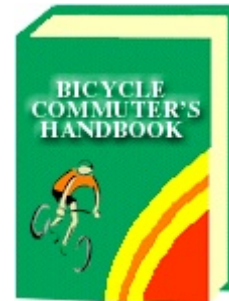


BICYCLE COMMUTER'S HANDBOOK

Part 2

COMPANION TO THE *ETC GUIDE TO BICYCLING TO WORK OR TRANSIT*

Prepared for the North Texas Clean Air Coalition
by Bowman-Melton Associates, Inc.



Joining Your Company's Bicycle Commute Program

Congratulations on your decision to try bicycling to work. Your employer, a member of the North Texas Clean Air Coalition, cares about you and your community, and has chosen to support this program as an alternative to motoring alone to work. Whether you bicycle commute once a week, everyday, or only on Ozone Alert/Action Days, congratulations on your commitment to doing your share for cleaner air!

Please use this handbook to increase your knowledge of effective bicycling techniques, and coordinate with your company's Employee Transportation Coordinator to learn more about what is needed for you to ride your bike to work.

How can I benefit from bicycle commuting?

Improve Health and Fitness — Bicycling improves personal fitness, enhances energy levels, and is easy on the body. Bicycling can be a great way to maintain, control or lose weight. Bicycling is a low impact, low stress exercise which can be continued later in life, and is appropriate even for those desiring only moderate levels of physical activity. Many runners switch to bicycling when they experience exercise injuries. Commuting by bike has helped many office workers fit a regular aerobic activity into their busy, but often sedentary office routine. Bicycle commuting reduces stress and lowers the risk of heart disease by combining a workout with a commute.

For adult bicyclists, the health benefits alone of cycling outweigh the crash risk by a ratio of more than ten-to-one, in terms of years of life gained versus lost, according to Mayer Hillman's *Cycling: Towards Health and Safety*, which examines the health benefits of bicycling. And scientists generally agree that even on days with high levels of ozone, healthy foot-powered commuters have long finished their commutes before risk of prolonged exposure to ozone can occur. Unless exposure is longer than one or two hours, adverse affects from ground-level ozone are remote, even in vigorous activities such as competitive sports or bicycling, according to the Office of Technology Assessment in *Catching Our Breath / Next Steps for Reducing Urban Ozone*. For most bicyclists, a five-mile bicycle commute rarely takes more than thirty minutes.

Save Money — Bicycling is one of the least expensive ways to get to work. Maintenance and upkeep of bicycles is relatively inexpensive and food is the only fuel needed! Bike commuters save at least the variable costs of driving a car, which according to the 1991

Federal Highway Administration is \$.33 per mile including cost of fuel, insurance, upkeep, and wear and tear. Some families save the entire cost of owning and operating a second car when one family member bicycles to work. Most insurance companies reduce their rates when a car is not driven to work. Insurance providers can tell you about these cost savings. You also benefit financially by putting fewer miles on your automobile, thereby maintaining a higher resale value while saving money on auto maintenance and repairs.

Save Time — If you typically exercise for two hours per week, and instead spend the same amount of time bike commuting to work, you will find that combining your exercise time with your commute time can actually save time overall.

True Commute-Cost Comparison Table		
commute mode	cost per mile	avg.cost per yr.
Walking	\$.07	\$168.00
Bicycling	\$.10	\$250.00
Single Occupant Auto	\$1.54	\$3,696.00

Based on a daily commute of 5 miles each way. From a study prepared by the Washington State Energy Office. Considers direct costs, indirect costs, and external costs. Annual savings for bicycling or walking to work can add up to more than \$3,000!

Travel Less Stressful Routes — When you are able to travel on minor through streets or trails to your worksite, you are able to enjoy the scenery and help reduce congestion on major streets which are often clogged with automobiles.

Use Convenient, Low-Cost Parking — You have an incentive to bike to work when your employer provides secure bike parking near building entrances or in an easily accessible location.

Save Taxes — In the long-term, providing bicycle facilities saves tax dollars because wide right-hand lanes on roads, and separate off-street paths cost only a fraction of the cost of building and maintaining additional facilities for automobiles.

Improve Air Quality — Bicycling helps the environment by reducing traffic congestion. As more people bicycle, more autos are removed from the road. A person who bike commutes 10 miles round trip only every-other day can prevent up to 117 pounds of auto pollution a year according to the North Central Texas Council of Governments' (NCTCOG) Department of Environmental Resources.

Be an Environmentally Responsible Citizen — Employees who bike to work, are part of the pollution solution. If you bicycle commute just one day of a five-day work week, you have reduced your automobile emissions by 20%! As a member of this voluntary effort to combat air pollution you are demonstrating that you are an environmentally responsible citizen. You have selected the zero-pollution solution!

Be a Well Trained Human-powered Transportation Machine — By having trained during your regular commutes, you will be ready for riding in organized events such as the Wichita Falls Hotter'n Hell Hundred or the Waco Wild West ride. The choices of organized bike tours are practically limitless, ranging from a one day local event to a weekend jaunt in the country, or even a three month cross-country journey. You can

take a gourmet tour, bicycling from inn to inn with your luggage following you in a van, or you can rough it, carrying your gear on your bike and sleeping under the stars. If you have a competitive streak, there are a wide variety of bicycle racing events almost every weekend. Join a bicycle club for a monthly newsletter with a regular calendar of events.

