



Group Riding



Student Manual



Bicycling in a group can be one of life's more enjoyable activities when done right. Cyclists have several options for obtaining the knowledge and skills that will make their cycling safe, courteous, efficient and enjoyable. By far the best option is to take a BikeEd course offered by a League Cycling Instructor (LCI). The Group Riding Safety Skills Clinic is one of the classes taught by the more than 900 certified League Cycling Instructors across the United States. To find an LCI near you, go to the League of American Bicyclists website at bikeleague.org and click Find It. Of course, self-study from books and articles, combined with lots of practice in the company of more experienced cyclists is another possibility.

To ride safely in a group, you should first be familiar with the techniques for riding predictably, on public roadways, as an individual — such skills as proper lane positioning and emergency bike handling. However, cycling in a group places added responsibilities on each cyclist, so all must understand and practice the principles of group riding. This handbook is designed to give you the principles of group riding and does so most effectively when combined with the skills training in the BikeEd Group Riding Safety Skills Clinic.

Pre-ride Check

Always check your bicycle before starting out, to avoid unpleasant surprises during your ride. The term “**ABC Quick Check**” will help you remember what to do.

A is for Air

Check tire pressure. Tires should be inflated to the rated air pressure noted on the sidewall. [Mountain bike tires being ridden on paved roads should be inflated to the high end of the pressure range indicated on the sidewall.] It is normal for bicycle tires to lose pressure slowly, as air seeps out through the inner tubes. Check inflation with a tire pressure gauge, and take a moment to check for damage to the sidewalls and/or tread. Damage to the sidewall is common if the brakes are not adjusted properly, the tire is rubbing on the frame or the cyclist has ridden through debris. If the tire fabric is showing through the tire tread, or threads in the sidewall are frayed, the tire should be replaced.

B is for Brakes

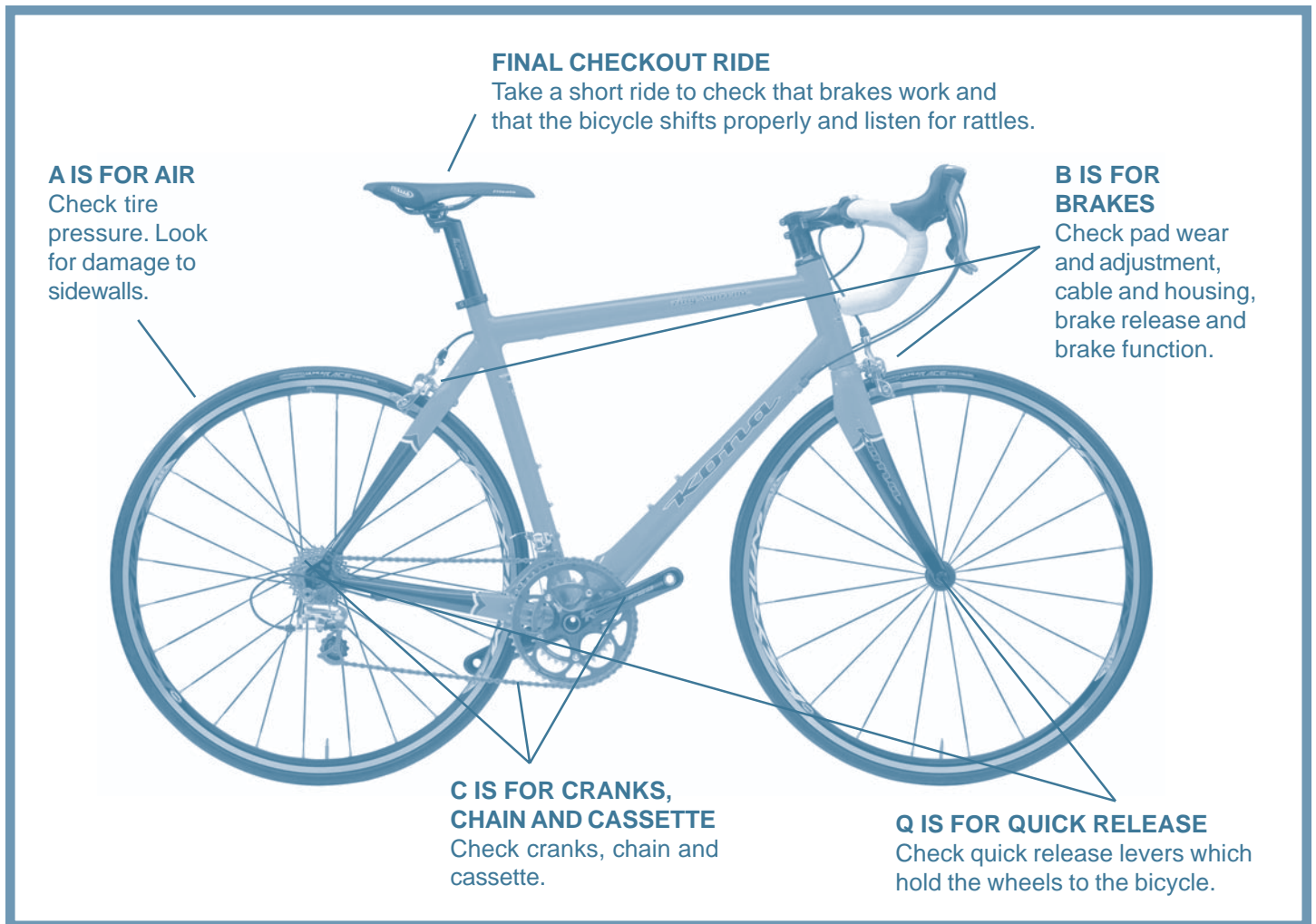
Check the brakes for:

