The 2020 B SIG Riders Guide

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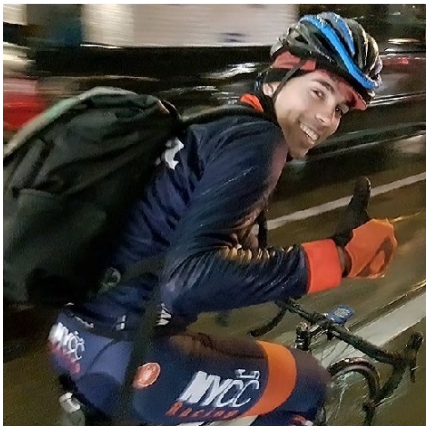
This guide is the product of the volunteer efforts of many B-SIG Leaders over many years. A special word of thanks goes to past B-SIG Coordinators Carol Waaser, Liane Montesa, Eva Wirth, Mark Gelles, Wayne Wright and Fred Leffel, and to Linda Winter, Monica Miller, Valli McRoberts Weiss, Jorge Negrin, Victor Baruh for their valuable contributions.

We make this guide available to you as a reference tool to help you get the most out of the B-SIG. The information in this guide is not intended for any other use.

What Is the B-SIG?



The B-SIG (Special Interest Group) is a combination of a Progressive Training Series and a Cycling Skills Program. In the B-SIG you will cycle with the same group of riders each week of the series. Each week, you will focus on a particular skill, and each week's skill and ride will build on the skills and training developed over the prior weeks.

The B-SIG is a 10 week program. The first week consists of an indoor orientation session lasting about 60 minutes, followed by 6 timed laps around Prospect Park. Based on your time for the laps, you will be assigned a specific team within one of the three pace categories – 16, 17 or 18. (Note that in NYCC parlance, 16, 17 and 18 refers the sustained cruising speed over flat terrain, not average speed. Also, groups will ride approximately 2 mph slower in the early weeks before gradually building up to their "advertised" pace.) The first B16 ride will be approximately 43 miles and the first B 17 and 18 ride will be approximately 50 miles. The rides get slowly but progressively longer and harder over the following weeks. By the 9th week, the groups will do a ride of 95 - 105 miles.

Each pace category will have 3 – 4 teams consisting of 10 -12 SIG participants, a team leader and 2 - 3 co-leaders.

There are designated captains for each of the pace levels. Among their many other duties, the captains are in charge of assigning SIG participants to their groups within their pace levels and moving participants up or down to higher or lower pace levels over the first few weeks to fine tune the groups.

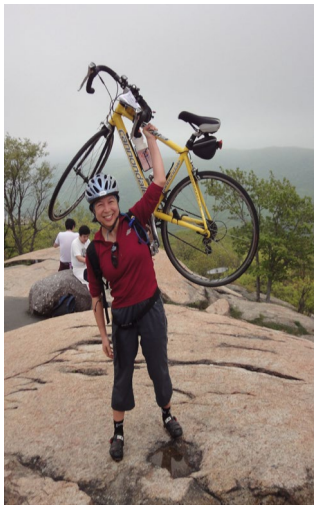
The three key ingredients of the SIG are SAFETY, SKILLS and FUN.

- **Safety** – Safety *always* comes first. The New York Cycle Club and the B-SIG are committed to making our group rides as safe as possible and will adhere to recognized safe cycling practices. We will teach these throughout the SIG, but urge you get a head start by reviewing this informative website: http://BicycleSafe.com. ***Our sport has risks. Before each ride, every B-SIG participant will agree to a waiver which is a legal agreement between each cyclist and the NYCC. Please read and understand that by signing into each ride you have agreed to the waiver's terms.***
- **Skills** – The B SIG has a formal curriculum of skills. Each week, you will be asked to review the appropriate lesson materials in the *Riders Guide*. We'll have a short "class" before each ride to review the materials and we'll work on the skill during the ride itself. The skills aspect of the SIG is designed to be progressive and cumulative. You will build on what you've learned before. By participating in the B SIG, you will become a skilled, competent and confident cyclist.
- **Fun** – While we're very serious about the safety and the skills aspects of the SIG, at the end of the day, we really do want everyone to have a good time. This is supposed to be fun, right?

You may note that we haven't put any specific emphasis on "speed" as a goal of the SIG. As you go through the SIG program --and assuming you come to all the rides and do the midweek workouts – your speed most likely *will* increase. Everyone's physical abilities, fitness levels and limitations are different, however, so some participants will experience a significant increase in speed and others less so. Just participate, enjoy the rides and let improvement in speed take its natural course.

What You Should Expect

It's a *progressive* training program



Each Saturday's ride will be a little longer, and the terrain incrementally more challenging, than the week before. One of the B-SIG's goals is to build endurance and strength by riding harder and longer each week, generally in 10% increments.

The B-SIG Coordinator and leaders will initially place you in a group of your cycling peers based primarily on your time in the first week classification ride. (Six laps around Prospect Park; approximately 20 miles.) Our goal is to match riders with similar levels of fitness and ability. Groups that are well matched this way progress faster and the participants find the rides more enjoyable. Consequently, it is important that you make sure you are comfortable with your fit in your group. Generally, the classification works well as an initial placement tool. But it's not perfect. If you find yourself in the wrong group, talk to your group's captain and leaders and they will help you move to a more suitable group.

Don't put off the conversation with your leaders if you are uncomfortable. We require all changes be made BEFORE the third ride. There is nothing to be gained by suffering in a group that is too fast or too slow for you. Speak up! It makes our job easier.

It's a *group* riding program, and you have obligations to the group

Riding cooperatively and confidently in a group can enhance your cycling experience enormously. But being a member of a SIG group does impose additional obligations on you, as an individual, that are different from those that you take on when you ride alone or with just a friend or two. For example, you'll need to be sure that you come to each ride on time, that your bike is in good working order (we can't eliminate flats and mechanicals, but we can reduce their incidence by making sure our bikes are well-maintained), and that you are properly dressed for that day's weather conditions. In addition, you need to appreciate that by their very nature, group rides take longer than a solo ride of comparable length. Food, rest and bathroom stops will be longer, the group may pause from time to time for coaching, there are likely to be more mechanicals and even the simple task of getting through intersections take longer – and over the course of a full day's ride, all of these little delays add up. Finally, it's critically important that you ride safely, both for you own sake and for the sake of the others in the group. So come to each week's ride properly prepared, mentally as well as physically, with the proper expectations and right frame of mind. It will make your SIG experience that much more enjoyable.

You'll need to train

Mid-week workouts are highly recommended. Our recommendation is two workouts during the week (on non-consecutive days), each one hour in length. In our experience, a good workout includes:

- a 10 minute "warm up" at an easy pace (approx. 50%-65% of your max. heart rate); followed by
- 35 minutes at a brisk pace (breathing hard, but not panting - approx. 75% of your max. heart rate); followed by
- 10 minutes at a little slower than brisk pace (approx.70% of your max. heart rate); and finally
- 5 minute "cool down" at an easy pace.

If you can't get out on the road for your workout, try to get in something roughly indoors.

This type of workout will be very beneficial to you. Schedule recovery days (no cardio exercise) at least every other day. Given that we ride on Saturdays, Friday should be a rest day - rest, hydrate, and eat to be prepared for Saturday's SIG.

We teach good riding skills; you need to learn them

The first seven group rides will start with a short class presentation in which your leaders will discuss the skills and techniques to practice during the ride that day. In the days preceding the Saturday ride, you will need to read the section in this guide relating to that skill. The skills are cumulative, so it's important to keep up. Your fellow Siggies will not look kindly on -- and your leaders may not tolerate -- your habitually showing up late for the ride and missing the pre-ride discussion.

We have a specific attendance policy

In order to graduate, you must not miss more than 2 Saturday rides. You must also be present for at least 1 of the first 2 Saturday rides and 1 of the last 2 Saturday rides.

Each participant is expected to attend all the rides and all the class presentations held prior to the rides. Late for a class can count as ½ a missed ride. If you are absent more than 2 rides, or more than 1 of the first 2 rides, you will not graduate.

If the Saturday ride is postponed to Sunday and you cannot attend, it will not be recorded as an absence.

