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by Ed Pavelka and Fred Matheny

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The Crucial
First Ride

Make Sure a Newcomer Returns for a Second Ride!

By Ed Pavelka of
www.RoadBikeRider.com

If you've been in this sport for long, you've probably seen it happen. An enthusiastic person shows up for his (or her) first ride with the local club. He's a bit intimidated by the lingo he overhears, but that's nothing compared to his anxiety about what to do and how to do it once the ride gets underway. Before long he's trailing behind, spooked by the interplay of bike wheels and feeling as wanted as an IRS

agent in a Super Bowl pool.

Do you think this guy will be back for another ride next weekend? Not likely.

It's unfortunate, but experienced cyclists are often pretty tough on newcomers. It may be intentional because of the risks that an unskilled bike-handler creates for everyone, but more often it happens because we forget how much a novice cyclist doesn't know. If you think about it, riding a bike isn't all that easy.

Gero McGuffin has thought about it. She was 30 years old before she climbed onto a bike the first time, so she vividly recalls how intimidating beginning can be. Now a polished cyclist and the wife of cycling author Arnie Baker, M.D., Gero enjoys helping new riders get started in a way that ensures they'll have a great time and come back for more.

Gero's recommendations can be used anytime we're riding with a newcomer. If you're a beginning rider, these tips can help you have a more positive experience as you learn the sport.

Be Gentle

Gero's core advice is useful when helping any new rider: "Treat them kindly, go slowly, and keep your expectations low. Give it your best shot, and you will help a person become a cyclist for the rest of their life."

Now, here's a digest of her specific tips.

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Don't project your own cycling goals. They are much different for an experienced rider compared to a new rider. Let the person evolve. If he's interested only in casual cycling, let him be. If he's interested in fast recreational riding or racing, encourage him — but explain the dangers of trying to advance too fast before developing a foundation of skills and fitness.

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Take nothing for granted. Err on the side of proceeding too slowly and explaining too much. A new rider has lots of knowledge gaps.

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Watch your language. If you're saying things like "upshift one cog" or "feather the brakes," a newcomer isn't going to understand and may be too embarrassed to admit it.

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Be polite. Even if made in jest, negative actions or comments can have a long-lasting impact.

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Ask the person about his concerns. These could include fear of traffic, fear of being left behind, fear of riding close to others, fear of the saddle, and even fear of wearing form-fitting Lycra clothing. Then work with the person to resolve the specific worry.

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Keep costs in perspective. Don't make the person feel that he has to spend a lot of money to be a cyclist. Explain, however, that some things are a smart investment. For instance, if he's in the market for a new bike, it should be the best quality he can afford. It should have a triple crankset for plenty of easy gears if there are hills in the area. He should buy a good saddle, cycling shorts with a padded liner and a helmet.

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Simplify the pedals. New cyclists are often afraid of toe clips and straps or clipless pedals. It's helpful to install platform pedals that don't require any technique to enter or exit.

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Check riding position. A newcomer will master pedaling and handling faster if he's in a good position. Make sure there is a slight bend in his knees at the bottom of the pedal circle and that the handlebar is within an inch or so of saddle height. To really nail his position, use the guidelines in the RBR article, "How to Perfect Your Position and Technique."

Now We're Rolling

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Stay off the road. When helping a first-timer learn to ride, use a big sports field or empty parking lot. Keep traffic out of the equation. Next, try park paths or quiet residential streets.

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Ride as slow as the beginner. Don't do anything to make him go faster than his comfort level.

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Watch his eyes. Remind a new cyclist that he'll ride a smoother, straighter line if he looks 10 or more feet ahead rather than directly in front of the wheel.

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Watch his grip. New riders are apt to be tense, locking their arms and squeezing the bar with white knuckles. Explain the advantages of flexed elbows and a secure but relaxed grip.

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Take away a hand. After starting, stopping, and maintaining a straight line, the next skill to work on is riding with one hand. This is important so the person can signal or reach for his water bottle without swerving. Next, move on to shifting gears — how and when.

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Keep it simple. Don't overwhelm a newcomer with techniques. Let him get comfortable with the basics. As you see skill and confidence increase, add something new to work on.

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Stay back. If you ride behind the person he won't feel like he's always trying to catch up. Let him set the pace. Don't ride beside him until he feels confident in his basic riding ability.

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Introduce drafting. Explain the advantages of riding behind a wheel, but let the newcomer keep a gap of several feet until he's ready to move in closer.

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Take a real ride. For your first ride in regular conditions, plan a course that has a fun place to stop at the halfway point. It could be a coffee shop or an ice cream parlor. This is a good chance to relax, give pointers, answer questions and provide encouragement.

Make It Good for You, Too

One problem: Too many rides like just described can take some of the fun out of cycling for you. Here is Gero's advice for how an experienced rider can get some training while riding with a newcomer. She saw her husband use these techniques while he was helping her get started. Don't do these things during the initial rides. Wait till the newcomer has basic skills but still lacks speed.

The stronger rider can…

stay in the same gear throughout the ride, spinning on downhills to work on leg speed and pedaling forcefully on climbs to build strength.

assist the new rider up hills with pushes (assuming traffic conditions allow and you have the skill to do this safely).

pedal with one leg at a time to benefit from the technique of isolated leg training.

sprint up the road or to the top of a hill and then ride back, or drop back and then sprint to catch up.

Way to Go!

After a ride, always congratulate the new cyclist on his progress and welcome comments. As Gero notes, "They will have questions that you can hardly imagine, because you have been cycling for so long."

Finally, encourage the person to ride on his own between rides with you. This will give him the chance to practice skills and gain fitness with absolutely no pressure. Just make sure he doesn't go off the deep end and turn cycling into a physical and mental chore. This can happen when enthusiasm causes a person to boost their riding too fast. Firmly recommend an increase in time or distance of about 10 percent per week, with at least two rest days.

(A portion of this material was adapted from the coaching manual for the Leukemia and Lymphoma Society, copyright 1999 by Arnie Baker, M.D.)

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How to Solve Saddle Sores

By Fred Matheny
for www.RoadBikeRider.com

A saddle sore can ruin a ride. Even a tiny zit can begin to feel like you're perched on a golf ball.

Nearly as painful are crotch abrasions caused by shorts that bunch or have an irritating seam.

Even the pros, hardened by thousands of miles in the saddle, fall victim to what cycling author Arnie Baker, M.D., calls "crotchitis." Fabled tough guys like Eddy Merckx and Sean Kelly had to abandon races when the pain became too great.

Most medical experts say that saddle sores are actually boils caused by skin bacteria that invade surface abrasions. Remedies have come a long way from the era when riders would put slabs of raw steak in their shorts to cushion the abraded area.

Of course, avoiding saddle sores is better than curing them (or ruining a good sirloin). Here's how:

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Improve your bike fit. If your seat is too high, your hips rock on each pedal stroke and strum your soft tissue across the nose of the saddle. The result is irritated skin and a greater chance of infection. Especially if you suffer from chronic saddle sores, have your position checked by an experienced coach or knowledgeable bike shop person.

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Stand frequently. Doing so takes pressure off your crotch and restores circulation. Get in the habit of standing for 15-20 seconds every few minutes. Use natural opportunities such as short hills, rough pavement or accelerating from stop signs. Stand and stretch when you're at the back of a paceline or group.

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Move on the saddle. Sit mostly toward the rear where your sit bones get maximum support and take pressure off your crotch. But also move farther back on seated climbs, and more to the middle when bending low to make good time. Each shift relieves pressure points.

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Choose a smooth chamois. Look for shorts with a one-piece liner or one that's sewn with flat seams. It may take experimenting with shorts brands or chamois

types to find the model that works best. Women often do better with shorts designed specifically for their anatomy and that have a liner with no center seam. See the RoadBikeRider.com article, "How to Choose Cycling Shorts."

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Select a supportive seat. Saddle choice is crucial. Excessively wide saddles rub your inner thighs. Narrow saddles don't provide enough support for your sit bones -- your weight is borne by soft tissue that can quickly become bruised and irritated. Thickly padded saddles can press upward between your sit bones, causing uncomfortable numbing pressure. The best choice for any individual rider can only be found through trial and error. Hopefully, your bike shop will have a saddle test-ride program or liberal trade-in policy. See the RoadBikeRider.com article, "How to Find a Safe Saddle."

-

Lube to reduce friction. To prevent the chamois from abrading skin, apply lubrication before each ride. Try a commercial product such as Chamois BUTT or Bag Balm, or simply a light coating of petroleum jelly. Apply a dab the size of a nickel to your crotch before putting on your shorts.

-

Keep clean. Always wear clean shorts for each ride. If you seem susceptible to saddle sores, you may find it helpful to wash your crotch with antibacterial soap and warm water before lubing up. Dry your skin well first.