- **Pad Wear and Adjustment** – By visually checking the brake pads. If there is less than 1/8" of brake pad material showing at any point along either pad, replace the brake pads. Make certain that the pads are parallel to, and aligned with, the side of the rim when applied.
- **Cable and housing** – Ensure that the brake cables travel smoothly within their housings and are not frayed. Frayed cables should be replaced. If the cables stick, apply lubrication at the ends of the housing and work it in by applying the brakes until the cable moves smoothly and freely.
- **Brake Release** – If you have removed a wheel for transport or to repair a flat tire, make sure the brake release or straddle cable has been restored to its normal operating position.

- **Brake function** – The brakes should engage when the levers are only slightly depressed. It should not be possible to pull a lever all the way to the handlebar. If you cannot insert your thumb between the handlebar and the depressed lever, the brake should be readjusted. Brakes should work smoothly and powerfully, something you can test during the check ride mentioned below.

C is for Cranks, Chain and Cassette

Check the Cranks, Chain and Cassette. Grasp both cranks near the pedal and attempt to wiggle each one, individually, from side to side (toward and away from the bike frame). If there is movement or clicking in just the crank where force is being applied, the crank bolt is loose. If both cranks move, the bottom bracket may be loose or the bearings worn or



A IS FOR AIR
Check tire pressure. Look for damage to sidewalls.

FINAL CHECKOUT RIDE
Take a short ride to check that brakes work and that the bicycle shifts properly and listen for rattles.

B IS FOR BRAKES
Check pad wear and adjustment, cable and housing, brake release and brake function.

C IS FOR CRANKS, CHAIN AND CASSETTE
Check cranks, chain and cassette.

Q IS FOR QUICK RELEASE
Check quick release levers which hold the wheels to the bicycle.

photo courtesy of Kona Bicycle Co.

damaged. Never ride with a loose crank or bottom bracket, as doing so may put you at risk and will definitely damage your bicycle. Ensure that all chainring bolts are in place and the chainrings secure. Make sure the chain runs smoothly through all gears.

Quick is for Quick Releases

Your bike may have quick release (QR) levers holding the wheels to the bicycle. QRs feature a lever on one side and a nut on the other. Check to ensure that the wheels are clamped securely in the drop-outs before each ride. To properly secure the front quick release, pull the lever open (straight out, in line with the wheel's axle or a bit past that point). Loosen the QR nut sufficiently to insert the wheel firmly in the drop-outs of the fork. While holding the QR lever so it does not turn, tighten the adjusting nut

with your other hand in a clockwise direction until you feel resistance on the lever. This may take some extra effort if your bicycle is equipped with safety tabs on the fork dropouts (designed to prevent loss of the front wheel, even when the QR is not properly tightened). Use the palm of your hand to close the QR lever. It should be tight enough to leave an imprint in the palm of your hand as you press it down. To test the secureness of the closure, attempt to open the QR lever with one finger. It should take two fingers to open the lever. Never attempt to secure a wheel by just rotating or spinning it tight in the closed position.