We also schedule one extra week in the SIG calendar as a buffer just in case we have to miss an entire weekend. If everything goes as planned, however, and no make-up week is necessary, your team and leaders may schedule an optional additional ride.

We recognize that "stuff" comes up in everyone's life. If you have to miss a week, make sure your leaders are aware of this prior to the start of the ride that day.

If you do miss a ride, try to make it up on your own. It will not reduce your absences, but it will help you maintain your fitness and be prepared for the next week's ride. Since the SIG is a progressive series, ride length and difficulty do increase each week. Missing a week, without doing any make-up, will make things difficult for you on the next ride and may have an impact on the rest of your group. If you miss two weeks in a row, it may be hard for you to keep up when you return. Before your make-up ride, review the class material you missed and practice those skills on your ride. Your Ride Leaders are available to answer any questions and discuss concerns.

If your fitness level and or skills level are not keeping pace with the rest of your group, you may be moved to another group or another SIG (if they have space) or you may not be allowed to continue in the B SIG. If you feel you are mismatched with the speed, fitness or skill levels of your group, speak to your leader early. We can make adjustments in the groups during the first one or two rides. Don't suffer in a group that doesn't suit you. This is supposed to be fun!

Safety is our #1 priority

The biggest concern on any SIG ride is safety. We therefore have to insist that you abide by a few rules.

- No earpieces or music headphones while on the ride.
- No photo taking while on a moving bicycle.
- No cell phone calls, texting, or use of any electronic mobile device while the ride is in progress. Please save your calls and other connectivity for bathroom and food breaks.
- Always ride with 2 hands on the handlebars, except (a) when pointing debris or indicating a turn, or (b) drinking water. Never ride "no hands."
- No aerobars. (No exceptions!)
- Stay alert. Pay attention.

What the B-SIG Expects of *You*

- Every B-SIG participant must be a registered NYCC member in good standing. If you are not yet a member, go to http://nycc.org/join-nycc and join now.
- Signing up for the B-SIG means you have made a commitment to spend 10 consecutive Saturdays cycling with us this spring. The rides are all-day affairs; you might get back early, but don't count on it. In other words, consider your Saturday's "spoken for" when you join the B-SIG.

- You should make every effort not to miss the first week, March 2. All B-SIG participants must complete the timed, 6-lap qualification ride on that date. If you know that you will not be able to make the March 2 session, you need to contact the B SIG Cordinator and Jorge Negrin (jnegrin@ aspache.com) prior to March 2. If you are sick on that date, contact the B SIG Coordinator and Jorge as soon as you can. We will try to make special arrangements for you to complete the timed laps, but this must be done well in advance of the week 2 ride. Please note that if you miss both March 2 and the following week, you will not be allowed to continue with the SIG.
- Remember you are an integral part of your group. You must ride in a safe manner. Your actions or inactions affect all the cyclists in your group. Anyone who repeatedly places the group in danger will not be allowed to continue.
- You must show up each week 15 minutes prior to the announced start time to find your group and sign-in. Be sure you have signed in before the lesson of the day begins.
- Your bike must be in excellent working condition. This is an important part of your obligation to the other members of your group. (See the sections “Bike Preparation” and “Routine Bike Maintenance Checklist.”) Be sure to have your bike checked out *before* the SIG begins!
- Have the week’s cue sheet with you. We will not hold up the entire group because you are not prepared.
- Each B-SIG participant is expected to “give something back” to the Club – volunteer, lead rides, join the Board, become an active Club member. Our club is a volunteer organization that runs on the efforts of our volunteers. The B-SIG is the perfect place to learn what it takes to lead a club ride. After the B-SIG is over, you may be asked to co-lead a club ride or volunteer to help out at a Club event. It’s your club, contribute your experience and service to make it better.

- Bikes with time trial aero bars are prohibited for safety reasons. If you have a triathlon-type bike and want to do the SIG you will need to convert your bike to standard handlebars. NO EXCEPTIONS!
- Your bike must have gears and brakes; in other words, no track bikes and no “fixies.” Most SIG participants will have road bikes, but hybrid bikes are acceptable if they have slick, not “knobby,” tires.
- While cycling, cell phones are not to be answered. Electronic earpieces and/ or headphones are not allowed. Our ears need to be totally tuned in to road traffic and communication within the group.
- Helmets are mandatory. No helmet, no ride. Again, NO EXCEPTIONS!
- Print your first name on both the front and rear of your helmet in large, dark letters (magic marker on masking tape will do).

What Does It Take to be Considered a B-SIG Graduate?

Each year the B-SIG Leaders get together after the SIG and bestow the title of B-SIG graduate on those who complete the entire SIG, learning and practicing all the skills.

In other words, if a participant abides by the attendance policy, becomes a better cyclist, and cycles with the skills taught, he or she will be recognized by their NYCC cycling peers as a BSIG Graduate. You will receive a certificate of completion at the B-SIG graduation ceremony in May.

Ride Cancellation Policy

Predicted actual temperature below 25-degrees; rain or snow; wet or slick roads; or steady winds above 30 M.P.H. at start time will cancel a ride.

The B-SIG coordinator will make every effort to make a cancellation decision in time to “get the word out” to all, realizing that some participants come from out of town and need to be on the road very early. If in doubt about the status of a particular ride, check the NYCC online Message Board. If a Saturday ride is cancelled the ride will be re-scheduled for Sunday—usually at the same time and place.

Other Information

As time allows, the B-SIG Leaders will try to give you tips on bike maintenance, bike fit, and other cycling skills. If you are unsure of a cycling skill or what to do in a certain cycling situation, ask your Leaders to guide you, as this is what the B-SIG is all about.

How Do I Sign Up?

Look over this Guide and decide if the B-SIG is for you. If you are considering joining, please note that when you pre-register, you are making a commitment for 10 Saturdays this spring. The BSIG series, unlike regular club rides, requires that you do the entire program. If you are unsure that you can budget the time for the B-SIG, do not pre-register, as you will be taking away an opportunity from someone else.

If you decide to participate, you must register online. Go to nycc.org and follow the links to “Rides/Events” (in the navbar) -> All About the SIG/STS page (http://nycc.org/SIGs) and select B-SIG. Space is limited, so register early. In the past years we have had well over 180 riders preregistered, forcing us to limit participation and create a Wait List of potential registrants in case of cancellations. It is our policy to give preference to riders who have not signed up for the B-SIG before. Still, if all spots are full when you sign up, please sign up for the Wait List. There are usually some last minute drop outs, so it’s still possible you will get in.

Immediately following your registration, you’ll receive either an automatic email welcoming you into the program and containing the additional information you’ll need for March 2, or a notice that you can be added to the Wait List. Again, at least some folks who are placed on the Wait List do wind up being admitted into the program, so keep monitoring your email.

PRE-SIG TOPICS

The following concepts may seem simple and obvious, but believe us, they really are very important!

I. What to Eat

Eating properly before, during and after a ride can GREATLY improve your SIG experience. We urge you to take these concepts to heart.

NUTRITION FOR CYCLING (Carol Casalino, MS, CNS)

Before a Ride (Protein + Carbohydrates + Fat)

Eating carbohydrates before cycling helps preserve muscle and liver glycogen and reduces the risk of "bonking."

1) Week before a ride: Eat protein/carbohydrate/fat at most meals. No real need to carbo-load.

2) Day before a ride: Add some complex carbohydrates to your meals throughout the day. Veggies, whole grains, pasta, potatoes, fruit.

3) Morning of a ride:

If eating 2 hours before a ride:

- 1-2g carbohydrates/lb body wt.
- Eat a meal with protein/complex carbohydrates/fat.
- Eggs/toast/potato, cereal/milk/fruit.

If eating 1 hour before a ride:

- 0.5-1g carbohydrates/lb body wt. Tops off your glycogen stores and enhances stamina and energy/easily digestible.
- Energy bar, sports drink, fruit.

If eating <30 minutes before a ride:

- 0.25-.5g carbohydrates/lb body wt.
- Simple carbohydrates for quick energy.
- Should be easily digestible.
- Sports drink, fruit.

