
in Colorado.*

*Thank You Jerry!*

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# INTRODUCTION

This compendium of bicycling information has been prepared by the Colorado Department of Transportation (CDOT) Bicycle/Pedestrian Program. It is designed to encourage the use of bicycles for transportation by providing information about bicycling in Colorado to make it an easy, safe, and satisfying experience. All levels of government in Colorado are participating in engineering, enforcement, education, and encouragement efforts to make bicycling a practical transportation choice, and the Colorado Department of Transportation continues to encourage the development of facilities and programs to accommodate safe and efficient travel options.

Bicycling is a very energy efficient form of transportation and includes many benefits such as improved health, less stress, and reductions in air pollution, traffic congestion, and energy consumption. In addition, bicycles are affordable and inexpensive to maintain, and driving a bicycle is a lot more fun than sitting in traffic on a congested roadway.

The State of Colorado recognizes the benefits of using bicycles as an alternative form of transportation and highly recommends their use for commuting, errands, and recreation. Many trips normally taken by car can be pleasantly and efficiently done by bicycle. Bicycle transportation is particularly efficient for short trips of ten miles or less and can be combined with other alternative modes for longer trips.

### ***Using a bicycle for one ten-mile trip results in the following savings:***

-  .5 gallons of gasoline
-  \$.75 saved on gasoline costing \$1.50 per gallon
-  .328 pounds of carbon monoxide are not produced
-  .044 pounds of nitrous oxides are not produced
-  .039 pounds of hydrocarbons are not produced

While these numbers may seem small when broken down into one ten-mile trip, they are significant when viewed statewide. For instance, Colorado's population is approximately four million, and if one quarter of our population (one million people) replaced just one ten-mile motor vehicle trip per year with one bicycle trip, it would result in the following savings:

-  500,000 gallons of gasoline
-  \$750,000 would be saved on gasoline costing \$1.50 per gallon
-  328,000 pounds of carbon monoxide would not be produced
-  43,000 pounds of nitrous oxides would not be produced
-  39,000 pounds of hydrocarbons would not be produced

**NOTE:** The calculations above are based on the following figures from the Colorado Department of Health:

- An average commuting vehicle gets 20 miles per gallon of gasoline
- An average commuting vehicle carbon monoxide emission rate is 14.9 grams per mile
- An average commuting vehicle nitrous oxide emission rate is 1.98 grams per mile
- An average commuting vehicle hydrocarbon emission rate is 1.79 grams per mile

Every person's transportation choice counts! We all need to be conscious of and courteous to other individuals when sharing our roadways. Remember, streets and trails are for everyone and sharing is more than good manners!

# RULES OF THE ROAD

Please consult the Colorado Revised Statutes for the specific language of the law regarding bicycles and their operation. Municipalities and other jurisdictions may add further restrictions beyond those in the state law by passing local ordinances. *It is your responsibility to know the law of the jurisdiction in which you are bicycling.*

## RIDE ON THE RIGHT

Ride in the right lane with the flow of traffic.

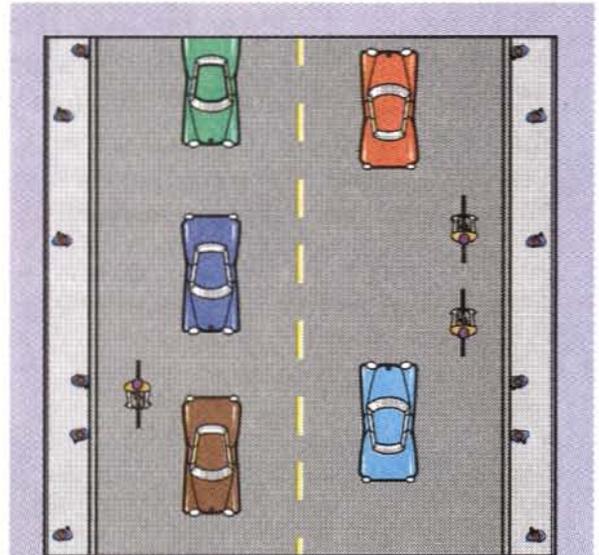
Ride as close to the right side of the right lane as safe and practical when being overtaken by another vehicle.

Ride on the paved shoulder whenever a paved shoulder suitable for bicycle riding is present.

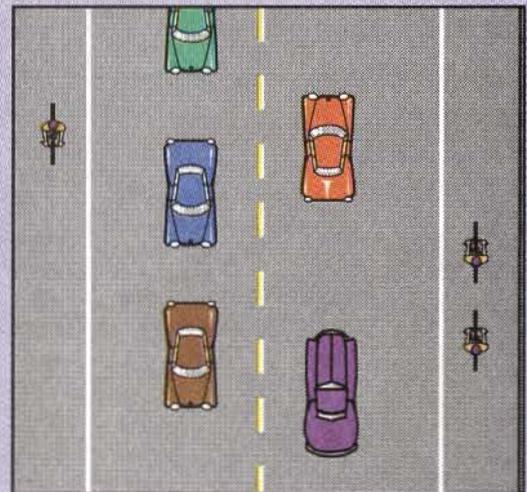
Ride in the right lane except when:

- Overtaking another bicycle or vehicle proceeding in the same direction
- Preparing for a left turn
- Avoiding hazardous conditions

**TIP:** *Riding on the right doesn't mean hugging the curb or edge of the road. This is not the best place to ride because if you hit the curb or edge of the pavement, you might lose your balance and fall into traffic.*



*Ride in the right lane with the flow of traffic*

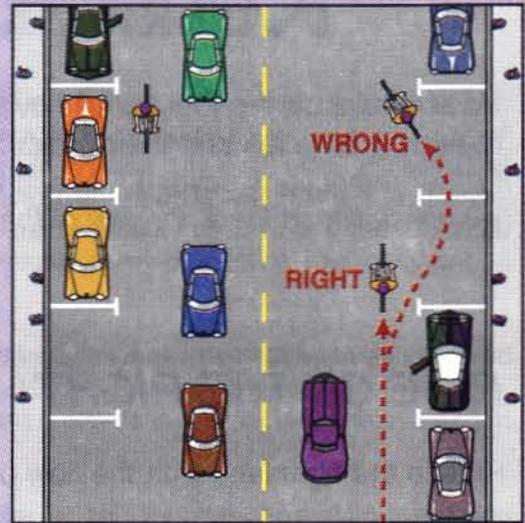


*Ride on the paved shoulder*

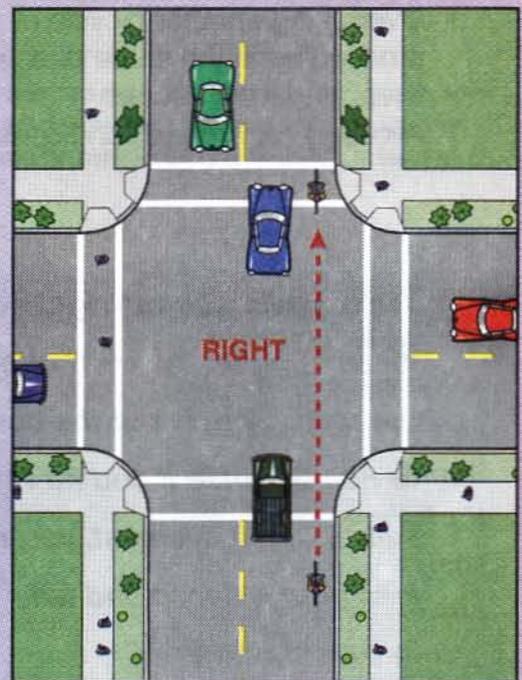
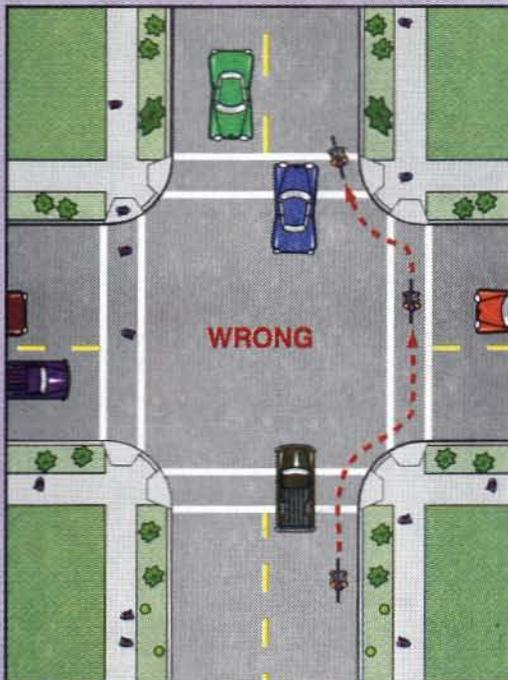
## RIDE IN A STRAIGHT LINE

Riding predictably will make you more visible to motorists. It's easier for a motor vehicle driver to pass when you're riding in a straight line. Don't weave in and out of parked cars - you may disappear from motorists' sight and get squeezed out or clipped when you need to merge back into traffic.

At intersections, stay on the road. Don't ride in the crosswalk and suddenly reappear on the road again. A driver may not see you and turn the corner and hit you.



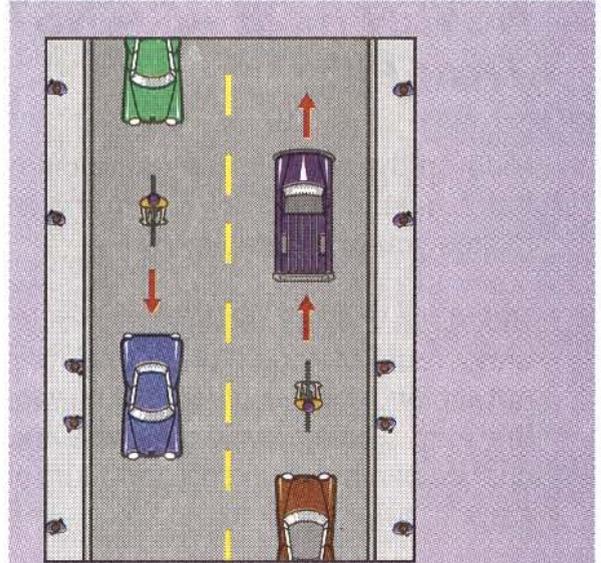
Don't weave in and out of parked cars



Alternating between riding on the road and riding in a crosswalk is confusing to drivers

## WHEN TO TAKE A LANE

If there is no shoulder or bike lane, where traffic is slow and the travel lane is narrow, or when approaching an intersection, ride closer to the center of the lane to establish yourself as part of the flow of traffic. This will prevent motorists from passing you when there isn't room. You should also take the lane when you're traveling at the same speed as traffic. This will keep you out of motorists' blind spots and reduce conflicts with right-turning traffic.



*Occupy more of the travel lane if it is narrow or if you are moving at the same speed as the flow of traffic.*

## RIDE SINGLE FILE

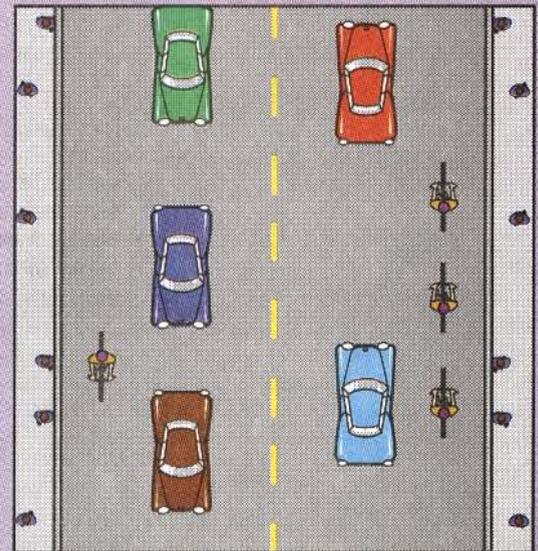
Persons operating bicycles on roadways shall ride single file.

Riding two abreast is permitted in the following circumstances:

- When no motor vehicle traffic is approaching within 300 feet in front of or behind you.
- When sight distance is greater than 300 feet in front of or behind you.
- On paths or parts of the roadway set aside for the exclusive use of bicycles.

Persons riding two abreast shall ride within a single lane.

On curving mountain roads, play it safe and ride single file. When riding two abreast, if faster moving vehicles are behind you, immediately return to single file to allow them to pass safely and easily. Share the road and be courteous to improve relationships with your fellow road users. Cooperation with other users makes the roads safer for all of us.



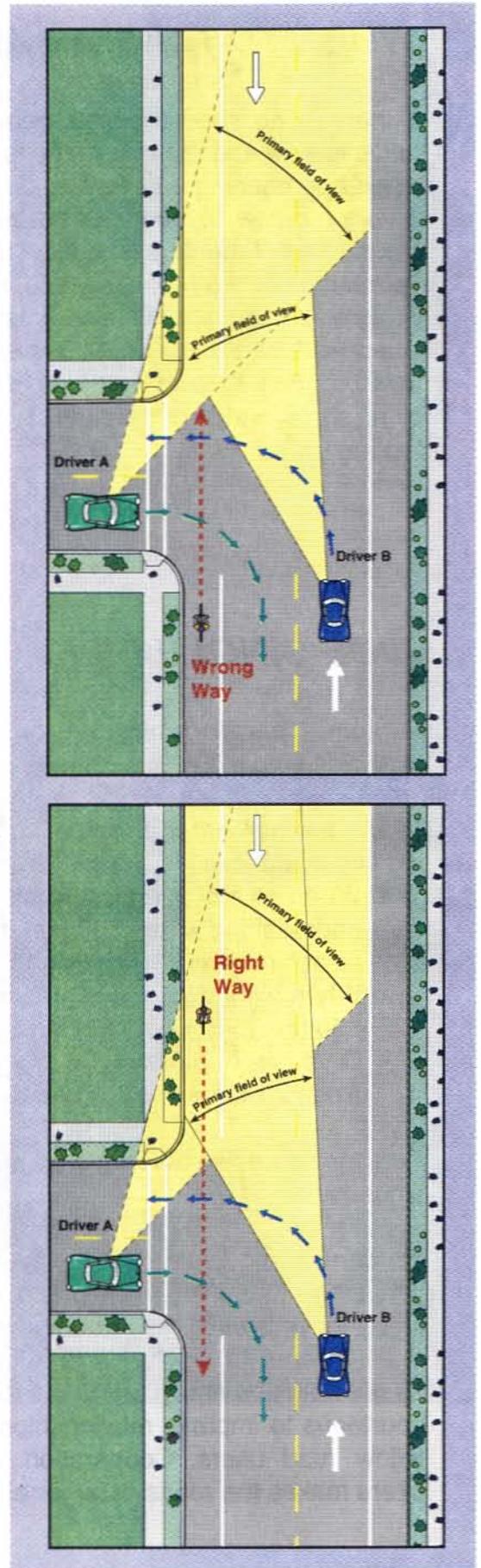
*Play it safe and ride single file*

## NEVER RIDE AGAINST TRAFFIC

Ride on the right, in the same direction as the traffic next to you. Riding with the flow of traffic makes you more visible.

Riding on the left, against traffic, is illegal and dangerous. Motorists and other road users are not looking for bicyclists on the wrong side of the road. Riding the wrong way increases the chance of a head-on collision with vehicles moving with the normal traffic flow.

*Hazards of wrong way riding: Driver A is looking for traffic on the left. Driver B is looking for traffic ahead. In both cases, a wrong-way bicyclist is not in the driver's main field of vision.*



## ***DON'T PASS ON THE RIGHT***

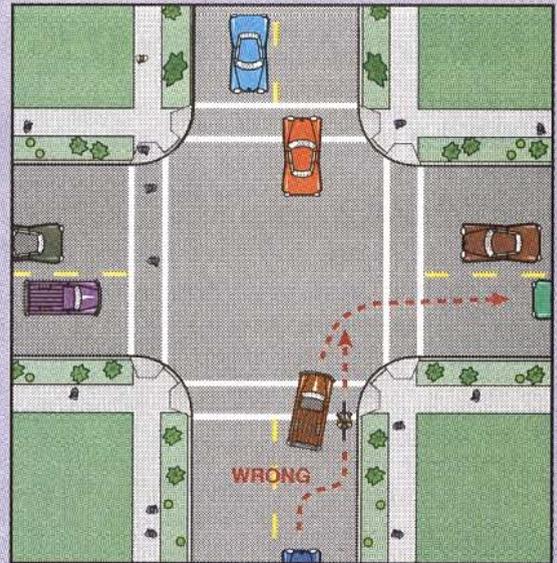
Motorists are not looking for bicyclists to pass on the right even if the bicyclists are in a designated bike lane. Establish your place in traffic behind the motorist where you can watch for turn signals. Drive defensively, always use extreme caution when passing.

## ***OBEY TRAFFIC SIGNS & SIGNALS***

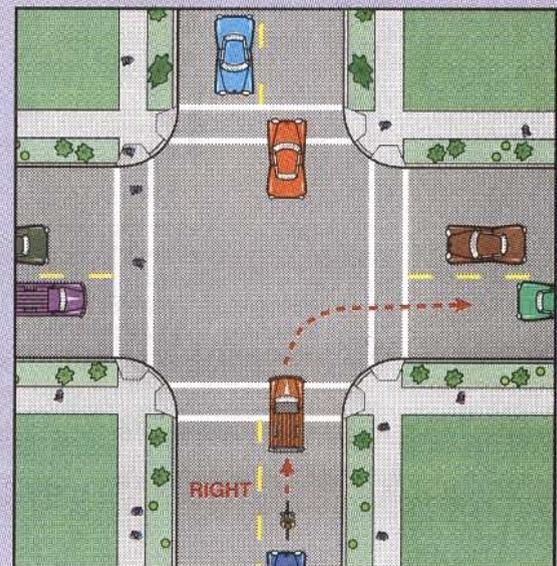
Know and obey all traffic laws. Give motorists a reason to respect bicyclists!

It is illegal and dangerous to ride through stop signs, red lights, impede traffic, ride several abreast, or ride the wrong way down a street. These illegal actions reinforce the myth that bicycle drivers are irresponsible and do not belong on the road.

By driving your bicycle in a safe manner (watching out for yourself as well as others) you make it easier for motorists to treat you as an equal on the road and be polite to you or the next bicyclist they see.



*Don't pass on the right*



*Don't pass on the right - stay in the lane*



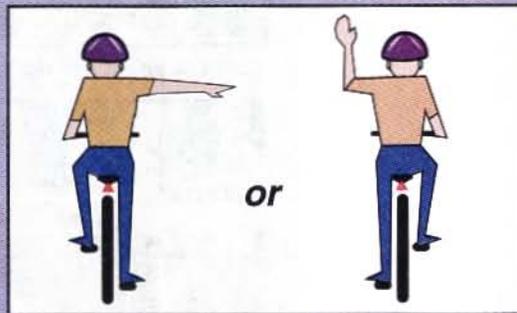
*Stop at all red lights and stop signs*

## USE HAND SIGNALS

Use the proper hand signals for left or right turns and for slowing or stopping. When turning, you must signal continuously at least 100 feet before the turn and while you are stopped waiting to turn, unless use of your hand is needed to control your bicycle.



**LEFT**



or

**RIGHT**



**SLOW or STOP**

*Use the proper hand signals to indicate your intention to turn, slow down or stop*

## NEVER "RIDE DOUBLE"

Never carry more people at one time on the bicycle than the number for which the bicycle is designed or equipped. "Riding double" may seem like fun, but it is dangerous and illegal.