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Strip quick. After a ride, get out of your sweaty, germey shorts as soon as possible. The environment down there breeds bacteria and encourages them to enter abraded skin. Then shower or clean up with soap and water. Dry well and put on loose-fitting clothing that allows your skin to breathe. For underwear, try boxer shorts. The tight leg bands of briefs cut across the junction of your glutes and hamstrings, right where many saddle sores develop.

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Sleep in the buff.

It keeps your crotch dry and free of clothing contact for as long as you're in bed.

If You Get a Saddle Sore

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Medicate it.

Besides keeping it clean, treat it with an over-the-counter acne gel containing 10% benzoyl peroxide. Perhaps even more effective is the topical prescription product called Emgel (erythromycin). If a sore is getting out of control, ask your doctor about a course of oral antibiotics.

-

Rest it. As

you medicate a troublesome sore, take some time off the bike to help it heal. It's far better to lose three days now than a week or more after infection sets in. If you continue to ride on an open sore it may eventually form a cyst that requires surgery.

If You Must Continue Riding

Sometimes you can't take time off. For instance, you may be on a tour or at a cycling camp.

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Change your shorts

or saddle. Your problems are probably isolated in one small area -- a boil or abrasion. Changing your saddle and/or shorts can reduce pressure on the sore and lessen pain.

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Use a heavier lube.

If you're getting irritated, apply extra lube or switch to a more viscous one. Many long-distance riders swear by Bag Balm, which was originally made for sore cow udders but is now available in most pharmacies.

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Numb it.
OTC pain reducers and anti-inflammatories, such as ibuprofen, can help. In extreme cases, pro team physicians will use a topical anesthetic on riders so they can finish a stage race. It's not recommended for recreational riders because when you're numb, you can ride yourself into greater damage.

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Try Preparation H ointment. No, not for that reason. Prep H works on saddle sores because it shrinks swollen tissue and soothes pain. Apply it five minutes before slathering on your chamois cream and putting on your shorts. Also try a dab on sores after rides to dull discomfort.

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Have a donut.
In the foot-care section of drug stores, you'll find donut-shaped foam pads in several diameters. They're made for corns but can help you ride more comfortably with a saddle sore, too. Simply place it with the sore in the center of the cutout to relieve direct pressure. The adhesive backing will keep it in place.

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How to Solve Painful 'Hot Foot'

By Fred Matheny
for www.RoadBikeRider.com

In cycling, it's known as "hot foot" -- a burning pain in the ball of the foot, perhaps radiating toward the toes. Severe cases feel like some sadistic demon is applying a blowtorch.

Hot foot occurs most often on long rides. It may develop sooner or more intensely on hilly courses because climbs cause greater pedaling pressure. The pain results when nerves are squeezed between the heads of each foot's five long metatarsal bones. These heads are in the wide part of the foot (the "ball") just behind the toes.

My worst case of hot foot occurred on a 3,400-mile, 24-day transcontinental ride. With an average distance of 140 miles per day, no rest days and more than 100,000 feet of vertical gain, my dogs were smoking by the third week.

My RBR partner, Ed Pavelka, remembers being in agony near the end of one 225-mile ride early in his long-distance career. It was his first experience with hot foot, and the problem plagued him that season until he changed to larger shoes. Feet always swell on long rides (more so in hot weather), causing pressure inside shoes that normally fit fine.

"Hot foot" is actually a misnomer. It's not heat but rather pressure on nerves that causes the burning sensation. You'll sometimes see riders squirting water on their pups in a vain attempt to put out the fire.

Besides tight shoes, another risk factor is small pedals, especially if you have large feet. Small pedal surfaces concentrate pressure on the ball of the foot instead of spreading it the way a larger pedal will. If your cycling shoes have flexible soles like most mountain bike shoes, they'll be less able to diffuse pressure.

Before Ed figured out his shoe-size problem, he tried to solve the pain with cortisone injections. That's an unnecessary extreme in most cases -- and it's not fun to have a doctor stick a needle between your toes. Here are several better solutions.

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Adjust shoe straps.
It's the top strap nearest your ankle that stops your feet from slopping around in your shoes. Tighten it as much as necessary, but keep the strap nearest your toes loose for maximum room.

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Use thinner insoles and/or socks. This will give your feet more room to swell without restriction, especially helpful if your shoes are borderline snug.

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Re-focus the pressure. Many riders solve hot foot by moving their cleats to the rear by as much as 8 mm. Long-distance enthusiasts may go back as far as the cleat slots allow. They might even drill new rearward holes. After using this remedy, lower your saddle by the same amount if you moved your cleats backward 2-4 mm. If more than 4 mm, lower the saddle about half the amount. So, if your cleats go back 1 cm, put the saddle down 5 mm.

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Add metatarsal buttons. These foam domes are placed on insoles (or are built into them) just behind the ball of the foot. They spread the metatarsal bones so the nerves running between them aren't pinched by pressure or swelling. You can find these products in the foot-care section of drug stores.

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Switch to larger pedals, for the reason mentioned above.

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Buy new shoes. Look for a model with a wider-and-higher toe box, a stiffer sole and an anatomical footbed with a metatarsal button. One model that meets these specs is the Specialized BG, with versions for road and off-road.

-

Purchase custom orthotics. These plastic footbeds are supplied by podiatrists or sports medicine clinics. Among their biomechanical benefits are built-in metatarsal buttons. Be certain the practitioner understands you're a cyclist, because orthotics for runners are not what you need. Cycling is a forefoot activity, not a heel-strike activity.

For more information on hot foot, orthotics and other foot-related issues, see "Andy Pruitt's Medical Guide for Cyclists," available as an eBook in the online eBookstore at RoadBikeRider.com.

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How to Choose Cycling Shorts

By Fred Matheny and Ed Pavelka of www.RoadBikeRider.com

You should choose road-cycling shorts based on the quality of materials and construction. But also crucial is how well they conform to your unique anatomy. Sometimes a relatively inexpensive pair may work better for you than a high-zoot model.

Shorts, like saddles, are tough to recommend because of differences in butts, crotches, seats and riding positions. Every rider has to try on shorts, buy the model/size that fits snugly but comfortably, then hope for the best on the bike. It's hit or miss, and some luck is involved. Just as with saddles, there is no universal answer.

That said, here are guidelines that'll point you toward better choices.

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Price. Generally, the more expensive the shorts, the higher the quality. Avoid cheap shorts because the material and construction may be substandard. They may be sewn from only 4 or 6 pieces ("panels"), which won't give you the best anatomical fit. The padded liner ("chamois") may not be large enough, soft enough or sewn without irritating seams. Cheap shorts aren't as durable, either, so in the long run they really aren't a bargain. When touring and washing shorts by hand, wringing can break threads and blow out seams if the manufacturer cut corners on quality.

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Panels. The more the better. Usually, 8-panel shorts conform to your body better than those made from fewer pieces. Better manufacturers use flat-seam stitching so additional panels won't result in abrasion or other discomforts.

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Liner. Crotch

liners are synthetic nowadays (not real chamois leather). That's a good thing because the material can't dry, crack and cause more irritation than it prevents. A large, smooth, absorbent, one-piece, moderately padded liner has the best chance of feeling comfortable. Liners that have seams, grooves, distinct sections and/or a waffle-like texture may work fine for you -- or maybe not. There's no way of knowing for sure before riding. Beware of thick padding, which can bunch and chafe. Also problematic are gel inserts. Because they're in plastic compartments, moisture transfer can be blocked, causing excessive dampness and skin irritation.

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Leg length. This

goes up and down like hem lengths in the fashion world. Long, so-called "Belgian" shorts will be in style for a while, putting the legs just above the knee. Then the pendulum swings the other way. Short shorts, like those marketed for spinning classes, are favored by riders who want to avoid tan lines that show when wearing casual shorts. But they shouldn't be so short that the nose of the saddle rubs on bare skin.

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Waist length.

Proper cycling shorts are cut high in back to keep skin covered in the bent-over riding position. Likewise, they are low in front so you can bend forward without restriction. The front shouldn't be so low, though, that it's below your hip bones with nothing to help hold it up.

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Waist band. The

elastic should be wide enough that it doesn't feel like a cord around your middle. Some manufacturers add a drawstring. Just elastic is fine. Just a drawstring is not. If that's the only thing keeping shorts in place, you'll feel restricted in certain positions or when breathing deeply.

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Leg grippers.

Nothing is more frustrating than shorts that ride up and let material bunch in the crotch. Check the leg grippers to be sure they're wide, made of "sticky" rubber-like material and securely sewn in. The legs should feel comfortably snug, not tight.

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Stretch. Most

shorts are made of a stretchy fabric generically called spandex. They're easy to pull on and don't feel like you're wearing a 19th century corset. On the other hand, you may come across shorts with fabric that purposely resists stretching. The idea is to provide help to your pedal stroke. The fabric "stores" kinetic energy on the rear part of the stroke and releases it when you push down. This concept is also used in competition suits for weight lifters. I'm not aware of any studies that prove a benefit for cyclists.