Pre-exercise volume of food/digestion time:

- large meal = 3-4 hours
- smaller meal = 2-3 hours
- liquid meal = 1-2 hours
- small snack = less than an hour

During a Ride (Carbohydrates)

1) Short ride <90 minutes:

- Water or sports drink

2) Long and/or intense ride:

- Constant replenishment of carbohydrates
- 30-60g/hr; 100-250 calories/hr.
- Eat small amounts, frequently.
- Fig Newtons, banana, PB & J sandwich, pretzels, trail mix, energy gels, energy bars (ClifBar), Larabar, Payday bar, ShotBloks, jelly beans, baked potato, etc.
- If fading, eat/drink sugary carbohydrates ASAP!

3) Lunch during a ride:

- Have some protein, carbohydrate, and fat. Don't overeat

After a Ride (Carbohydrates + Protein)

The goal is to return your body to pre-exercise levels of glycogen storage, help heal damaged muscles, re-hydrate body tissue, and replace electrolytes in order to prevent fatigue and prepare your body for the next ride.

1) Immediately after a ride:

- Eat within 30 to 60 minutes immediately after riding (the "Glycogen Window") when glycogen-depleted muscles readily absorb all available glucose.
- Replenish with 0.75g carbohydrates/lb body wt.
- Eat Carbohydrates: Anything you've eaten on the bike, a sandwich, a sports drink, fruit, etc.
- A 4:1 carbohydrate to protein ratio (which has BCAA-branched chain amino acids) is optimal because eating a little protein with carbohydrates helps heal damaged muscle tissue: chocolate milk, whey protein shake with fruit, or a sports recovery drink.

2) 1+(plus) hours after a ride:

- Keep eating carbohydrates + protein + fat for several hours after a long ride. Basically, have a normal meal within the next few hours. Don't overeat or you'll just gain weight and it will be harder to get up hills!

Fluids: Hydrate and Re-hydrate

Fluids help you avoid dehydration and can supply carbohydrates for energy. The body is ~ 60% water; 45% stored in muscles. The best way to prevent dehydration during exercise is to make sure you are well hydrated before you begin.

Before a Ride

- Drink fluids (mostly water) all week long.
- Urine should be clear.
- Drink 1-2 glasses at least 1 hour before.

During a Ride

1) Short ride <90 minutes:

- Only need water or sports drink.

2) Long and/or intense ride:

- Liquid carbohydrates: gels or sports drinks to replace minerals (sodium, potassium, calcium) lost through sweat, evaporation, and urine.
- Sip every 10-15 minutes.
- Average 1 bottle/hr.
- Adjust fluid intake based on weather conditions.
- When exercising hard and in hot weather drink up to 2 bottles per hour.
- When exercising in cold weather remember to drink! Dehydration is still possible in cold weather.

After a Ride

Re-hydrate body tissues:

- Drink enough fluid to quench thirst, then drink some more.
- Avoid alcohol.
- You need your fuel! The SIG is not the time to go on a crash diet!
- Then, later on …

II. What To Wear

Dressing properly for SIG rides is enormously important to your SIG experience. Don't wait until after you are miserably cold or uncomfortable on a ride to start thinking about how to dress properly. Think about this before the SIG starts. You don't have to spend a fortune on cycling specific clothing, but you do need to prepare in advance for the varying weather conditions we're likely to face.

- Clothing that wicks away sweat (synthetics and wool are good choices; cotton is a poor choice).
- A few light layers work better than one or two thick layers.
- Keep extremities warm: head, hands, feet. These can never be too warm in winter/early spring!
- On cold or cool days, shoe covers, full-finger gloves and a head cover are in order.
    - Don't underestimate how cold your fingers and toes can get. For cold weather rides, you want full finger gloves that are well insulated, with a "windstopper" type fabric.
    - On very cold days, you may even want to use liner gloves, or thin fleece gloves underneath your full finger gloves. Similarly, thin liner socks are a good idea underneath your heavier socks on cold days.
    - A balaclava is another good idea. As are "buffs" or other headgear that can keep your face, neck and ears covered.
    - Also consider chemical hand and/or foot warmer inserts. They work!
- Arm warmers, and knee warmers are a good idea for in-between weather in the spring and fall. They can be folded up easily and stuffed in a pocket if the weather warms up during the ride.
- Bright colors help you be seen, and being seen is safer. Forget fashionable black, except for shorts.
- Cycling shoes are stiff in the forefoot, and more comfortable for longer rides. Sneakers are a poor choice, because they are too flexible in the forefoot.
- Always ride with eye protection, such as sunglasses or cycling-specific glasses These protect your eyes from glare, dust, pebbles that shoot up, and insects that fly into you.
- Trial and error. Everyone is different. Find what works best for you, especially with varying weather.
- Practice good hygiene! Wash your clothing, especially shorts/tights, after each use. There are sports-specific detergents that remove bacteria/odor from technical fabrics.

III. Bike Preparation

Maintain your bike in good working order! Doing so is an important part of your responsibility to the other members of your SIG group. It will play a big part in reducing the number of times your group will be delayed for mechanical difficulties.

First, get your bike tuned up ***before*** the SIG starts! Either do it yourself (if you know what you're doing) or take it to a shop. *Note: If you've purchased your bike from a local bike shop, the shop may give you an annual basic tune up for free. Some shops offer this for a few years after purchase, but some will do it for as long as you own the bike. Check with your shop!*

Before the SIG begins, check for:

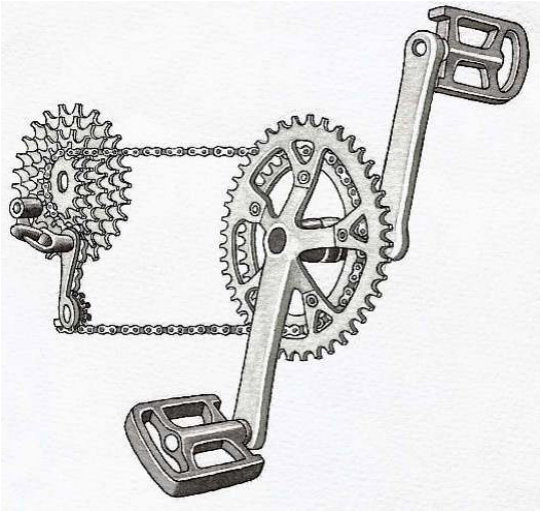
- Correct saddle height.
- Reach to bar and brakes.
- Wheels true and not rubbing against the brake pads.
- Brakes working properly. Check brake pads for wear, and replace if they are worn. Make sure they are centered and positioned correctly.
- Tires in good condition -- no bare spots, no cuts that go all the way through, not nicked sidewalls. There's no need to install a brand new set of tires for the SIG, but you do need to replace any tire that doesn't measure up to these standards.
- Shifters properly adjusted and functioning.
- Pedals on tight. If you use clipless pedals, make sure the cleats are screwed in tight to your shoes.
- Headset tight.
- Saddle firmly secured to the rails.
- Cables not frayed or kinked.
- Bottle cage nuts are tight.
- Chain not worn (If it is, have it replaced.)
- Chain clean and lubed
- No unusual squeaks, grinds or other strange noises when you ride.

Before each ride:

Always go through the following checklist, and do it the night before, not the morning of the ride. Why the night before? Unexpected problems often arise (a flat or blowout caused by over-inflating a tire, a brake pad coming off the bike, out of adjustment gearing, a wheel that needs trueing, etc). On the morning of the ride, there's no time to get it fixed in time to make the ride. .

- Check tires to see that they meet the above standards - no worn out spots, deep cuts or nicked sidewalls.
- Inflate your tires to the correct pressure.
- Check front and rear brakes for proper operation.
- Check brake pads for wear. (Very important and easily overlooked!)
- Drivetrain (chain, derailleurs, shifters) -- make sure it's reasonably clean, lubricated and working smoothly. As a general rule of thumb, the drivetrain should be cleaned and lubed every 200 miles, and after any ride in rain or sloppy conditions.

- Pedals: Make sure they are screwed in tight. If you are riding with clipless pedals, make sure the cleats are screwed in tight to the bottom of your shoes.
- Check that there's nothing loose attached to the bike -- bottle cages, saddle bag, lights, pump, etc.