## LEFT TURN OPTIONS

You have the following choices:

### 1) Like a motor vehicle:

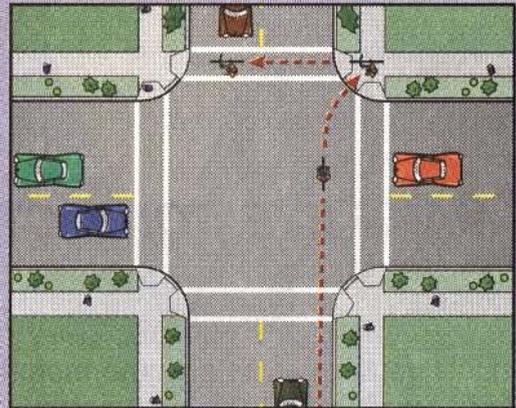
- Signal left
- Look behind you
- Move into the left lane, left turn lane, or the center turn lane
- Yield to oncoming cars before turning



*Left turn like a motor vehicle.*

### 2) Like a pedestrian:

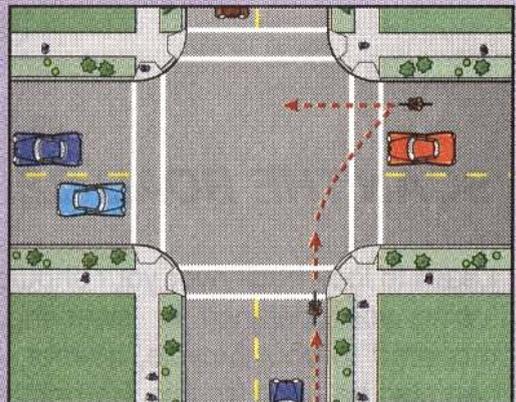
- Ride straight through the intersection to the far crosswalk
- Stop, dismount, and position your bike in the new direction
- Yield to oncoming traffic, or if you are at a signalized intersection, wait for the green or WALK signal
- Walk your bike across the intersection



*Left turn like a pedestrian.*

### 3) 90 Degree or Inverted L:

- Ride straight through the intersection to the far corner
- Stop and position your bike in the new direction
- Yield to oncoming traffic, or if you are at a signalized intersection, wait for the green signal
- Ride your bike across the intersection

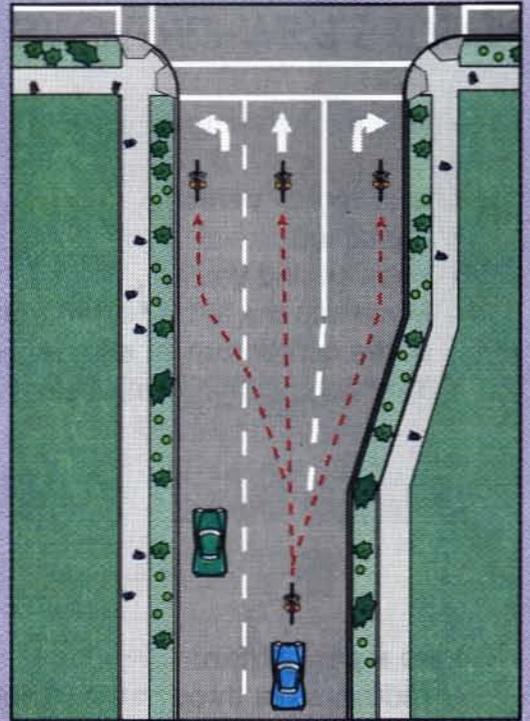


*Left turn at 90 degrees or inverted L.*

## **FOLLOW LANE MARKINGS**

When you approach an intersection with several lane choices, choose the lane with the arrow pointing where you want to go. You may get cut off by turning cars if you're in the wrong lane. If there is a bike lane going through the intersection, use it only if you're going straight ahead.

Like other traffic, cyclists must follow lane markings. Bicyclists can't turn left from the right lane or go straight from a right-turn-only lane.



*Follow lane markings.*

## **MAKE EYE CONTACT WITH DRIVERS**

Until you are sure, assume motorists do not see you. Expect the unexpected and watch for cars pulling out from driveways and at intersections.



*Make eye contact with drivers.*

## **SCAN THE ROAD BEHIND**

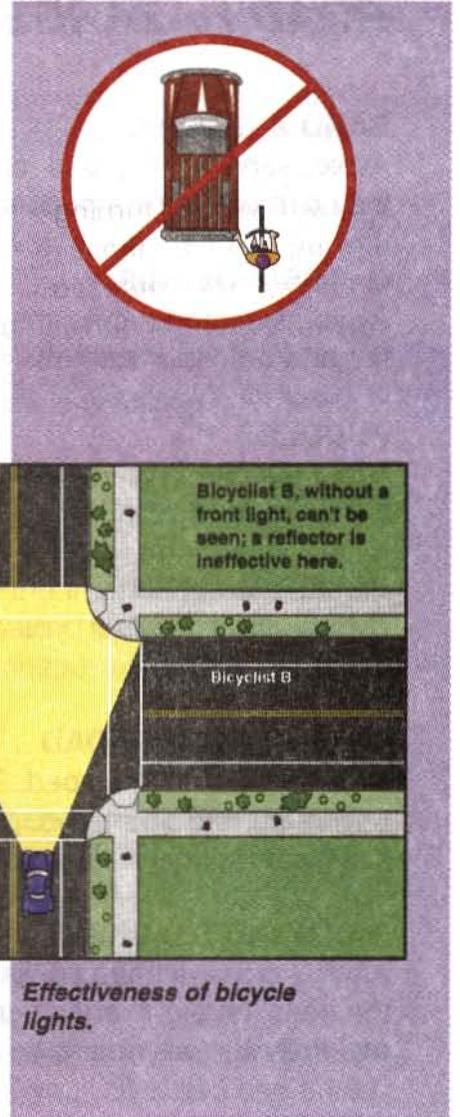
Learn to look back over your shoulder without losing your balance or swerving. A mirror mounted to your bicycle, helmet, or glasses can also be used for this. Remember to regularly check behind you for oncoming traffic.



*Scan the road behind.*

## NEVER CATCH A RIDE

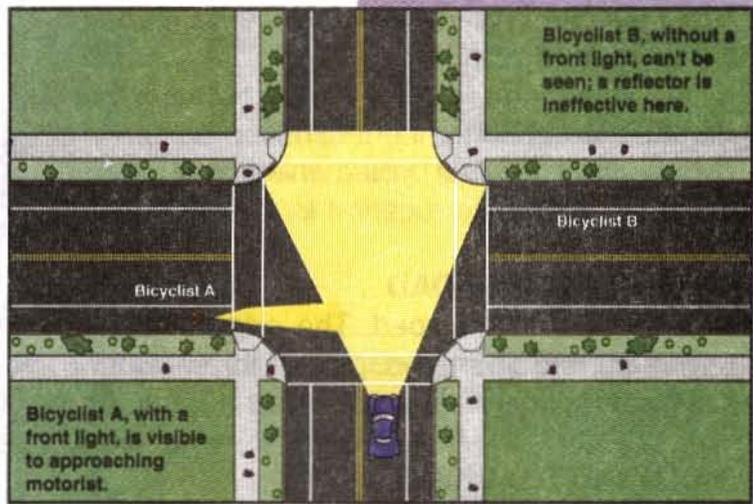
It is illegal to attach yourself or your bicycle to any motor vehicle.



## USE LIGHTS AND REFLECTORS

When bicycling from sundown to sunrise or when weather or other conditions cause poor visibility, your bicycle must be equipped with a rear red reflector and reflectors on both sides that can be seen for 600 feet in a car's headlamps. You must also have a white front headlight that can be seen for at least 500 feet from the front of the bicycle.

Aside from nighttime, the most hazardous times to ride are dawn, dusk, and during storms. These are the times when you are least visible. Riding at these times requires all the lighting and safety equipment of night time riding. If you do not have this equipment or your lights are dim, it is best to wait for full light or for the storm to pass.



Effectiveness of bicycle lights.

## KEEP HANDS ON HANDLEBARS

Keep at least one hand on the handlebars at all times. Use both hands for steering and braking. Remember that wet and icy conditions make control and braking much more difficult.

## WORKING BRAKES

The bicycle must be equipped with a working brake or brakes that will enable you to stop within 25 feet from a speed of 10 miles per hour on dry, level, clean pavement.

## ROAD HAZARDS

### SAND & GRAVEL

Avoid sand and gravel on the pavement; they can cause loss of control.

### GLASS & DEBRIS

Avoid glass and debris; they can cause a flat tire and/or loss of control.

### PUDDLES

Avoid puddles; you never know the depth of a puddle or what is hidden in it.

### SEWER GRATES

Avoid sewer grates; your wheel can get caught in them.

### CRACKS IN THE ROAD

Avoid cracks in the road. The edge of the pavement and sharp bumps can throw your bicycle out of control.

### RAILROAD TRACKS

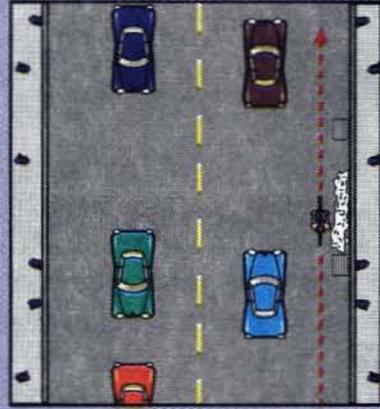
Always cross railroad tracks perpendicular to the rails (straight on). If tracks are poorly maintained, walk your bike across them.

### PARKED CARS

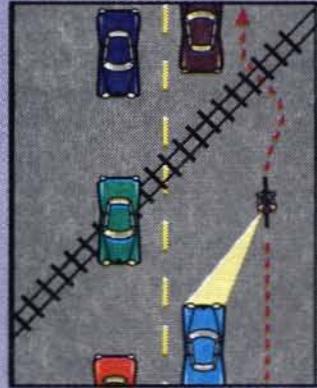
Always stay a car door's width away from parallel parked cars. Assume that a car door may open into your path even though you cannot see anyone in the car.

### SNOW & SLUSH

Avoid snow and slush. It is hard to steer and pedal in excessive snow or slush and requires a great deal of energy. Under these conditions, bicycle transportation is not the best choice.



*Avoid road debris and sewer grates.*



*Cross railroad tracks at a 90 degree angle.*



*Watch for opening car doors.*

**ROAD HAZARDS** (Continued)**ICE**

Ice is sometimes hidden, particularly black ice and ice under new snow, and is a hazard to cyclists as well as motorists. If it is icy, don't ride in traffic, even if you are outfitted with studded snow tires. You may be able to maintain control, but the motorists might not. If you have to ride in icy conditions, reduce your tire pressure and relax, allowing the bicycle to find its way. React quickly and forcefully only when it is required to recover from a skid.

**HIGH WINDS**

High winds can blow cyclists off the road or threaten them with blowing objects. Being passed by large trucks becomes more of a hazard because the intermittent blocking of the wind makes it harder to control your bicycle. If caught in a wind storm, it may be necessary to get off your bicycle and find an alternate form of transportation.

**LIGHTNING**

Cyclists make good lightning rods! Seek shelter in a building if caught in a thunderstorm. If a building is not available, DO NOT stand under a tree. Find a ditch or depression to crouch in while remaining on your feet - do not sit or lie down.

**IRATE DOGS**

Most dogs can be deterred by eye contact and a commanding tone of voice or a squirt from your water bottle. If those techniques don't work, get off your bike and use it as a shield while you walk away. The best insurance against a canine encounter of the worst kind is to carry dog repellent. Spray repellents are available in canisters which secure to your bicycle for easy access. Dog repellents also make good people repellents, so carry one for personal protection.

**IRATE MOTORISTS**

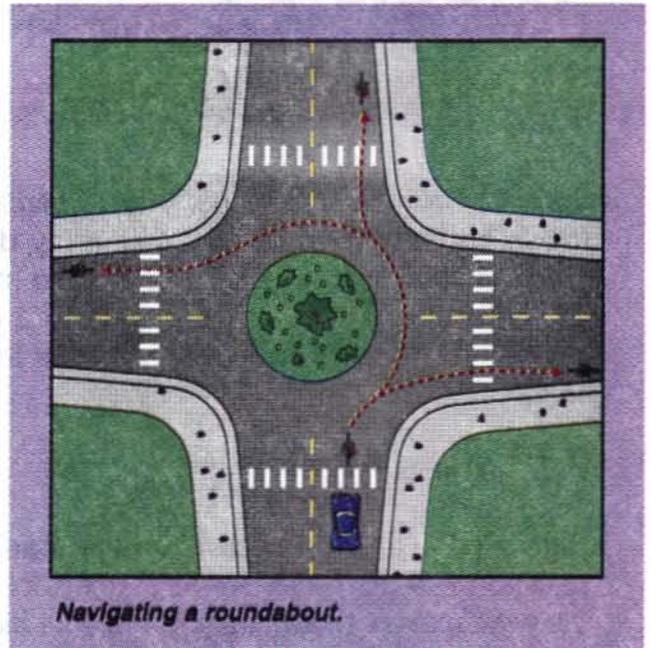
When you encounter motorists having a bad day or a bad attitude, be cordial even if they are in error. This can defuse a potentially hostile situation and prevent motorists from finding a reason to run you or the next cyclist down. Under no circumstances is the use of an obscene gesture appropriate or safe. Besides, you don't want to give them the satisfaction of knowing they irritated you!

## ROUNDABOUTS

Although popular in Europe for many years, roundabouts are relatively new to Colorado. A roundabout is designed to slow traffic and reduce hazards common to four-way intersections.

### Rules for navigating roundabouts:

- Vehicles entering the circle yield the right-of-way to traffic already in the circle.
- Traffic proceeds in a counterclockwise direction around the circle, even when making a left turn at the intersection.
- All vehicles yield to pedestrians in crosswalks.
- When approaching the roundabout, bicyclists should merge to the center of the lane (take the lane).
- Motor vehicles should follow bicyclists through the circle.
- Motor vehicles should not speed up to pass bicyclists.



*Navigating a roundabout.*

## RIDING ON SIDEWALKS & IN CROSSWALKS

You are allowed to ride your bicycle on a sidewalk or in a crosswalk unless it is prohibited by official traffic control devices or local ordinances. When riding on a sidewalk or in a crosswalk, you must observe all the rules and regulations applicable to pedestrians, yield the right-of-way to pedestrians, and give an audible signal before passing them. An audible signal can be a bell, horn or your voice saying, "Hello, passing on your left."

However, riding on sidewalks is not recommended. Many crashes between bikes and cars occur on sidewalks at driveways and street crossings, especially when bicyclists ride against the flow of traffic. You should always walk your bicycle in busy shopping areas or on downtown sidewalks. Sidewalks are for pedestrians, not bicyclists, and you should be courteous and ride slowly and cautiously.

## RIGHT-OF-WAY

Never assume you have the right-of-way. Your first responsibility at all times is to avoid a crash. It is true that in many instances another vehicle operator should yield to you. However, many people have been seriously injured because they insisted on the right-of-way. Right-of-way rules and regulations do not authorize negligent bicycle driving.

When approaching an uncontrolled intersection at approximately the same time as another vehicle, the operator of the vehicle on the left must yield the right-of-way to the vehicle on the right.

When changing lanes in traffic, you must yield to all vehicles in the other lane which are close enough to be a hazard. Don't change lanes if another vehicle must slow down for you. Always look behind you and signal before changing lanes.

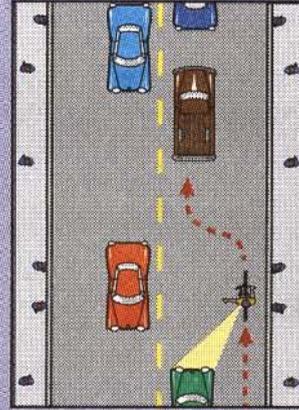
You should yield to pedestrians under all conditions. They have the right-of-way at crosswalks and intersections whether the crosswalks are marked or not.

## BICYCLES & TRAFFIC SIGNALS

Many traffic signals are triggered by motor vehicles driving over electrically charged wires buried in the pavement. When a car drives over the loop, the metal disrupts the current. That sends a signal to the traffic light control computer, which then directs the signal to change.

Most bicycles have enough steel or aluminum in them to trigger the light. However, if your bike doesn't trigger the light, either move forward to leave room for a car to place itself over the loop, or go to the sidewalk and press the pedestrian push-button.

To trigger a light, position your bike over the bike indicator.



*Cyclists should signal and scan for traffic before merging into the lane.*



*Cyclists and cars should yield to pedestrians under all conditions.*



*To trigger a light, position your bike over the bike indicator.*

## BICYCLES & TRAFFIC VIOLATIONS

A bicycle driver has all the rights and responsibilities applicable to the driver of any other vehicle except when specifically regulated by law or when certain regulations, by their nature, cannot apply to bicycles.

Bicycle drivers who violate traffic laws will be subject to the same penalties as drivers of motor vehicles, except that no penalty points shall be assessed against the bicyclist's driver's license.

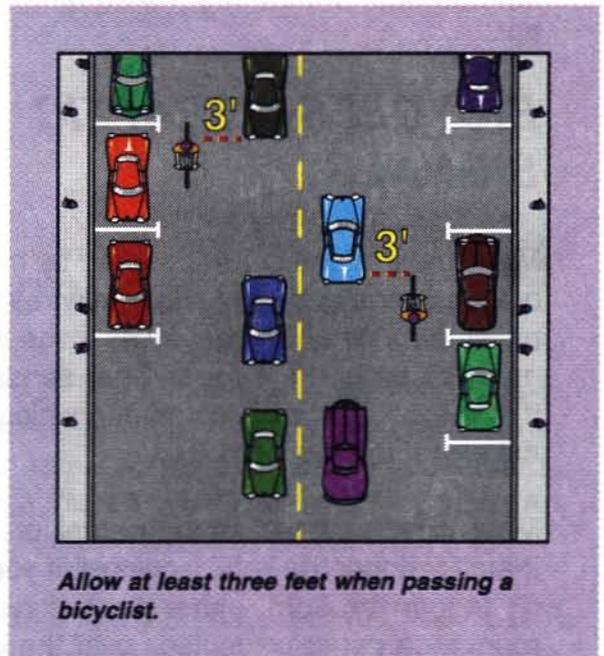
If a bicycle driver is stopped for a traffic violation and the officer has reason to believe that the bicyclist will not appear in court or the officer is unsure of the bicyclist's identity, the officer may arrest the bicyclist and require the bicyclist to post bond.

## TIPS FOR MOTOR VEHICLE DRIVERS

Motorists also have a responsibility to act in ways to make the roads safer for all users. Please consider the following points as you share the road with pedestrians and bicyclists. Scanning for pedestrians and bicyclists should be a normal part of your driving routine as is scanning for other cars and trucks. Extra care should be taken when exiting alleys and driveways since pedestrians and bicyclists may be using the sidewalk and approaching from your left and right.

### When passing a bicyclist:

- Allow at least three feet between your vehicle and the bicycle. Just as the wind produced by a passing tractor-trailer can pull a car off course, so too can a passing car cause a cyclist to swerve out of control.
- Be patient and wait until it is safe to pass, as you would any other slow-moving vehicle. Be aware that when a road is too narrow for cars and bikes to ride safely side by side, bicyclists should ride in or near the center of the lane to discourage motorists from trying to pass them without enough clearance.



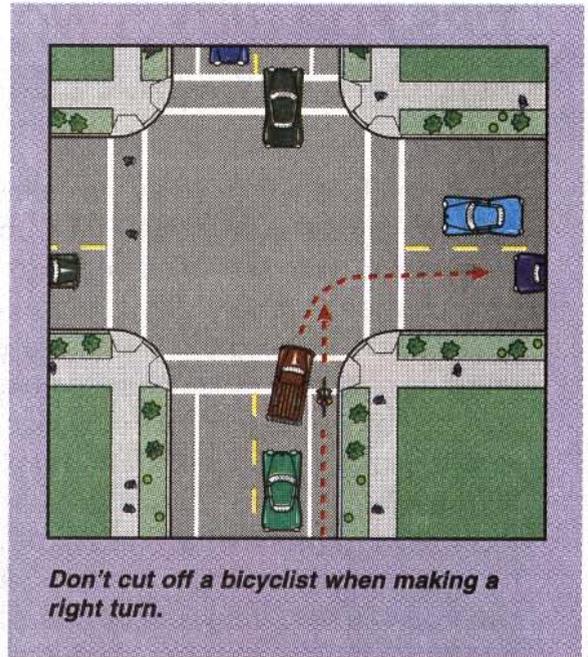
- If you feel that you must toot your horn in advance of passing, please do it from a friendly distance (several hundred feet), not from directly behind. You could startle them and they might veer into your path, causing an accident.

## RULES OF THE ROAD

When you are turning right and a bicyclist is proceeding straight through the intersection, do not speed ahead of the bicyclist and cut him/her off as you are turning. He/she may not be able to avoid crashing into the passenger side of your vehicle.

Do not harass or endanger a bicyclist or pedestrian. Harassment, which may include threats, taunting, or intimidation, is a misdemeanor offense. Reckless endangerment is also a misdemeanor offense and involves conduct which places another person at risk of personal injury.

You should yield to pedestrians under all conditions. For more information on traffic laws and safety procedures, obtain a copy of the **Colorado Driver's Handbook** at any driver's license office.