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Bibs. Shorts with

built-in shoulder straps can't sag. They keep the chamois snug against the crotch to limit movement and irritation. For men, this prevents the chance of things moving out of place when pedaling out of the saddle. However, the high front makes it difficult for guys to urinate. (Some prefer to roll up one leg instead of contorting to pull down the front.) Women usually prefer shorts without bibs so they don't have to remove their jersey to take what cycling commentator Phil Liggett calls a "natural break." Bib shorts are more expensive than standard shorts.

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Size. It's best to

try on shorts before buying them. Sizing varies among manufacturers. Fred is 5-foot-10 and just under 160 pounds, but wears size XL in some shorts while M is too big in others. Some U.S. manufacturers have noticed the "plumping of America" and cut their clothing bigger. It's risky to buy shorts by mailorder unless you're replacing a model and size you've worn before.

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Overall fit. In general,

snugger is better. You don't want any uncomfortable restriction, but you do want the shorts to stay exactly in place. Remember that properly designed cycling shorts will look a bit baggy in the butt when you're standing in front of the dressing room mirror. Then crouch forward into the riding position and watch them mold to your body.

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How to
Find a 'Safe Saddle'

By Ed Pavelka of
www.RoadBikeRider.com

Since the late 1990s, saddle design has seen major innovation.

A big impetus came from a prominent doctor's contention that sitting on a bike seat might lead to damaged nerves or blood vessels in some men. This risk, plus the occasional bout of temporary genital numbness that many riders experience, put designers into action.

The result is a new generation of saddles with special shapes, padding or cutouts to reduce crotch contact and pressure. As a side benefit, riders have found that they experience fewer saddle sores on these seats.

Saddle selection is highly individual. Despite how effective a saddle might look or how highly praised it might be by a riding buddy, there's no guarantee that it will be comfortable for you. You need to ride it to tell.

Here are some selection guidelines, followed by two things you must do to further reduce risks and discomforts: (1) develop a good riding position, and (2) use smart riding techniques.

Saddle Selection

Width. Squat and sit on a low stool or curb. What you feel supporting your weight is your ischial tuberosities, the points of the pelvis that are commonly called the "sit bones." These are what should support your weight on a saddle.

A seat that's too narrow will place your weight on the soft tissue between your sit bones -- for men, on the perineum where the penile nerves and blood vessels are located. Women also need to put a high priority on width because, on average, they have wider sit bones than men. Anatomically designed women's saddles are a bit wider in the main sitting area.

Curvature. Looked at from the rear at eye level, a seat should be flat or only very slightly domed. A significant curve causes your sit bones to be lower than the saddle's center, contributing to crotch pressure.

Dip. Looked at from the side at eye level, a seat should be nearly flat from nose to tail. A slight dip (say six degrees or less) is helpful to give you a feeling for the saddle's center while riding. More dip creates positioning problems. That is, when the nose is set level, the tail sticks up and may be uncomfortable to sit on; when the tail is set level, the nose goes up and exerts pressure right where you don't want it.

Padding. Some is good, more is not better. You want enough foam or gel to cushion your sit bones for comfort. Thick padding can actually increase crotch pressure because as your sit bones sink in, this has the effect of making the center press upward.

Special sections. These are what set the new generation of saddles apart. These sections range from gel-padded areas, to wedge-shaped cutouts, to holes through the top. Rider reactions to these innovations are all over the board. Do they lessen contact or pressure? No doubt. Do they absolutely, positively prevent numbness or worse problems? No saddle maker can guarantee that. Are they comfortable? It depends on whom you ask. The saddle that one rider swears by will be the same saddle the next rider swear at. There's simply no way of knowing until you ride on a given design. Some bike shops have a test ride program or will allow you to return a saddle that you simply can't stand.

Saddle Position

Please check our guidelines in the article, [How to Perfect Your Riding Position & Technique](#). You'll find advice for setting saddle height, tilt and fore/aft location. Of course, don't stop at the saddle. Go through all of the steps to get an overall well-balanced riding position. If your saddle position is right but your handlebar position isn't, you still might run into problems.

TIP! For many guys, a saddle that's slightly off center (compared to the top tube) feels more comfortable. If the nose keeps pressing you in the wrong spot, try a bit of left or right angle. According to Andy Pruitt, Ed.D., who has refined the positions of many top cyclists, the right approach is always to make the bike fit your body instead of making your body fit the bike.

Riding Techniques

The rule is simple: Don't sit statically in one place for more than a few minutes. When you keep moving on the saddle, as well as on and off the saddle, you avoid constant pressure and compression. Blood keeps circulating, nerve transmissions keep flowing, and the risk of numbness is greatly reduced.

This is pretty easy to do off-road, where terrain changes and body English keep your crotch from locking into a set position. It's harder on a road bike unless you cultivate some good habits.

For example, get out of the saddle for at least part of every hill. Stand when exiting every turn or any other time you need to accelerate. Even just a few seconds is helpful when repeated often. On a ride in flat terrain, shift to a higher gear so you can stand and pedal out of the saddle for at least 30 seconds every 20 minutes. When sitting, keep your butt far enough back for your sit bones to be supported by the seat's wide rear section. Beware of the tendency to creep forward onto the nose and dwell there, especially when pushing hard or riding in a low position.

Other Pointers

If you use an aero bar, you'll tend to lock into a low, forward position for minutes on end. It's a nuisance, and it takes effort, to break this position to stand. But it's risky if you don't. Also, try to stay back on the wide area of the saddle. Tilting the nose down 1 or 2 degrees can reduce crotch pressure, but more will tend to make you slide forward onto the skinny nose.

Ride like a jockey when you come to anything rough. By leveling the pedals, flexing your knees and holding your butt an inch above the saddle, you'll avoid impacts that can cause bruising and pain. A shock-absorbing seatpost is another way to reduce the risk, but don't let it lull you into remaining seated all the time.

Carry stuff on your bike, not on your body. This isn't always possible, but realize that when you ride with a backpack, fanny pack or hydration system, you are adding weight to your seat. This makes a wide, supportive saddle even more important. The same goes if you're overweight.

Be smart when riding indoors. With no terrain changes or other natural opportunities to move your butt, you need to invent some. Pedal out of the saddle for one minute in every five. Consciously move to a different sitting area every couple of minutes. Keep sessions short and varied rather than long and steady. Using bigger gears lightens saddle pressure because your feet must push harder.

Wear high-quality, lightly padded cycling shorts. These, plus a skin lubricant such as Chamois Butt'r, increase comfort and reduce the risk of developing raw or tender spots. These can stop you from shifting position to all parts of your crotch and the saddle.

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How to Choose a Bike Club

By Fred Matheny for www.RoadBikeRider.com

Cycling can be a solo sport. Long rambles through the spring countryside, hard rides in the hills, weekend tours to scenic areas—all can be enjoyed with only your own thoughts for company.

In fact, many cyclists prefer to go alone. Then they can choose their own route and are free to ride hard or stop and smell the flowers, as their fancy prefers.

But cycling is also the perfect group sport. Here are just five good reasons for riding with others:

Part of the thrill of riding a road bike is drafting other cyclists in close proximity.

A group lets you meet people, expanding your social horizons.

Racing is inevitably a group activity, so if you plan to compete it's almost mandatory to train with other racers at least part of the time.

Small group rides are fast because you can share the work at the front. You can cover more ground during your training time.

Small groups are safe because a pack of several riders is that much more visible to motorists. And if you have trouble of any sort, help is right there.

To get these benefits, it's a good idea to join a bike club even if you ride alone much of the time due to preference or your schedule.

But if there are two or more clubs in your area, how do you know which one to join? It depends on what you want to do and how you want to do it. Are you interested in recreational rides or racing?

Get to know area cyclists and ask why they joined the club they did. Go to club events to watch the organization and feel the atmosphere. Sit in on a club's monthly meeting to hear about issues and see what kind of people are at the helm.

Participate in club rides and tune in to the tenor of the group. Is it supportive or critical of other riders? Remember, if you enjoy cycling, you should enjoy it even more in the company of fellow riders. It pays to pick your club carefully.

Recreational/Touring Clubs

Most clubs are geared to promoting fun rides and tours. Here are some ways you can identify a club that's doing it right.

Good clubs offer a full schedule of weekend rides plus occasional longer tours.

Good clubs grade rides in terms of distance, speed and ability so that newcomers don't accidentally bite off more than they can chew. One sure sign of a poor club is when a ride rated "easy" turns into a race as the leader shows off his fitness and power.

Good clubs have rides that encourage participation by the whole family. They sometimes sponsor low-key time trials (safe races against the clock) and encourage everyone to participate, regardless of fitness or skill.

Good clubs have social gatherings like potlucks or "restaurant rides" that bring people together off the bike.

Good clubs are active in politics. They support local and state bicycle advocacy organizations. They often are the force behind bicycle path construction, traffic ordinances that favor cyclists, and campaigns urging residents to reduce air pollution by commuting to work by bike.