There are a handful of excellent, comprehensive bicycle maintenance and repair manuals. Also, Bicycling Magazine and Park Tool Company each publish manuals of its own and have excellent online articles and tutorials. Other good resources:

Sheldon Brown-Bicycle Technical Information
www.**sheldonbrown**.com/

Jim Langley — Bicycle Aficionado
www.**jimlangley**.net/

Bicycle Repair, Bike Repair, Bicycle Tune-Up Guide, Derailleur adjustments and More
www.**bike**website.com/

IV. What to Bring on a Ride

Mandatory:

- Cyclometer. Fancy cycling computers, Wahoos and Garmins are great, but all you really need for the SIG is a computer with the basics: speed and distance. (A cadence meter is preferred, but not required.)
- **Two** spare tubes that fit your wheels. Make sure the valve stem lengths on those tubes work with your rims. And make sure your tubes are protected with valve caps in your seat-pack so they will not get ruined as they bounce around.
- Two or three tire irons. (Actually, they are made of plastic now).
- Hand pump or CO2 inflator that fits your tire valves. If you bring a CO2 inflator instead of a pump, be sure you know how to use it! Practice before the SIG starts.
- Allen wrenches (hex keys), box wrenches or small adjustable wrench. Better yet: a small multi-tool.
- **Two** water bottles or a hydration pack (e.g., Camelback)
- Pocket food -- EG, nutrition bar, fig newtons, nuts, trail mix, PB&J sandwich.
- Helmet that fits you properly and is not old. No helmet – no ride! Print your first name legibly on the front & back of your helmet in **BIG, DARK, BOLD LETTERS.** (Think magic marker on masking tape.)
- Protective eyewear.
- Money for lunch or emergency transportation.
- Credit or debit card.
- Clip to hold cue sheets (turn-by-turn directions) on your bike.
- Train pass for MTA (Metro North/LIRR) train services; same pass works for both, and this lifetime pass costs only $5; available on-line or at Grand Central or Penn Stations. Please see this link. (http://web.mta.info/bike/#buses)
- Identification and health insurance card(s).
- Cell phone with I.C.E. (in case of emergency phone #) entry in memory.

Nice to Have:

- Lock. Preferably, small, “crime of opportunity” lock (eg, retractable ski lock like this: https://www.rei.com/product/119613/dakine-cool-lock). No heavy locks!
- Small container of sunscreen.
- Handi-wipes.
- Small first aid kit (bandages, antiseptic, aspirin or ibuprofen).
- Tissues or handkerchief.
- Separate bike wallet. (A small zip lock bag works well.)
- Musette bag.

Frills:

- Tire boot. (Dollar bill or flap from FedEx envelope will work.)
- Emergency string spoke.
- Electrical tape or duct tape.
- Zip ties or twist ties.
- Spare screws for cleats (with washers).
- Folding knife.

IV. In the Event of a Crash/Collision

The B SIG has an outstanding record for safety and has had very few crashes over the years. Unfortunately, accidents do happen occasionally, so it’s good to know what to do if a crash occurs on your ride.

1) While a crash is happening:

- If you realize you are going to crash, try to resist extending an arm out to break your fall. Landing hand or arm first is a good way to fracture a wrist or collarbone. Instead try to relax your body and fall on your side or butt, rolling with the crash to the extent possible.
- If you are behind a rider who begins to crash, try your best to ride around her/him on the left to avoid being brought down too. BUT – NEVER PULL OUT INTO THE PATH OF AN ONCOMING CAR TO DO THIS. Do not slam on your brakes; attempt to keep the line of remaining riders intact, maneuvering around anyone who has fallen as best as possible. Try to protect your front wheel.
- If you are in front of the crash, proceed as if someone has a mechanical problem. Call out, “Rider Down!!” Do not slam on your brakes, but follow your Leader, who will gradually slow down and pull the group off to the side of the road.

2) Immediately after a crash:

- Unless you are a medical professional, do NOT run to the aid of the fallen cyclist, and DO NOT ATTEMPT TO MOVE SOMEONE WHO HAS CRASHED.
- The SIG Leader closest to the fallen cyclist will attend to her/his needs. If you are a medical professional, we ask that you please step forward to do what you can to help. If you are not a medical professional, wait until your Leader requests your help.

The two riders closest to the crash victim may assist the attending Leader as needed.

- If you are at the very front or back of the line, your job is to watch for traffic approaching from the front and back – cars and other SIG groups – and signal to them to slow down or stop. Move out into the road far enough to be seen, holding your bike in front of you so as to appear as large as possible. If someone next to you is wearing a bright color and you are not, have them assume this duty. Direct traffic around the crash victim, or, if this is not possible, make the traffic wait.
- If you are not assisting the victim or directing traffic as described above, stay calm and remain in your place at the side of the road. It may be frustrating to stand to the side when one of your fellow riders is hurt, but if all the other needs are attended to, that is the best way to maintain order in the group.

3) The follow-up period:

- In order to get a quick assessment of the victim's condition, your Leader will ask the victim questions, such as "where are you?" or "what month is it?" Your Leader will quickly decide whether to call 911, always erring on the side of caution when making this decision. If the rider has lost consciousness, even for a second, call 911.
- If emergency help is summoned, the victim is not to be moved and should be encouraged to stay still until help arrives.
- If the victim is being taken to a hospital, your Leader will phone that rider's emergency contact and let her/him know what happened, and to which hospital the victim is being taken.
- Someone – most likely one of your Leaders -- will accompany the victim to the hospital, being sure to bring the victim's emergency contact information.
- Anyone near the victim can pick up the victim's bicycle and pull it off to the side of the road.
- If a bicycle needs to be left behind, the police may often offer to keep the bike until it can be picked up. Oftentimes, your Leader may make other arrangements, like leaving it at a nearby bike shop or at the home of someone who lives near the crash site.
- If the victim is not badly hurt, your Leader will assess whether that person can continue the ride or arrange to get her/him home via train, cab, etc. The victim's emergency contact will be notified, as appropriate.

During the course of the SIG we will offer an evening program in first aid for cyclists and what to do in the event of a crash. We urge you to attend this program. You will undoubtedly find that this evening is one of the most valuable benefits of participating in the SIG.

B SIG Starting Points

Prospect Park

Specific details will be distributed when finalized.

Central Park Ramble Shed

Located on the East side of Central Park in Manhattan, a few tenths of a mile north of the Boathouse at the crest of Cats' Paw Hill; look for the building and parking lot on your left as you crest the hill. There are bathrooms.

Grant's Tomb

Riverside Drive at approximately 123rd Street. However, we usually meet in the little fenced-in park just north of Grant's Tomb itself, at what would be approximately 126th Street. There are bathrooms.

Statue of Civic Virtue, Queens

By subway, take the E or F train to the Union Turnpike stop. Exit towards the front of the train. Once through the gates at the token booth, go left (towards the front of the train) and left again to exit at the "court house." The statue is (more accurately *used* to be) right at the top of those stairs. We meet at the little park at the top of the stairs. No bathrooms here, but if you arrive early enough, there are some shops across the street that may allow you to use the bathrooms. *Lovely bit of NYC history: The monumental Statue of Civic Virtue was located here for decades, following its 1941 "eviction" from Manhattan by Mayor LaGuardia, who grew tired of being mooned by it every time he left City Hall. A source of ongoing controversy even in its somewhat isolated home in Queens, the statue was exiled to Greenwood Cemetery in 2013. Alas, all that's left here is the forlorn statue base.*

Woodlawn, Bronx

The last stop on the #4 subway line. Bathrooms inside the station, before you exit.

Riverside/W. 72nd St.

Located where it's always been. (But you knew that!) We meet at on the (NW corner) of Riverside & W. 72nd St., in front of the Eleanor Roosevelt statue. No bathrooms.