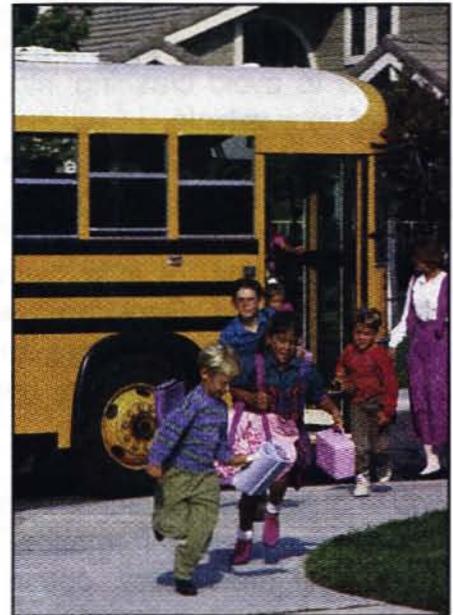


**TIP:** *In Colorado, motorists and cyclists share the road. Both have equal rights and responsibilities to obey all traffic laws. All users should show respect and consideration when sharing the road.*



## TIPS FOR BICYCLING AND WALKING NEAR LARGE TRUCKS AND BUSES

Most truck drivers know to allow extra space between themselves and other trucks and buses - these large vehicles need room to move in traffic, and it's wise to give them a wide berth. But all too often, when we're not in a car, the good sense that helps us stay safe around large vehicles while driving doesn't carry over when we're walking or biking close to large trucks and buses. The result of this inattention can be serious - pedestrians and bicyclists put themselves at risk when they cross inattentively in front of transit or school buses. Sadly, a high percentage of single-vehicle fatal bus accidents involves pedestrians. The need to rethink our walking and biking habits when around large vehicles is obvious.



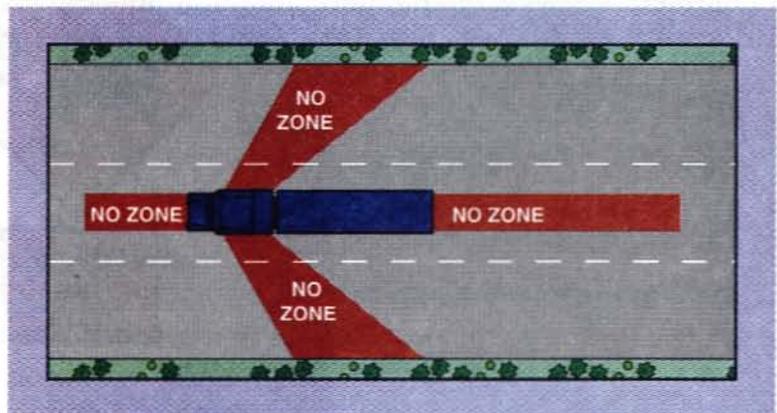
We can help to avoid trouble when walking or biking near large vehicles by keeping in mind the fact that the driver of a truck or bus has several "blind spots" - certain areas around the vehicle that the driver simply cannot see, even with the specialized side view and fish mirrors that modern large vehicles are equipped with for safety. We have to do our part by being "heads-up" in those situations when we find ourselves near large vehicles.

Remember to wait until the bus leaves the bus stop before trying to cross the street. Don't cross in front of, or behind, a bus standing at a bus stop. As the bus moves away from the curb, the driver's attention will be directed at vehicle traffic, looking for a gap in traffic big enough for the bus. Stay on the sidewalk until the bus leaves the stop.

### STAY OUT OF THE NO-ZONE WHEN CYCLING OR WALKING AROUND LARGE VEHICLES

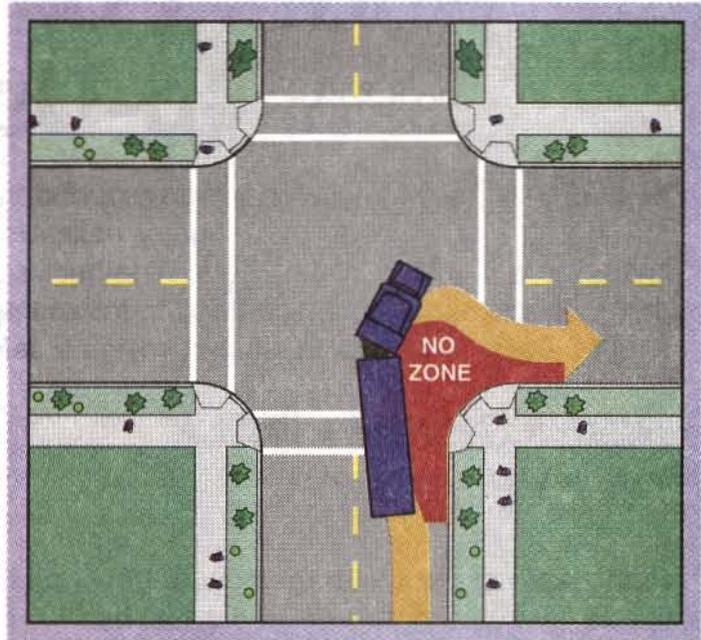
The key to being safe around large vehicles and buses is to **KNOW THE NO-ZONES.**

**NO-ZONES** are those areas on all sides, even the front and back of large vehicles, where the driver cannot see other vehicles or fixed objects...pedestrians or bicyclists.



## Side Blind Spots

When a large vehicle makes a turn at a street corner, that long distance between front and rear wheels means that the rear wheels may “off-track” and run across the pedestrian area at the curb. A skilled driver knows just how the wheels must track in order to make a safe turn. But pedestrians must still be “heads-up” and keep aware of their surroundings. Back away from the edge of the street corner when a large vehicle approaches for a turn. Being alert and staying out of blind spots are keys to pedestrian safety when around large vehicles and buses.



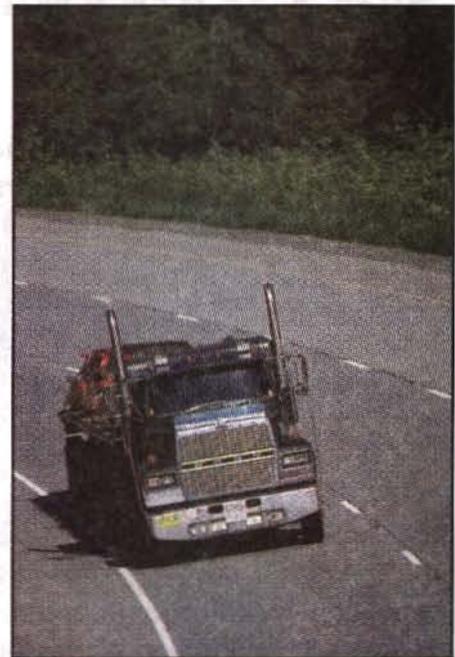
Bicyclists should not pass trucks or buses on the right and should always stay out of NO-ZONE areas. Keep your place in traffic behind these vehicles staying alert for lane changes or turns at intersections or driveways.

## Behind the Vehicle

When it becomes necessary for a truck to back up, perhaps to make a delivery, the vehicle will probably block the sidewalk for a short time. Don't race behind as the truck backs up, trying to avoid a little inconvenience! The driver cannot see you, and, just like thinking about racing to beat a train at a grade crossing, it's a race you won't win. Remember that a truck or bus that appears to be standing still may move suddenly, particularly in crowded city traffic. Stay safe, and stay clear of backing trucks and buses.

## BUSES AND LARGE TRUCKS TAKE LONGER TO STOP - NO MATTER WHAT THEIR SPEED

It's easy to understand that a lot of power is required to move a bus or a large truck through traffic. It's important to realize that once that large vehicle gets rolling, it's going to take a longer distance to come to a safe stop - much farther than for a passenger car! Don't be in a hurry to cross in front of a bus or truck that's approaching a crosswalk, even a well-trained professional driver might not be able to avoid an accident. Remember these safe walking and bicycling tips, and be aware!



# RULES FOR SHARING SHARED-USE PATHS

Shared-Use Paths are used for transportation and recreation and can refer to urban paved paths or unpaved backcountry trails. In either case, you should be prepared to share the trail with multiple users. Whether you prefer to ride or walk on a paved urban path or backcountry trail, you need to follow appropriate trail etiquette and be courteous to other users to ensure that trails provide a safe and enjoyable experience for everyone.

## **RIDE • SKATE • WALK ON THE RIGHT**

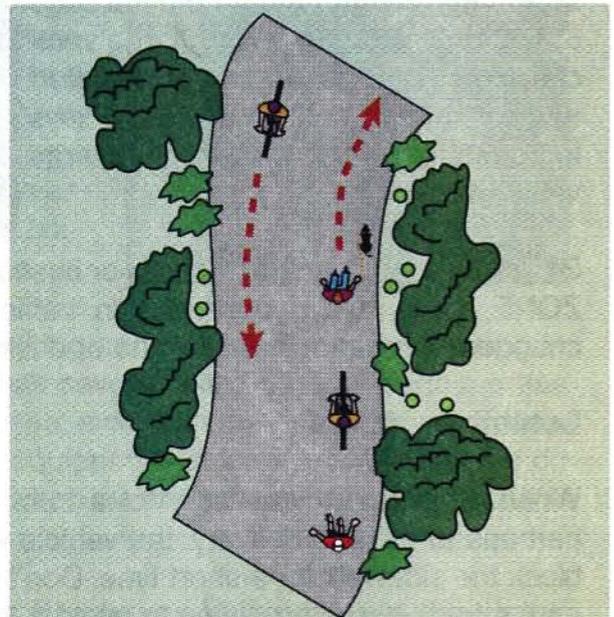
Ride, skate or walk with the flow of traffic, as far to the right side of the trail as practical.

## **RIDE • SKATE • WALK SINGLE FILE**

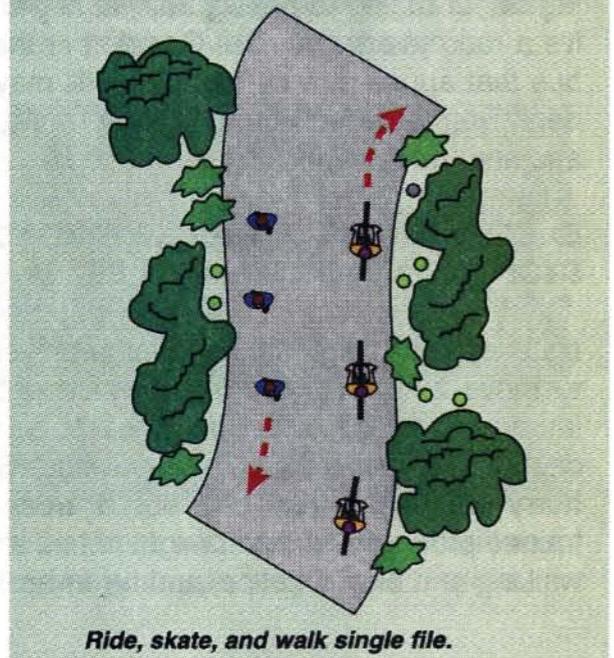
Don't block the trail. Groups should be in single file when other trail users are present and should never use more than one-half of the trail to allow for the flow of traffic.

## **CONTROL YOUR SPEED!**

Inattention for even a second can cause problems or crashes. Obey all speed regulations and recommendations. Slow down and use caution when approaching or overtaking other pathway users. Remember to regularly check behind you for oncoming traffic. Bicyclists and Skaters: learn to look back over your shoulder without losing your balance or swerving. A mirror mounted to your helmet or glasses can also be used for this as well.



*Ride, skate, and walk on the right.*



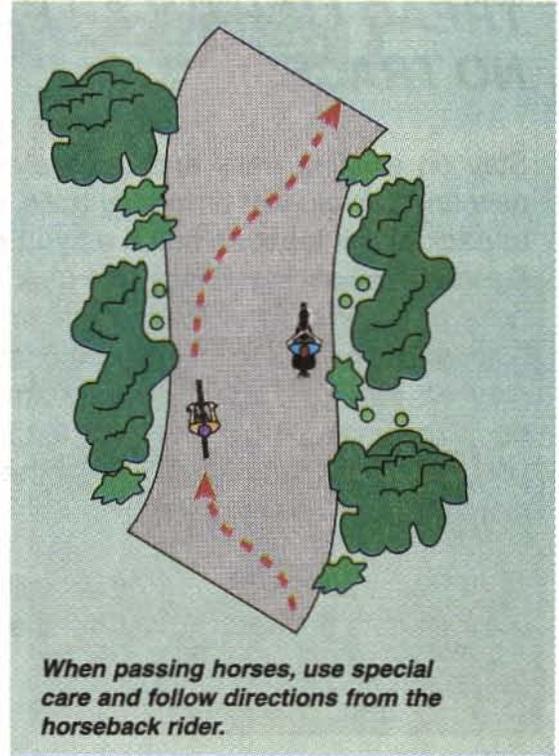
*Ride, skate, and walk single file.*

## WHO YIELDS THE TRAIL?

Before passing another trail user, make your approach known well in advance. A friendly greeting, "Hello, passing on your left," or ringing a bell is considerate and works well. Show your respect when passing by slowing to a walking pace or even stopping. Anticipate other trail users around corners or in blind spots.

### Who yields to whom?

- Bicyclists, Skaters, Walkers, and Others yield to Equestrians
- Bicyclists and Skaters yield to Walkers
- Bicyclists yield to Skaters
- Downhill Users yield to Uphill Users
- Faster Users yield to Slower Users



## NEVER SPOOK ANIMALS

All animals are startled by an unannounced approach, a sudden movement, or a loud noise. This can be dangerous for you, others, and the animals. Give animals extra room and time to adjust to you. When passing horses, use special care and follow directions from the horseback riders (ask if uncertain). Running cattle and disturbing wildlife is a serious offense. Leave gates as you found them, or as marked.



## TREAD LIGHTLY & LEAVE NO TRACE

Stay on existing trails and don't create any new ones. Avoid wet or muddy trails. Be sure to pack out at least as much as you pack in. Respect trail and road closures (ask if you're not sure), avoid possible trespass on private land, and obtain permits and authorization as may be required. Federal and state wilderness areas are closed to cycling. The way you ride will influence trail management decisions and policies.

Consider volunteering for trail building or maintenance projects throughout the state. (See organizations on page 78)



*Pack out as much as you pack in.*



*Stay on existing trails.*

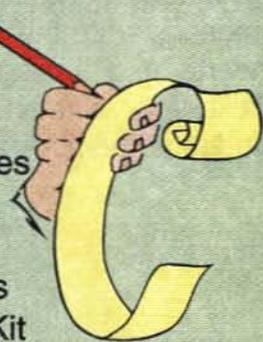
## PLAN AHEAD

Know your equipment, your ability, and the area in which you are riding — and prepare accordingly. Always wear a helmet, drink plenty of water, keep your equipment in good repair, and carry gear for Colorado's changing weather conditions.

**TIP:** *Keep trails open by setting a good example of environmentally sound and socially responsible off-road cycling.*

## CHECKLIST

- Helmet
- Water
- Sunblock
- Sunglasses
- Raingear
- Food
- Bike Tools
- First Aid Kit



*Always wear a helmet and carry gear for changing weather conditions.*

# RIDING FOR DIFFERENT REASONS

## **BICYCLE COMMUTING**

Try bicycle commuting! It's efficient, enjoyable, economical, healthy, and it's good for the environment. It's everything transportation should be! The State of Colorado, as well as many local Colorado governments and employers, promote bicycling as a practical form of transportation. Many people already bicycle for recreation, but use a car to get to work, school, errands, and other short trips. This guide illustrates how employers and employees can break the automotive habit and experience the joy, freedom, and cost savings of everyday bicycling.



## **YOUR PERSONAL GUIDE TO COMMUTING**

This section provides ideas which will stimulate the development of your own personal bicycle transportation style. The hardest part about changing personal transportation habits is inertia. Whatever we are in the habit of doing will seem easier to us than doing something different. This is because developing new habits requires more thought. It is easier to absentmindedly grab the car keys than to think about how to carry the groceries on a bicycle. If we are used to carrying groceries on a bicycle, and are set up to do so, we will probably grab the bicycle instead of the car keys. You may not believe it now, but once you are in the habit of making bicycling your first transportation choice, it will seem inconvenient to use your car! You may actually feel guilty for driving your car, even when it's necessary!

### ***USING YOUR BICYCLE FOR SHORT TRIPS REWARDS YOU IN MANY WAYS:***

-  Bicycling lets you enjoy your natural surroundings, unlike car driving which isolates you from your environment.
-  Bicycling is an inexpensive way to make your time and destination your own. Public transit has time and destination limitations, and the care and feeding of cars is expensive.
-  A brisk or relaxing bicycle ride home after work is a great way to relieve stress.

-  Cycling for short trips often saves you time. It is faster to zip up to the front of the supermarket on your bicycle for a container of milk than to search for a parking space for your car and walk across the parking lot.
-  You can build a significant personal fitness level while riding to work, school, or completing your errands, reducing or eliminating the need to spend time working out.
-  Bicycling is friendly to the environment, which benefits you and everyone else.
-  Bicycling gives you a sense of accomplishment.
-  You can use your bicycle to tote up to 100 pounds, including small passengers, which makes the bicycle ideal for trips to the laundromat, library, movies, store, and for vacations. We know that bicycle transportation works, so use it and let it work for you!



## BICYCLE TRIPS, SHORT & LONG

Bicycle trips of five miles or less can be efficient, practical and often are as fast or faster than car trips. Start out with short rides, to the post office or grocery store - rides that are 10 to 15 minutes from your house. Learn your neighborhood first and try to commit as many trips as possible to bicycling.

You can use your bicycle alone for farther trips, but if time is a problem you can combine your bicycle trip with a bus ride, drive or carpool. This way you can still get exercise, fresh air and fun without the time constraints.

### BIKE/BUS TRIPS

-  Bicycle to the bus stop, station, or park-n-ride, lock your bike, and ride the bus to your destination. Bike racks and lockers are generally available at RTD park-n-rides.
-  Take your bicycle on the bus with you. Roaring Fork Transit (Aspen) and RTD (Denver Metro) carry bicycles free on regional routes. Regional routes go between towns, such as Longmont to Denver or Boulder to Nederland, as opposed to city bus routes. RTD carries bicycles in the luggage compartments underneath the buses.



RTD, Roaring Fork Transit, Fort Collins Transfort, and other transit agencies have bike racks on their buses. For schedules and information regarding taking your bike on the bus, consult the transit agency servicing the town(s) in which you wish to ride.

- 🚲 Have a securely locked bicycle at either end of your bus ride. An inexpensive, but mechanically sound bicycle which has a number of cosmetic defects will help deter thieves.



### **BIKE/CAR TRIPS**

- 🚲 Drive to the edge of town or within a comfortable cycling distance. Then bicycle the rest of the way to work or from errand to errand.
- 🚲 Carpool with others and have them drop you off at a distance which you can bicycle.
- 🚲 Drive with your bicycle one way, leave the car, and bicycle in the other direction. Reverse the order the next day.

## **YOUR NEW ROUTINE**

Letting go of the car keys is a hard habit to break, but it's worth the challenge. Even though developing new routines can be difficult, the more you bicycle, the easier it becomes. Initially, don't overwhelm yourself. If things don't quite work out one day, take a break the next day and think about how you could do it differently. Then bicycle again the day after. Expect that the first few weeks may seem like a chore at times until you learn how to do it well.

To bicycle regularly, some changes in your household and personal routine may have to be made. For instance, if you usually keep your bicycle in the basement, you may need to find a more convenient place to store it. If you are bicycling to work, you may find you have to get up a little earlier to organize, or spend some time organizing before you go to bed.

Grabbing your bicycle instead of the car keys will soon become second nature. Be patient with yourself and don't give up. It will come together!

**YOUR OWN BICYCLE TRANSPORTATION STYLE**

 Bicycling is a very personal method of transportation. What works for one individual may not work at all for another. Some folks prefer to wear lycra everywhere; others wouldn't be caught dead in it. Some folks bike fast everywhere they go; for others, speed depends on the nature of the trip and the time constraints; some always cycle slowly. Everyone has a different method of carrying things.