Good clubs sponsor a major yearly event, such as a century ride. These rides are well organized, safe, and promoted to the regional cycling community. Shorter distances will be included to welcome everyone, not just enthusiasts.

Good clubs regularly publish a newsletter to keep members motivated and updated on rides and other events.

Racing Clubs

Some recreational/touring clubs have a racing division, while other clubs are strictly racing organizations. They exist to help talented cyclists achieve competitive goals. If you want to race, joining a good racing club is a key step toward realizing your potential.

Some clubs are geared to junior riders, some to masters, and others concentrate on Category 1-5 riders. If you find two or more clubs that seem meet your needs, make your choice using this criteria:

A good racing club provides qualified coaching.

This may mean the coach is certified by USA Cycling (the governing body of U.S. bike racing), but many fine coaches don't have formal certification.

Good coaches have time to work with young or inexperienced cyclists. They have the patience to bring beginning cyclists along slowly, letting them develop at their own rate without undue pressure.

Good coaches aren't slaves to one coaching system. They don't blindly follow some formula but instead devise training and racing strategies geared to individual cyclists.

A good racing club has a comprehensive year-round program.

In the winter, riders meet for weight training and stationary bike work. They train together in the early season, doing long base-building rides. They practice team tactics on training rides and use them in races. They travel to events together, sometimes in a team van.

A good racing club promotes races.

There's usually a local time trial series and a weekly evening criterium in which members hone their skills for the real races on the weekend. These practice races are a good measure of the club. Look for events that start on time, are well organized and take place on safe-but-challenging courses.

Cycling is a relatively expensive sport, so good clubs work hard to secure sponsorships from non-cycling companies as well as from the industry and bike shops. These sponsorships help cover the cost of clothing, equipment and travel. Shops also may offer parts and service discounts to club members.

A good racing club offers a friendly, supportive environment despite the emphasis on competition.

Team members encourage each other with advice and consolation. (One sure sign of a poor club is people yelling at each other on training rides, dispensing criticism instead of support.) Training rides should be designed to help everyone improve. Race strategy should be based on teamwork rather than on showcasing star athletes.

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How to Hold Your Own on Fast Club Rides

By Fred Matheny
for
www.RoadBikeRider.com

The major activity of any cycling club, racing or touring, is the group ride. As a result, it's important to know how to hang tough on a given ride and make yourself welcome on the next one. Success is often due to more than fitness.

Here's a club cycling primer!

Know the group's traditions.

Some clubs like to start all rides, no matter how fast they'll eventually become, with 20 or 30 minutes of easy warm-up. If you're impatient early, you can cause hard feelings by chafing at the bit to go faster. When you know the pattern, it's easier to be patient.

Know what kind of ride is planned.

Will it be a fast training ride? A leisurely spin? Paceline practice? It's disruptive when most of the group is thinking one thing while one or two cyclists are on a different agenda. If an easy recovery ride is scheduled, but you're out for hard training, people are going to get angry. Be certain of the ride's goal before the start.

Don't be a loco locomotive.

If you're having trouble taking your pulls at the front, get off quickly and slide back to get maximum draft in the paceline. It's far better to sit on the back and let others do the work than to slow everyone with valiant but sluggish turns at the front.

Use a racing trick if you often get dropped on climbs.

As a climb begins, be nestled in the front third of the bunch. Get as much draft as possible. If you can't hold the pace, don't blow up trying. Let yourself slide back through the group but still be in contact at the top.

Accept help on hills.

Stronger cyclists may give you a helpful push as they ride by. Don't be embarrassed by their help. They probably got towed up climbs when they were starting, too. A short push often allows you to regain your breathing and climbing rhythm so you can continue on your own.

Pick a strong rider to follow.

If you're really having difficulty keeping the pace, get on the wheel of a good rider and mirror his (or her) technique. Use the same gear, stand when he does, take a drink as soon as he reaches for his bottle, and so on. This teaches you good cycling habits. Plus, emulating his movements takes your mind off your own effort and helps you past the hard spots.

Don't be afraid to say the pace is too hard.

It's a good bet that other cyclists feel the same way but are reticent to speak up—or can't, because they're breathing too hard to talk! Perhaps even the riders who are setting the pace are having difficulty, but they continue to go hard out of vanity or because they think everyone else expects them to. A

little communication goes a long way in making a group ride a more pleasant and productive experience.

If you always
have trouble holding the pace, look for different group.

Find one closer to your
ability level. There's no shame in rationally assessing your strength
and choosing cyclists who share it. You'll actually improve faster if
you ride with a group that you are on equal terms with. You'll be able
to practice paceline cycling, following a wheel, riding in close
quarters, cornering in a group, and other important skills.

Don't let
group cycling hurt your progress.

Frequently riding with
a too-fast group will make you tired. You won't improve as rapidly as
you might with more rest. A pace that's too fast will hurt you mentally,
too. You'll begin to associate cycling with pain, misery and
disappointment. Don't let your ego overpower your better judgment. An
appropriate dose of humility now will pay dividends later.

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the eBook "29 Pro Cycling Secrets for Roadies" by subscribing to the
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How to Survive Road Hazards

By Fred Matheny and Ed
Pavelka of www.RoadBikeRider.com

Cycling is a unique sport because its arena is
the open road. That's the same place frequented by traffic, potholes,
snarling dogs and absentminded pedestrians.

But sometimes we're our own worst enemy.
Inattention and poor technique can put us on the pavement as fast as any
hazard. Use these tips and you'll be less likely to take a tumble.

Always ride

with your head up. While cruising along, it's tempting to stare at the whirling pattern of the front spokes or fixate on your cyclecomputer's numbers. A momentary downward glance that lasts just a second too long can mean riding into a problem that could easily have been avoided.

Focus.

The smooth and rhythmic motion of pedaling can have a hypnotic effect. Daydreaming cyclists have crashed into the back of parked cars, wandered far into the traffic lane or blithely ridden off the road. Don't let yourself be separated from the outside world by the vivid canvases created by your imagination. Keep your head in the game.

Keep your

bike in top mechanical condition. Repair or replace faulty parts sooner rather than later. It's a loser's game to milk "just one more ride" out of worn brake pads, a frayed cable, or tires with a threadbare tread or bulging sidewall. Your first line of defense against the challenges of the real world is a bike with all parts in good working order.

Punctures

It's every rider's fate to flat. But it's relatively easy to limit the frequency.

Choose your

line with care. The best way to avoid punctures is also the easiest: Steer around broken glass, road rubble and potholes.

Use tires

with a Kevlar belt under the tread. Kevlar does a good job of stopping nasty things from penetrating. Inspect the tread after every ride for embedded debris. Remember, most punctures are caused by something sticking to the tread and working through during numerous wheel revolutions. Replace tires before they become so thin that they're virtually defenseless against pointy things.

Check

inflation pressure every couple of days. Tubes are slightly porous and may lose several pounds of pressure each day. Soft tires slow you down, corner poorly, wear fast, and don't protect your rims against metal-bending impacts.

Potholes

Hitting potholes can bend your rims beyond repair. If the chasm is deep enough, it will send you hurtling over the handlebar when you bury the front wheel and the bike suddenly stops. Here's a primer on pothole evasion.

Note where potholes lurk on your normal training routes. Plan your line well in advance to avoid them. Don't expect the road to be in the same condition every day. Potholes have a habit of sprouting up out of nowhere, especially in the winter and early spring due to the daily freeze/thaw cycle.

Treat potholes like glass. Ride around them, first checking behind for traffic. Be mindful of riding partners when you change your line. Newly minted pot-holes present a double hazard—the chasm itself, and the chunks of shattered pavement around it. If the pothole doesn't bend your wheel, the sharp bits of rubble might puncture your tire. Give these highway craters a wide berth.

Jump your bike over a pothole, if you have the skill and are unable to ride around it because of traffic or adjacent riders. Learn this move on a grassy field. Level your pedals, crouch off the saddle, then spring up and lift with your feet and hands. Start by jumping over a line on the ground, then graduate to higher but forgiving objects such as a rolled-up towel or a shoebox.

Railroad Tracks

Unlike most dangers, tracks can't be ridden around. You can suffer an instant crash if your tires slip on the shiny steel rails. Ride with extreme caution and follow these safety tips.

Slow down!
Tracks are rough, and even if you don't crash you could get a pinch flat. This happens when you ride into something abrupt, like a rail, and it pinches the tube between the tire and rim, slicing two little holes in the tube.

Rise slightly off the saddle. Have equal weight on your hands and feet. Let the bike chatter beneath you. Use your flexed arms and legs as shock absorbers.

Cross tracks

at a right angle. If the rails are diagonal to the road and you cross them at an angle, your front wheel can be twisted out from under you. A perpendicular passage is essential in the rain. Wet metal tracks are incredibly slippery. The slightest imbalance or abrupt move can send you sprawling.

Jump if

you're real good. Racers who need to cross tracks at maximum speed will jump them. They use the same technique that works for potholes, but with more speed and lift because they must clear two rails. Coming down too early means the rear wheel will hit the second rail, guaranteeing a ruined rim or a pinch flat. In most cases, jumping isn't worth the danger. It's better to slow down, square up, and creep across.