2019 B SIG Calendar (Tentative)

Rides

March 2	**Orientation/TimeLaps**	**RAI Cycles demonstration facility, Brooklyn**	
March 9	**Ride #1 Westwood/Northvale**	**Rambles Shed, Central Park**	**Group Riding Basics**
March 16	**Ride #2 Scarsdale/Hartsdale**	**Rambles Shed, Central Park**	**Riding in Traffic**
March 23	**Ride #3 Ridgewood**	**Grant's Tomb**	**Gearing, Spinning**
March 30	**Ride #4 16s: Mamaroneck 17s and 18s Harrison/Greenwich**	**16s - Rambles Shed, Central Park 17s, 18's - Grand Central Station**	**Riding in Front**
April 6	**Ride #5 Nyack**	**Grant's Tomb**	**Climbing and Descending**
April 13	**Ride #6 Bayville/Oyster Bay**	**Statue of Civic Virtue**	**Pacelining**
April 20	**Ride #7 16s and 17s Armonk 18s Orchards**	**16s, 17s - Woodlawn 18s - TBD**	**Planning a Ride**
April 27	**Ride #8 -- Deepest Westchester**	**Woodlawn**	**No Class**
May 4	**Ride #9 -- Cold Spring Graduation!**	**Riverside Drive at 72nd Street**	**Bikes on a Train/Giving Back**
May 11	**Reserved for make-up; or optional additional ride**		

Extracurricular Events -- Dates and Places TBD:

First Aid for Cyclists

Mechanics Class

Nutrition

Flexibiltiy/Stretching

SIG Socials!

Graduation!

LESSON 1: GROUP RIDING BASICS

RIDING POSITION

- Saddle height should be adjusted so that there is only a slight bend in the knee when the bottom pedal is at the 6 o'clock position.
- Slight bend in the elbows.
- Center yourself, with your weight low, bending from the hips. This allows you to shift your weight forward and back as well as side to side.
- Eyes looking ahead, where you are going. Not down at the pedals. Not staring at your front wheel. Be careful not to become transfixed by the rear wheel of the bike in front of you.
- Relax! Relax shoulders and hands. Don't grip the bars tightly. Breath!
- Try to pedal with smooth, even, circular pedal strokes (More on this in the coming weeks).

BRAKING

- Move your body low and rearward. Slide your butt to the rear of the saddle.
- Brakes adjust your speed – above 15 M.P.H. they don't stop you in an instant.
- Never squeeze the brakes forcefully!
- Slow the wheel rather than locking the brake. We do this by "feathering" the brakes: slight pulsing or by alternating between front and rear.
- The front brake is more powerful than the rear brake!
    - If you jam on the front brake at speed, you are at increased risk of flying over the handlebar!
- Anticipate braking situations.
- Brake before entering a corner. Ease up after entering the turn.
- When riding with a group, keep pedaling even when using your brake to slow. Do NOT coast.

TURNING

- To negotiate a corner you need balance, traction and trajectory.
- Always stay in line behind the person in front of you.
- Remember to anticipate and brake before going into the turn.
- Three ways to turn your bike:

Steer – At speeds of less than 10 MPH or when roads are slick:

- Steer the bike - turn the handlebar in the direction you want to go.
- Bike stays upright, body leans slightly in direction of turn.
- The Steering method is more difficult at speeds above 10 MPH.

Lean – The standard turn at speeds over 10 MPH:

- This is done without consciously steering the bike
- Follow natural line (visualize water moving down curvy mountain stream)
- Lean your body into direction of turn – moving your nose in line with your inside brake lever. Your bike leans with you.
- Exiting the turn, re-center your body over your bike.

Counter Steer – Make you and your bike one. ***More on this when we get to the class on Descending, but for now:***

Do everything from Lean (above), plus

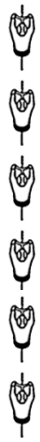
- Straighten your outside leg, almost standing on the outside pedal
- Inside leg is up, with knee at 12 o'clock
- Straighten your inside arm and continually push down on the handlebars
- Push more for a tighter turn, less for a wider turn
- Works best at higher speeds
- Requires practice!

You Go Where You Look:

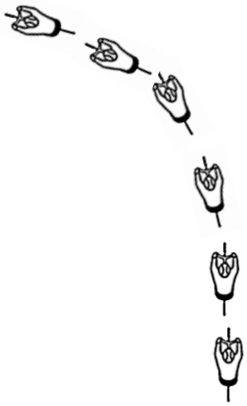
- Avoid target fixation by *looking past where you are going*.
- Pick your line and always look ahead
- Keep seeing your way through and past the turn.

RIDE IN A STRAIGHT LINE

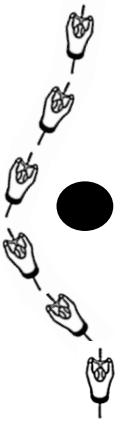
When on the road



When turning



When avoiding hazards



This is NOT a straight line:

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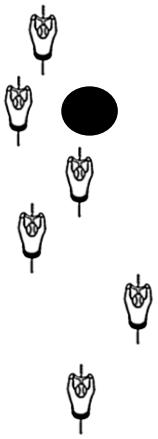
This is NOT a straight line:



STAY TOGETHER

During the first few weeks of the SIG, keep at least one bike length between you and the rider in front of you.

As skills increase and the group becomes comfortable:

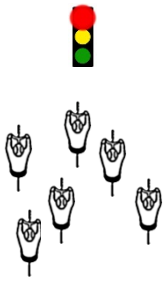
No more than 1 bike length distance away from the rider in front of you

BUT, be careful not to overlap wheels

DO NOT BUNCH UP AT LIGHTS !!!

YES

NO!



WHEN STOPPED AT A LIGHT

- Release ONE foot from the pedal and place it on the ground (NOT on the curb)
- Keep the other foot on the pedal in the “up” or “two o’clock” position
    - This allows you to quickly put your weight on the pedal and push down powerfully to propel yourself forward when the group starts moving again
    - Don’t let your mind wander! Maintain awareness of the situation and status of the light
- When starting again, do not worry about clipping in the other foot until AFTER you’ve cleared the intersection
    - If you do not click in the first time the pedal comes up, keep pedaling and try again on the next round

ALWAYS KEEP PEDALING

- DO NOT COAST. Always keep pedaling, with a steady cadence, even if you have to "soft pedal"
- When you stop pedaling, it indicates to the riders behind you that you are slowing or stopping

PROTECT YOUR FRONT WHEEL

- Less experienced cyclists frequently get nervous on a group ride. Bikes could be anywhere—in front, to the side or close behind. It's hard to know how to avoid danger.
- However, you are unlikely to crash unless your *front* wheel is hit.
- Visualize a halo around your front wheel and protect that space from intrusion.
- Do not ride with your front wheel to the side of the rear wheel of the rider in front. If the rider in front swerves even slightly, his/her rear wheel may touch your front wheel. If that happens, *you* will go down!

COMMUNICATE WITH YOUR FELLOW RIDERS

Through voice signals (note that you do NOT need to wake up the neighborhood – just make sure you are heard by the riders in front and behind, and **pass messages up and down the line**):

- "Right Turn" and "Left Turn"
- "Hole," "glass," "gravel," "grate," "rough road," "door" – when passing by / over hazards to alert riders behind you
- "Slowing" and "Stopping"
- "Car back" – car approaching from the rear, useful when on quiet / narrow roads or when you notice the group riding far out in the road or not in a straight line
- "Car up" – car approaching from the opposite direction, useful when on narrow and winding roads
- "Gapping," "Off the back," and "All on" – see below
- "Double up" and "Single" – see below
- "Going through" – as you go through a stop sign, intersection with a yellow light, etc. Indicates that YOU are not stopping. However, each individual cyclist must check for traffic independently and make his / her own decision before entering the intersection
    - Do NOT call out going through before the rider ahead has made his / her intentions known. A leader pet peeve is when riders call out "going through" before the riders ahead have entered the intersection
    - Because road conditions can change in the time it takes the next bike to get to the intersection, do NOT use the term "clear"
- "MECHANICAL!" – When a rider has a flat or other mechanical problem.
    - This is the only time it is appropriate to yell so the entire group and neighborhood can hear you, and all riders aware of the situation must yell out as soon as they are aware.
    - If you're in front of the mechanical and hear "mechanical" called out behind you, pass it up to the leader, one by one.
    - Do not stop abruptly; keep moving forward, and the leader will stop the group at a SAFE point.
    - Pull OFF the road, away from traffic. Don't bunch up in the road!
    - "RIDER DOWN" – Same rules as for "Mechanical"

Through hand signals (if it is safe to take a hand off the bars without threatening your stability):

Left turn

- Left arm held straight out to the left

Right turn

- Right arm held straight out to the right

Road hazards

- Point down to left or right in the direction of the hazard

Obstacles

- Such as parked cars or road works in our path, fold your right arm behind your back and indicate to move over to the left with a wave of your hand.
- (Switch arm for hazards on the left.)