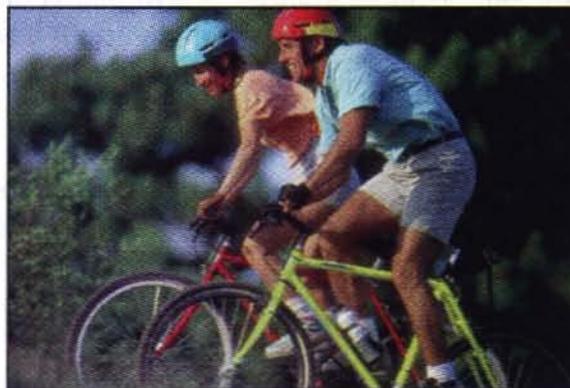
In other words, there is no "correct" way to use your bicycle for transportation except to obey the law. It is important to experiment to find out what works for you. Don't let friends and cycling enthusiasts push you into a routine or method which isn't right for you. Set a reasonable goal that you feel comfortable with, such as bicycling one day a week. Then when you're ready, consider increasing to two to three days a week.

**MAKE IT FUN**

 When you bicycle for errands, plan on making it a fun outing. Say you decide to do all your errands on Saturday morning. Make a list of things to do, put your bike packs on your bicycle, and bike out to a nice, leisurely breakfast. After breakfast, make your way from one errand to the other, either taking your time, or making it a workout. Either way, you had a pleasant morning, got some exercise and fresh air, your errands are done, and you are less stressed than your neighbors, who are still hunting for a parking space at the shopping area you just left!

**FIND A BUDDY**

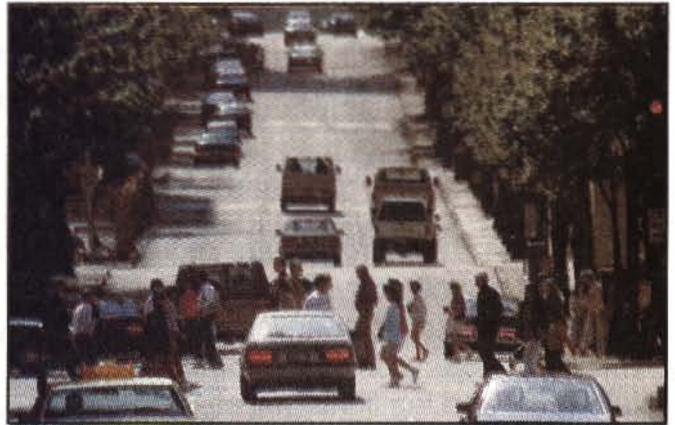
 Challenge a co-worker, family member or friend to bike to work or errands with you. It's fun, and this built-in support system also sustains your motivation. It also provides opportunities to share experiences and work together at refining techniques and routes. Another alternative is to find friends who already use their bicycles for transportation and apprentice under them.



**GET COMFORTABLE**

Some people are not comfortable in traffic, but they are comfortable on paths. Some think bicycle transportation is a great concept, but feel they lack cycling skills or street smarts. Then there are some who just don't know how to get physically comfortable on a bicycle, perhaps while dressed in work clothes, in certain kinds of weather, or while carrying things.

Comfort is the key. If you are not comfortable for one reason or another, you probably won't bicycle much for transportation. Be sure to read on for valuable information and ideas on bicycling comfortably. When you become proficient at using a bicycle for transportation and develop a system that works for you, pass on that knowledge and enthusiasm to someone else.



## EFFECTIVE BICYCLING SKILLS

### BE PREDICTABLE

Predictability means obeying all traffic control devices, riding in a straight line instead of swerving in and out of parked cars and traffic, and signaling your intention to turn or stop. The more you help other road users anticipate your moves, the safer you will be. Your chances of having a crash greatly increase if a driver cannot predict what you are going to do.

Know the motor vehicle and bicycle laws of the jurisdictions you travel in. By educating yourself, you will know what to expect from motorists and what your rights and responsibilities are as a bicycle driver.

### BE VISIBLE

Be seen to be safe. To be seen, you need to remain visible to other drivers. Bright colored clothing, safety vests, helmets and flags all make bicyclists more visible.

Visibility is also enhanced by the proper lane position on the streets. Don't hug the curb. Ride approximately 18 inches to 2 feet away from the gutter, edge stripe or edge of pavement, and far enough away from parallel parked cars to avoid getting hit by an opening car door. Position yourself more toward the center of the lane when going through intersections and stand up on your pedals to make yourself more visible, to present a more assertive body posture, and to enable you to maneuver your bicycle more quickly.

When riding at night, you are required to have a headlight and reflectors (rear and side) attached to your bicycle. The state law regarding nighttime equipment is the minimum requirement: you can never be too visible. Wearing white clothing, reflective vests and reflective material on your clothes and shoes will make you more visible. Pedal reflectors, tail lights, and leg lights will all increase your chances of being seen.

### SHARE THE ROAD OR TRAIL

Be aware of the safety needs of other road users. When riding on a path, stay to the right and pass on the left. Stay to the far right on blind curves. Yield to pedestrians and other slower traffic, and announce your approach with a bell, horn or your voice. Pedestrians need to know beforehand that a bicyclist is approaching to be able to react appropriately. Pedestrians may be hearing-impaired and may react slowly. If you pass too closely or frighten pedestrians, they may end up in your path.



Finally, realize that, in most cases, if you have a bicycle crash, it probably will not involve a motorist. Most bicycle crashes are caused by bicyclists not recognizing and avoiding road hazards, wet or slippery pavement, pavement cracks or patches of sand and gravel. Crashes involving two bicycles or a bicycle and a pedestrian are also common. It should be noted however, that in crashes involving an adult cyclist and a motor vehicle, the motor vehicle driver is likely to be at fault, which makes your effective bicycling and defensive driving skills very important.

### **BE ASSERTIVE**

Be assertive in traffic - not aggressive. Make your presence known. Never compromise your own safety for the convenience of others. You can be courteous to other road users without giving up your right to the road.

Your attitude has much to do with your safety while bicycling. Obey all traffic laws, project confidence, communicate with road users by signaling your intentions, and ride with a friendly, cooperative, "Share the Road" attitude. These will be determining factors for your safety and of motorists' attitudes toward you and other cyclists.

### **DRIVE DEFENSIVELY**

Drive your bicycle defensively. Anticipate potentially dangerous situations and decide in advance how to negotiate them safely. Watch out for yourself in traffic; don't expect others to watch out for you. Never assume a motorist has seen you. Whenever possible, make eye contact with the driver. If in doubt of the motorist's intentions, be prepared to yield.

Anticipate possible problems in your surroundings and be prepared to take action. Watch for squirrels, dogs, and other creatures so that you can avoid one if it crosses your path. Anticipate drivers turning or pulling out in front of you. Never depend on someone else's driving skills to save your life. Be prepared to get off the road in a bad situation. This does not mean you must be paranoid when you bicycle! It does mean that if you think and plan ahead, you will be safer.

***TIP: Never wear headphones while cycling! It is not safe and a few tunes are not worth your safety.***

## RIDING TECHNIQUES

Many people do not commute by bicycle because they worry about their safety on the streets. Remember that a bicycle is slower but more maneuverable than an auto, and bicycle drivers can see and hear far more than motorists. By riding on bike paths and streets with low traffic, you avoid the problems of high speed traffic and congestion. Ultimately, with practice, you can work up to riding in traffic for the times when it cannot be avoided.

It is not enough to know how to balance on your bicycle and ride without falling. You need to develop some skills and acquire some street smarts to be able to ride safely. Be thoroughly familiar with all operating controls. Bicycle operation should be "second nature" so you can concentrate fully on traffic and road conditions. Always scan the road ahead and traffic around you. Don't stare at your front tire. This will enable you to avoid road hazards and provide more stability.

For more information on riding techniques, consult John Forester's book, *Effective Cycling*, also available on video.

## STRAIGHT LINE RIDING

The secret to riding a straight line is to look about 40 feet ahead. This is the same technique that tightrope walkers use. Looking down at your front wheel to see if you are "holding your line" actually causes more problems. Looking ahead also helps to spot road hazards.

When learning how to look backward when riding a straight line, first try keeping your head in an upright and level position; instead of having your head tilted forward. As you become more accustomed to looking backward, you may eventually be able to look backward with your head tilted forward.



Practice riding in a straight line until you are reliably in control. Practice riding along the striping in an empty parking lot or another area away from motor vehicle traffic. Bicycle in a straight line, even when looking back over your shoulder. Use this maneuver to check before making lane changes and left turns even if you use a rear-view mirror. Practice and become proficient.

Always ride on the right, with the flow of traffic. It is illegal and dangerous to do otherwise. Drivers are not looking for bicycles or any other traffic coming at them from the left, especially at intersections, alleys, and driveways.

## BRAKING

If your bicycle is equipped with both front and rear brakes, use both to maintain safe control of the bicycle. It is important to know that your front brake is much more effective than your rear brake. However, if you apply the front brake hard, without shifting your weight back, you can flip over the handlebars. Applying only the rear brake can cause the rear wheel to slide out to the side. Always use both brakes and know which brake is which. "Right = Rear" is a good way to remember.

Ride conservatively in poor weather conditions. Brake gently and often to dry off your rims in wet weather and to avoid skidding. Anticipate the need to brake, and brake sooner than normal. Use extra care when cornering.

## GEARS

Know how to operate your bicycle. This includes shifting gears without looking down at them, and working the brakes. If the multi-gear bicycles confuse you, read your owner's manual or go to a bike shop for help. Practice before riding in traffic.

## QUICK TURN TECHNIQUE

Knowing how to do a quick turn can help you avoid pavement hazards or even a collision with a car that suddenly turns in front of you while you are still going straight. In a parking lot, practice making quick turns by first making a sharp quick swerve to the opposite direction you wish to turn, then turn in the direction you wish to go. The first turn forces your body to lean in the proper direction to cut a sharp turn in the correct direction.

Practice riding up to a wet sponge and, at the last second, steer quickly to the left and back to the right just enough that your wheels miss the obstacle. Sounds weird, but it can be done easily with a little practice. You should learn to quick turn to the left as well as the right to be prepared for an emergency and to get comfortable handling your bicycle.

### **TIP:**

***If you need to stop FAST:***

- ***Apply the front brake at three times the force you apply the rear brake***
- ***Move your weight as far back over the rear of the bicycle as you can***

## ROUTE SELECTION

Route selection is one of the most important factors in determining whether you will have a pleasant cycling experience. Pick a route which you are comfortable riding. Your community may have a bicycle map and/or designated bike routes. Choose routes with low traffic, few stops, agreeable bicycle facilities, nice scenery, interesting neighborhoods, and which are compatible to your fitness level. This will increase your chances of having a pleasant experience. If you find that the route you chose the first time was not to your satisfaction, don't be discouraged. Ask a bike shop employee or other cyclist familiar with the area for advice.

Some people prefer to use the same route each time for a particular destination once they have discovered one that suits them. The advantages, of course, are that you will not get lost, you do not have to make decisions each time, and you have the opportunity to become familiar with that neighborhood, its rhythms and its people. There is a sense of security in being familiar with a particular neighborhood.

Others prefer variety. If you are adventurous, it can be fun to discover numerous ways to get to the same destination. This prevents boredom and helps you become familiar with a larger area. If you find yourself on a street which makes you uncomfortable because of the traffic or atmosphere, alter your route, even if it means backtracking.

### CAN YOU BICYCLE AND STILL COME OUT SMELLING LIKE A ROSE?

If you don't bicycle to work because you are afraid of offending your clients and co-workers, the following information could help you.

#### **TIP:**

***Bring a city or bicycle route map to avoid getting lost.***

### BICYCLING SLOWLY IS NOT A CRIME

If you allow yourself enough time to bicycle more slowly, you will not be as likely to perspire as much or become disheveled. Leave early enough to bicycle at a leisurely pace and enjoy your ride. Cycling slowly still benefits your body, your mind and the environment.

## PERSPIRATION DOESN'T SMELL, BACTERIA DOES

Perspiration is an important and natural body function which leaves no adverse odor. Unfortunately, certain bacteria on your skin can produce an unpleasant odor as you perspire. The trick is to keep the bacteria count down.

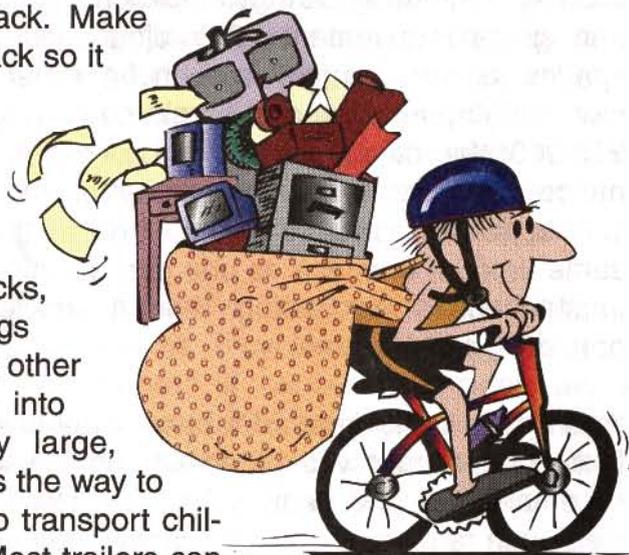
The dark, moist, hairy areas of your body are the breeding grounds of choice for bacteria, armpits being the worst offenders (so to speak). For ladies, keeping your underarms closely shaved helps prevent odor. Men may also want to trim underarm hair to make it easier to scrub in that area. Bacteria is not always washed away with plain soap and water. To keep your underarms fresh, splash on rubbing alcohol whenever you notice an odor. You may find that between shaving or trimming, bathing often and using rubbing alcohol, you will not need a deodorant. You may also find that using rubbing alcohol only occasionally may be sufficient.

## CARRYING THE KITCHEN SINK AND OTHER IMPORTANT ITEMS

If you use a bicycle for transportation, you will need to carry things with you, perhaps a briefcase, school books, or the dry cleaning you pick up on the way home. It is dangerous to carry things in your hands or hooked over the handlebars, as it makes steering more difficult and something could get caught in your front spokes. A backpack works, but it puts stress on your back, as well as a big sweat spot. Some cyclists attach a large basket, box, or plastic milk crate to the rear rack.

Let the bicycle do the work. Keep a rack strap or a couple of bungee cords strapped to a sturdy rack. Make sure any load is carefully secured to the rack so it will not fall off or into the spokes or rub on the tire during transport. There are rack packs that strap onto the top of a rack to carry smaller items.

For larger or multiple items, touring packs, sometimes referred to as bicycle saddlebags or panniers, are a great way to carry most other loads. Some touring packs also convert into backpacks or briefcases. For unusually large, heavy, or awkward loads, a bicycle trailer is the way to go. There are trailers specially designed to transport children and others made for hauling cargo. Most trailers can haul up to 100 pounds. Some can handle more weight, but braking becomes more difficult, making it necessary to install a special braking system.



Trailers allow you to carry four to six bags of groceries, two children (including toys and supplies), camping equipment, a large dog, and nearly anything you might pick up on a trip to the mall. You can think of a trailer as an environmentally sound, easy-to-park station wagon! There are also specialty carriers, such as bicycle mounted suit bags, ski racks and even basketball holders! You can also get creative and develop your own carrying systems for your own particular needs.

## **EMPLOYER GUIDE**

Bicycling can be an intimidating proposition for employees who are used to driving their cars or taking the bus to work. And that's where you - the employer - can help. As an employer, you are in a prime position to encourage and facilitate a bicycle commuting program at your organization. The benefits of such a program are numerous - to your employees, organization, and community.

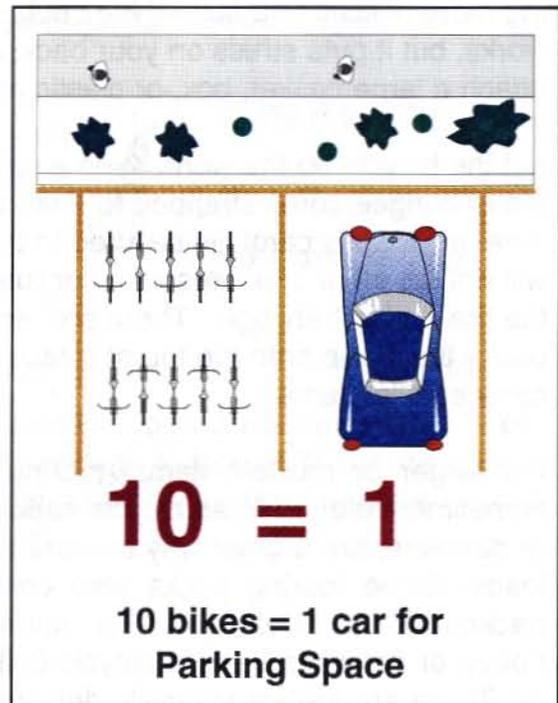
Now let's explore why and how to start a bicycle commuting program at your organization. While we have tried to be as comprehensive as possible, you may discover areas of concern not covered in this manual. We encourage you to explore your own solutions and share your successes with other bicycle commuters.

### **EMPLOYER BENEFITS OF A BICYCLE COMMUTING PROGRAM**

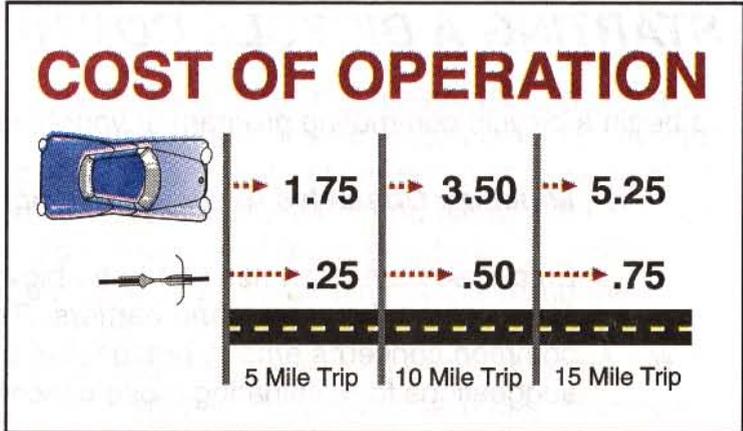
#### **REDUCED EXPENSES**

Bicycle commuting can lower parking costs and space requirements. Providing parking spaces for your employees can be expensive, with the average parking space costing \$10,000 (for design, construction, maintenance, property taxes, site insurance, etc.) Ten to fifteen bikes can be parked in the same amount of space as one car, resulting in substantial cost savings and a smaller employee parking area.

It can lower health insurance rates/expenses. Riding a bike improves the health and fitness of employees and reduces stress. Health insurance rates may be significantly reduced with healthier employees, and bicycling employees may have fewer medical expenses.



Lower commuting costs. The cost of operating a compact car is 35 cents per mile (Hertz Corporation), while the cost of operating a bike has been estimated at a nickel a mile (U.S. General Accounting Office). Employees who ride more and drive less can save hundreds of dollars a year on fuel, vehicle maintenance, parking and even automobile insurance.



### **BETTER HEALTH AND INCREASED PRODUCTIVITY OF EMPLOYEES**

Riding a bike provides exercise, which has been found to reduce stress and improve general health. A UCLA study demonstrated that cycling relaxes the central nervous system, improves moods and sharpens mental acuity, while commuting by car raises blood pressure, lowers frustration tolerance and fosters negative moods.

Organizations that have promoted employee bicycle commuting have experienced positive results including increased productivity, decreased absenteeism and fewer on-the-job injuries.

### **IMPROVED EMPLOYEE AND COMMUNITY RELATIONS**



Both employees and community members have positive feelings toward organizations that promote bicycle commuting. According to a 1991 Harris poll, a growing number of employees consider bicycle commuting facilities such as showers and bike parking to be an important part of a organization's benefits package.

In addition, an organization that promotes bicycle commuting demonstrates a concern for clean air, a healthier environment, reduced energy consumption and traffic congestion, and improving the overall quality of life in the community. Such organizations are seen as progressive, environmentally responsible, and concerned about their employees' health and well-being.

Bicycling is a pollution solution. Automobiles are our greatest source of air pollution for short trips - those that are most bikeable - and are up to three times more polluting per mile than long trips. Bicycling a four-mile round trip prevents nearly 15 pounds of auto air pollution from contaminating our air.

## **STARTING A BICYCLE COMMUTING PROGRAM**

To begin a bicycle commuting program at your business, follow these three basic steps:

### **1) *Minimize Obstacles to Bicycle Commuting***

Employees are often hesitant to try bicycle commuting because of real or perceived drawbacks and barriers. The following list cites some common concerns among prospective bicycle commuters and some suggestions for eliminating those concerns.