THE BOTTOM LINE - BICYCLING IS FUN AND HEALTHY!

How can I tell if bike commuting is right for me?

Most people who do not ride a bicycle cite fear of traffic as the major reason. Yet, once they have some riding experience, have located low-stress through-streets, and have learned how to share the roadway with other vehicles, they find their new commute mode fun and stress-reducing.

Riding a bike, like any kind of exercise, gets easier with practice. Choose a route that minimizes traffic and stops, hills and bumpy roads. Ask your Employee Transportation Coordinator (ETC) or your city's Bike Coordinator for assistance. You'll need to know where to park your bike and how you will freshen up for work.

What is a reasonable distance to commute by bicycle?

Many consider three to five miles an optimum distance for bike commuting, although many seasoned cyclists commute fifteen miles or more each way! Base your decision upon your own experience and abilities. Since most urban cyclists travel a little faster than 10 miles per hour, you should be able to bicycle 3 miles in less than 20 minutes, or 5 miles in 30 minutes. Some cyclists travel faster than 20 miles per hour.

If you live more than five miles from work, and feel it's too far to cycle the entire distance, consider bicycling to a carpool, a vanpool or a transit center or bus stop. This is called a "multimodal" commute.

What routes should I take to bicycle to work?

Plan your commute route thoroughly. Your objective is to find the most pleasant routes to your work site. Practice on a holiday or when traffic volumes are low. Considerations in planning your bicycle commute route include:

- Look for low volume streets with few trucks and buses, especially when you'll be riding.
- Adequate lane width (usually 14' or wider) allows you to share a lane with cars.
- Check drainage grates to make sure they don't "eat wheels" or cause you to fall.
- Make sure you can traverse railroad crossings at a right-angle to the tracks.
- Fewer stop signs will allow you to maintain your pedaling cadence, but do always stop.
- Relatively flat terrain requires less effort, but with multi-gear bikes, hills can be easy.
- Look for good pavement condition. Notify city officials if pavement needs repair.

In the Dallas area, a good place to start is with the Greater Dallas Bike Plan Map. This map contains more than 365 miles of officially marked bike routes in the City of Dallas as well as 200 miles of planned and recommended bike routes in Dallas County. Call the City of Dallas Bike Coordinator at (214) 670-4039.

DART has a Bicycle/Bus System Map. Call (214) 747-RIDE for the map and schedule information. The T serves Metropolitan Fort Worth. For The T bus schedule call (817) 336-RIDE. You may also be able to undertake part of your bike commute along a hike and bike trail. For information on trails in your area, call your city's parks department.

The City of Fort Worth has an extensive trail system along the Trinity River and Marine Creek, which can serve many commuters in this area. For a Trinity River Trails Map call the City of Fort Worth Park & Recreation Department at (817) 871-5700. The City of Plano has a Hike & Bike Trails Map of Plano, available from the Plano Parks and Recreation Department by calling (214) 578-7250.

In the future it should become even easier to bicycle commute since there is now a region wide effort to improve conditions which will make both bicycling and walking more convenient and pleasant. Talk to your city officials to let them know about your interest.

Where will I park my bike while I am at work?

Just as automobiles require secure parking to be effective transportation modes, so do bicycles. Bicyclists are rightly concerned about their bikes being vandalized or stolen. Arrange bike parking with your company Employee Transportation Coordinator.

AT WORK — There are two types of end-of-trip parking facilities for bicycles. Short-term bike parking devices, which should support the bike by the frame (not a wheel) and should be located at, or near the most visible primary building entrance(s). More appropriate for bike commuters who plan to be at work all day are long-term bike parking facilities. These should be both secure and protected from weather. This can be bike lockers, a covered bike pen, a storage room or in a covered location where security is available, such as check-in parking or monitored parking. In some instances, your employer may consider permitting you to park your bike near your work station.

AT TRANSIT — Many park-and-ride lots or transit centers provide secure bike racks. DART has transit centers in Carrollton, north and south Garland, north and south Irving, east and west Plano, Richardson, and Rowlett. Choose a rack that's very visible and in a busy area. A sturdy U-lock is recommended when using these types of racks. Enclosed bike lockers are available at the DART West Plano Transit Center at 4040 West 15th Street, in the City of Plano, Collin County. You can rent a DART bike locker for a period of twelve (12) months at a rate of \$30.00 per quarter. DART will consider installations at other transit centers as demand warrants. Beginning in 1996, when DART light-rail service begins, you will be able to rent a bike locker at selected light-rail stations. For more information about renting a bike locker at DART, contact the DART Action Center at 749-3333.

Can I take my bike with me on the bus?

While most multimodal commutes require parking your bike at a train or bus transit center, a growing number of transit authorities, including DART and The T, allow bikes on buses under varying conditions. DART will also allow bikes on trains when service begins in 1996. Another carry-along option for public transit is a folding bicycle that collapses into a carrying case that can be brought aboard buses even during rush hours.

One of the most creative methods of multimodal commuting when using DART's Express Bus Service is "bus to work, bike to home" — put your bike in the bus's cargo bay in the morning, and then bicycle home in the evening. This can be an ideal and fun commute/exercise combination. Another express bus opportunity is the bike /bus/bike combination where you bike to the bus, store your bike underneath the bus in the cargo bay, then continue to your destination by bike from the bus stop.