Additional Slick Spots

Painted

lines. These can be slippery, especially the wide markings for pedestrian crossings at intersections. The paint fills in the asphalt's texture, producing a surface that's uncertain when dry and deadly when wet. The danger is worse when the paint is new.

Dry oil slicks.

These may be nearly invisible, but you can spot them as darker streaks on a gray pavement. Be real careful in corners. You aren't safe if you ride through oil on the straights. The greased tread might slip in a corner just ahead.

Wet oil

slicks. If it rains, a small oily patch can grow until it covers the whole lane. Be on the lookout for the telltale multi-colored water. There's no pot of gold at the end of this rainbow, only a black-and-blue meeting with the pavement.

Wet metal.

If it's been raining and you come upon anything metal in the road (manhole cover, steel-deck bridge, road-repair plate), it's as treacherous as riding on ice. Cross it with the bike absolutely upright. Even a slight lean can cause the wheels to slip. Smart riders walk their bikes across wet steel bridges.

Wet leaves.

Be very careful in the fall, or you will. Even if the road is dry, there can be moisture trapped between leaves littering the pavement. When you see leaves in a corner, slow down and round the bend with your bike upright, not angled.

Sewer
grates.

Some old ones have bars that run parallel to the street and are wide enough to let a bike wheel fall through. If this happens, you can look forward to plastic surgery and possibly a lifetime of lawsuit riches. Many municipalities have replaced such grates with bicycle-friendly versions, but be careful in case a town hasn't gotten the message yet.

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How
to Deal With Bad Dogs

By Fred Matheny and
Ed Pavelka of www.RoadBikeRider.com

Dog attacks are high on the list of cycling
fears. Maybe you can't stop Fang from giving chase, but you can outsmart
him if you know how dogs think—assuming that stinkin' mutt even has a
brain!

Know
dog psychology. The majority of dogs who chase cyclists are
merely defending their territory. When you pedal off the section of
road that they consider their turf, you no longer pose a threat to
their ancestral instincts and they lose interest. Incidentally, this
is why you'll rarely be chased by a dog you encounter way out in the
boonies. He's not on his turf so he couldn't care less about you.

Know
dog tactics. Dogs want to attack from the rear, coming up from
the hindquarter. Even one who sits up in his yard ahead of you may
wait till you pass before giving chase. You can use this to your
advantage in the next tip because it gives you a head start.

Sprint!

You often can outspurt Fido when he's more interested in fooling around than in actually attacking. You can tell his intent by how hard he's running and his expression. An easy gait with woofing and ears and tail up, no problem. A full-out sprint with ears back, tail down and teeth out, problem. Still, the territorial gene can save you. If the road is flat or downhill, stand up and sprint to get past the dog's invisible boundary.

Guard

your front wheel. When a dog sees you coming, he might make a beeline for your bike, then attempt to turn up beside you. The danger here is that his poor little paws will skid on the pavement and he'll plow into your wheels. If he hits the front one, you'll crash. Sprint so that you move forward faster than he expects, and give him a margin for error by steering farther into the road—if traffic permits!

SCREAM!

Most dogs know what happens when a human is angry with them. A sudden shout of "No!" or "Git!" or "Stay!" will surprise Fluffy and probably make him hesitate for just the second you need to take the advantage. If he's hard of hearing, raise your hand threateningly as if it contains a rock. Outlaw mutts usually have had experience with bad things flying at them when a human makes a throwing gesture.

Play

douse the Doberman. If you see big, fast Prince up ahead and know that he sees you, sprinting might not work. Especially if the road is tilting up. Take out your water bottle. Just having it in your hand may make him stay away. If he does come near you, give him a faceful and a loud yell. This distraction will slow him down, though he may come back for more. Just don't distract yourself and ride off the road.

Some riders swear by Halt pepper spray that they clip to their handlebar. This stuff works great—if you hit your target. That's a big if when you and Spot are going different speeds, the air is moving, and you're trying to stay on the road. Pepper spray stings a dog's eyes, nose and mouth, but it doesn't cause lasting damage. It also works on human attackers, but that's a different story.

Give up

and get off. If nothing works and Toodles has the upper hand, dismount quickly and hold your bike between you and those sharp teeth.

Swing it like a weapon if necessary, and start calling for help. Someone may eventually come out of a house and yell, "Oh, he won't hurt you!"

Call
the cops. If you are attacked and bitten, report it to the county sheriff or other authority immediately. Include the location, a description of the dog and the owner's name and address if you know them. Get medical attention without delay. If the dog was rabid, you are at risk of serious illness or even death. Demand proof of rabies vaccination or insist to authorities that the dog be quarantined.

If the same dog accosts you every time you ride the road, report this to the authorities, too. You have a right to use public roadways free from fear for your life, liberty and pursuit of cycling happiness. Keep following up with calls to make sure steps are taken to put PupPup on a rope.

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**How to Perfect
Your Riding Position & Technique**

By Ed Pavelka of
www.RoadBikeRider.com

Cycling is full of prodigious numbers—the distances ridden, the calories consumed, the tires trashed. Another statistic that can seem astounding is the number of pedal strokes made.

Let's suppose it takes you six hours to ride a century and you pedal at the rate of 90 rpm throughout. As you cross the finish line, you will be making pedal stroke number 64,800.

Whoa, that's a lot! But it barely registers on the scale of what happens during a full season. For example, during the year in which I had my biggest mileage total, I figure that I got there by pushing the pedals around approximately 13,340,000 times.

Can you say, repetitive use injury? You can see why cyclists are good candidates, especially if we aren't pedaling from a nearly perfect position.

Your body and bike must fit together and work together in near-perfect harmony for you to be efficient, comfortable, and injury-free. The more you ride, the more essential this is. If even one thing is out of whack, it's a good bet that it will cause a problem during thousands of pedal strokes.

Fortunately, it isn't difficult to arrive at an excellent riding position. But it does take time and attention. You need to be careful with your initial bike set-up, then conscientiously stay aware of your body and the need for occasional refinements. As time goes by, your position will stabilize and you'll be riding in a smooth groove.

The following guidelines come from my experience and the advice of various experts. One is Andy Pruitt, Ed.D., the director of Colorado's Boulder Center for Sports Medicine. Andy has probably solved more position problems than anyone during his years of work with elite cyclists.

As you work on your riding position, always remember Pruitt Rule No. 1:

"Adjust your bike to fit your body. Don't force your body to fit the bike."

Frame:

Measure your inseam from crotch to floor with bare feet 6 inches apart, then multiply by 0.68. The answer is a good approximation of your road frame size, measured along the seat tube from the center of the crank axle to the center of the top tube. As a double check, this should produce 4 to 5 inches of exposed seatpost when your saddle height is correct. When the crankarms are horizontal, the top tube should be right between your knees when you squeeze them together.

Arms:

Keep your elbows bent and relaxed to absorb shock and prevent veering when you hit a bump or brush another rider. Hold arms in line with your body, not splayed to the side, to be more compact and aerodynamic.

Upper

Body/Shoulders: Don't be rigid, but do be fairly still. Imagine the energy wasted by rocking side to side with every pedal stroke on a 25-mile ride. Save it for pedaling. Also, beware of creeping forward on the saddle and hunching your shoulders. There's a tendency to do this when pushing for more speed. Shift to a higher gear and stand periodically to prevent stiffness in your hips and back.

Head and

Neck: Resist the temptation to put your head down when you're going hard or getting tired. It takes just a second for something dangerous to pop out of nowhere. Occasionally tilt your head to one side and the other instead of holding it dead center. Change your hand location to reposition your upper body and give your neck a new angle.

Hands:

Prevent finger numbness by moving your hands frequently. Grip the bar firmly enough to keep hands from bouncing off on unexpected bumps, but not so tightly that it tenses your arms. For the same safety reason, keep your thumbs wrapped around the bar instead of resting on top. Move to the drops for descents or high-speed riding, and the brake lever hoods for relaxed cruising. On long climbs, grip the top of the bar to sit upright and open your chest for easier breathing. When standing, hold the lever hoods lightly and sway the bike side to side in synch with your pedal strokes, directly driving each pedal with your body weight.

Handlebar:

Bar width should equal shoulder width to open your chest for better breathing. A bit too wide is better than too narrow. Make sure the hooks are large enough for your hands. Modified "anatomic" curves may feel more comfortable to your palms. Position the bottom, flat portion of the bar horizontal or pointed slightly down toward the rear brake.

Brake

Levers: Move them around the curve of the bar to give you the best compromise between holding the hoods and braking when your hands are in the hooks. Most riders do best if the lever tips touch a straightedge extended forward from under the flat, bottom portion of the bar. The levers don't have to be positioned symmetrically—remember Andy Pruitt's rule. If your reach is more comfortable with one lever closer to you than the other, put it that way.