**CONCERN** Arriving at work hot and sweaty after a bike ride.

**SOLUTION** It would be ideal if all employers provided showers and locker rooms for their employees. However, this is not always possible and, in fact, such facilities are not as critical as many potential bike commuters believe. Thanks to Colorado's low humidity and pleasant morning temperatures, bicyclists usually arrive at work quite fresh. Many riders cool down with a small fan in their office and quick wash-up in the restroom. Another option is to arrange for bicyclists to use the shower/locker room facilities at a nearby health club. Providing storage areas (such as standing wardrobes) where employees can keep a few days' worth of fresh clothes also will make bike commuting more appealing.

**CONCERN** Secure parking/storage for bicycles and equipment.

**SOLUTION** Knowing that their bicycles are safely parked during work hours is of utmost importance to bicycle commuters. Your organization may want to invest in bicycle lockers that provide complete security as well as protection from the elements (see Resource Directory for bicycle locker organizations). You may also wish to install high-quality bike racks (which support bikes by the frame) in an area where they can be watched. Or, consider allowing employees to park and lock their bikes indoors in a bike room, storage closet, empty office or their own offices.

**CONCERN** Bad weather or breakdowns/flat tires.

**SOLUTION** A program where the employer agrees to pick up “flatted” commuters will provide some vital reassurance to novices. Maintain a “tube library” with a floor pump at work, and encourage riders to use tire liners and flat sealing compounds to help prevent thorn punctures. In addition, offer your employees peace of mind by providing them with a Guaranteed Ride Home Program, such as the RideArrangers program offered by the Denver Regional Council of Governments. Employees who bicycle to work receive a free taxi ride home in the event that bad weather or mechanical problems prevent them from commuting home by bicycle. The RideArrangers program also covers carpoolers, vanpoolers, transit riders and those who walk to work.

**CONCERN** Unfamiliar with bike routes/uncomfortable riding alone.

**SOLUTION** Have experienced bicycle commuters lay out their routes on a master map so that riders can arrange to meet along the way and “buddy” to and from work. Also, provide bicyclists with route maps and safety information (see Resource list).

**CONCERN** Spending a lot of money on a bicycle and related equipment in order to try bicycle commuting.

**SOLUTION** Your organization may want to purchase bikes which can be loaned to interested employees on a thirty to sixty day trial basis. Prospective bicycle commuters can then try out bicycle commuting without having to invest in equipment themselves. If employees commit to bicycle commuting on a regular basis, they may buy their loaner from the organization at a discount. Finally, emphasize to your employees that bicycle commuting isn’t necessarily expensive and will in fact save them money.

## **2) *Provide Incentives To Bicycle Commuters***

Businesses can also encourage employees to try bicycle commuting by offering some or all of the following incentives:

-  Purchase equipment such as helmets, rear-view mirrors, head lights or reflective vests for those employees who commit to commuting by bike three or more times a week.

-  Offer flextime to bicycling employees so they can avoid peak rush hour congestion and fumes.
-  Allow an occasional fifteen minute grace period for bicyclists in case a breakdown or other mishap causes them to arrive at work late.
-  Provide a pool of organization-owned bikes which employees may use for short business trips, errands and recreation.
-  Give cash back to bicyclists for part or all of the parking spaces they don't use (if your business subsidizes parking).
-  Permit a more relaxed dress code.
-  Hold monthly drawings for cash or other prizes for bicyclists.
-  Provide one playing card a day to riders in a weekly bike commuter poker game. You can't beat a straight if you only have two cards!
-  Give time bonuses to bicyclists (fifteen minutes of vacation time for each bicycle commute trip).

### **3) Promote Your Bicycle Commuting Program**

A successful bicycle commuting program has the commitment of top management and is promoted on a regular basis. Employers can encourage the program by:

-  Providing route and safety information to employees.
-  Holding bike related workshops.
-  Reserving bulletin board and newsletter space for bicycle-related issues and information.
-  Organizing and supporting an organization bike club.
-  Distributing t-shirts with your organization logo to participating bicyclists.

## BICYCLE TOURING

A great way to spend a day, weekend, or vacation is bicycle touring. Traveling under your own power out in the open air can be a liberating and satisfying experience and Colorado is a beautiful and challenging place to bicycle.

### TIPS

- Colorado weather can change suddenly so be prepared. Carry rain gear and a windbreaker or sweater in all seasons.
- Always carry ample water and sip it periodically to prevent dehydration. Remember to drink before you feel thirsty.
- Carry ample food. Snack periodically, remembering to eat before you feel hungry. Food is the fuel for cyclists.
- Carry a bike pump, patch kit, spare tube, tire levers, money, and identification. For longer or more remote trips, carry additional tools selected for your bike and know how to use them.
- Learn how to repair a flat tire and do basic bicycle repairs and adjustments. This may prevent you from being stuck in the middle of nowhere.
- Protective tire sealants, tire liners, and other devices are available at bike shops which will virtually eliminate the need to repair flats, though it is still important to carry a pump and know how to repair a flat.
- Bicycle route maps are a necessity. Check the Resource Directory for sources.



## **BICYCLE RACING**



Bicycle racing is facilitated by USA Cycling, the national body for road and track races, and the United States Cycling Federation (USCF). The Bicycle Racing Association of Colorado (BRAC) coordinates racing within the state. Off-road races are frequent in the summer, under the auspices of the National Off-Road Bicycle Association (NORBA). All of the competitions offer categories by age and/or ability. Contact the regulating organizations for details.

Most road races are "permitted" by the United States Cycling Federation. The organization has official racing rules including such details as wearing an ANSI approved bicycle helmet, following the rules of the road unless under escort or with roadway agency approval, and staying on the right side of the yellow centerline of a roadway in a road race. These rules are enforced by USCF-trained Race Officials who closely monitor each race. Contact the USCF for information on available insurance coverage.

If you plan bicycle races or social rides using state highways, you can order a copy of *Administration of Bicycle Events on Colorado Roads: Guidelines for Event Organizers* from the Bicycle/Pedestrian Program at the Colorado Department of Transportation, 303-757-9982.

## **MOUNTAIN BIKING**



Colorado offers splendid opportunities for mountain biking. Special considerations should be taken when bicycling in this more remote and delicate environment. In addition to the Tips for Bicycle Touring, please follow these guidelines:

- Bicycle use is prohibited in wilderness areas of National Forests, off-road in National Parks, Boulder Mountain Parks west of State Highway 93, and East and West Maroon Pass in the Aspen Area.
- Carry additional tools to repair unexpected damage to your chain or wheels so you will not become stranded. Important are a chain pin tool and a spoke wrench. Know how to use these tools.
- Prepare for the unexpected. If you ride in the backcountry, you should carry provisions for overnight survival and emergencies.
- Follow the Rules for Shared-Use Paths (see page 19).

# EQUIPMENT AND ACCESSORIES

Bicycle equipment does not have to be expensive or fancy; however, it does need to fit properly and be reliable and functional. Choose equipment you feel comfortable using. In addition, it is false economy to put yourself at risk by not purchasing safety equipment. If you do crash, the damage to you and your bike will cost several times what it would cost to equip yourself for safe riding.

## IDENTIFICATION, MEDICAL INFORMATION and CHANGE FOR A PHONE CALL

These items should be carried with you at all times. Identification is necessary if you are stopped for a traffic violation, and if you crash, it will enable you to receive prompt medical care as well as notification of your family.

Tape a quarter under your bike seat. It is also a good idea to keep a few dollars hidden in your patch kit, inside the end of the handlebar, or elsewhere on your bicycle. You may forget your wallet, get hungry and need a snack, or you may need cash for an unexpected errand. Think ahead and be prepared.

## HELMET

Seventy-five percent of all bicycle driver fatalities are a result of head injuries. The best protection against this type of injury is use of an approved bicycle helmet. Wearing a helmet can reduce the severity of brain injury in a crash by 88% and could save your life. One of the most common reasons for not owning a helmet is the perceived expense, yet it is very cost-effective. One visit to the hospital emergency room for stitches and a skull X-ray could cost ten times the price of a helmet.

### **TIP:**

***Remember, a crash can happen at any time. Wear your helmet every time you ride.***

Bicycle helmets come in a variety of sizes and styles. The best helmets have a smooth plastic outer shell over a foam liner. The outer shell helps prevent sharp objects from penetrating the helmet and the foam liner protects your head by absorbing much of the force of the impact. The soft foam pads are for exact fit and comfort. The best helmet is one which the rider likes and wears on every ride.

Helmets which have several openings in the front and air channels inside allow for the best air flow, and helmets also give the bicyclist protection from the sun. Remember, a crash can happen at any time. Wear your helmet every time you ride.

Take time to select a helmet which is the right size for your head. A helmet needs to fit snugly so it will not move around on your head when riding or come off your head if you fall. Adjust the straps so they hold the helmet on securely. The helmet should be worn

over the forehead and not tipped back. Check that the front edge of the helmet is positioned only one inch above the eyebrow. It is a good idea to have an experienced bike shop employee assist you in properly fitting your helmet.

### **HELMETS HAVE A LIMITED LIFE**

A crash, as well as age and normal wear and tear, will cause the foam of the bicycle helmet to become less effective. The soft foam fitting pads will compress and need to be replaced from time to time to ensure a snug fit. It is time to replace your helmet when it becomes loose on your head or it is several years old.

#### **TIP:**

***Always replace helmets if they have been in a crash, even if they look like new!***



**The Correct Fit**



**Wrong**



**Wrong**

## BICYCLE

The first step to getting comfortable is owning a mechanically sound bicycle - including brakes, steering, tires, and drive train. Colorado law states the bicycle must be equipped with a working brake or brakes that will enable you to stop within 25 feet from a speed of 10 miles per hour on dry, level, clean pavement.

For city riding and short distances, a mountain bike or hybrid may be more stable and comfortable than a road bike. Step-through or "mixte" bicycle frames are best for women wearing skirts or dresses while cycling, or for those who for medical or other reasons cannot swing their leg over the top tube of a diamond frame bicycle.

### ***HOW SAFE IS YOUR BICYCLE?***

No matter how safely you ride, an unsafe bicycle puts you at risk. If you acquire a secondhand bicycle, it is a good idea to take it to a bike shop for a safety check. Loose nuts and bolts make it difficult to control the bike.

If you like to do mechanical work, take a maintenance class and maintain your bicycle yourself. Maintaining your own bicycle can be very satisfying and empowering. Preventative maintenance will also increase your satisfaction with bicycle transportation.

If mechanical work is not for you, find a bike shop that caters to commuters. That means 8 hour service turn around, loaner bikes, a healthy inventory of products designed for bicycle transportation and encouragement offered for your bicycle transportation efforts.

Make regular stops at your bike shop for mechanical evaluations. Let an expert troubleshoot for you. The evaluation will be free and the mechanic can advise you on what service your bicycle needs to be safe, to prevent damage to components, or to enhance performance.

### **Whether you service your own bicycle or not, check regularly for:**

- **Tire pressure, wear and damage**
- **Chain drive cleanliness**
- **Brake performance**
- **Head and tail lamp battery charge**

When riding in good weather, tire pressure should be maintained as written on the tire sidewall. The correct tire pressure increases the life of your tires and decreases the effort needed to pedal. For rain, snow, or ice, you may want to decrease the pressure for better traction. Check the tire tread and sidewalls for cuts and bruises.

Chain drive cleanliness reduces the destructive wear which grime causes. A clean chain drive will also protect your clothing from stains and makes your bicycle easier to pedal. Select a quality lubricant designed to reduce grime attraction. Non-aerosol lubricants can be directed only to the part of the chain which requires lubrication. Wipe the chain down after lubrication so the outside of the chain will not accumulate grime.

When you ride in the rain or snow, it is important to allow your bicycle to dry completely. If this is not possible at your destination, bring the bike into a warm place to dry at night or when you return home. This allows drying inside the bearing assemblies.

Finally, remember that all bike maintenance is cheap compared to auto repairs. Don't put yourself at risk to save a few dollars.

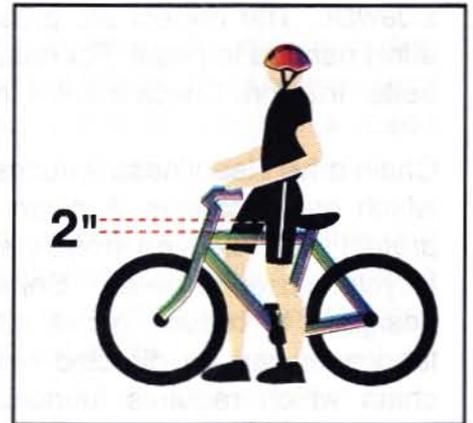


### **FLAT PREVENTION**

To prevent flats, use tires which will work for their intended use. Ask your local bike shop which tires are appropriate for you. There are also products such as tire sealants that self-heal after a puncture and practically eliminate the need to repair a tube. Always carry a pump that fits your valve stem (Schrader or Presta). With tire sealants, you need only to refill the air lost from a puncture because the tube heals itself. In addition to these precautions, be sure to carry a patch kit, spare inner tube and pump, and know how to use them.

**DOES YOUR BICYCLE FIT YOU?**

It is essential that the bicycle fit its rider. Improper fit can cause discomfort and the inability to properly control the bike. The bicycle should be safe for you if you are able to straddle the top tube while standing flat footed on the ground with clearance between your crotch and the top tube. Consult your bicycle dealer to obtain a correct fit and test ride the bicycle to determine comfort and proper control.

**SEAT COMFORT & HEIGHT**

There are many factors involved in saddle comfort - saddle design and position, rider position and clothing, and riding style. If you haven't bicycled in a while, expect to be sore for a few days no matter how comfortable your seat is. After the first day, you may even need to take a day off before riding again. After that, if you are still not comfortable, you may want to get a better saddle. Gel touring saddles are a good choice. If you are still uncomfortable, consult your local bike shop about adjusting your riding position and other possible solutions.

The seat height should be adjusted so your knee is slightly bent when your foot is at the bottom of the pedal stroke with the ball of your foot over the center of the pedal.

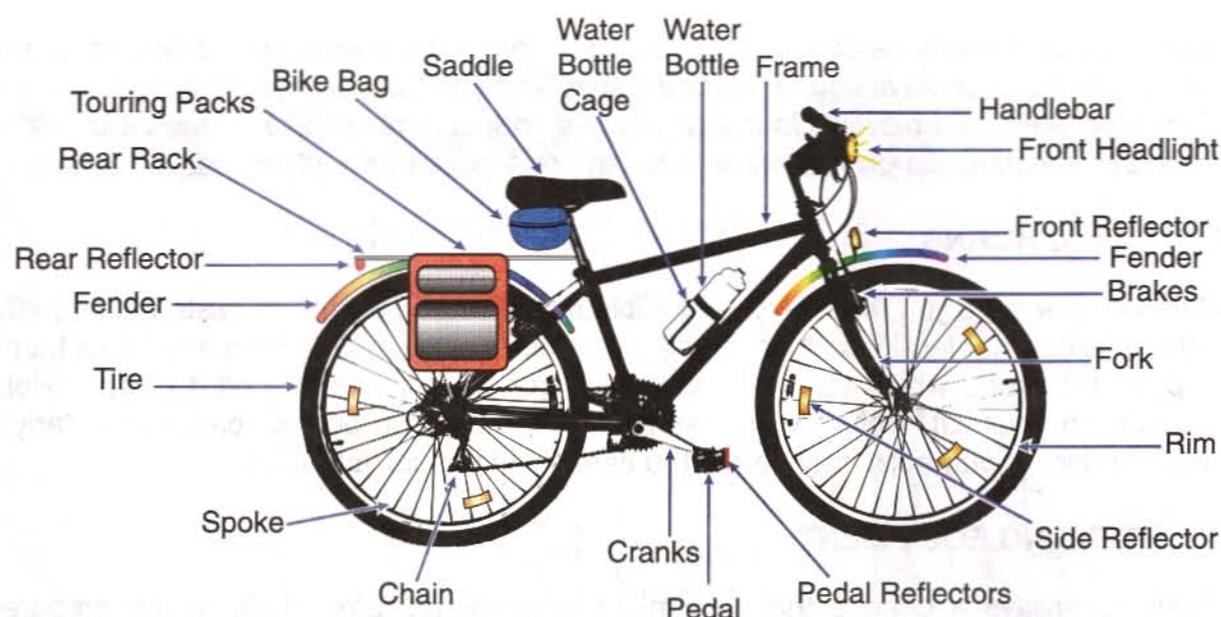
**HANDLEBARS**

Adjust the handlebars for comfort. Adjust the stem for height, positioning it no higher than the maximum extension mark. Rotate the handlebars to your most comfortable position.

**BRAKE LEVERS**

Brake levers should be positioned so there is no strain to your wrist and can be reached by the middle of the fingers.





## OPTIONAL ACCESSORIES

### REAR VIEW MIRROR

It is important to know what is happening behind you. As with car driving, a mirror should not be used as a substitute for looking back when changing lanes or turning. A rear view mirror allows you to look to the rear frequently. Never assume passing motorists see you.

### REAR RACK

Be sure to have a good quality bike rack installed and have a bungee cord or rack strap handy to carry items such as a briefcase, shopping bag or other unexpected items.

### BIKE BAGS OR TOURING PACKS

These are good general purpose choices for holding and protecting most of the things you may need to carry. Also available are suit bags, front or rear mounted packs, and briefcases which attach to the bike rack.

### WATER BOTTLE & CAGE

Attach a water bottle and cage to your bicycle. In Colorado's dry climate, it is important to avoid dehydration by getting into the habit of sipping water throughout your trip, even if you are not thirsty.

## **FENDERS**

You may occasionally be caught in sprinklers, afternoon showers or puddles, so be prepared. Fenders can save your wardrobe and relieve you from always carrying a rain suit. They also keep your bicycle cleaner. If you use your commuter bike for mountain biking, there are effective clip-on fenders which can be removed without the use of tools.

## **BELLS and HORNS**

Colorado law says you must give an audible signal when passing pedestrians on paths, sidewalks or other facilities. A good way to do this is with a bell or horn that has a friendly pleasant sound which will not startle or anger pedestrians. Sound it or say, "Hello, passing on your left," before you pass by. If you often ride on the road, particularly in urban traffic, a loud horn may be best to capture motorists' attention.

## **NIGHT RIDING EQUIPMENT**

There is always a chance that you might have to ride after dark, so be prepared. Colorado law states that when bicycling from sundown to sunrise or when weather or other conditions cause poor visibility, your bicycle must be equipped with a rear red reflector and reflectors on both sides that can be seen for 600 feet in a car's headlamps. You must also have a white front headlight that can be seen for at least 500 feet from the front of the bicycle.

## **FLASHING RED REFLECTOR LIGHT**

These LED lights are more visible than a plain reflector and can be attached to you or your bicycle. Another bonus is that the AA batteries will last at least a year.

## **WHITE HEADLAMP**

A powerful white headlight will make you visible and light your way. Battery operated headlamps are available and some have rechargeable battery packs. Each have their own advantages and disadvantages. Your local bike shop can help you decide which is best for you.

## **REFLECTIVE MATERIALS**

You cannot wear too much reflective material at night. Wear it on your helmet, shoes, arms, legs and torso. Pedal reflectors move as you pedal and will make you more visible. Reflectors and reflective materials are important even with good lighting systems because bicyclists are hard to see and motor vehicle drivers may not be looking for you at night. You need to be seen to be safe.

## CLIMATE AND CLOTHING



Colorado's Climate												
	Maximum Normal Daily Temp. (F)				Minimum Normal Daily Temp. (F)				Total Precipitation (In)			
	Western Slope	Mountains	Front Range	Eastern Plains	Western Slope	Mountains	Front Range	Eastern Plains	Western Slope	Mountains	Front Range	Eastern Plains
<b>SPRING</b> March - May	66	44	60	86	39	18	33	53	2.3	5	5.5	5
<b>SUMMER</b> June - August	94	68	84	101	64	38	56	73	2	6	4.4	7.6
<b>FALL</b> September - November	68	51	65	91	42	24	38	58	2.9	3.5	2.7	2.8
<b>WINTER</b> December - February	36	30	44	59	15	14	19	24	1.7	4	1.7	1.2

It is common in Colorado to start out in the sunshine and later be met with an afternoon shower. Colorado temperatures can also change dramatically through the day. If you are going to depend on a bicycle for transportation, you will need to be prepared to deal with nature.



Always carry a compact windbreaker. In all but the summer months, keep gloves and a thin cap which fits under your helmet handy in case you misjudged the temperature or it changes. Dress in layers and shed them as you warm up. Remember, if you start out feeling comfortably dressed, you may soon find you are overdressed.