DART allows bicycles that are clean and free of excess grease and dirt or mud to be brought aboard buses under various conditions. The DART Bicycle/Bus System Map explaining this commute option is available at area bicycle shops, DART kiosks, or can be obtained by calling 747-RIDE. Bike-on-bus guidelines for access are as follows:

- Bikes on Local Service Buses — Bicycles are allowed inside most double-door local service buses during off-peak hours, provided there is enough space. Bicycles must be tied securely with user- provided cotton rope to the vertical hold-on bar at the rearmost side-facing seats.
- Bikes on Express Buses — Bicycles are allowed at all times in the cargo compartment beneath the bus on all single-door express buses, with loading and unloading permitted only at DART transit centers and in downtown Dallas.
- Folding Bicycles on Buses — Another carry-along intermodal option is a folding bicycle which can be brought aboard all DART buses even during rush hours. Several brands are available from some area bicycle shops.

For information about combining a bike trip with The T call (817) 336-RIDE.

What kind of bike do I need for commuting?

Any bike in good condition is suitable for commuting. Our area's fairly level terrain makes cycle commuting easy for all ages and all types of cyclists. Today's short distance (usually 10 miles or less) commuter bikes of choice have upright handlebars, fingertip shift levers with 15-18 or more speeds, and effective brakes. Mountain bikes, originally designed for off-road riding, feature high-tech wheels with wide, low pressure tires for a very smooth ride, but the knobby tires and low-gear ratios do make them slower. Hybrid bikes are similar except the tires and gear ratios are designed for city streets. Both mountain and hybrid bikes are very comfortable for commuting, and the design allows cyclists to assume an upright sitting position in traffic, and to endure almost any surface - including pothole-riddled urban streets. For longer commutes and minimum rolling resistance, some people prefer racing bikes with dropped-style handlebars and narrow, high-pressure tires. Finding a way to attach a cargo rack or other carrying devices to some racing bikes can sometimes be difficult.

How can I make my bike more comfortable to ride?

How your bike fits you is even more important than the type of bicycle you choose. Riding the correct size bike is as important as wearing shoes that fit. Service oriented bike shops, or bike classes such as Effective Cycling, can help you make sure that the bike you are riding fits properly. To make your bike more comfortable to ride, adjust the seat height to allow comfortable leg extension with only a slight bend in your knee when sitting on the seat. Adjust the seat angle so that it's level, or angled up no more than 5° in the front. Loosen the mounting bolt underneath the seat to adjust your fore/aft position over the pedals. Adjust the handlebar height for a comfortable riding position. Handlebar stem-lengths vary, both for height and fore/aft length to accommodate all combinations of arm and torso lengths.

When riding a geared bike, select the lowest or easiest gear that your feet can spin smoothly while maintaining pressure on your pedals. This reduces strain on your knees. Pedal constantly instead of intermittently to maintain efficient cardiovascular (heart/lung) exchange, thereby avoiding muscle cramps and fatigue.

What accessories do I need for bike commuting?

Bicycle Helmet — The most important accessory you can purchase for bicycling is a properly fitted bike helmet. It just makes good sense to wear a helmet every time you ride. Helmets can prevent head injuries, the primary cause of serious injuries from bicycling accidents. Many cyclists observe that motorists are more likely to treat you with respect if you are wearing a helmet. Helmets also increase rider visibility. Today's helmets are lightweight, well-ventilated, comfortable, strong and stylish.

Maximize your protection! A helmet must be positioned to cover your forehead and the straps adjusted so it fits snugly and can do its job if needed. Be sure your helmet meets protection standards set by the Snell Memorial Foundation, the American National Standards Institute (ANSI), or the American Society for Testing Materials (ASTM). Statistics show that a helmet can prevent up to 85% of serious head injuries. Replace it whenever it sustains a hard impact, or every five years (due to deterioration of the protective styrofoam liner). Treat your bicycle helmet like a fine camera. It's worth a lot more!

Sunglasses or Other Eye Protection — Protect your eyes from bright sunlight, bugs and fine road debris thrown up by tires. Protective eyewear is a sound investment, especially for those who wear contact lenses. Some manufacturers offer prescription lenses in contemporary wrap-around styles.

Bike Lock — For all short term and some long term parking you'll need to carry a lock. U-locks are best, but are heavy. Consider leaving one at work where you park. For short term parking such as errands, carry a braided cable long enough to secure both wheels and the frame with a sturdy padlock to a bike rack. Always lock your bike to an immovable object in a visible place. Do not use parking meters unless you are using a U-lock — thieves can slip a chained or cabled bike over the top of the meter. Quick-release components such as wheels and seats are easy to steal, either remove them and take them with you or secure them with the cable. If your bike is too valuable to park in a public place, buy a second, less expensive bike for utility trips.

Racks, Bags or Baskets — A bike without carrying capacity is not a convenient way to get to work. A sturdy luggage rack is a must. Panniers are removable carrying bags which hang from the sides of the rack. Some are like soft briefcases, some are folding baskets, some are like a hanging bag for clothes. Smaller rack-packs attach to the top of the rack. You can strap a briefcase, books, or other items to the top of the rack with a bungee cord. Another alternative is a securely belted back pack, although these can become very uncomfortable on longer rides. Some type of carrying-gear is essential if you want to be able to run errands during your commute.

Water-Bottle & Cage — For any but the shortest commute (less than a mile or two), you'll want to drink water to avoid dehydrating. Always drink before you get thirsty, even in cool weather.