Stem

Height: Start with the top of the stem about one inch below the top of the saddle. This should give you comfortable access to every hand position. As time goes by, think about lowering the stem as much as another inch (not all at once) to improve your aerodynamics. If your lower back or neck starts complaining, or if you notice you've stopped using the drops, go back up. Never put the stem so high that its maximum extension line shows, or it could be snapped off by your weight on the bar.

Top-tube

and Stem Lengths: Combined, these two dimensions determine "reach." Depending on your anatomy and flexibility, your reach could be longer for better aerodynamics, or it may need to be shorter for back or neck comfort. For most riders, when they're comfortably seated with their elbows slightly bent and their hands on the lever hoods, the front hub will be obscured by the handlebar.

Back:

A flat back is the defining mark of a stylish rider. Notice I didn't say a great rider. Anatomy and flexibility have a lot to do with how flat you can get. Lance Armstrong, for instance, has a rounded back that's not picture perfect and yet he still manages to go down the road pretty well. The same was true for John Howard, once America's dominant road racer. I'm in their boat (back-wise, not speed-wise). Once you have the correct reach, work on flattening your back by imagining touching the top tube with your belly button. This helps your hips rotate forward. You don't want to ride this way all of the time, but it'll help you get more aero when you need to.

Saddle

Height: This is the biggie. You'll find various methods for calculating this critical number. Here's the one I like best. It has become known as the LeMond Method, because Greg brought it to us from his Renault team in the 1980s. (Invite a friend over so you can help each other and both wind up with primo positions.)

Begin by standing on a hard surface with your shoes off and your feet about 6 inches apart. Using a metric tape, measure from the floor to your crotch, pressing with the same force that a saddle does. Multiply this number by 0.883. The result is your saddle height, measured from the middle of the crank axle, along the seat tube, to the top of the saddle.

Add 2 or 3 mm if you have long feet in proportion to your height. If you suffer from chondromalacia (knee pain caused by damage to the underside of the kneecap), a slightly higher saddle may feel better. However, it should never be so high that your hips must rock to help you reach the pedals. If this formula results in a big change from the height you've been using, make the adjustment by 2 or 3 mm per week, with several rides between, till you reach the new position. Changing too fast could strain something.

Saddle

Tilt: The saddle should be level, which you can check by laying a yardstick along its length and comparing it to something horizontal like a tabletop or windowsill. A slight downward tilt may be more comfortable, but be careful. More than a degree or two could cause you to continually slide forward, putting pressure on your arms and hands.

Fore/Aft

Saddle Position: Sit comfortably in the center of the saddle, click into the pedals, and set the crankarms horizontal. Hold a weighted string to the front of your forward kneecap. For most of us, the string should touch the end of the crankarm. This is known as the neutral

position. Loosen the seatpost clamp so you can slide the saddle to get it right. Seated climbers, time trialists, and some road racers may like the line to fall a centimeter or two behind the end of the crankarm to increase pedaling leverage. On the other hand, track and criterium racers may like a more forward position that breeds leg speed. Remember, if your reach to the handlebar is wrong, use stem length to correct it, not fore/aft saddle position.

Butt:

By sliding fore or aft on the saddle you can bring some muscles into play while resting others. This is a technique favored by Skip Hamilton, my teammate in the 1996 Race Across America. Moving forward emphasizes the quadriceps muscles on the front of the thighs, while moving back highlights the hamstrings and glutes—the powerful butt muscles.

Feet:

Some of us walk like pigeons, others like Charlie Chaplin. Your footprints as you leave a swimming pool will tip you off. To make cycling easier on your knees, shoe cleats must put your feet at their natural angle. This is a snap with clipless pedal systems that allow feet to pivot freely (“float”) several degrees before release. Then all you need to do is set the cleats's fore/aft position, which is easy. Simply position them so the widest part of each foot is centered on the pedal axle. If you experience discomfort such as tingling, numbness or burning (especially on long rides), move the cleats rearward as much as a centimeter.

Crankarm

Length: In general, if your inseam is less than 29 inches, use 165-mm crankarms; 29-32 inches, 170 mm; 33-34 inches, 172.5; and more than 34 inches, 175 mm. A crankarm's length is measured from the center of its fixing bolt to the center of the pedal mounting hole. The length is usually stamped on the back of the arm. If you use longer crankarms than recommended, you'll gain leverage for pushing big gears but lose some pedaling speed.

How to Hydrate for Better Performance

By Fred Matheny for www.RoadBikeRider.com

If it's the summer cycling season, it's probably hot where you live. Cyclists and other outdoor athletes are the first to notice rising temperatures. And the hotter it is, the faster you lose fluids when you ride.

Fluids are crucial to your performance and sense of well-being. We're really just big bags of fluid—our blood contains about 50 percent water. Because water helps keep us cool, a loss of only one percent of our bodyweight as sweat means a significant loss of speed and endurance.

I know you've heard it before—drink, drink, drink! But it's amazing how few cyclists heed this advice. They forget to drink because of the excitement of the ride, then they wilt before the end.

But proper hydration is easy. Here's how:

Ride

Early or Late. You'll need to replace fewer fluids if you ride when it's cooler. One approach: commute by bike so you ride early in the morning and again in the evening when temperatures have moderated. Ralph Phillips, owner of Fairwheel Bikes in Tucson, beats summer temperatures above 100 degrees with dawn rides.

Practice

Drinking On the Bike. If you aren't comfortable taking one hand off the bar to pull the bottle from the cage, practice while riding in an empty parking lot or lightly traveled road with a wide shoulder. Hold the bar with your other hand near the stem to limit swerving as you reach down.

Pre-hydrate.

Make sure you're well hydrated before the ride. Most people are chronically dehydrated because they simply don't drink enough water. Keep a bottle on your desk and sip frequently all day. For an energy as well as fluid bonus, down 16 ounces of a sports drink about an hour before the ride.

Drink

During the Ride. Because your body's sensation of thirst lags behind its need for liquid, always sip from your bottle before you get thirsty. When you feel thirsty, it's already too late. Make it a habit to reach for your bottle every 15 minutes and slug down a couple of big swallows.

Most riders need one big bottle (about 28 ounces) per hour but it's highly variable depending on temperature, intensity of the ride, and other factors such as body size. Experience will help you judge your fluid needs.

Hydrate

After the Ride.

No matter how much fluid you drink while riding, in hot weather you'll finish the ride depleted. Your stomach doesn't empty fast enough to keep up with the demand.

Weigh yourself before and after the ride.

Compare the figures. If you've lost weight, drink 20 ounces of fluid for each pound of bodyweight you're down. Keep drinking until your weight has returned to normal and your urine is pale and plentiful.

Restore

Sodium Levels.

Those white stains on your clothing and helmet straps after a hot ride come from the salt that you sweat out. It needs to be replaced. Low sodium levels are associated with increased incidence of cramps. Heavy sodium losses lead to hyponatremia, a potentially life-threatening condition.

Your sports drink should contain at least 100 mg of sodium per 8 ounces (check the label). It may also help to salt your food when you're riding frequently in hot weather.

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How
to Eat for Endurance

By Fred Matheny for www.RoadBikeRider.com

The key to riding long distances is food and drink.

Sure, training is important—but nutrition and hydration are even more vital. According to ultramarathon rider and coach John Hughes of Boulder, Colorado, “Nutrition, not necessarily training, is the limiting factor in endurance cycling.”

The reason? Even the best-trained riders pack only enough muscle fuel (glycogen) for a couple of hours of hard cycling. Fluid stores vanish even faster.

For everything from century rides to multi-day tours, remember these time-tested tips:

Enjoy the Last Supper. Eat aggressively the night before a long ride so your muscles are crammed with glycogen the next morning. Emphasize carbohydrates such as pasta, vegetables, bread, whole grains, and fruit. Don't forget dessert!

Don't Skip Breakfast. Cycling's smooth pedaling motion means you can eat just before a long ride without risking stomach upset. You'll need a full tank. Cycling consumes about 40 calories per mile, or 4,000 calories in a century ride.

Three hours before the start, eat about 60 grams of carbohydrate if you're an average-sized woman, 80 to 100 if you're a man. (Cereal, skim milk, a banana, and a bagel with jam equals about 90 grams of carb.) Many riders find that adding some protein and fat, like scrambled eggs or an omelet, keeps their stomach satisfied longer.

Prehydrate. Fluids are as important as food. Drink at least eight big glasses of water the day before the ride. If you don't, your performance and

comfort may plummet by mile 50. During the hour before the ride, sip 16 ounces of a sports drink.

Eat and Drink During the Ride.

Drink before you feel thirsty. Your sensation of thirst lags behind your need for liquid, so grab your bottle every 15 minutes and take a couple of big swallows (about four ounces). About every 30 minutes, eat 20 grams of carbohydrate—the equivalent of half an energy bar, several fig bars or half a banana. Some riders prefer smaller portions more frequently.