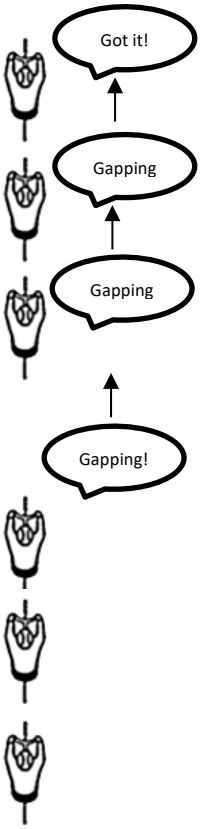
Slowing or stopping

- Arm held diagonally down towards the side, palm open to the rear.
- USE YOUR LEFT HAND TO SIGNAL. In case you suddenly need more breaking power, this ensures it will come from your rear wheel.

IF THE GROUP SPLITS

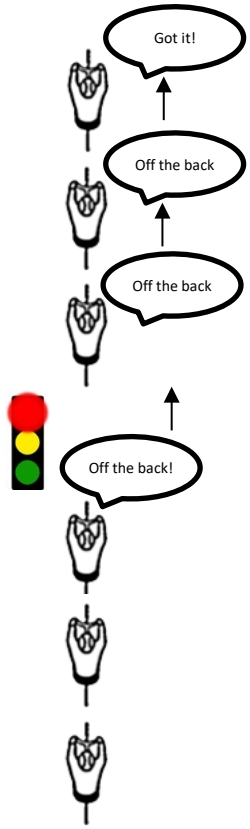
Sometimes, one or more riders fall behind the main group, typically due to red lights. In these situations, the first rider of the group behind must call out to the last rider of the leading group, and the leading group must pass the message up to the ride leader:

"Gapping"
When the group falls ½ block or more behind, but has not stopped



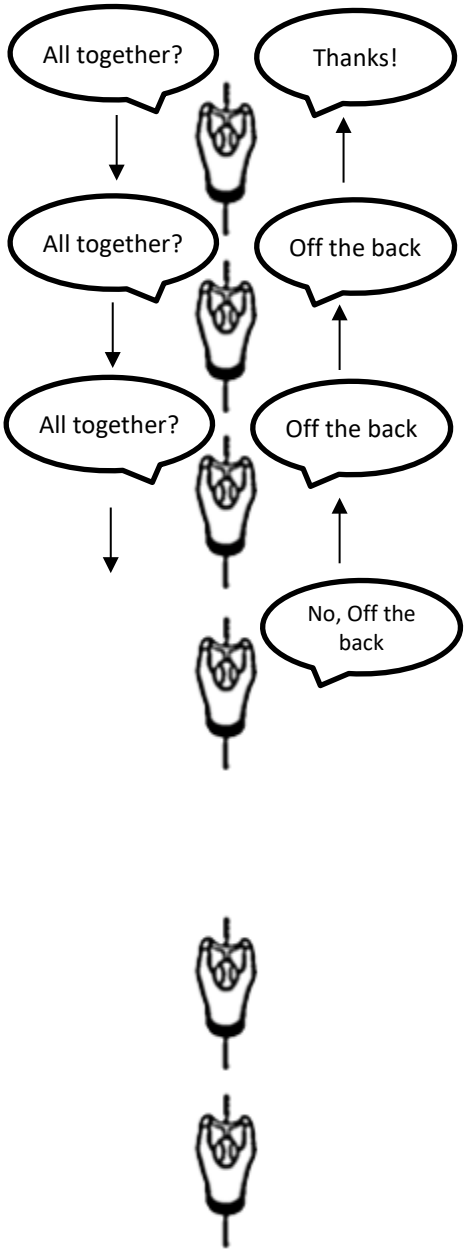
- The ride leader will slow down by 2 – 3 mph
- The lagging group will continue to pedal at pace to reach the leading group
- If appropriate, the lagging group may choose to switch to one gear harder, and continue pedaling with the same pressure

"Off the back"
When the group is stopped (i.e., for a red light)



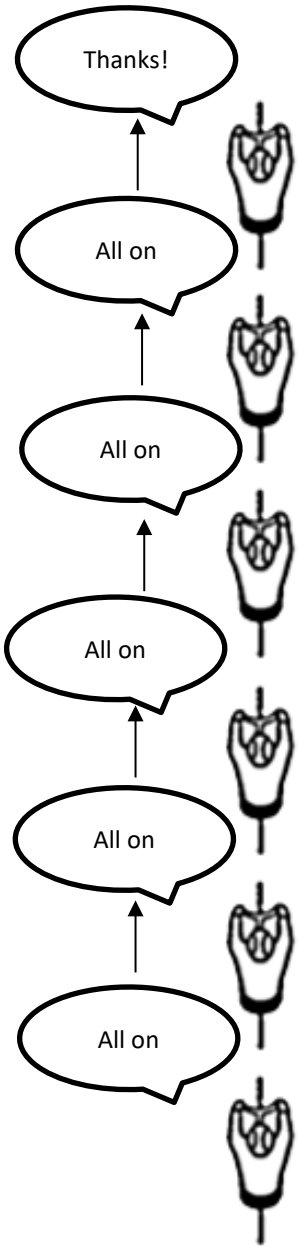
- The leader will either:
  - Slow down the pace by ½ OR
  - If appropriate and SAFE, stop
- Upon re-starting, the lagging group will pedal at pace to reach the leading group

If the leader has not heard anything from the lagging group after a few minutes, he / she may ask whether the lagging group has caught up yet. This question should be passed back through the group:



- Each rider should glance behind to see if another rider follows
  - If another rider is directly behind, keep passing the question back
  - If a rider is not behind you, begin passing the message up that the group is still “off the back”
  - Each rider should then pass the message up to the leader, who will maintain the reduced pace or stop, as deemed appropriate for the situation

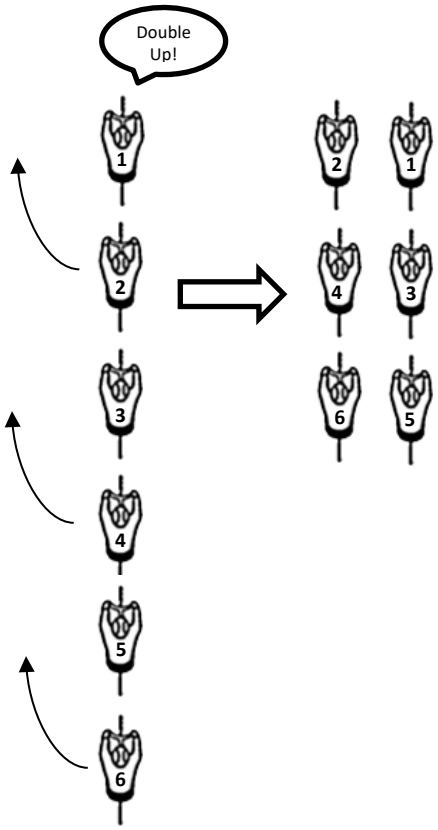
When the lagging group catches up, a message of “all on” should be passed up to the leader, who will resume the ride pace:


Thanks!
All on
All on
All on
All on
All on

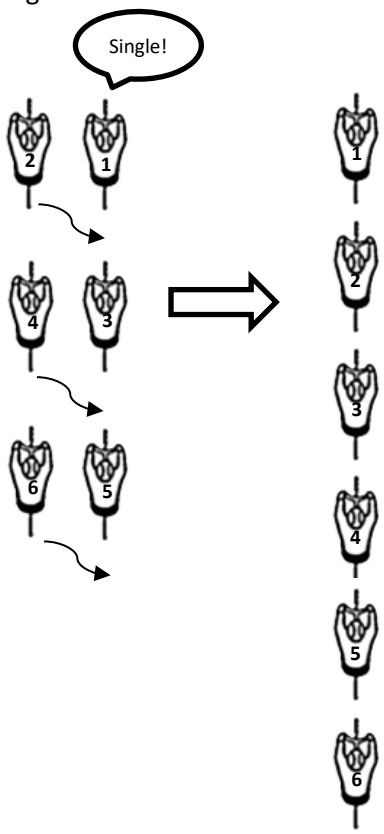
DOUBLE UP!