For the rear wheel, the process is similar. While you will not encounter safety tabs, you must work around the drivetrain and ensure that the chain tension is sufficient if the bicycle is a single speed.

If the QR securing followed a wheel remounting, don't forget to check the brake release or straddle cable and spin the wheel to ensure it is centered properly (neither brake pad rubs).

Your bicycle may have additional quick-releases, (for the seatpost on mountain bikes and frame components on folding bikes).

Check

Check is for the final, brief checkout ride. This is when you check that the brakes work smoothly, the bicycle shifts properly, etc. Listen for rattles. Anything on a bicycle that rattles might be about to fall off!

Many items of the **ABC Quick Check** can be accomplished visually; others require a brief hands-on check physically. If you determine that some adjustments are necessary, but beyond your ability, seek the help of a mechanic at your local bike shop.

Remember:

Always Follow the Rules of the Road

Be Predictable

The golden rule for group cycling is: Be predictable. Other riders expect you to continue straight ahead at constant speed unless you indicate differently. This principle underlies all vehicular traffic maneuvers, but cycling in a group requires even more predictability than solo cycling, since by choice we ride close together. Newcomers may view this closeness as foolhardy and frightening, but with thoughtful practice they soon learn the pleasure and efficiency of riding as part of a skilled group of cyclists. Remember to ride with traffic rather than against it and in the rightmost lane that goes to your destination. Leave at least four feet between your handlebars and parked cars or other hazards.

Look Before You Make a Move

A good cyclist always looks or scans behind before moving laterally to a different position on the roadway or in the group. Use the cues provided by others in the group, but make your own decision. Remember that safety starts with your making good decisions.

Use Signals

Cyclists use hand and verbal signals to communicate with members of the group and with other traffic. Here are the hand signals for turning and stopping:

- put your left arm straight out to signal a left turn,
- put your right arm straight out to signal a right turn,

- and put your left arm out and down with your palm to the rear to signal slowing or stopping.

Putting your left arm out and up for a right turn is legal in all states, but not as natural and informative as using your right arm. Some state vehicle codes have not yet officially accepted the use of the right arm signal, but its use among most cyclists is common.

Within a close group, it makes more sense to use verbal signals such as “Right turn!” “Slowing!” or “Stopping!” rather than hand signals, but riders at the front and rear of the group should use hand signals for the benefit of other road users.

Give Warnings

Group riding requires an awareness of others. When riding in close formation, each rider must feel a responsibility toward the riders behind. You must warn of road hazards and of changes in your direction or speed. To notify the group of a change in path, the lead rider will often call “Left turn!” or “Right turn!” in addition to giving a hand signal. It is not necessary or desirable for each member of the group to repeat this voice instruction; a hand signal will do once the front of the group has established the new direction. The lead rider should announce the turn well in advance of the intersection, so that members of the group have time to position themselves properly for the turn.

Ride One or Two Across

We ride single or double file as appropriate to the roadway and traffic

conditions. Riding double file is fun, and on group rides we are eager to get out of town and onto quiet roads where we can double up. Most state vehicle codes permit narrow vehicles to travel double file within a lane. Nevertheless, as a courtesy, we are quick to single up when this will permit faster traffic to move by us more efficiently. “Car back!” is the signal to get into single file. Riding more than two abreast is illegal. Ride single file on busy paths.

When the call comes for cyclists to merge from double to single file, the leftmost cyclist takes charge. The leftmost cyclist is the one most at risk from a passing vehicle, and will usually be quickest to act. Sometimes the leftmost cyclist will elect to drop in behind the cyclist on the right, but usually he or she will pull ahead. Pulling ahead eliminates the problem of negotiating with a cyclist who is traveling in the inside cyclist’s blind spot at the rear, and increases the time available for the maneuver.

On very large group rides (see “Mass Rides” below), roads may be controlled or even closed to other traffic, giving the cyclists more room. If this is the case, it is legal to ride more than two abreast, but riding under these conditions requires extra skill and care. The Group Riding Safety Skills Clinic from the League addresses these conditions.