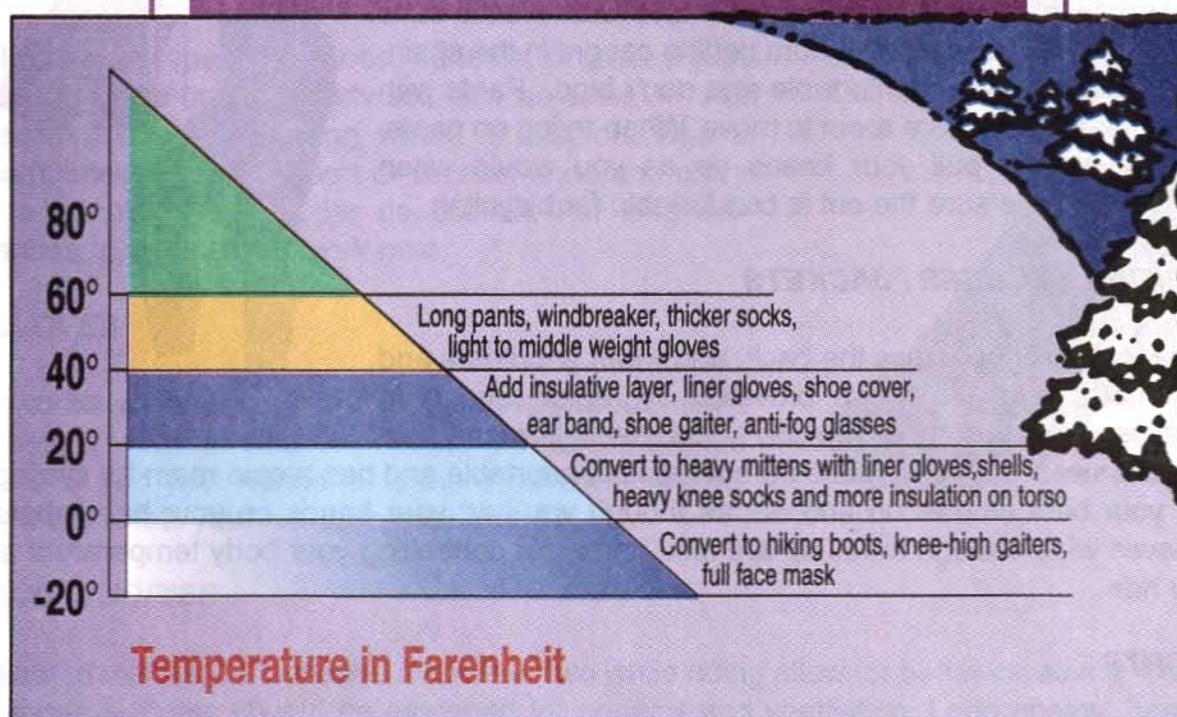
If there is even a slight chance of rain or wet weather, carry rain gear with you and enjoy the adventure. Rain suits tailored specifically for cycling are best. Quality rain gear seems like a great expense in Colorado's dry climate. However, you will find that owning effective rain gear will greatly increase the number of riding days each year and will also greatly increase your comfort when it is necessary to use it. Unfortunately, because of the road oil and grit that often sprays up your back, a rain suit can never serve as a fashion garment.

A pair of polypropylene liner gloves, rain booties and a rain cover for your helmet will add further weather protection. Avoid hooded garments. Most hoods do not move with your head so you will often find yourself looking at the inside of the hood instead of the traffic around you! Avoid ponchos, unless they are designed specifically for cycling, because the loose end can get caught in the moving bicycle parts or billow over your face.

In warm weather, wear looser clothing and ride slower. Stop in the shade and cool down if necessary. Coast whenever possible. If you feel flushed and overheated at your destination, pat your face and neck with cool water and hold your wrists under cool water for 60 seconds. You will be surprisingly comfortable!



Riding in the winter gives you a sense of freedom and keeps you fit while motorists battle cabin fever. If you take some precautions, riding at low temperatures can be enjoyable. Following is a temperature guide to appropriate clothing for bicycling in cooler weather:



Add to the suggested clothing in any temperature range if there is wind, high humidity, predominantly downhill riding, if your stamina level is low or if the ride is relaxed. Below freezing, give special attention to hands, feet and face. Also, be aware that the surface area of your legs is relatively large and allows for a fair amount of heat loss. Your knee joints work better and your feet stay warmer if you protect your legs adequately. Your torso will require careful attention to temperature regulation. Overheating can cause nausea and headache even at lower temperatures. Be sure you can open the neck of your jacket while riding. Large zipper pulls will allow you to do this even with bulky mittens.

Following is a list of features which make clothing and accessories more practical and comfortable for cycling:

### **EYE PROTECTION**

If you do not wear prescription glasses when cycling, you will need protection from the sun, wind, bugs and debris, even more so if you are a contact lens wearer. Sunglasses that wrap around are best. An anti-fog compound is helpful in cold weather.



### **PANTS**

Any pant legs which are tapered, or have wide elastic cuffs or stirrups, help keep pants from getting caught in the chain. Find pants that are comfortable and don't bind. Pants with front pleats allow more room to move. When trying on pants, bend over and pull your knees up as you would when cycling to make sure the cut is comfortable for bicycling.



### **SHIRTS / BLOUSES / JACKETS**

Look for a full cut across the back, and wider shoulders and arm holes such as those provided by raglan and drop sleeves. Wide armholes provide better ventilation and help prevent sweat spots. To make sure a top is comfortable and has ample room for cycling, put your bent elbows up and out as though you had your hands on your handlebars. Sleeves wide enough to roll up are also handy for controlling your body temperature as you ride.

### **SKIRTS**

If you are a woman who uses a diamond frame bicycle, and also would like to ride dressed in a skirt or dress, it is important to find a skirt which is cut fully enough that it is possible to throw your leg over the top tube to mount your bicycle. Unless you have a good chain guard, it is also important that the skirt not be cut so full that it gets caught in the rear spokes. Some experimentation may be necessary to decide what works best. A practical choice for cycling on any bicycle is a split skirt or culottes. They allow the freedom of movement and dressiness without the other complications. A step-through or "mixte" bicycle frame is a better choice if you choose to wear skirts often.

**UNDERWEAR**

It may take some experimentation to find a pair in which the elastic legs do not cause discomfort. This, of course, is less important for short trips, for men who wear boxer shorts, and for those who don't wear underwear when wearing lycra cycling shorts.

**OUTER SHELLS**

Look for good ventilation. A zippered or fully adjustable front works better than a pullover for ventilation as well as convenience.

**SHOES**

High heels, open-toe shoes, sandals, or shoes with slick bottoms or particularly soft, flexible soles are not recommended for cycling safety or comfort. Use a completely enclosed sport or walking shoe and carry your other shoes to your destination. For long distances, cycling shoes work best.

**GLOVES**

In cooler weather you need gloves to keep your hands warm. In warmer weather, cycling gloves are a good idea to pad your hands for a more comfortable ride, and to protect your hands in case of a fall.

**ACCESSORIES**

Belts which can be loosened a notch or two while riding allow for better breathing. Collar buttons and ties should be loosened for comfort and ventilation. Long chains, beads, earrings and scarves are best packed away until you reach your destination because they tend to flap or clang against you, which may become distracting and annoying.



## **CLOTHING MANAGEMENT**

The management of clothing, either worn while cycling or being transported, is a sizable concern for those who use their bicycles for transportation. These are some cyclist-tested suggestions:

### **KEEP CLOTHES OUT OF THE MOVING PARTS OF THE BICYCLE**

- Use pant clips. The fluorescent retro reflective bands that attach with velcro around your ankle are a good choice because of visibility and because they are adjustable. Rubber bands also work in a pinch.
- Stuff your pants into your socks - not very fancy, but quite effective.
- Buy or make and install a chain guard.

### **KEEP YOUR CLOTHES FROM GETTING WRINKLED IN YOUR PACKS**

Roll them instead of folding them. Roll them around tissue paper or plastic bags, and pack loosely for the least wrinkling. You may also use a garment bag that attaches to your rear rack.

### **HOW TO STAY COMFORTABLE IN DRESS CLOTHES WHILE BICYCLING**

The best way to stay comfortable if you choose not to wear cycle clothing while bicycling is to choose regular clothing which works well for bicycling. If you have to look your best at your destination, it is a good idea to wear patterned clothing or dark colors which hide dirt and defects, or wear a jacket over light colored tops. You never know when you might have to ride on wet pavement or happen to get a bit of grease on your pants.

### **HOW CAN I BE ASSURED I HAVE EVERYTHING WHEN I ARRIVE AT MY DESTINATION?**

If you prefer to bicycle in cycle clothing and then change at your destination, you may occasionally forget things. To avoid forgetting articles of clothing or accessories, mentally dress yourself as you pack, beginning as though you just stepped out of the shower. This way you are less likely to forget basic items, such as a comb, belt, jewelry or hosiery. If you commute to work, it's a good idea to keep a spare of some of the more forgettable items at work. Choose items which are fairly neutral and can be worn with the majority of your wardrobe.

# A GUIDE TO BICYCLE PARKING

## BICYCLE RACKS

### WHY PROVIDE RACKS?

Bicyclists, like motorists, look for convenient and secure parking places near their destinations. Often, bicyclists have few choices and will simply lock bicycles to nearby stationary objects. As anyone knows who has walked past bicycles locked to signs, railings, and parking meters on a busy downtown sidewalk, this isn't ideal. Such an unstructured approach to bike parking inconveniences pedestrians and promotes the feeling that bicycles don't belong. Well-designed, attractive and well-placed racks make it obvious that bicycles are an important part of the transportation system.



### WHAT KIND OF BICYCLE RACK IS BEST?

The inverted "U" bicycle rack is recommended by the Denver Regional Council of Governments (DRCOG) Pedestrian and Bicycle Committee and the CDOT Bicycle/Pedestrian Program. Simple, functional and durable, the inverted "U" rack allows the user to lock two bicycles with either a standard U-shaped lock or a chain/cable and lock. The racks have no edges, seams or hardware to pose a hazard or become unsightly. A properly finished rack will not mar a bicycle frame. The inverted "U" design can complement most streetscape and architectural environments to provide bicycle parking without interfering with sidewalk or storefront space. Because "U" racks are single free-standing units, there is flexibility in the number provided and their placement.

Other types of racks may satisfy bicycle parking concerns, but the advantages of the inverted "U" should make it your first choice for a standard rack. The inverted "U" signifies bike parking as clearly as a parking meter indicates car parking. This design should become less expensive as it becomes a standard item available from several suppliers.

## **BICYCLE LOCKERS**

### **WHY PROVIDE LOCKERS? AREN'T RACKS ENOUGH?**

Unlike a car, a bicycle doesn't provide its own barrier to weather, vandalism and theft. When a bicycle is to be parked most of the day, or overnight, even the most secure rack and lock does little to protect it from expensive, disabling damage. Bicycle storage lockers can solve this problem by making parking as secure for the bicyclist as for the motorist.

Bicycle storage lockers should be considered wherever bicyclists will need to park for more than just a few hours. Any place where parking structures and lots have been provided for long-term car parking is an obvious place to locate bike lockers. Lockers are in high demand at transit facilities and destinations where security is a significant concern. Ideally, an employer who provides space or money for car parking would also provide bicycle lockers.

What local governments can do is work with developers at the start of a project to integrate bicycles into the project's final transportation and parking goals. In many cases, bicycle lockers may be seen as an attractive asset to the overall project.

### **WHICH BICYCLE STORAGE LOCKER TO BUY?**

A typical bicycle storage locker provides a secure space large enough to accommodate the user's bicycle and associated items. Rectangular models usually include lockable doors at each end with a vertical-diagonal partition, separating the space for two bicycles. Free-standing, wedge-shaped lockers are also available. Most models of either type permit various assembly configurations to suit the preference of the locker purchaser. Recommended storage lockers should be:

-  Fully enclosed and weather-tight.
-  Made of durable materials that resist theft and vandalism.
-  Accessible only to user and owner by key lock.
-  Installed on a concrete surface with fasteners that can't be removed by standard tools.

Several locker manufacturers are meeting these criteria. Models vary widely in price, appearance, quality and materials. Because the concerns of parties purchasing bike lockers may differ, no one model is recommended for all purposes.

When purchasing a bicycle locker, it's important to include the shipping and installation costs and the products and floor space needed for the lockers' final assembly. Buyers should work with the supplier to ensure that all pieces needed for the desired configuration are included. Discussing this matter with someone who has gone through the process of purchasing and installing lockers can save money, time, and aggravation.

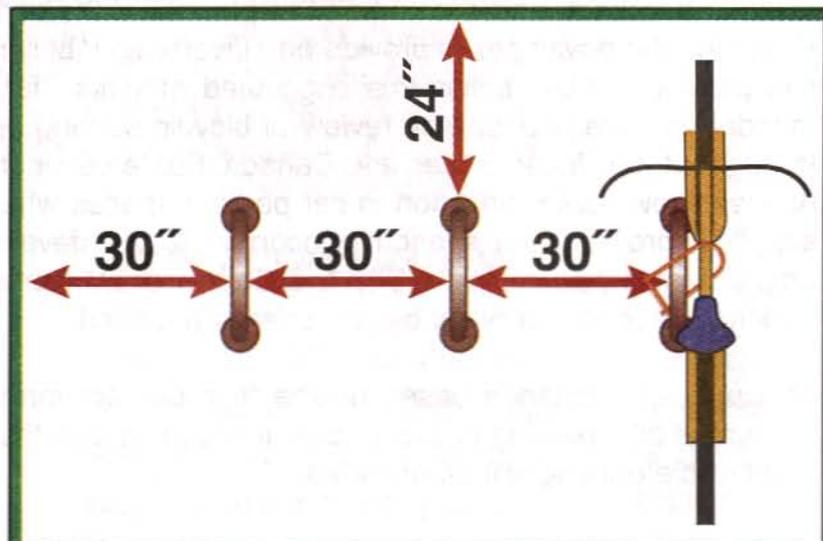
DRCOG RideArrangers (303-458-7665) is a resource for anyone interested in purchasing bicycle lockers. RideArrangers has coordinated joint locker purchases that allowed the Regional Transportation District (RTD), government agencies and private employers to realize significant cost savings by buying lockers in large quantities. The information and experience provided by this program can help bicycle locker buyers select the right models to meet their needs and budgets.

## LOCATING YOUR BICYCLE PARKING

When selecting locations of racks or lockers, keep in mind that security and convenience are the two major concerns of bicyclists.

### SECURITY

Unobstructed parking, with clear views from inside building and located adjacent to heavily traveled streets and sidewalks, will deter theft and vandalism. Parking space with good lighting and some shelter from weather is also desirable, particularly for long-term parking. If lockers are located within sight of a building front or parking garage entrance, the security risk is minimized. Putting lockers in a garage corner or around back by the dumpsters only serves to give thieves and vandals an easier environment in which to work.



## CONVENIENCE

As with car parking, the bicyclist will want to park as close as possible to the final destination. Unlike car parking, the cost to park a bicycle and its size are not limiting factors. For this reason, a bicyclist is likely to lock the bicycle to any secure object near the destination.

Although this may seem obvious, examples of poorly located racks are everywhere. A bicyclist who has a choice between locking a bike to the brand-new rack behind your building or the ornamental railing at the front window will give you an unused rack and misused railing. The inverted "U" rack is easily and attractively integrated into the public space curbside or near building fronts, providing an obvious and appealing parking space that will not interfere with pedestrian traffic.

## ***DOES MY TOWN (CITY, COUNTY...) NEED A BICYCLE PARKING ORDINANCE?***

Whereas parking for cars is regulated and enforced by local governments, bicycle parking is not addressed in many communities and developments. Most local governments specify automobile parking through a code that considers factors such as zoning, location, land use, and the size of the development. This method is appropriate for car parking because of the high costs and large amount of land associated with parking motor vehicles.

Because of the comparatively low cost and small space requirements, bicycle parking regulations need not be as rigorous. The DRCOG Pedestrian and Bicycle Committee and the CDOT Bicycle/Pedestrian Program recommend that parking for bicycles, by racks and lockers, be no less than five percent of the parking spaces provided for cars. Requiring the developer to provide one inverted "U" bicycle rack for every forty automobile parking spaces fulfills this suggested minimum for bicycle parking. This recommended formula is based on review of bicycle parking ordinances of local government throughout the United States and Canada. Some communities with bicycle parking ordinances allow some reduction in car parking spaces when additional bicycle parking is supplied, providing an economic incentive to the developer/property owner to supply ample bicycle parking. The City and County of Denver allows a reduction of one auto parking space for every six bicycle spaces provided.

Although an ordinance based on the "five percent formula" may not render the right amount of bike parking in every case, it accomplishes the fundamental goal of ensuring that bicycle parking will be provided.

## **SPECIFICATIONS FOR THE RECOMMENDED "U" RACK**

<b>TYPE:</b>	Bicycle racks shall be of inverted "U" design. This inverted "U" shall be composed of a single tube (as opposed to straight sections joined by elbow connectors), bent to a single arc which smoothly flows into the straight post sections of the inverted "U".
<b>HEIGHT:</b>	36" minimum from base to top of inverted "U".
<b>WIDTH:</b>	18" minimum between outside walls of parallel tube sections.
<b>TUBING DIAMETER:</b>	1.9" outside diameter minimum. 2" outside diameter recommended.
<b>EXTERIOR COATING:</b>	The exterior surface of the rack shall be non-abrasive, non-marring, and durable. The coating durability implies that routine maintenance (painting, sanding) is unnecessary. Galvanized or stainless steel is not acceptable.
<b>FASTENING:</b>	Three-bolt fasteners used to attach the rack to the mounting surface shall be vandal-resistant — unable to be removed by common tools or other foreseeable forces upon the fastener or the rack itself.

### **FOR MORE INFORMATION**

Contact the DRCOG Pedestrian and Bicycle Committee at the Denver Regional Council of Governments at 303-455-1000, or the CDOT Bicycle/Pedestrian Program at 303-757-9982.

# THEFT PREVENTION

Use a U-lock or sturdy cable and padlock, or both. U-locks are the most secure, though less versatile. Lock your bicycle every time you leave it, even for short intervals, and even if it's indoors. Lock it to a fixed object other than a tree (it damages them) or a pedestrian railing. Carry with you detachable items such as headlights, pumps, bike seats, etc., or find a way to secure them to your bike. Even with these precautions, nothing will deter professional thieves. Request that your place of business and other destinations provide secure bicycle parking such as bike lockers.

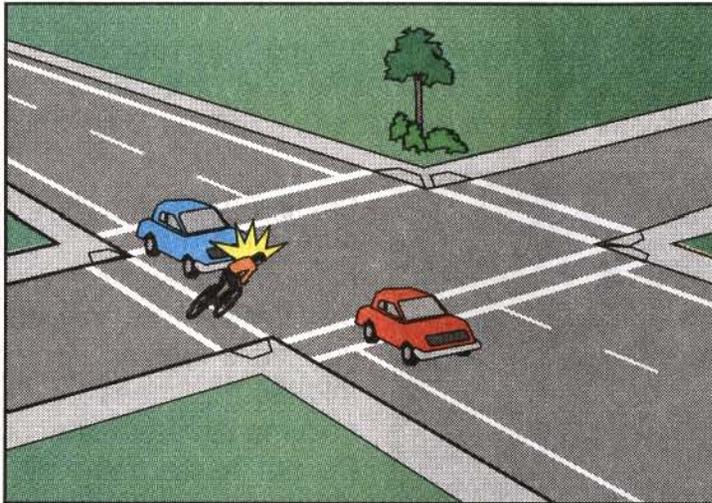
Bicycle theft is a serious problem. All types of bicycles, from the most expensive to the least expensive, are stolen. Here are some steps you can take to help protect your investment:

-  If your community has a bicycle registration program, take advantage of it. Registering your bicycle won't make it theft-proof, but it will help in returning the bike if it is stolen and recovered.
-  List your bicycle on the personal property declaration of your homeowner's or tenant's insurance policy.
-  Keep the serial number of your bicycle and a close-up photo of it on hand for police identification.
-  Lock your bicycle properly every time you leave it unattended.

## LOCKING TIPS

-  Protect your bicycle by carrying and using a high quality lock.
-  Use U-shaped locks which provide very good protection. A heavy-duty cable and key lock are next best.
-  Securely lock both wheels and frame to a bike rack or other stationary object.
-  Lock your bicycle in a conspicuous place where a thief is more apt to be noticed.
-  Don't lock your bicycle to trees; it can damage the bark.
-  Don't lock your bicycle to handrails or fire hydrants, near doorways, on handicap ramps, or other areas that interfere with pedestrian traffic.