Occasionally, to accommodate traffic conditions and increase group safety, the ride leader will ask riders to "Double Up." Along with a verbal signal, the leader will also hold up two fingers for the group to see. A call of "Single" accompanied by the index finger held up indicates that the group should return to single file. NB: <u>In New Jersey, it is illegal to ride double file!</u>

To double up, even-numbered riders move to the left:

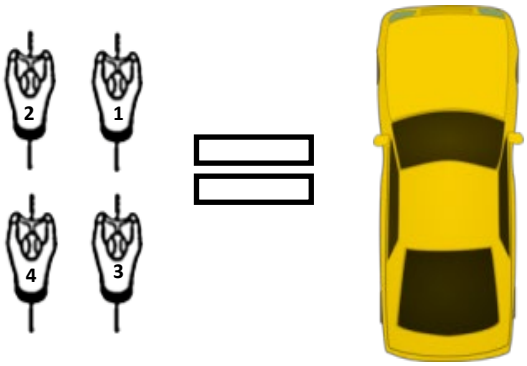


To return to single file, the rider on the left falls back behind the rider on the right. The next rider back, on the right, slows to open space for the rider moving in from the left:



When doubled up, the group will typically "take the lane" as if we are a series of cars.

- Each group of 4 riders is equivalent to the four wheels of one car:



READING A CUE SHEET

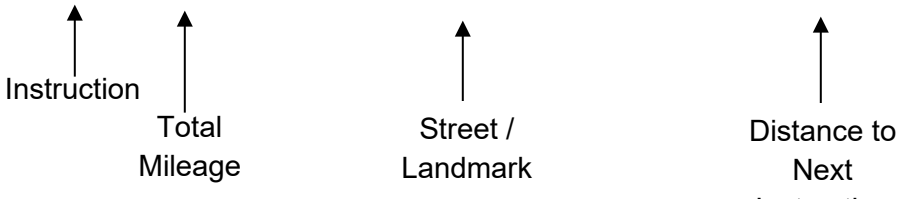
We live in an electronic age, and most riders now have GPS computers on their bicycles. Each week, you will receive a GPS file as well as a cue sheet.

GPS does not substitute for a cue sheet! Even the most sophisticated GPS units may:

- Run out of battery
- Fail to pick up satellites
- Be unable to load the ride file
- Become confused when a route travels the same road more than once
- Decide to take you on the "most direct" route
- Suffer from "operator error"

Therefore, in addition to understanding how to use your GPS, you must also know how to read a cue sheet.

Turn	Total Miles	Street	For
L	0.0	Park Drive East	2.0
S	2.0	AC Powell Blvd [*exit park*]	1.3
R	3.2	W. 135th St.	0.5
L	3.7	Madison Ave [*cross bridge*]	0.4



Common Cue Sheet Acronyms

- R, L = Right Turn, Left Turn
- BR, BL = Bear Right, Bear Left (i.e., turn is at a fork or at less than 90-degree angle)
- QR, QL = Quick Turn Right, Quick Turn Left (i.e., the turn will be less than 1/10th of a mile away)
- 1stR (2ndR, etc.), 1stL (2ndL, etc.) = Turn at the first (second, etc.) Right or Left
- TR, TL = Right at T-Intersection, Left at T-Intersection
- S = Straight
- X = Cross (a particular street, railroad tracks, bridge, etc.)
- TRO = To Remain On (usually appears in the "Street" column)

Each rider must have a means to attach the cue sheet to his / her handlebars so that it can be easily read. It is recommended to bring 2 cue sheet copies on each ride.

LESSON 2: RIDING IN TRAFFIC

GENERAL RULES

Share The Road!

Use common sense and courtesy:

- Your actions must take into consideration the safety of other road users – drivers, pedestrians, other cyclists, and your fellow group members. When in doubt, err on the side of *everyone's* safety
- YIELD TO PEDESTRIANS WHO HAVE THE RIGHT OF WAY
    - A bell on your bike is useful for politely notifying pedestrians of your presence

Avoid "road rage" situations:

- When another road user
    - Acts stupidly and creates a dangerous situation, or
    - Yells at you for any number of reasons, most of which are not your fault
- Just LET IT GO. Take a deep breath, be thankful that no one has been hurt, and MOVE ON physically and mentally.

Ride with intention:

- CLEARLY COMMUNICATE WITH ALL OTHER ROAD USERS
- This means that you need to make a decision and make it clear, whether you are giving way or taking the right of way

Remember your group riding skills:

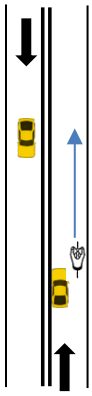
- Ride single file, except in situations where your group is directed by your Leader ride double file; then take over the lane
- Remember: It is illegal in New Jersey to ride double file. Police will stop and occasionally ticket groups of cyclists who don't ride single file
- Always follow the wheel in front of you, maintaining at most one bike length, regardless of whether it's single or double file riding
    - Motorists appreciate the predictability of a steady, straight line of cyclists, especially when passing

When on the road, you represent not only yourself but also all others in the cycling community. Don't give non-cyclists a reason to view us negatively.

PROPER POSITIONING IN THE ROAD

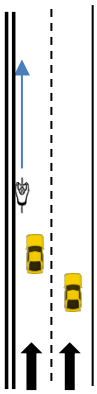
Two-Way Traffic:

- Stay to the right, especially outside urban areas and on busy roads with fast-moving traffic
- Avoid riding parallel close to grooves, ridges, and the sides of metal plates in/on the roads



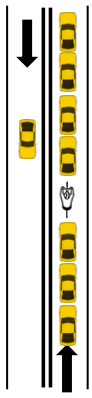
One-Way Traffic:

- Stay to the left, as drivers can maneuver around you more easily, and you're less likely to get "doored" by people getting out of parked cars
- On NYC Avenues, also use the left-most lane, as you're less likely to get "doored," and you won't have to deal with buses.
    - Stay to the right of the left-most lane, so that you can go around left-turning, double-parked vehicles and pedestrians who pop out from between parked cars.



Heavy Traffic:

- Especially in slow-moving heavy traffic, establish position in the middle of a lane
- Don't skirt the edges, as car drivers are too likely to take chances on getting around you and you might get side-swiped
- Do not weave in and out of parked cars, which will cause drivers to lose sight of you

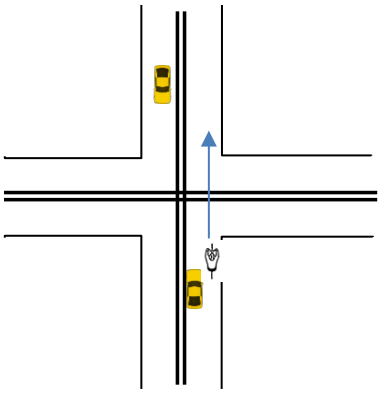


NAVIGATING THROUGH INTERSECTIONS

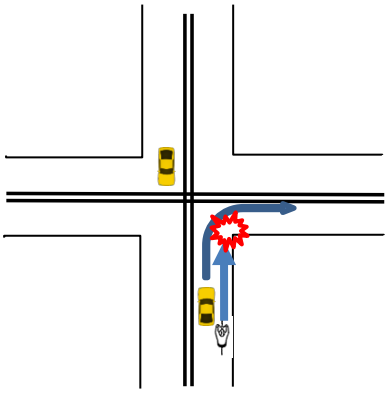
Imagine your bike and the surrounding cars on tracks. You want to position yourself so that you will end up on the right shoulder of your target road on the other side of the intersection, without crossing "tracks" with the nearby cars.