On unsupported rides, use a backpack-style hydration system and carry food in your pockets. Stop at convenience stores along the way, if necessary. Most organized rides have aid stations every 20 miles or so, but always carry food and fluid just in case.

Hydrate After the Ride.

No matter how much you drink on a long ride you'll finish dehydrated. Weigh yourself before and after, then compare the figures. Lost weight means you've failed to replace the fluid you've sweated out. Drink 20 ounces of water or sports drink for each lost pound of bodyweight.

How do you know you've caught up? Your urine will be pale and plentiful, and your weight will be back to normal. Rehydrating is especially vital during multiday rides. If you get a little behind each day, by the end of the week you'll be severely dehydrated, feeling lousy, and riding poorly.

Eat for Tomorrow.

Muscles replace glycogen better if you consume carbohydrate immediately after riding. So within 15 minutes of getting off the bike, eat or drink 60 grams of carbohydrate (if you're an average-sized woman) or 80 to 100 grams if you're an average male.

The re-fueling process becomes progressively less efficient as time passes. Eat or drink a high-carb snack while chewing the fat with your riding buddies.

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Three Essential Techniques for Roadies

By Fred Matheny for www.RoadBikeRider.com

Pro athletes develop simple
techniques that become automatic. A three-point shooter's follow through or
a golfer's silky stroke are techniques they've honed until they no longer
think about them.

Pro cyclists, too, develop
characteristics that separate how they look on a bike from the rest of us. It's
not simply a matter of appearance. Unlike golf, when you're riding, you can
get scuffed up out there. Looking like a pro means safety as well as style.

Want the look? Master these
three techniques and you'll be on your way.

1. Relax. Great
athletes in any sport let it flow, making impossible moves and extreme effort
look easy. Here's how to be loose as a goose on the bike:

Face

Off. If your facial muscles are tight, your whole body
follows. Consciously relax your face and neck. Loosen your jaw muscles.
Don't clench your teeth in grim-faced determination.

No

Turtles. Tense riders hunch their shoulders until their ears disappear. Drop your shoulders and relax the muscles that run from the top of the shoulder to your neck. Don't look like a turtle hiding from danger.

Get
a (Light) Grip.

Bend your elbows slightly and relax your forearms and hands. If you hit a bump or get bumped, loose arms absorb the blow without affecting the front wheel. You keep your line and stay in control.

2. Pedal Smoothly. It's easy to spot the smooth pedal stroke of a pro compared to a novice's lumpy plodding. Here's how to get supple stroke:

Practice
Slowly.

A rapid cadence of 90 to 110 revolutions per minute is efficient and stylish. But it's hard for your brain to keep up with your feet going that fast. Practice at a slower rpm of 60 to 70 so you can concentrate on your stroke all the way around.

Remember

Mud. Three-time Tour de France winner Greg LeMond first gave us this tip in 1985, and it's just as helpful today: When you pull your foot through the bottom of the stroke, imagine you're scraping mud off your shoe. This will help you pull your foot through smoothly with added power. Try it and see how well it works.

Knee

the Bar. As your foot comes up and over the top, pull your knee forward like you want it to touch the handlebar. This adds power to the weakest part of the stroke.

3. Recover Fast.

Pro riders can do a three-week race and go just as hard on Day 20 as in the prologue time trial. Here's how to recover like a stage racer:

Pump

Fluids.

The loss of as little as one percent of body weight as sweat can compromise your performance. So drink at least one bottle of sports drink each hour you're on the bike. After the ride, drink more until your weight is back to normal. If you aren't getting up twice each night to urinate, you aren't sufficiently hydrated.

Replenish

Glycogen Supplies.

A 150-pound cyclist needs 80 to 100 grams of carbohydrate in the two hours immediately after riding. An energy bar contains about 40 grams of carb, a bagel and banana about 60.

Rest.

Pros sleep nine or ten hours a night and often take an afternoon nap after training. We can't do that because we have real jobs and the boss would frown. But because sufficient rest is crucial to recovery, try to fit in at least eight restful hours of sleep each night and catch a 15-minute "power nap" in the afternoon.

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eBook "29 Pro Cycling Secrets for Roadies" by subscribing to the RoadBikeRider Newsletter at www.RoadBikeRider.com. No cost or obligation!

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Three

Advanced Techniques for Roadies

By Fred Matheny for www.RoadBikeRider.com

Got your basic riding techniques well in hand? Now learn three advanced moves that come in handy and raise your skills to a new level.

1. Ride No-Hands

Pro cyclists can ride no-hands in the middle of the pack on a twisty descent. Don't try it! Sometimes, however, you'll need two hands free to peel an energy bar or peel off a vest. Here's how:

Pick a Place.

Look for a straight stretch of road without obstacles like potholes or side streets. Sit up and take your hands off the bar, ready to grip again as you test your balance. When you're ready, sit up fully and drop your hands to your sides. Most riders find it easier to maintain balance while pedaling smoothly than while coasting.

Steer With Your Butt.

In other words, control the bike with the pressure of your inner thighs against the saddle. Look down the road at least 30 feet rather than directly in front of your wheel. Relax.

Be Careful.

Riding no-hands where you live may be illegal, and it certainly can be dangerous. Practice in an empty parking lot or back street before taking your act on the open road. Unless you have pro-level skills, don't ride no-hands in a paceline until you're last in line.

2. Remove Arm Warmers While Riding

Now that you can ride no-hands, it's easy to remove arm warmers without stopping. The only problem might be losing one while stuffing them into your jersey pocket. Here, courtesy of seven-time Tour de France rider Ron Kiefel, is how to keep them together.

1. Pull down warmers. Riding with one hand on the bar, pull down that arm's warmer to your wrist. Switch hands on the bar, then do the same with the other warmer.

2. Remove first warmer. Ride no-hands. With your right hand, grasp the cuff of the left warmer and pull it off so it hangs from your right hand.

3. Remove second warmer. Use your left hand to pull off the right warmer while still grasping the left arm warmer in the right hand. Voila! One arm warmer is neatly tucked in the other. Fold the resulting sausage in thirds and tuck it in your jersey pocket.

3. Hop Over a Pothole

Ever get trapped near the curb by a passing car or other riders—and there’s a gaping pothole right in your path? The only escape is up and over. Here’s how pro roadies fly above obstacles (including fallen riders).

Assume the Position. As you approach the obstacle, coast with crankarms horizontal. Stand on the pedals with your butt several inches off the saddle. Your weight should be evenly distributed between your hands and feet. Think of being like a cat—or a basketball player in a defensive stance—ready to uncoil.

Spring and Lift. As you reach the obstacle, crouch rapidly by bending your knees and elbows, then spring upwards like you’re jumping. Pull up equally with your hands and feet so the bike comes with you.

Time It Right. If you jump the bike too soon, you’ll land on the obstacle you’re trying to avoid. Too late and you’ll plow your front wheel into it.

Practice!
Lean this technique on a soft grassy field using something soft like a rolled-up towel as an obstacle so you won’t crash if you hit it. It’s a good idea to practice with a mountain bike—the fat tires and sturdy wheels are less likely to be damaged in your initial attempts at flight.

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How
to Ride in a Group

By Fred Matheny for www.RoadBikeRider.com

Pacelines are organized. They have specific rules. But in big groups like you find in centuries or charity rides, things will be disorganized. This can intimidate even experienced riders.

Sooner or later you'll find yourself in a big group amid some riders with sketchy skills. It pays to learn how to survive (and also make yourself welcome) in a crowd.

Look
for Risky Riders.

These are the unsteady people who wobble, appear nervous, have a tense grip on the handlebar, and frequently grab the brakes. Avoid them! Move up to keep them behind you, or slide to the other side of the road.

Stay
at the Front. This is easy to say but hard to do in some groups. At the front you have more control over your destiny because most crashes occur in the rear two-thirds of the bunch. It may take a bit more work to reach the front and stay there, but it's worth the effort.

Watch
the Wind.

Wind direction determines on which side the greatest draft is found. If

the wind is from the right side of the road, smart riders move to the left of the wheel in front of them for greater protection. If you're doing this, beware of overlapping wheels with inexperienced riders. They may swerve and take out your front wheel.

Be

Wary on Climbs. A major cause of group crashes is riders who stand abruptly. They slow for a second, causing the rider behind to hit their rear wheel and spill. To avoid this danger, let the gap open a bit on hills or ride a foot to either side.

To avoid being the one who causes such a crash, pull your bike forward as you leave the saddle. Don't lunge and make a hard pedal stroke. Keep your speed steady. When sitting again, push the bike forward a bit.

Cycling isn't a contact sport, but it's not uncommon to have your arm brushed when riding near others in a group. It pays to learn how to bump into other riders without swerving or falling. It's easy when you practice this drill used at the Carpenter-Phinney Bike Camps.

First, go with a cycling friend to a large grassy area like a soccer field. Ride side-by-side at a walking pace. Keep both hands on your bar. Start by gently touching elbows, then shoulders. As you gain confidence, lean more vigorously on the other rider. Soon, you'll be bumping each other with abandon and throwing in a few head butts for fun, all without going down. (Of course, always wear your helmet just in case.)