Rear-view Mirror — To assist you in identifying traffic approaching from behind, you may wish to use a rear-view mirror. Several different styles are available including ones that attach to the bike's handlebar. Other alternatives include mirrors which attach to your helmet, glasses or wrist. Never rely solely on a rear-view mirror. Always look over your shoulder before turning or changing lanes.

Lighting— The greatest likelihood of severe injury or death while riding a bicycle occurs after dark, especially if you aren't visible to motorists. Avoid riding at night. If you must ride at night, always use lights and reflectors. Texas law requires a white headlight visible 500 feet to the front, and a red reflector (minimum) or red light (better) visible at least 300 feet to the rear. Reflectors are a requirement on all new bikes, including white front reflector, red rear reflector, wheel and pedal reflectors. While useful for night riding, reflectors are no substitute for lights. Experienced cyclists especially like the visibility of the new fast-blinking red light which can be mounted on most rear reflector brackets. A tire-driven dynamo light eliminates the need for batteries, but battery-lights don't fade when you stop your bike, improving your visibility. Good lighting is available at most bike shops.

Other Nighttime Visibility — Be prepared if you think you might have to ride after dark or before daylight. You should also add to your nighttime visibility by wearing light colored and/or reflective clothing and/or attaching reflective tape or stickers to your bike, helmet, shoes, and jacket. Reflective tape is available at most service oriented bike shops.

Fenders — Fenders will help you stay clean and dry when the streets are wet. Most bike shops sell fenders, including some brands which are quickly removable. Note: Avoid riding shortly after a rain begins, or if it's only misting; this is when streets are the most slippery.

Pedals — Pedals with toe clips, and clipless pedals which attach much like downhill ski bindings, give you more pedaling power. If you use either of these, make sure they are adjusted so you can remove your feet easily when cycling in traffic.

Warning Device — Use your voice, a horn, whistle or a bell to alert others of your presence in traffic. A friendly bell or the words "passing left" is especially appropriate before passing others on a trail.

Pepper Spray — If you're likely to encounter loose dogs along your route, carry a canister of "Halt" dog repellent, the harmless cayenne spray used by postal workers, and

available at many bike shops. Otherwise, stop and dismount, keeping your bike between you and the dog, then walk away slowly shouting "No!" and "Stay!" in a very commanding voice.

What should I wear for bicycling?

The most important thing to remember about cycling clothing is that it should be comfortable and not get caught in your bike. For short rides, such as to the bus or rail transit center, work clothing (minus coat and tie, or hose and heels) can be adequate - just be sure to clip, strap (Velcro™) or rubber band your right pant cuff to keep it out of the chain. Keep shoelaces tucked into your shoes and beware of skirts that can get caught in your bike chain or spokes. Many prefer to wear bicycle-specific clothing, especially for longer trips. Bicycling attire is designed for cycling in the same way swim suits are designed for swimming. Quality cycling gear, properly cared for, should last for years.

Cycling Shorts or Tights — These generally have a padded crotch for comfort on longer rides. Wear long cycling tights or layer regular tights over cycling shorts in cooler weather to help prevent muscle or joint injuries.

Cycling Jerseys — Designed to conform to the body for aerodynamic advantage, most jerseys have many pockets for holding sunglasses, fruit, etc., and are usually brightly colored for daytime visibility, or white for night riding.

Cycling gloves — Protect the palms of your hands in the event of a fall, and decrease hand and wrist discomfort from holding the handlebars, especially when riding longer distances.

Cycling shoes — Stiff soles increase pedaling efficiency. Most "sneakers" are not adequately rigid to prevent foot fatigue. Many styles of cycling shoes are available at bike shops. "Clipless" pedals require shoes with special cleats. Make sure cleats are properly aligned to prevent knee or ankle joint trauma.

Incident Weather Clothing — If you wake up in the morning and it's too cold, rainy, or slippery, you should leave the bike home and take the bus. If you biked in in the morning, but the weather turns bad, you have to improvise. You can take the bus, hitch a ride with a co-worker, or take a taxi. Some companies have Emergency Ride Home programs that include employees who bike to work, but are stranded by weather. Start as a fair weather cyclist and ask your employer to provide a "guaranteed emergency ride home" as an incentive. Service oriented bike shops carry cycling apparel especially designed for cold, hot or wet weather.

Cold Weather Cycling requires some planning, but can be exhilarating. The layering approach is recommended for winter riding. Warm gloves, tights, warm socks, a tight fitting hat that fits under your helmet, and a jacket or windbreaker that breathes are all essential.

Hot Weather Cycling can seem more comfortable than it should since you can "catch a breeze" on your bike. It is especially important to drink plenty of water, at least a pint or more every half hour, when riding during hot weather. If you suffer respiratory irritation

on high ozone days, take the bus or carpool.

Wet Weather Cycling should be avoided. Increase your visibility if you choose to ride in wet weather. Wear a bright colored poncho or cycle-specific foul-weather riding gear. More than keeping dry, focus on maintaining a comfortable temperature. Avoid getting chilled.

How can I commute and dress professionally for work?

Take a week's worth of work clothing in once a week and store it in a locker, or carry your clothes with you on the bike. When carrying them with you on your bike, roll clothing or use tissue paper to prevent wrinkles from folding, or use a garment-bag type pannier. Another alternative is to take your clothes to a dry cleaners near work. If showers are not available at your work site, join a nearby health club or arrange to use the shower at a neighboring business. Carry a fresh towel and washcloth each day, and return home with them in a plastic bag for laundering.