# CRASH INFORMATION



## CRASH TYPES

The type of motor vehicle/bicycle crashes involving adult bicyclists are different from those involving child bicyclists. You can prevent your involvement in most traffic crashes if you know how to anticipate and avoid hazardous situations. Most bicycle crashes do not involve motor vehicles, but are a result of excessive speed, surface condition, mechanical failure, loss of control, or a collision with a pedestrian.

### Most common motor vehicle/bicycle crashes involving children:

1. Cyclist rides on wrong side of road against oncoming traffic
2. Cyclist turns or swerves left without looking, hit from the rear by passing vehicle
3. Cyclist rides out from residential driveway or off sidewalk or curb into traffic
4. Cyclist does not stop at stop sign or signal

### Most common motor vehicle/bicycle crashes involving adults:

1. Motorist turns left into oncoming bicyclist heading straight in opposite direction
2. Motorist turns right into bicyclist heading straight in the same direction
3. Motorist drives out from driveway or through stop sign

We hope it never happens to you, but getting hit by a car is an unfortunate possibility for cyclists. Accident statistics only show the tip of the iceberg, as many minor crashes go unreported. Too often, victims fail to get critical information, either because they are so relieved to be alive or so befogged they simply want to be left alone.

Consider clipping the checklist below and tucking it in your tool kit or bike bag. The instructions apply to both cyclists and pedestrians in Colorado. When your brain stops working after you're hit, pull out the checklist and follow the instructions.



Being struck by a car produces a massive adrenaline rush that can mask serious injuries immediately after the crash. You may think you're okay, only to discover later you have broken ribs or need stitches. Injuries to knees and backs may only become apparent after hours have passed. Do not hesitate to call an ambulance or visit the emergency room. In most cases, the car owner's insurance will pay.

Colorado operates under a system called 'no-fault' insurance, meaning that no matter who is at fault in a car/bicycle crash, the car owner's insurance pays for medical bills, lost income, and certain other expenses. If the car that hit you is uninsured, your own car insurance covers the costs. If the crash occurred while you were on the job, you must file a claim for Worker's Compensation through your employer.

## **WHAT TO DO WHEN A CRASH OCCURS**

Notify the appropriate law enforcement agency. A written accident report of the crash must be submitted by the law enforcement agency to the Department of Revenue under the following circumstances:

- A crash involving a bicycle only, if the crash involves serious bodily injury, death or if more than \$1,000 of total property damage occurs.
- A crash involving both a bicycle and a motor vehicle in which there is serious bodily injury, death or total property damage in excess of \$1,000. Also, a written report must be filed if the motor vehicle driver fails to show proof of insurance or if any of the parties involved request that a report be filed.

### **Get as much information as possible:**

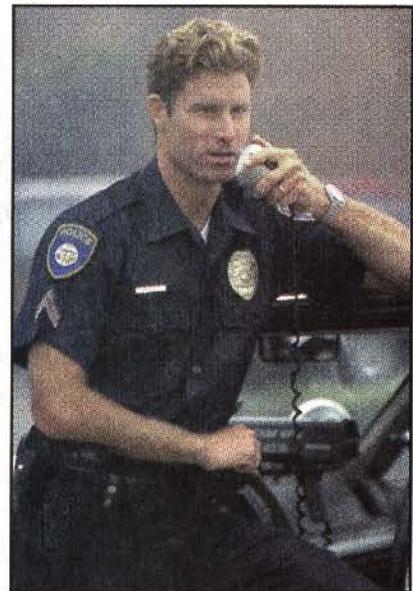
Get the driver's name, address, phone number, driver's license number, license plate number, and name of insurance company. When possible, get names, addresses, and phone numbers of witnesses.

## AT THE SCENE

- 1) Call (or ask someone to call) 911 and ask for the police. Do not hesitate to ask for an ambulance if you are hurt.
- 2) Ask the motorist to stay at the scene until the police arrive. If the driver leaves, he/she is guilty of hit and run, which is a serious crime.
- 3) Get names and phone numbers from the witnesses - the more the better. A business card is great. If someone seems friendly, ask for their help.
- 4) Get the names, phone number, address, and driver's license number of the motorist.
- 5) Get the name of the car owner's insurance company and the policy number. If the driver doesn't own the car, make sure you get insurance information on the vehicle AND the driver.
- 6) If the motorist refuses to stay or provide ID, get the license plate number and be prepared to describe the driver.

## WHEN THE POLICE ARRIVE

- 1) Request that the police take an accident report. A report is required if the crash involves serious bodily injury, death, or if more than \$1,000 of total property damage occurs. Below that amount, a report is optional under the law, but you should insist that one be completed. Sometimes, the officer will give you the form to fill out and mail in.
- 2) Get the reporting officer's name, badge number, and department or agency.
- 3) If you are hurt, go in an ambulance to a hospital or at least see a doctor to rule out serious injury.



## AFTER THE CRASH

- 1) If the officer at the scene gave you a blank accident report, fill it out and return it as indicated within ten days. If you do not have the form, you can fill out a 'counter report' at the local police station. This is the primary mechanism for insuring that the crash appears in public records.
- 2) Request a copy of the accident report. The procedure varies depending on which agency responded to your crash. Usually, the officer will give you a business card. Call their office and ask how to get a copy. Or call the Department of Motor Vehicles at 303-205-5613 for the proper form.
- 3) Notify the car's insurance company. Call the company and request a Personal Injury Protection (PIP) application. If the driver is uninsured, call your own car insurance company.
- 4) If the car is insured, submit your medical bills directly to the car insurance company, rather than to your health insurance company. If you're at the hospital, give them the insurance information for the car that hit you. This avoids a complex series of cross-billings.
- 5) Get an estimate of the value to repair or replace your bike, helmet, glasses, clothing, watch, gloves, etc. If your helmet hit the ground, replace it, even if it seems intact. Give the estimate to the adjuster.
- 6) Photograph your wounds/injuries if appropriate. Use a decent camera in good light.
- 7) Call a personal injury lawyer to find out about insurance benefits which can include medical and rehabilitation costs, lost income, and other expenses. Do this even if the crash is your fault.

### **HARASSMENT AND RECKLESS ENDANGERMENT OF A BICYCLIST**

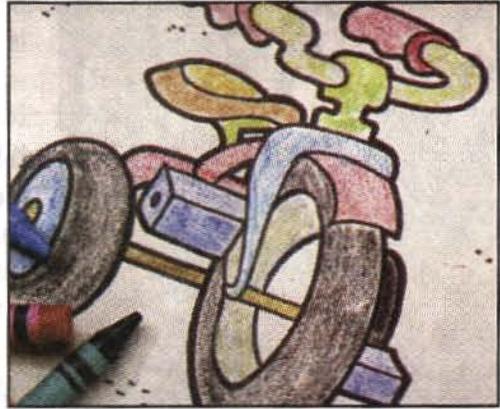
Harassment is a misdemeanor offense and may include threats, taunting, or intimidation. Reckless endangerment is also a misdemeanor offense and involves conduct which places another person at risk of personal injury. In both situations, the police should be notified and given information such as vehicle and driver description along with location, date, time, and witnesses.

Response to harassment should be conservative and polite to prevent aggravating the situation. The mono-digital gesture is never wise.

# CHILDREN

## WHAT PARENTS SHOULD KNOW

Bicycles are an economical and practical means of transportation from an early age. Statistics show that sixty percent of all bicycle crashes and deaths involve children from ages five to fourteen. Of these, seventy-five percent are the fault of the child and might have been prevented had these children been taught some important safety skills. With proper training, bicycle riding can be a safe, healthful, fun activity for the whole family to share through the years.

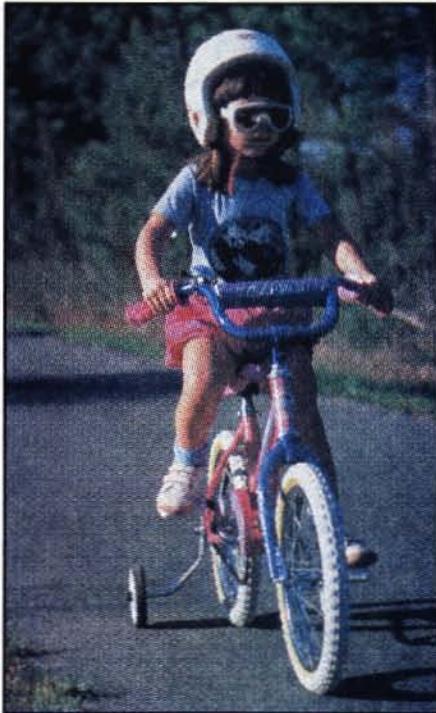


In most instances, the only bicycle safety education children will receive is from their parents. Since children perceive traffic situations differently than adults, it is important for parents to help them understand the dangers of traffic. Here are some things to keep in mind when educating your children about bicycle and pedestrian safety:

- Young children lack well developed peripheral vision
- Children often have trouble determining the source of a sound. They may hear a car coming, but look the wrong way.
- Until about eight years of age, children typically lack a sense of danger and they don't really understand how vulnerable they are.
- Children have trouble evaluating cause and effect. It's hard for them to determine a dangerous situation.
- Children have trouble judging the speed and distance of oncoming vehicles.
- Children are often restless and eager to go. It's hard for them to stop and wait for traffic lights.
- Children focus on things that are most interesting to them. An ice cream truck may take their attention from another approaching vehicle.
- Children often mix fantasy with reality. They may see cars as friendly creatures or think they can go 90 mph on their bicycles.
- Children often believe grown-ups will look out for them. They may think that because they can see the car, the motorist will see them.
- Children are very vulnerable to peer pressure and follow the lead of their friends. Many crashes happen when one child takes a risk and a second follows and is hit by a vehicle.

## WHEN SHOULD A CHILD START RIDING A BICYCLE?

Let the child's motivation and motor coordination be your guide. Schedule this event when you can provide the necessary time to train your child. Training wheels only support the rider. Balance and leaning in the turns are learned on two wheels.



If you need help in teaching your child how to ride a bike, you might consider the help of Pedal Magic, a video showing you a patent pending technique for teaching anyone to ride a bike in five minutes. If your local bike shop doesn't have a copy, you can purchase it from:

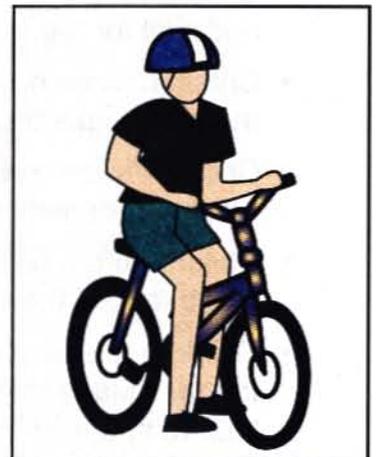
**Ushar Enterprises Inc.**  
**Pedal Magic Project**  
 8270 S. Steele Ct.  
 Littleton, CO. 80122-3651  
 Phone: 303-770-3720  
 Fax: 303-770-3705  
 Toll Free: 888-275-3434  
[www.pedalmagic.com](http://www.pedalmagic.com)

### ONE SIZE DOESN'T FIT ALL

In sizing bicycles for children, they should be able to **comfortably straddle the top bar of the frame while standing flat footed**. This should provide a size for good control yet large enough to allow for growth.



Learning to ride on a traditional girl's bike is a choice to consider for both girls and boys as the sloping top tube reduces the risk of injury to the groin. When the child is just learning to ride, they should be able to sit **on the seat and put both feet flat on the ground**.



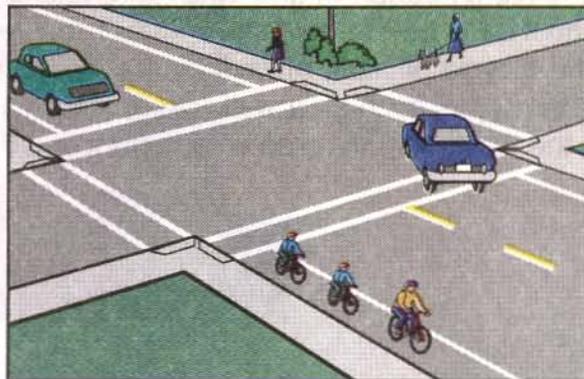
## WHEN SHOULD A CHILD BEGIN TO RIDE IN THE STREET?

In most instances, when they can demonstrate the necessary cycling skills, alertness to traffic, and appropriate decision making skills, they're ready. Until that time, bicycle driving should be limited to sidewalks, parks and bike paths. The most effective and fun way to teach your children safe riding habits is to ride with them. At first, let them follow you as in **follow the leader**. As they become more able, let them lead while you observe and instruct.

When training your child, give special attention to children's high-risk behaviors.

Make sure they:

- Ride on the right in the same direction as traffic. Riding on the left puts cyclists where motorists least expect to see them.
- Stop before riding out of the driveway into the street. Help your child understand that your own driveway is dangerous when used as a launching pad for a bike ride.
- Stop at all stop signs and red traffic lights. Children need to understand that they must stop every time, so that it becomes a habit.
- Ride predictably. They need to signal all turns. Teach children to use hand signals, look to the rear and then turn.



## TRANSPORTING CHILDREN

The two most common methods of transporting children by bicycle include a bicycle-mounted child seat, and a bicycle trailer. Bicycle trailers are a better choice for a number of reasons:

- Children have room to shift position and play while being protected from bugs and weather.
- Bicycle trailers are more stable than child seats and tend to remain upright if the bicycle falls over. If the trailer does go over, the child is already close to the ground and is well contained and protected.
- Trailers are usually brightly colored and much more visible than a bicycle with a child seat and have ample space for diaper bags, toys or cargo from errand-running. For night or bad weather riding, a trailer should be well reflectorized on the back and sides. An orange flag and two rear mounted red flashing lights will make it even more visible in traffic.
- Motorists tend to give trailers a much wider berth.



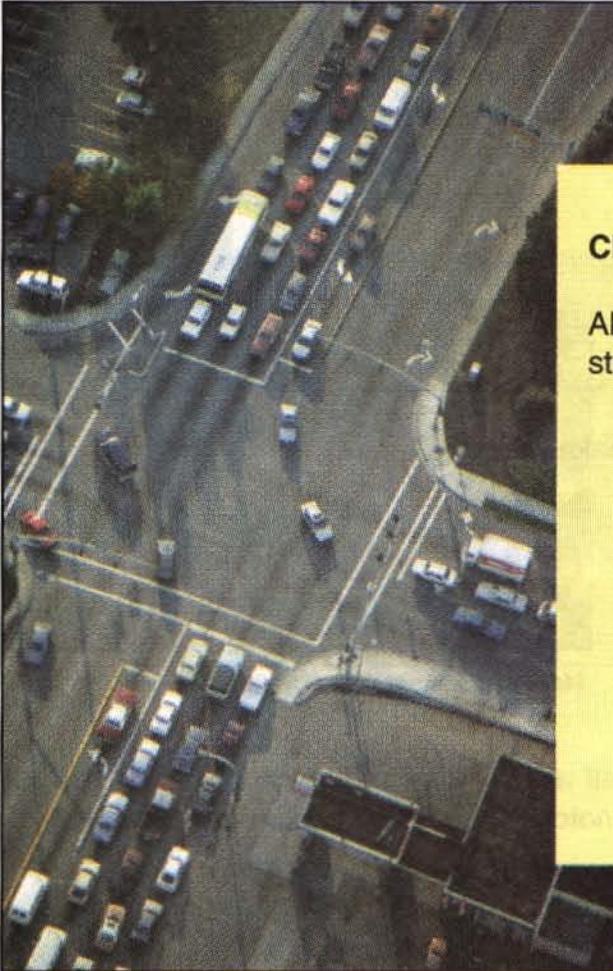
When using a child seat, a bicycle becomes harder to manage because of the extra weight of the child and the higher center of gravity. Children risk having their feet caught in the rear spokes and must be taught to hold still because rocking back and forth in the seat makes balancing the bicycle difficult. Always load and unload the child by leaning your bicycle against a fixed object such as a wall. When stopped with a child on board, remember to hold on to the bicycle firmly even when straddling the bicycle.

# EVERYONE IS A PEDESTRIAN

## CROSSING ADVICE FOR PEDESTRIANS

Most of us cross streets every day. We take for granted that we can cross without incident because most of the time we do, but sometimes we aren't so fortunate.

Nationally, each year about 7,000 pedestrians die and 100,000 are injured in traffic accidents. Young children and the elderly are more likely to be killed or injured in a pedestrian crash than any other group. While it's easy to blame drivers, they are not always responsible for these accidents. All too often, pedestrians are the cause of accidents. These senseless tragedies don't have to happen. You can avoid potential injuries and even death by reviewing the advice for safe street crossing.



### CROSSING RULES

Always follow these steps when crossing a street:

- Before crossing, stop at the curb, edge of the road, or corner before proceeding.
- Look left-right-left and over your shoulder for turning vehicles. If it's clear, begin crossing.
- Continue to check for traffic while crossing.

## TRAFFIC SIGNALS MESSAGES & MEANINGS

At intersections with traffic lights and pedestrian signals, it's important to follow the signals carefully. Wait until you see the WALK signal and follow the rules for crossing.

A **flashing DON'T WALK** signal indicates you shouldn't start to cross the street. However, if you are in the middle of the street and the DON'T WALK signal starts flashing, continue walking. You have time to complete the crossing.

If you see a **steady DON'T WALK** signal, don't begin to cross the street! Wait for the next WALK signal.

The WALK signal and the GREEN traffic light indicate that it's your turn to cross the street, but they do **not** mean it is **safe** to cross. The WALK signal and the GREEN light mean: Look, and then if it's safe, go.

Remember to make eye contact with drivers to ensure they see you. Don't take a walk signal, a green traffic light, or a driver for granted. Crossing safely is your responsibility.

## THE SIGNS OF SAFETY ARE EVERYWHERE!

Most motorists are very familiar with the meaning and intent of the numerous roadside safety signs that they see every day. Out of respect for the law and the safe movement of traffic, careful drivers have learned to appreciate and obey the messages which roadside signs convey. Speed limits, regulation of traffic movement as well as warning and route guidance are all important functions of highway signing; no motorist would feel secure venturing out on the highways without these safeguards.



*Make eye contact with drivers*

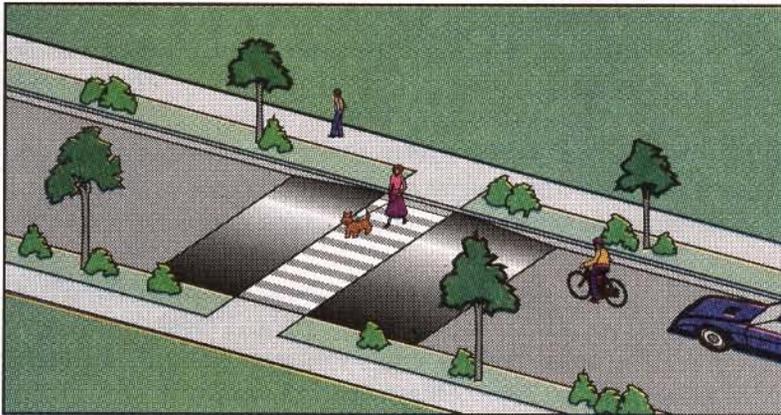
We are all pedestrians at one time or another, and we are all bound to obey the traffic laws that assure the safety of all of us: pedestrians, bicyclists and motorists. Far too many pedestrians, however, seem to ignore the very signals, signs and pavement markings which are installed to govern the movement of all traffic. These devices are not just for someone else who may be driving a bicycle or motor vehicle - they apply to everyone. We should realize that no amount of signals, signs or pavement markings will be able to protect pedestrians if the Signs of Safety are ignored.



**PAVEMENT MARKINGS ARE YOUR ROAD MAP TO A SAFE CROSSING**

***CROSSWALKS***

While they won't protect pedestrians from oncoming traffic, crosswalks do serve to guide pedestrians across the street. Motorists are reminded to look out for and yield to pedestrians in the road when they see the bright, white lines of a crosswalk.



## **SELECT A SAFE PATH THROUGH WORK ZONES**

Most pedestrians walk familiar routes day in and day out - between the bus stop and the office, from the office to a favorite lunch spot, and so on. But this familiarity can cause problems for inattentive pedestrians when they find themselves with a construction work zone in their path. Each year approximately 17% of all work zone fatalities are pedestrians. These needless deaths can be avoided by following work zone signs and markings.