Change Positions Correctly

Often we change our position within the group to ride and talk with different companions. Generally,

slower traffic stays right, and that is what people expect, so we usually pass others in our group on their left. Say “Passing on your left!” or just “On your left!” to warn the cyclist ahead that you are coming by. Don’t shout too loudly or you may misguide other riders. On rare occasions you will need to move past someone on his or her right. To do this, say “Passing on your right!” quite clearly, since this is an unusual maneuver that must be performed with care. Only do this with the agreement of the other cyclist, and when you are not forcing the other cyclist into the path of overtaking traffic.



Watch for Traffic Coming from the Rear

Riders in front often cannot see traffic approaching from the rear, so it is the responsibility of riders in the back of the group to inform the others by saying “Car back!” Sometimes when the road is narrow, when we are riding double file, or just when we suspect trouble, riders in front will warn of traffic approaching from the front with “Car up!” At intersections, if it would benefit those behind, you may announce side traffic with “Car left!” or “Car right!” but it is not necessary to do this if there is no danger.

These voice signals, using the word “car,” are standard, and they are automatically and immediately recognized by the experienced cyclist. Use these signals even if the vehicle is a truck, bus or motorcycle. When it really matters — when danger threatens — you want to evoke the quickest possible reaction from your companions.

Watch Out at Intersections

When approaching intersections requiring vehicles to yield or stop, the lead riders will announce “Slowing!” or “Braking!” or “Stopping!” to alert those behind to the change in speed. When passing through an intersection, some cyclists announce “Clear!” if there is no cross traffic. **This is a dangerous practice** that should be abandoned. It

encourages riders to follow the leader through an intersection without determining for themselves that it is safe to do so. Don’t let others do your thinking for you. Each cyclist is responsible for verifying that the way is indeed clear. Remember, it is okay, even recommended, that you call out potentially hazardous situations to other riders, but not okay to guarantee that the way is clear.

Stop for Stop Signs and Signals

It is important to obey traffic control devices such as stop signs and traffic signals. Cyclists sometimes get into trouble by developing bad habits and stopping only at stop signs and/or signals where they perceive cross traffic. Stop signs and signals are often inconvenient to cyclists, but they are there for a reason. They have been placed at intersections where coming to a complete stop is regarded as necessary for safety; in other words, places where merely yielding is not sufficient. Therefore, in order to safely and legally operate a bicycle, one must come to a complete stop at all stop signs and red or yellow signals.

On group rides, those at the back must not develop a tendency to follow the leader through intersections, assuming that the intersection is clear for the whole group. Remember; don’t

follow the herd. Be responsible for yourself when changing lanes and at intersections. Each cyclist must look for, and yield to, any other traffic that has the right of way. In some cases a group ride will be escorted by law-enforcement officials. In some of these cases the-law enforcement official might direct cyclists through a signed or signalized intersection. Law-enforcement officers and other emergency personnel directing traffic supersede stop signs and traffic control devices.

In some cases, traffic signals are actuated by detectors embedded in the pavement. These detectors may not respond to bicyclists. You may wait for a car to trip the signal, press the pedestrian pushbutton to change the light, or if there is no other option, cross carefully once you are sure the detector is not functioning correctly and the intersection is clear.

Don’t Pass at an Intersection

Do not pass other cyclists at an intersection. Inexperienced cyclists sometimes come from behind and ride through while other cyclists are taking their proper turn at the intersection. This is highly dangerous and discourteous, and any observers will mark your group as another bunch of crazy bicyclists who should not be allowed on the roads.

Manage Other Hazards

Announce Hazards

When riding in a group, most of the cyclists do not have a good view of the road surface ahead, so it is important to announce potholes, glass, gravel and other hazards. We indicate road hazards by hand signals, and by voice where required for safety. Pointing down to left or right informs those behind us to watch for trouble. Shouting "Hole!" "Gravel!" "Oil!" "Glass!" "Bump!" and so forth can help.