How can I learn to be a more effective bicyclist?

An excellent first step toward safe bicycling is to take an Effective Cycling class from an Effective Cyclist Instructor who is certified by the League of American Bicyclists. Even experienced bicyclists find this class helpful, and such courses are crucial for beginning bicyclists. Although bicycle commuters generally have the lowest crash rates of all, there are a few safety tips to keep in mind. This guide has been prepared to ease your commute, but is not intended as a replacement for formal training. Effective Cycling classes are regularly offered in the Metroplex. To learn more about taking Effective Cycling classes, ask your ETC, or contact the North Texas Effective Cyclists. Graduates receive a certificate and patch to document their skill.

Distance and time required to learn traffic-safe cycling		
Type of learning	Miles	Years
Self-teaching	50,000	10-20
Club cycling	5,000	2
Learning from books	2,500	1
Effective Cycling instruction	800	1/4
From <i>Effective Cycling</i> , 6th Edition, by John Forester, 1993		

What are the basic rules for cycling in traffic?

Be a Responsible Driver — Your bicycle is recognized as a legal vehicle on the roads of Texas. Drive your bike as you would any vehicle. Even though your bicycle is very maneuverable, this does not mean you can violate traffic laws. Drive your bike assertively, but obey all laws. The most important tips for safe bicycling are to be visible, predictable and alert.

Recognize the Type of Lane You're in — According to Texas State Law, bicyclists must ride as far to the right-hand edge of the roadway as is practicable. It is not safe or practicable to ride close to the right hand edge of the roadway when:

- The right hand lane is too narrow for a motorist and a bicyclist to ride safely side by side in the same lane. In this case, ride in a position near the center of the right-hand lane but be careful to avoid slippery oil residue in the center of the lane.
- There are parked cars. Ride at least three feet to the left of parked cars just in case a car door suddenly opens in front of you. Avoid weaving between parked cars along a roadway.
- There are roadway obstacles or hazards such as soft shoulders, potholes, ruts, bumps, sewer grates, road construction, rocks, gravel, glass, debris, or other obstructions which may cause you to stop suddenly or swerve into other lanes of traffic. At railroad crossings be sure to cross the tracks at right angles or your wheels may get caught in the tracks! Beware of slippery pavement or oil slicks.

Be Aware of Traffic Backing Up Behind You —When riding on a narrow two lane road, remember to share the road by allowing others to pass on your left whenever possible.

Don't Get to the Right of Right-turning Motorists — Make sure you are near the center of the lane if cars approaching from behind could suddenly turn right and cut you off. Never get into a right-turn-only lane if you intend to continue straight ahead. Be considerate to right-turning motorists. When stopped at an intersection, but planning to continue straight ahead, leave space for motorists to turn on red by moving to the left side of your lane. Practice looking for clues, such as cars' turn signals, or the direction the front wheels are turning, to determine what motorists are about to do and plan your strategy. To avoid a collision, be prepared to turn in the same direction. Remember to always communicate with hand signals.

Plan Your Line of Travel Through Intersections— At intersections, you should normally ride in the right-most lane that leads to your destination. In single-destination lanes, ride on the right-hand side of the lane. In multiple destination lanes, position yourself appropriately within the lane, based on your destination and current traffic conditions.

"75% of adult bicycle - motor vehicle collisions resulted from the failure of motorists and bicyclists to properly share the road through an intersection."

-from *1995 NCTCOG Bicycle and Pedestrian Safety Report*

Use Hand Signals to Communicate — Let motorists know what you intend to do by using hand signals to communicate your intention to turn, change lanes, stop or slow down. Negotiate constantly for your position among other road users. Attempt to make eye contact to confirm that drivers acknowledge your intentions.

Be Courteous to Pedestrians and Other Cyclists — Let pedestrians and other cyclists know you are about to pass by giving an audible warning such as "On your left" before you pass.

Main Types of Collisions Caused by Bicyclists Include:

- riding on the wrong side of the street (against traffic)
- not stopping for traffic signs and signals
- making improper left turns or lane changes
- darting out of driveways or alleys
- riding without lights at night

Main Types of Collisions Caused by Motorists Include:

- turning left without yielding to an oncoming bicyclist
- opening a car door in front of a cyclist

Be Predictable — Most motorists do not purposely try to cause problems for cyclists. Perhaps they are so used to seeing cyclists make unpredictable moves and violating laws that many don't know what to expect from cyclists. By being predictable and courteous, you let motorists know that you are a responsible bicycle driver. When you show that you know how to ride in traffic, motorists are more likely to be courteous.

Be Visible — Bicyclists who take responsibility for being visible to motorists, pedestrians, and other bicyclists are much less likely to be involved in an accident. Because motorists are accustomed to scanning the roadway and intersections, it is important to remain in view and follow normal traffic flow. Riding against the flow of traffic is very dangerous. Motorists may not notice you due to your unexpected position on the roadway. Always ride right, with traffic. Remember to use lighting, at least as Texas law requires. There are numerous ways to improve visibility around dusk and dawn: wear bright-white clothing or reflective patches, utilize lights, and avoid areas with poor lighting.

Share the Road!

How should I interface with bus traffic?