Work zones are potentially dangerous places because so much is happening. Construction vehicles and workers often move suddenly while performing their tasks - it's up to the pedestrian to be alert and stay on the safe path through the work zone! This is why work zone traffic control devices are installed. These pavement marking and distinctive orange signs define the safe way to travel through the work area for drivers, bicyclists and pedestrians.

### **WORK ZONE SAFETY TIPS**

It's always safest to simply **avoid the area**. Crossing the street before getting to the work zone, or even going a block out of your way can save you from getting muddy shoes - or even a much worse fate! If it's not practical to avoid the work zone, then be attentive and careful. It's very important to obey **all** work zone signs, personnel, and pavement markings.

Construction vehicles often move suddenly and quickly. Effective work zone signs and pavement markings will guide you away from danger areas, but everyone in a work zone should always be alert for moving construction vehicles and other unexpected hazards.

Watch where you're going! Construction work may be fascinating to watch, but remember that your first responsibility is to get yourself through the work zone as safely as you can. Don't be a "sidewalk superintendent" unless there's a safe vantage point, such as under a well-constructed covered sidewalk in the case of building construction.

### **ORANGE WORK ZONE SIGNS**

These signs communicate to both drivers and pedestrians what is going on and how to travel safely through the work zone, and can indicate that a sidewalk is closed and that a detour must be taken.

### **PAVEMENT MARKINGS**

Painted or taped lines on the pavement delineate vehicle travel lanes and can also indicate pedestrian paths.

## **WITH RIGHT-TURNING TRAFFIC AT INTERSECTIONS, REMEMBER TO “SEE AND BE SEEN”**

### **Right Turn On Red**

Motorists drive under a lot of stress due to today’s ever increasing traffic. They often become impatient with all the slow-moving traffic. The “Right Turn On Red” law allows traffic to move through crowded intersections without adding new lanes. Those intersections with a lot of pedestrian traffic usually have “No Turn On Red” signs which prohibit these turning movements.

At intersections where Right Turn On Red is permitted, the pedestrian must always be looking for turning vehicles before stepping off the curb. As they attempt to merge with moving traffic on the crossing street, drivers will usually be looking away from the corner and toward oncoming traffic. It’s up to you in this case to be absolutely sure that any driver wishing to make a right turn see you. If you’re uncertain, just wait until the vehicle passes, then look again, and cross safely.

Don’t take “NO RIGHT TURN ON RED” signs for granted. Even when an intersection has these signs posted, you, as the pedestrian, should still make certain that motorists and bicyclists in the right turn lane see you. Don’t step off the curb without checking! Vehicle drivers make mistakes too; don’t compound their error by stepping out in front of a moving vehicle. Be patient.



### **A REMINDER - BE VISIBLE AFTER DARK**

#### **Night Time Visibility**

With the busy schedules that so many of us keep, we often find ourselves going for a walk after dinner, when daylight starts to fade. It’s important to remember lessons we learned when we were young...about wearing bright colors or reflective materials when walking at dusk or after dark. It’s easy to carry a flashlight, or to slip a reflective wrist or leg band on to let drivers know that you’re there! It may not make a fashion statement, but it will help you walk safely when the sun goes down, and the headlights come on.

# GLOSSARY OF TERMS

## BICYCLE

Every vehicle propelled solely by human power applied to pedals upon which any person may ride having two tandem wheels or two parallel wheels and one forward wheel, all of which are more than fourteen inches in diameter.

## BIKE LANE

Portion of a roadway or shoulder designated for preferential or exclusive use by bicyclists. It is distinguished from the portion of the roadway for motor vehicle traffic by a paint stripe, curb, or other devices.

## BIKE ROUTE

A system of bikeways designating preferred routes for bicycle use by signing with appropriate directional and informational route markers.



## BIKEWAY

A generic term for any road, street, path, or way which, in some manner, is designated as being available for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

## DRIVER

Every person, including a minor driver under the age of eighteen years and a provisional driver under the age of twenty-one years, who drives or is in actual physical control of a vehicle.

## PRACTICABLE

Capable of being effected, done, or put into practice, feasible. Usable. Usage: Practicable means "feasible" as well as "usable" and hence overlaps in meaning to some extent with practical, which can mean "useful." Practicable shares no other senses with practical.

## MOTOR VEHICLE

Any self-propelled vehicle which is designed primarily for travel on the public highways and which is generally and commonly used to transport persons and property over the public highways.

## MOTORIZED BICYCLE

A vehicle having two or three wheels, a cylinder capacity not exceeding 50 C.C., and an automatic transmission which produces a maximum design speed of not more than thirty miles per hour on a flat surface.

## PEDESTRIAN

Any person afoot or any person using a wheelchair.

## PRACTICABLE

Capable of being effected, done, or put into practice, feasible. Usable. Usage: Practicable means "feasible" as well as "usable" and hence overlaps in meaning to some extent with practical, which can mean "useful." Practicable shares no other senses with practical.

## RIGHT-OF-WAY

The right of one vehicle operator or pedestrian to proceed in a lawful manner in preference to another vehicle operator or pedestrian approaching under such circumstances of direction, speed, and proximity as to give rise to danger of collision unless one grants precedence to the other.

## ROADWAY

The portion of a highway ordinarily used for vehicular travel, not including sidewalks or shoulders.

## SHARED-USE PATHS

A bikeway physically separated from motorized vehicular traffic by an open space or barrier. Shared-use paths will also be used by pedestrians, skaters, joggers, or other non-motorized users. AKA: Bike path or trail

## TRAIL

Any paved or unpaved off street facility, specifically designated as being open to bicycle travel, and may be shared with other users such as pedestrians, equestrians, skaters, etc.

## VEHICLE

Any device which is capable of moving itself, or of being moved, from place to place upon wheels or endless tracks. "Vehicle" includes any bicycle.

**COLORADO STATUTE 42-4-1412**

Operation of bicycles and other human-powered vehicles.

(1) Every person riding a bicycle shall have all of the rights and duties applicable to the driver of any other vehicle under this article, except as to special regulations in this article and except as to those provisions which by their nature can have no application. Said riders shall comply with the rules set forth in this section and section 42-4-221, and when using streets and highways within incorporated cities and towns, shall be subject to local ordinances regulating the operation of bicycles as provided in section 42-4-111.

(2) It is the intent of the general assembly that nothing contained in House Bill No. 1246, enacted at the second regular session of the fifty-sixth general assembly, shall in any way be construed to modify or increase the duty of the department of transportation or any political subdivision to sign or maintain highways or sidewalks or to affect or increase the liability of the state of Colorado or any political subdivision under the "Colorado Governmental Immunity Act", article 10 of title 24, C.R.S.

(3) No bicycle shall be used to carry more persons at one time than the number for which it is designed or equipped.

(4) No person riding upon any bicycle shall attach the same or himself to any motor vehicle upon a roadway.

(5) Any person riding a bicycle shall ride in the right-hand lane. When being overtaken by another vehicle, such person shall ride as close to the right-hand side as practicable. Where a paved shoulder suitable for bicycle riding is present, persons operating bicycles shall ride on the paved shoulder. These provisions shall apply, except under any of the following situations:

(a) When overtaking and passing another bicycle or vehicle proceeding in the same direction;

(b) When preparing for a left turn at an intersection or into a private road or driveway;

(c) When reasonably necessary to avoid hazardous conditions, including, but not limited to, fixed or moving objects, parked or moving vehicles, pedestrians, animals, or surface hazards.

(6) (a) Persons operating bicycles on roadways shall ride single file; except that riding no more than two abreast is permitted in the following circumstances:

(I) When there is no motor vehicle traffic approaching from the rear within a distance of three hundred feet and the sight distance on the roadway at the time and place and under the conditions then existing is a minimum of three hundred feet to the front and to the rear of the bicyclists; or

(II) When riding on paths or parts of roadways set aside for the exclusive use of bicycles.

(b) Persons riding two abreast shall ride within a single lane.

(7) A person operating a bicycle shall keep at least one hand on the handlebars at all times.

(8) (a) A person riding a bicycle intending to turn left shall follow a course described in sections 42-4-901 (1), 42-4-903, and 42-4-1007 or may make a left turn in the manner prescribed in paragraph (b) of this subsection (8).

(b) A person riding a bicycle intending to turn left shall approach the turn as closely as practicable to the right-hand curb or edge of the roadway. After proceeding across the intersecting roadway to the far corner of the curb or intersection of the roadway edges, the bicyclist shall stop, as much as practicable, out of the way of traffic. After stopping, the bicyclist shall yield to any traffic proceeding in either direction along the roadway

the the bicyclist had been using. After yielding and complying with any official traffic control device or police officer regulating traffic on the highway along which he intends to proceed, the bicyclist may proceed in the new direction.

(c) Notwithstanding the provisions of paragraphs (a) and (b) of this subsection (8), the transportation commission and local authorities in their respective jurisdictions may cause official traffic control devices to be placed on roadways and thereby require and direct that a specific course be traveled.

(9) (a) Except as otherwise provided in this subsection (9), every person riding a bicycle shall signal his intention to turn or stop in accordance with the provisions of section 42-4-903.

(b) A signal of intention to turn right or left when required shall be given continuously during not less than the last one hundred feet traveled by the bicycle before turning and shall be given while the bicycle is stopped waiting to turn. A signal by hand and arm need not be given continuously if the hand is needed in the control or operation of the bicycle.

(10) (a) A person riding a bicycle upon and along a sidewalk or across a roadway upon and along a crosswalk shall yield the right-of-way to any pedestrian and shall give an audible signal before overtaking and passing such pedestrian.

(b) A person shall not ride a bicycle upon and along a sidewalk or across a roadway upon and along a crosswalk where such use of bicycles is prohibited by official traffic control devices or local ordinances.

(c) A person riding or walking a bicycle upon and along a sidewalk or across a roadway upon and along a crosswalk shall have all the rights and duties applicable to a pedestrian under the same circumstances.

(d) A person riding a bicycle upon and along a sidewalk shall dismount before entering any roadway and, when crossing any such roadway, shall observe all the rules and regulations applicable to pedestrians.

(11) (a) A person may park a bicycle on a sidewalk unless prohibited or restricted by an official traffic control device or local ordinance.

(b) A bicycle parked on a sidewalk shall not impede the normal and reasonable movement of pedestrian or other traffic.

(c) A bicycle may be parked on the road at any angle to the curb or edge of the road at any location where parking is allowed.

(d) A bicycle may be parked on the road abreast of another bicycle or bicycles near the side of the road or any location where parking is allowed in such a manner as does not impede the normal and reasonable movement of traffic.

(e) In all other respects, bicycles parked anywhere on a highway shall conform to the provisions of part 11 of this article regulating the parking of vehicles.

(12) (a) Any person who violates any provision of this section commits a class 2 misdemeanor traffic offense; except that section 42-2-127 shall not apply.

(b) Any person riding a bicycle who violates any provision of this article other than this section which is applicable to such a vehicle and for which a penalty is specified shall be subject to the same specified penalty as any other vehicle; except the section 42-2-127 shall not apply.

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# RESOURCE DIRECTORY

## BIKEWAY MAINTENANCE

Get a street or path maintenance problem taken care of by calling the appropriate maintenance people directly. Is the area maintained by the city, county or state? Call that transportation maintenance office. Many off-street paths are maintained by a Parks and Recreation Department. It may take a few phone calls before discovering who maintains what, so keep these numbers handy for further maintenance assistance. These agencies appreciate your call because many have limited resources and your comments help them prioritize their work loads.

## GOVERNMENT AGENCIES

### FEDERAL

US Department of Transportation  
Federal Highway Administration  
555 Zang St Room 250  
Lakewood CO 80228  
303/969-6730

### STATE

Colorado Department of Transportation  
(CDOT)  
Bicycle/Pedestrian Program  
4201 E Arkansas Ave DTD  
Denver CO 80222  
303/757-9982

Maintenance Superintendent  
1325 S Colorado Blvd #707  
Denver CO 80222  
303/757-9536

### CDOT Region Offices

REGION 1  
18500 E Colfax Ave  
Aurora CO 80011  
303/757-9122

REGION 2  
905 Erie Ave • PO Box 536  
Pueblo CO 81002  
719/546-5734

REGION 3  
222 S Sixth St  
Grand Junction CO 81502  
970/248-7213

REGION 4  
1420 Second St  
Greeley CO 80631  
970/350-2121

REGION 5  
3803 N Main Suite 300  
Durango CO 81301  
970/385-1400

REGION 6  
2000 S Holly  
Denver CO 80222  
303/757-9511

Colorado State Parks  
State Trails Program  
1313 Sherman St #618  
Denver CO 80203  
303/866-3203

Colorado State Patrol (CSP)  
Headquarters  
700 Kipling  
Lakewood CO 80215  
303/239-4500

District 1  
18500 E Colfax Ave  
Aurora CO 80011  
303/344-2536

TROOP A  
131 "C" Ave  
PO Box 1090  
Limon CO 80828  
719/775-2964

TROOP B  
7600 E Orchard Rd  
Englewood CO 80111  
303/790-2110

TROOP C  
900 Wilcox St  
Castle Rock CO 80104  
303/688-3115

TROOP D  
8200 N Hwy 85  
Commerce City CO 80022  
303/289-4760

District 2  
State Hwy Bldg  
902 Erie Ave  
Pueblo CO 81001  
719/546-5465

TROOP A  
902 Erie Ave  
Pueblo CO 81001  
719/544-2424

TROOP B  
18 E Arvada  
Colorado Springs CO 80906  
719/635-0385

TROOP C  
2402 S Main  
Lamar CO 81052  
719/336-7403

TROOP D  
10201 County Rd 693  
Trinidad CO 81082  
719/846-2227

District 3  
201 14th Ave  
Greeley CO 80631  
970/350-2211

TROOP A  
201 14th Ave  
Greeley CO 80631  
970/350-2207

TROOP B  
12850 County Rd 370  
Sterling CO 80751  
970/522-4693

TROOP C  
6570 Portner Road  
Fort Collins CO 80525  
970/223-8701

District 4  
State Hwy Bldg  
222 S 6th St  
Grand Junction CO 81502  
970/248-7217

TROOP A  
222 S 6th St  
Grand Junction CO 81502  
970/248-7271

TROOP B  
280 Ranney St  
Craig CO 81625  
970/824-6501

TROOP C  
202 Centennial St  
Glenwood Springs CO 81601  
970/945-6198

District 5  
20591 Hwy 160  
Durango CO 81301  
970/385-1675

TROOP A  
20591 Hwy 160  
Durango CO 81301  
970/385-1675

TROOP B  
1205 West Ave  
Alamosa CO 81101  
719/589-2503

TROOP C  
2420 N Townsend Ave  
Montrose CO 81401  
970/249-9575

**GOVERNMENT AGENCIES (continued)**

**District 6**

1096 McIntyre St  
Golden CO 80401  
303/273-1616

**TROOP A**

1096 McIntyre  
Golden CO 80401  
303/273-1616

**TROOP B**

PO Box 585  
Frisco CO 80443  
970/668-3133

**TROOP C**

7701 W 120th Ave  
Broomfield CO 80020  
303/469-1966

**COUNTY**

**Colorado Counties**

1700 Broadway #1510  
Denver CO 80290-1501  
303/861-4076

**Boulder County Bikeways Program**

Boulder County Courthouse Annex  
2045 13 St  
Boulder CO 80302  
303/441-3900

**CITY**

**Colorado Municipal League**

1660 Lincoln St Suite 2100  
Denver CO 80264-2101  
303/831-6411

**Go Boulder**

**City of Boulder**  
2018 11 St  
PO Box 791  
Boulder CO 80204  
303/441-3266

**Bicycle Program**

**City of Denver**  
200 W 14 Ave #302  
Denver CO 80204  
303/640-BIKE

**Bicycle Program**

**City of Fort Collins**  
Transportation Division  
210 E Olive St  
Fort Collins CO 80524  
970/221-6608

**Planning Department**

**City of Colorado Springs**  
City Administration Building  
30 S Nevada Ave #301  
PO Box 1575/MC 310  
Colorado Springs CO 80903-1575  
719/385-5905

**Planning Department**

**City of Greeley**  
1000 Tenth St  
Greeley CO 80631  
970/350-9783

**Planning Department**

**City of Pueblo**  
211 East D St  
Pueblo CO 81003  
719/543-6006

**DRCOG Pedestrian & Bicycle Committee**

2480 W 26 Ave #200B  
Denver CO 80211-5580  
303/455-1000

**Congestion Reduction Programs**

**DRCOG Ride Arrangers**

2480 W 26 Ave #200B  
Denver CO 80211-5580  
303/455-1000

**Ridefinders**

8 S Nevada Ave #401  
Colorado Springs CO 80903  
719/444-2611

**Smarttrips**

151 S College Suite H  
Fort Collins CO 80524  
970/221-6243  
800/332-0950

**ORGANIZATIONS**

**Bicycle Colorado**

PO Box 698  
Salida CO 81201  
719/530-0051

**Boulder Off-Road Alliance**

PO Box 4954  
Boulder CO 80306

**Colorado Bicycle Advisory Board**

4201 E Arkansas Ave  
Denver CO 80222  
303/757-9982

**Colorado Ski Country USA**

1560 Broadway #2000  
Denver CO 80202  
303/837-0793

**International Mountain Bike Association (IMBA)**

PO Box 7578  
Boulder CO 80306  
303/545-9011

**National Collegiate Cycling Association**

One Olympic Plaza  
Colorado Springs CO 80909  
719/578-4581

**Tread Lightly**

298 24 St #325  
Ogden UT 84401  
800/966-9900

**USA Cycling**

United States Cycling Federation (USCF)  
National Off Road Bicycle Association (NORBA)  
US Professional Racing Organization  
1 Olympic Plaza  
Colorado Springs CO 80909  
719/578-4581

**United States Cycling Federation (USCF)**

Colorado Representative  
• Yvonne van Gent  
1135A S Oneida  
Denver CO 80224  
303/757-1892

**Volunteers for Outdoor Colorado**

600 S Marion Parkway  
Denver CO 80209  
303/715-1010

**MAPS**

**Bicycle Colorado**  
 PO Box 698  
 Salida CO 81201  
 719/530-0051

**City of Denver Bike Map**  
 200 W 14th Ave #301  
 Denver CO 80204  
 303/640-BIKE (2453)

**Colorado State Parks**  
 1313 Sherman St #618  
 Denver CO 80203  
 303/866-3203

**BICYCLE LOCKER COMPANIES**

Note: Locker prices range from approximately \$580 - \$1,500 per two-door, two-bike locker depending on model, size, type of material and amount of assembly required. Compare several companies to determine what style best suits your needs.

**American Bicycle Security Company**  
 PO Box 7359  
 Ventura CA 93006  
 805-933-3688

**Bike Lokr**  
 PO Box 720005  
 Norman OK 73070

**Bike Security Rack Co. Inc.**  
 RR 1 Box 476B  
 Rumney NH 03266  
 800/545-2757

**Bike Guard**  
 PO Box 520  
 Rexburg ID 83440  
 208/356-0744

**Cycle-Safe, Inc.**  
 478 Arrowhead SE  
 Grand Rapids MI 49546  
 616/954-9977  
 800/950-6531

**Madrax**  
 2210 Pinehurst Dr  
 Middleton WI 53562  
 800/448-7931

**Sunshine U-Lok Corporation**  
 3136 Via Colinas #102  
 Westlake Village CA 91362  
 818/707-0110

**We would like to thank the following contributors for their assistance in preparing the 7th edition of the Colorado Bicycling Manual:**

**Bicycle Colorado  
Bicycle Parts Pacific  
Bicycle Racing Association of Colorado  
Boulder County Alternative Transportation  
City of Boulder Bicycle/Pedestrian Program  
City of Denver Bicycle/Pedestrian Program  
City of Fort Collins Bicycle/Pedestrian Program  
Colorado Bicycle Advisory Board  
Colorado Department of Health  
Colorado Municipal League  
Colorado Springs Ridefinders  
Colorado State Patrol  
DRCOG Pedestrian and Bicycle Committee  
DRCOG Ride Arrangers  
Federal Highway Administration  
International Mountain Bike Association  
Oregon Department of Transportation  
Bicycle/Pedestrian Program  
Larry Cobb and Associates  
Premena  
RTD  
Smart Trips  
Tread Lightly  
U.S. Department of Transportation  
USA Cycling**

*Special thanks to the Oregon Department of Transportation, who provided drawings that were the basis for the Rules of the Road chapter and several other illustrations in this manual.*