Warn of Foot Traffic

Pedestrians traveling in the roadway are required to be on the left side of the road, facing traffic, so we often encounter them head on. Lead riders in the group should announce the presence of pedestrians to the rest of the group with "Pedestrian up!" or "Ped up!" or "Runner up!" Pedestrians on the wrong side of the roadway, moving with their backs to the overtaking riders, must also be made aware of the group with "On your left!" The riders should then check to the rear and move left to pass the pedestrians with plenty of clearance.

Watch Out for Railroad Tracks

Railroad tracks require special care. It is important that you cross perpendicular to the rails to avoid having the gaps between the rails and the pavement divert your wheels from under you. Many cyclists can testify to the dangers of violating this rule. Cyclists need ample warning in order to prepare to cross the tracks properly, so yell "Tracks!" in plenty of time. In preparing to cross diagonal tracks, you will have to deviate from your usual lane position in order to cross the tracks squarely. To do this, you must watch carefully for traffic approaching from



ahead and behind. Remember that most motorists will not understand your problem. Plan ahead, position yourself properly, and give clear indications of what you are doing. Do not crowd or pass other cyclists during the crossing maneuver. Also be aware that condensation forms on steel rails under various temperature and humidity conditions, making them especially slippery.

Watch Out for Dogs

Dogs present a hazard to cyclists because of their unpredictable behavior. Cyclists are bitten by dogs infrequently, but a dog can inadvertently strike the front wheel of a bicycle, causing a fall. Usually, a dog will be minding its business up ahead, but it

might decide to give chase or just cross the road at the wrong time. Dogs call for extra communication within the group, as not all riders react to dogs in the same way. Some cyclists try to outrun them, some slow down, and while everyone is distracted by the dog, they may not be watching where they are going. Warn of dogs immediately upon sighting them in order to give your companions time to plan their actions without emergency maneuvers. Shout "Dog up!" "Dog left!" or "Dog right!" as appropriate.

Occasionally other animals such as cats and chickens (or alligators in Florida or wild turkeys in Massachusetts) can cause problems by crossing the road in front of a cyclist, so warn your companions of these hazards as well.



More Pointers >>>

About Drafting

If you are an experienced cyclist, you may enjoy drafting — riding close behind the rear wheel of another cyclist — because of the greatly reduced wind resistance and increased efficiency. Several cyclists may form a “paceline” in which the cyclists in line behind the lead rider enjoy the benefits of the draft, expending significantly less energy than the lead rider while maintaining the same speed until it is their turn to “take a pull” at the front. [In a paceline with five other riders and equal time pulling, you will work the hardest for 1/6th of the time and easiest for 5/6ths of the time — much more efficient than riding alone.]

Drafting, or pacelining, require the ultimate in predictability and trust. With mere inches to a foot or so between bikes, even a minor unannounced application of brakes by the rider in front can result in a nasty fall for the rider (or riders) in back. When the front wheel of one rider overlaps the rear wheel of another, the rider in front is relatively unaffected while the overtaking rider’s steerable wheel — the front wheel — is no longer allowed to move both left and right to maintain the rider’s balance above the bike. It is diverted in one direction and down that rider goes.

If your front wheel does touch the rear wheel of the cyclist ahead of you, to avoid a fall, you must steer forcibly toward that wheel, bracing yourself against it, in order to recover.

Do not draft another rider without his or her knowledge AND permission. Sometimes the cyclist in front is unwilling to take on the additional responsibility. Do not attempt to join a paceline if you are not sure you know all of the elements of paceline etiquette. And, if you join a paceline of strangers, are you sure THEY know all the rules? It is about trust and responsibility.

Be Attentive — Conserve Energy

Each of us has an occasional weak cycling day, when we become fatigued before the end of a ride. When this happens, our attention is decreased and our reactions are slowed, and we can become hazards to ourselves and others. Cyclists must make a special effort to remain attentive when fatigued. Drafting is an excellent way to conserve energy, even when a cyclist is tired, since the wind drag is reduced for several feet behind another cyclist. With the

concurrence of the lead cyclist, a fatigued rider can draft at a greater distance than usual, thereby receiving the benefits while preserving an adequate safety margin.

Mass Rides Pose Special Problems

Single-day rides and multi-day tours with hundreds or even thousands of riders present some very unique problems.