- Make sure the bus driver sees you. Always keep the bus driver's rear view mirror in sight.
- Never pass a stopped bus on the right. Passengers may step off in front of you.
- If a bus is moving toward the curb, stay behind it — or pass on the left when it is safe to do so.
- Stay a safe distance behind stopped buses since they sometimes roll backward when starting up.
- If possible, avoid streets with heavy bus traffic.

What is the best way to stop my bike in an emergency?

If your bike has hand brakes, always make sure both are in top working order. Braking with the rear brake alone is not very effective. Using the front brake alone is dangerous — only a slight error can pitch you over your handlebars.

The best method for a fast, safe stop is to use both brakes, but apply the front brake a little harder. If the rear wheel starts to skid, ease up slightly on the front brake. The skidding rear wheel indicates that you are un-weighting the rear wheel almost to the pitchover point. When braking hard, slide your weight back on the seat as far as possible.

What should I do to protect myself if I am in a crash?

Identification — Always carry identification! It's almost as important as a helmet. (Make a photocopy of your drivers license and tape it under your bike seat.) Police must be notified immediately if there is an injury or substantial property damage. Some bicycles can cost thousands of dollars! A receipt copy can help convince an offending motorist to stick around and exchange information, and if needed, to ensure that police are called.

Liability — Bicyclists, like motorists, can be liable for accidents. According to State Farm Insurance agent Joe Pearce of Dallas, the liability coverage of your automobile policy will not cover you while you are riding your bicycle, but the liability coverage of your homeowner's or apartment renter's policy may cover you. (Your bike may be covered for theft or named perils, but not for collision damages.) It usually doesn't cost much to increase the liability limits of this type of policy. If you do not have a policy to cover you while bicycling, you may want to buy a comprehensive personal liability policy or endorsement.

Personal Injury and Property Damage — You may be able to obtain compensation from the motorist's insurance company. You should secure the complete identification of the motorist and information about his/her insurance company. If the motorist is uninsured, you may be able to be compensated for costs related to your bodily injuries and damages to your bicycle under the "uninsured motorist" coverage of your own automobile insurance policy. Also, you may be able to recover medical expenses under the personal injury protection, or "med pay" coverage of your auto policy. You should check with your insurance agent to make sure that you are covered.

What should I look for when inspecting my bicycle?

Keep your bicycle in good riding condition. Take it to a bicycle shop at least annually for a routine check-up. Use this 10-point pre-ride inspection list to check the following components yourself:

1. Brakes — Standing next to your bike, push your bike forward squeezing each brake one at a time. Each brake should be capable of locking up the wheel. Brake cables must slide easily in the housing and must not be frayed or rusted. Check brake shoes for excessive wear.

2. Wheels — Make sure wheel nuts or quick release levers are tight. Try to move each wheel side to side to check for loose bearings. The wheel should not wobble. Lift each end of the bike and spin each wheel. Look for spots where the brake touches the wheel rim. If it does, this will require adjustment known as "truing." Check for loose or broken spokes. Visit a bicycle shop for assistance.

3. Tires — Tires should be in good condition. Check the pressure with a gauge or by

pressing the bike toward the ground to see if the tire deforms. Most tire manufacturers print recommended pressure on the side of the tire. Fill your tires using a hand pump to avoid overinflation and possible blowout caused by using gas station compressors set for automobile tires.

4. Seat — Adjust seat height so your knee is just slightly bent when the pedal is at the bottom of the pedal stroke. If major adjustments are needed, make them in small increments, allowing your body time to adjust to each new setting.

5. Handlebars — While holding the front wheel still, try to move the handlebars from side to side. If the handle bars turn more than the wheel, the stem binder bolt needs to be tightened.

6. Steering Bearing or Headset — Standing over the bike, grasp the handlebars and depress only the front brake lever, then rock the bike back and forth over the front wheel. If you detect side-play, or a knocking noise, the steering bearing or "headset" needs adjustment.

7. Cranks and Pedals — Try to wobble a crank arm side-to-side to check for loose crank bearings or "bottom bracket." Make sure crank arms are securely tightened onto the crank axle and make sure pedals are securely tightened into the crank arms.

8. Gears — Check gears to make sure they do not over shift at the extremes — resulting in a thrown chain. Make sure gear cables slide easily in the housings and are not frayed or badly rusted.

9. Chain — Lubricate your chain occasionally, especially after riding on wet streets or in the rain, or otherwise about every three to five-hundred miles. Wipe off excess lubricant. Never clean your chain with gasoline!

10. Reflectors and Lights — Make sure all reflectors are clean and correctly aimed. If you ride at night, you must have a light. Carry spare bulbs and batteries.

If you find anything wrong with your bike, make certain it is correctly repaired before riding it. Don't chance riding an unsafe vehicle.

What tools do I need to carry with me?

Always carry a few general purpose tools and supplies to make minor repairs or adjustments on the road. Attend a bike clinic or repair seminar to learn the basics of on-the-road repairs. Here is a list of essential tools that could easily get you going again in the event of a mechanical failure:

- tire pump (for your type of valve)
- tire levers for removing the tire easily
- spare inner-tube*
- patch kit (with a quarter tucked away for an emergency call)
- small adjustable wrench
- small/short screwdrivers - phillips & flat*
- small metric allen wrenches*

- spoke wrench*

* Check your entire bike to make sure you have the correct size and/or every size needed.

