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 Transport, 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.
RIDING FOR DIFFERENT REASONS

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.
RIDING FOR DIFFERENT REASONS

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 ed bicycles confuse you, read your owner’s manual or go to a bike shop for help. Practice before riding in traffic.

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

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.
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.

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.

TIP: Bring a city or bicycle route map to avoid getting lost.
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.
RIDING FOR DIFFERENT REASONS

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 and short trips - those that are most bikeable - 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.
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.

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<th>CONCERN</th>
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<td>Arriving at work hot and sweaty after a bike ride.</td>
<td>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.</td>
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<th>CONCERN</th>
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<td>Secure parking/storage for bicycles and equipment.</td>
<td>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.</td>
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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 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.
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).