Riding relaxed is the key to absorbing contact without swerving. Have slightly bent elbows, a firm-not-tight grip on the bar, and loose arm and shoulder muscles. If you're relaxed, your body can absorb the shock before it gets to the handlebar.

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Sports
Medicine Tips from an Expert

By Fred Matheny for www.RoadBikeRider.com

Andy Pruitt's name has become synonymous with sports medicine for cycling. As director of the Boulder Center for Sports Medicine in Boulder, CO, Pruitt has made a career out of treating world-class riders such as Lance Armstrong and George Hincapie. In 1996, Pruitt served as chief medical officer for the U.S. Olympic Cycling Team.

Pruitt is an elite athlete in his own right, too. He lost his lower leg in a hunting accident at age 14 but still wrestled and participated in track, eventually winning 12 high school varsity letters. When he took up cycling he earned a category 2 ranking in able-bodied racing and was twice a world champion in disabled cycling.

But the Boulder Center isn't reserved for elite clients. Pruitt wanted to develop a sports medicine center equal to any university or Olympic training facility but available to recreational athletes of any age. That's what he has accomplished

Here's a sampling of Pruitt's sports medicine wisdom.

Floating

Pedals. "In the late eighties, the cycling injury rate soared due to step-in pedals. The old, slotted cleats and soft leather cycling shoes allowed feet quite a bit of movement, but the newer step-in cleats and more rigid shoes with a heel counter locked feet in one position. Now the injury rate has gone way down due to cleats that float, allowing each foot to find its best position on the pedal."

Bike

Fit.

"I've done thousands of bike fits. Much is made of saddle height and saddle fore-and-aft position. It's true—they're important. But the reach to the handlebar along with the height difference between the bar and the saddle are the two most personal aspects of bike fit. If they aren't right, you'll be miserable. We're seeing more riders who want to raise their handlebars for increased comfort."

Chondromalacia.

"When cyclists have chondromalacia (pain under the kneecap) it's not good medical advice to keep them off the bike. They need to ride. The knee likes motion and riders want to be on their bikes. So we check

saddle height and other bike fit factors like cleat position and let them ride. Most chondromalacia sufferers can ride at some level no matter how severe the degeneration. I've seen riders with a back of the kneecap that was full of gouges. It looked like one of those rural road signs peppered with bullet holes. But they can still ride without pain.

Patellar Tendinitis.

Strain of the tendons around the knee often happens in the early season when riders get caught out in the cold and wind and decide to get home fast. They push a big gear, maybe they aren't wearing leg warmers, and the next morning they have an ominous twinge. The problem is that in the early season, your muscles can bear a lot more strain than your connective tissue.

Saddle Position. Greg

LeMond has extremely long femurs. His kneecaps are slightly above his ankles. So for him a bike with a slack seat tube angle, a long top tube, and the saddle jammed all the way back is appropriate. But most people aren't built that way. For example, Ron Kiefel moved his saddle back when a famous pro he admired told him he'd be faster if he did. Ron didn't get faster, instead he got severe back pain and missed several weeks of racing. The moral of this story: Let your femur length determine your saddle position, not your hero.

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How
to Find Time for Cycling

By Fred Matheny for www.RoadBikeRider.com

We shouldn't feel excessive admiration for pro racers who log 600-mile weeks. They have plenty of time to ride and recover—that's their job. The real heroes are people like you, who find time to ride while still having a life away from the bike.

Full-time work, family commitments and cycling can be efficiently interwoven into your busy day. All it takes to schedule everything into 24 hours is maximum use of time-budgeting techniques.

Here's where to look for time slots that can accommodate your love for riding:

Commuting

Riding your bike to work or school and back may be the best way to create time cycling time.

When you commute by bike, time normally spent sitting in a car is used productively as part of the training day. An eight-mile ride to work or school takes about 30 minutes each way. Even if you do no other riding, that's still an hour of cycling each weekday. The trip home can be lengthened as much as time, daylight and energy allow.

Another benefit is arriving at your job refreshed and alert. It may be tough to get up earlier for the ride in, but the physical and mental lift of exercise will carry you through that 10 a.m. letdown that your sedentary colleagues experience. Then you ride home, clearing cobwebs and blowing away job-related frustrations. You're refreshed and ready for evening responsibilities or family fun.

Commuting Logistics

Use

a small backpack to carry clothes, lunch and papers. A waist strap helps eliminate swaying and bouncing as you ride.

Keep
a pair of shoes at work so you don't have their weight and sharp edges in the pack. Take the week's clothes to work on Monday morning and shuttle them home Friday afternoon, or whatever arrangement fits your situation.

Clean
up in the restroom with a lightly soaped washcloth. Meanwhile, get coworkers interested in commuting and lobby your boss to install a shower.

Dress
in your office if it has a door. If not, use the restroom or a storage room.

Play
on the way home. Scout out a longer route and ride for an hour or more as time and commitments allow. Do intervals, time trials, or hit the hills hard to get a great workout while you're homeward bound.

If commuting simply won't work for you, here are two popular options:

**Early
Bird Special**

Consider
an early-morning workout. By the middle of March it's usually light enough to get in a ride before work. At dawn there are few cars on the road and the day is brightening every minute.

Getting

up in the pre-dawn hour may be the ultimate test of whether you really want to ride. Roll out of bed the minute the alarm rings and don't think about anything. The longer you lie there moaning about how early it is, the harder it is to extricate yourself from the sheets.

Sleep loss is the biggest risk. Make up the deficit with an earlier bedtime because it's vital to get enough rest. Lack of sleep can lead to deep fatigue and poor performance in everything you do.

Evening Rides

If your schedule prohibits riding most of the day, try from 9 to 10 or 10:30 p.m. For most people, the kids are in bed, the chores around the house complete, and you're probably wasting time watching TV.

To make this work, eat a moderate dinner at 6 or 7 p.m., allowing the food to digest by riding time. As an additional benefit this provides motivation not to overeat.

Riding in the dark used to be dangerous because lights were poor. You couldn't see road hazards clearly, and motorists couldn't see you. Modern lighting systems make night riding safer, but it's still smart to use lighted parks or suburban streets if they're available.

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How to Ride in a Paceline

By Fred Matheny for www.RoadBikeRider.com

Solo

rides are a great part of the cycling experience. Nothing beats cruising along and looking at the scenery, or attacking a climb at your own pace and intensity.

But

riding with a small group can be even more fun. You cover ground faster, meet people, and experience the thrill of shared effort.

Paceline

riding isn't difficult to learn. Here are the basic skills:

1.

Riding a Straight Line

Start by learning to ride like you're on a rail.

Practice by holding your line during solo rides. Put your wheel on the road's white edge line and keep it there. Relax your upper body, keep a light grip on the handlebar, and fix your peripheral vision on the line. Keep your actual focus 20 or 30 feet in front of the bike. Remember, the bike will go where your eyes go.

2.

Following a Wheel

Drafting another rider saves you at least 15 percent in energy output. It's foolish to be bucking the wind all the time when you're with other riders. Share the work by drafting them and letting them draft you.

Position your front

wheel 1 to 3 feet behind the rear wheel you're following. The closer the better, in terms of the draft, but closer also requires a lot more attention.

When necessary, turn the cranks without putting pressure on the pedals ("soft pedal") to maintain correct spacing.

Use

the brakes sparingly. Jerky braking creates chain reaction problems for riders behind you. If you need to brake, feather the levers lightly instead of clutching at them.

If a gap opens, don't make things worse by accelerating too hard, overrunning the wheel in front, then grabbing the brakes. Instead, ease back up to the rider in front. If you don't become proficient at following a wheel, you can waste more energy than you save by constant yo-yoing.

Look past the rider directly in front. Don't stare down at his rear wheel or you won't see things that may cause him to brake or swerve.

3. Paceline Pointers

First rule: Be predictable. Close riding demands that everyone be on the same wavelength. There must be a basic understanding of what is and is not expected behavior in a given circumstance. Experience helps.

Don't accelerate when it's your turn at the front. Note your cyclecomputer's mph and maintain the group's speed when the lead rider pulls off.

After your own bout against the wind, pull off to the side agreed upon and stay close to the others as you soft pedal and slide back to the rear of the paceline. This enhances the drafting effect for the whole group. It also keeps everyone as far out of the traffic flow as possible, making paceline riding possible even on busier roads.

As you come abreast of the last rider in the line, pick up speed and then slide over behind his wheel as he comes past. When done correctly you won't need an energy-wasting acceleration in order to latch back on. Once in the caboose position you can take a drink or stand to stretch without disrupting the paceline's smoothness.

Protect your front wheel. If your rear wheel is struck a fall is unlikely because it has nothing to do with steering the bike. However, if your front wheel is contacted it will often be twisted off line faster than you can react. You'll almost certainly go down. Help prevent this by never overlapping someone's rear wheel.