Bicycling Information Resources

Bicycle Shops in the North Central Texas area

Amendson's Cycle Shop Mike Sorenson, Manager 5607 Culver Dallas, TX 75223 (214) 823-4040	Bicycle Exchange Ron Minth, Owner 11716 Ferguson, Dallas TX 75228 (214) 270-9269
Bicycles, Inc. Lee Ericson, President 510 E. Harwood Road Bedford, TX 76021 (817) 268-6572	Bike Rack~The Gary Shannon, Owner 1352 Highway 377 East Granbury, TX 76048 (817) 573-5033
Bike Stop~The Toneh & Brenda Chuleewah, Owners 1922 10th Street Wichita Falls, TX 76301 (817) 322-7301	Bike World Keith Pelusi, Owner 103 E. Beltline Road DeSoto, TX 75115 (214) 230-3770
Bikes America Kevin Donavan, Owner #16 Westcliff Center Fort Worth, TX 76109 (817) 927-1844	Bikes & More Ron Finley, Owner 6780 Abrams Dallas, TX 341-8921 (214) 341-8921
Bikesmith~The Mitch Reitman, Owner 1565 W. Main, #240 Lewisville, TX 75067 (214) 221-7005 1203 Crestside, #280 Coppell, TX 75019 (214) 393-7977	Bluebonnet Bicycles Ben Hayes, Owner 1204 N. Stemmons Freeway Lewisville, TX 75057 (214) 221-9322
Bolen's Bike World Ron Bolen, Owner 5039 Old Granbury Road Fort Worth, TX 76133 (817) 292-2911	City Bicycle Shop, Inc. D.R. George, President 1510 W. Hwy 287 Business Waxahachie, TX 75165 (214) 937-2701
Denton Bicycle Center Joe Holland, Owner 1700 N. Elm Denton, TX 76201 (817) 387-9314	Don Johle's Bike World Don Johle, Owner 5513 Broadway Garland, TX 75043 (214) 240-7678
Fort Worth Cycling & Fitness	Grapevine Bike Center

<p>Bill Howington, Owner 3315 Cherry Lane Fort Worth, TX 76116 (817) 244-7911</p>	<p>Gary Scott, Owner 1106 W. Northwest Highway Grapevine, TX 76051 (214) 488-2999</p>
<p>Jack Johnston Bicycles Jack Johnston, Owner 7820 Garland Road Dallas, TX 75218 (214) 328-5238</p>	<p>Las Colinas Bike & Fitness Mark Statinsky, Co-owner 4000 N. MacArthur Irving, TX 75038 (214) 541-2665</p>
<p>Mountain Bike Innovations Steve Patterson, Owner 2053 Northwest Highway, #90 Dallas, TX 75220 (214) 432-0095</p>	<p>Omni Bike Jack Fellabaum, Owner 1100 E. Pleasant Run Road, #165 DeSoto, TX 75115 (214) 223-2525</p>
<p>Peddler Bicycles Denise Fleming, Owner 1455 Buckingham Road, #116 Richardson, TX 75081 (214) 669-2453</p>	<p>Plano Cycling & Fitness Rick Gurney, Owner 18th Street & Central Expressway Plano, TX 75074 (214) 423-4130 4757 W. Park Blvd. at Preston Rd. Plano, TX 75093 (214) 881-2453</p>
<p>Pro Bikes Doug Punches, Owner 5500 Brentwood Stair Road Fort Worth, TX 76112 (817) 457-0111</p>	<p>Recreational Equipment, Inc. - REI Debbie Carrier, Outreach Coordinator 4515 LBJ Freeway Farmers Branch, TX 75244 (214) 490-5989</p>
<p>Richardson Bike Mart Jim Hoyt, President 84 Dal-Rich Village Richardson, TX 75080 (214) 234-5724 9040 Garland Road Dallas, TX 75218 (214) 321-0705</p>	<p>Sun & Ski Sports Expo Debbie Barker, Store Manager 1220 Airport Freeway, Suite A Bedford, TX 76022 (817) 283-1599</p>
<p>Sun & Ski Sports Expo Joel Loudermilk, Bike Shop Manager 5500 Greenville Ave. Dallas, TX 75206 (214) 696-2696</p>	<p>Wheels in Motion Trevor Glanger, President 800 N. Coit Road, #2550 , Richardson, TX 75080 (214) 644-2221 1301 N. Collins Arlington, TX 76004 (817) 860-2991 Old Town Shopping Center Dallas, TX 75206 (214) 265-0811</p>

Bicycle Advocacy Groups

<p>League of American Bicyclists Bonnie J. McClun Education Director 190 W. Ostend St, Suite 120 Baltimore, MD 21230 (410) 539-3399</p>	<p>Pathways for People Project c/o Rodale Press Robert J. Martin, Corporate Affairs Liaison 33 E. Minor Street Emmaus, PA 18098-0099 (215) 967-5171</p>
<p>Rails to Trails Conservancy David Burwell, President 1400 16th St NW #300 Washington, DC 20036 (202) 797-5400</p>	<p>Texas Bicycle Coalition, Inc. (TBC) Glenn Gadbois, Executive Director P.O. Box 1121 Austin, TX 78767 (512) 476-7455</p>
<p>Women's Cycling Network P.O. Box 73 Harvard, IL 60033</p>	<p>Women's Bike and Tea Society (WOMBATS) - National Jackie Phelan P. O. Box 757 Fairfax, CA 94978 (415) 459-0980</p>
<p>Women's Cycling Coalition Tammy Wood, Executive Director P.O. Box 281 Louisville, CO 80027 (303) 666-0500</p>	