The most obvious problems with mass rides are the logistics of so *continued on next page*



Group Riding Etiquette

Don't Wear Headphones. With the importance of auditory cues (verbal warnings and traffic sounds) when riding on public roadways, it should come as no surprise that most bicycle clubs and tour organizers do not allow riders to wear headphones on group rides. Being plugged into a radio or MP3 player is unsocial on a group ride and seriously erodes the communication necessary for safe cycling. In many states, cycling with headphones is also illegal.

Leave a Gap for Motor Vehicles. When riding on two-lane roads with lanes so narrow that even single-file riders impede the normal flow of motorized traffic, leave gaps between groups of cyclists so that motorists (and faster cyclists) can take advantage of shorter passing intervals and can eventually move step by step past the entire group.

Move Off the Road When Regrouping. When stopping to regroup, fix a flat, or wait for a friend, move completely off the roadway if at all possible. Obstructing the roadway in front of overtaking cyclists and motorists can create a dangerous situation and a time-consuming traffic jam.

More Pointers >>>

many bicycles on any set of roadways at one time. Even with staggered starts, participants often begin the ride by walking their bikes until the crowd actually thins enough to mount up. It is in the next stage — the sorting out — where the danger of bicycle-with-bicycle crashes is greatest. Reminders that it is a ride, not a race, may fall on deaf ears as adrenalin-driven riders sprint around large groups of cyclists, often taking up all of the oncoming lanes to do so. Others sprint by on the right side of riders who could be preparing to turn into a rest stop area or stop by the side of the road.

Probably the biggest problem with mass rides is the variety of skill levels among entrants. While the events are grand social occasions, or fundraisers

for worthy causes, it is essential to ride with special care.

Rides that fund causes draw many participants who are not experienced bicyclists, merely believers in the cause. Without some basic safety training, such as this document, and the skills course associated with it, those riders may represent significant danger to themselves and others on the ride. On these rides, we must be especially alert for erratic behavior such as changing lane position without looking back. Particularly on hills, we encounter great variations of speed, and occasionally the road will be blocked by gasping riders standing beside their bicycles. Leave more space between bicycles, and use your voice signals more frequently than on

a smaller group ride. If surrounded closely by other cyclists whose skills you don't trust, don't pass them. Ride at the same speed, or slower.

Be Courteous

When the group must stop at a traffic signal, we try to avoid hogging the space that might be used by other vehicles taking different directions. For instance, if we are going straight ahead, we try to stop in the middle or left of the lane so that right-turning cars can get around.

As responsible cyclists, we care about our image, so we try to be courteous to others with whom we are sharing the road, whether they are motorists or cyclists.

How SAFE is Group Riding?

When cyclists are following the rules of the road and being predictable, crashes will be greatly reduced. Crashes can happen, whether you are riding in a group or solo. Injuries to arms and legs

are usually not life-threatening, whereas injuries to the head are a serious matter. **Experienced riders wear helmets** whenever they ride. Studies of crashes leave no doubt that helmets save cyclists' lives and reduce the severity of cycling injuries. Make sure the helmet fits snugly and is adjusted correctly (level and not tilted, straps joined just under each ear, buckle snug while your mouth is completely open). After any

impact that affects your helmet, replace it immediately. Helmets are required by law in some states and localities. Helmets just make good sense, so wear one whenever you ride.

These are the techniques and practices for riding in a group. Most are derived from normal traffic behavior and common sense, assisted by a few standard hand and voice signals. As you ride with your group, the more-experienced cyclists will be delighted to help you become proficient and will be impressed if you show a desire to improve. Don't be shy about asking for help or advice. Remember: increasing your skill will make us all safer!



The League of American Bicyclists BikeEd program is the national standard in bicycling education. The League is a member-supported organization that promotes bicycling; educates motorists and bicyclists on how to share the road; and advocates

for a bicycle friendly America on federal, state and local levels. To join, learn more about the League, or find out about other BikeEd courses, visit www.bikeleague.org.



League of American Bicyclists
1612 K Street NW, Suite 800
Washington, DC 20006
phone: 202-822-1333
www.bikeleague.org

Much of this document was based on *How to Ride in a Group* by Franklin Prosser ©1992 League of American Bicyclists

Special thanks to: John S. Allen, Bill Edwards, Fred Meredith, Jim Sheehan, and Preston Tyree for their work in preparing this handbook.