Regional and Local Contacts

<p>Dallas Department of Public Works & Transportation P.M. Summer, Bicycle Coordinator 1500 Marilla, 5C South Dallas, TX 75201 (214) 670-4039</p>	<p>NCTCOG, Department of Transportation Mike Sims Principal Transportation Planner P.O. Box 5888 Arlington, TX 76005-5888 (817) 695-9226</p>
<p>Texas Department of Transportation Brian Swindell, Dallas District Bicycle Coordinator PO Box 3067 Dallas, TX 75221-3067 (214) 320-4466</p>	<p>Texas Department of Transportation Bradley Tate, Fort Worth District Bicycle Coordinator PO Box 6868 Fort Worth, TX 76115 (817) 370-6619</p>

Regional Bicycling Organizations

<p>North Texas Alliance of Bicycle Leaders (NOTABLE) Don Dilly, Interim Chairman 500 Brentwood Lane Southlake, TX 76092 (817) 277-4240 E-mail: cpf3@aol.com</p>	<p>North Texas Effective Cyclists (NTEC) Steve Lusky, Vice President 3604 Piedmont Drive Plano, TX 75075 (214) 596-1572 E-mail: lusky@hc.ti.com</p>
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North Texas Area Bicycle Clubs

<p>Arlington Velo Club Boyd Atherton, President 6101 Big Springs Arlington, TX 76017 (817) 561-4427</p>	<p>Carrollton Cycling Club Terry Sullivan, President 1615 Barclay Carrollton, TX 75007 (214) 492-3038</p>
<p>Club Mustang Greg Warner, President 2321 Spanish Trail Irving, TX 75060 (214) 986-9611</p>	<p>Dallas Off Road Bicycle Association Steve Mayo, President 18484 Preston Road, #102-106 Dallas, TX 75252 (214) 556-1984 Hot Line</p>
<p>Dallas WOMBATS (Women's Bike and Tea Society) Valli Herman PO Box 141321 Dallas, TX 75214 (214) 319-7780</p>	<p>Fort Worth Bicycling Association Chuck Flanagan, President P.O. Box 534 Fort Worth, TX 76101 (817) 277-4240</p>
<p>Fort Worth Road Club Gary Mason, President 1400 Vancouver Drive Arlington, TX 76012 (817) 469-7774</p>	<p>Greater Dallas Bicyclists (GDB) Don Dille, President P.O. Box 12822 Dallas, TX 75225-0822 (214) 767-8414</p>
<p>Lone Star Cyclists Rick Wilson, President P.O. Box 532141 Grand Prairie, TX 75053-2141 (817) 274-7022</p>	<p>Matrix Cycling Club Steve Mays, President 17878 Preston Road Dallas, TX 75252 (214) 248-7578</p>
<p>Mid-Cities Wheelmen Ron Ennis, President 2601 5th Avenue Fort Worth, TX 76110 (817) 927-5649</p>	<p>Mirage Cycling Team Ken Ridout, President 521 Bardfield Garland, TX 75041 (214) 840-3061</p>
<p>Plano Athletic Cycling Club Ron Clipp, President 2432 Preston Road, #300</p>	<p>Plano Bicycle Association Larry Schwartz, President 12 Los Alamitos Circle</p>

Plano, TX 75093 (214) 881-2453	Wylie, TX 75098 (214) 442-5882
Tarrant County Cycling Company Jim Kirkendall, President 6712 Haltom Road Fort Worth, TX 76137 (817) 498-2811	Team Jonti Joanne Forhan, President 2322 Village North Drive Richardson, TX 75081 (214) 434-3518
Texas Road Club David McBee, President 8140 Walnut Hill Lane, Suite 303 Dallas, TX 75231 (214) 348-2454	Texas Wheels Cycling Club Roger Anderson, President P.O. Box 5586 Arlington, TX 76005 (817) 249-4232
TI Bicycle Network Steve Lusky, President 3604 Piedmont Drive Plano, TX 75075 (214) 995-7401	

Bicycle commuter's handbook. Part 2. Companion to the etc guide to bicycling to work or transit. Prepared for the North Texas Clean Air Coalition by Bowman-Melton Associates, Inc. Please use this handbook to increase your knowledge of effective bicycling techniques, and coordinate with your company's Employee Transportation Coordinator to learn more about what is needed for you to ride your bike to work. How can I benefit from bicycle commuting? In "The Bicycle Commuter's Handbook," veteran cyclist As sensible as it may seem in an era when fuel prices are skyrocketing in tandem with environmental consciousness, a switch to bicycle commuting doesn't necessarily happen overnight. Certain questions arise: Do I really need that \$1,500 bike? Are Lycra shorts necessary? What about traffic rules? What to do when a tire blows? In "The Bicycle Resources. Back Page. Bicycle Commuting. Making a Simple Thing Sound All Complicated. I was in a bike store about a week ago inquiring about some specific lights. In the pages that follow and the presentation I make tonight I'm going to talk about a lot of aspects of cycling as related to commuting. I'm attempting to anticipate questions that people will have about commuting, but at the risk of making it all sound more complex than it really is. All you really need is a bicycle and a backpack, and off you go.