Going Straight:

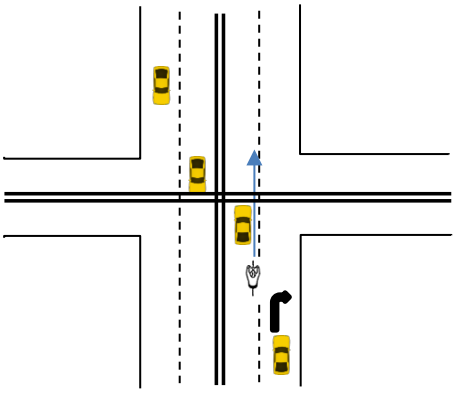
- In one lane of traffic, stay to the right



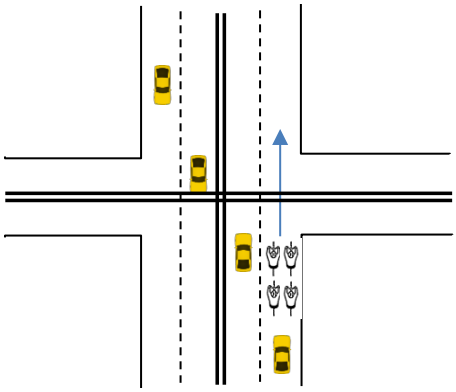
- Avoid the right hook! **This is among the most common causes of cycling accidents.**
  - Beware of cars making a right turn in front of you
  - Watch for right turn signals or for front wheels beginning to turn right



- In two lanes of traffic, if there is a right turn-only lane, stay close to the lane marker on the right side of the "straight" lane

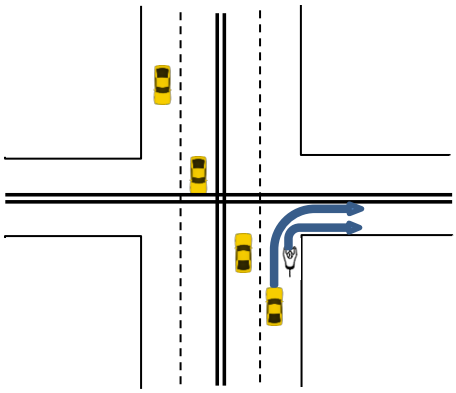


- If there is no right-turn lane, a large group should form a double line and take your place in the right-most lane. Once through the intersection, ease right into a single line

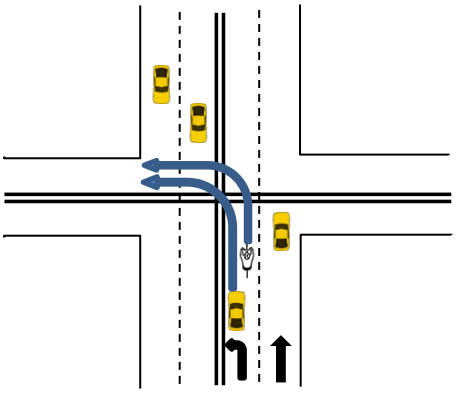


Turns

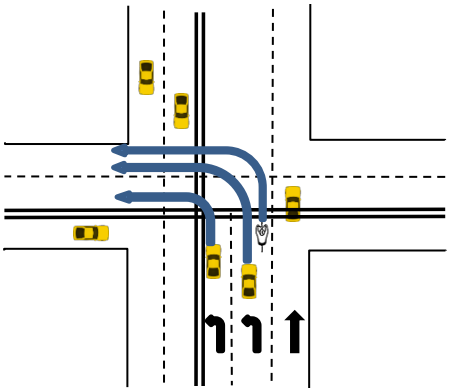
- Turning Right: Stay to the right of the right-most lane



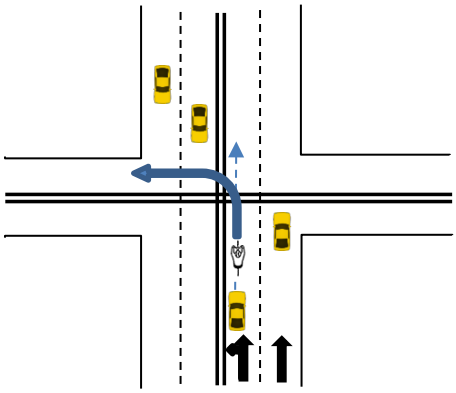
- Turning Left: Stay to the right of the left-most lane, as this allows you to stay on the right of left-turning cars



- When there are two (or more) left-turn lanes: use the right-most left-turn lane in order to stay to the right of the turning cars



- When traffic can either turn left or go straight: take the entire lane in order to avoid conflicts with cars



Attempt to stick with the group going through an intersection. If the group forms a cohesive unit, most motorists will see the group as a "one". If you leave gaps, motorists will often attempt to take the right of way. *When in doubt, signal, slow and stop*. The lead group will slow or wait. Safety FIRST!

Intersections not controlled by lights

Generally, we want to keep the group together on the road. While safety always comes first, and sound judgment should be used, following are some guidelines for progressing through intersections that are not controlled by lights.

- 4-way stops:
  - Upon arrival, the first rider may slow down or even stop to let cars already at the intersection through.
  - Once the first rider proceeds through the intersection, think of the group as a train or a really long car. All riders should continue through the intersection, even if cars are there (always keeping a wary eye on the cars present)
  - This will clear the intersection faster and allow everyone to get on with their day more quickly than if we treated each cyclist as an individual car
  - That said, if a car clearly intends to take its right of way, do not argue and simply give way to the impatient motorist
- 2-way stop, the group has a stop sign:
  - Each rider slows down and makes an individual call to proceed through the intersection
  - If the cyclist going through the intersection notes a car coming towards the group, he or she should warn the group (i.e., "car right," "car left," or "car up")
  - Many times, in the suburbs, drivers will slow down or stop and waive the group through.
    - Once it becomes apparent that the car is yielding the right of way, DO NOT ARGUE
    - Take advantage of their generosity, thank them, and then go through the intersection
    - In these cases, the group becomes a train / really long car again, and the remaining riders can follow – subsequent riders should NOT stop and waive the car through – thus keeping the group together
- 2-way stop, the group has the right-of-way:
  - Proceed through, as a group and at speed.

- This also applies for driveways and parking lot entrances.
- At intersections where it may not be apparent which side has the stop sign (i.e., on tertiary roads in some residential areas), keep an eye out for cars approaching quickly or bullying their way through the intersection
- Again, if a car clearly intends to take the right of way, do not argue and simply give way to the impatient motorist.

NYC CYCLING TIPS

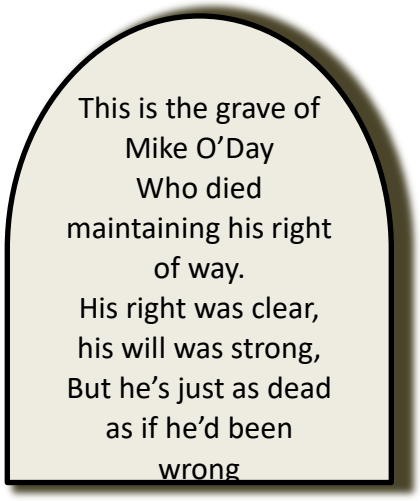
- Don't skirt the edges of a street or avenue. Keep at least an open car door's width between you and the line of parked cars. Proceed straight ahead, keeping the position you've established.
- NEVER squeeze between a double-parked vehicle and a line of parked cars. Go around the outside of the double-parked vehicle
- Be particularly careful with cabs that may stopped to discharge passengers. They don't always pull to the curb and may leave more room between their cab and parked cars
    - Stop behind them, or go around them, but do not pass between them and the curb or parked car
    - If you see a cab's roof light or hazard lights go on, beware – they're about to let out a passenger, so expect a door to open.
- Go slowly in stand-still traffic. It's full of surprises.
- A bell is a good thing! (NYC actually requires you to have one.)
- Approaching an intersection, look for the right turn signal of the car you are behind. If it's flashing, be careful! Even if it's not flashing, look to see if the front wheels are turning right. Getting "right-hooked" is one of the most common cycling accidents in NYC – and in all urban area.
- Top Threats to Cyclists on City Streets:
    - Themselves – Aggressive / impatient riders
    - Pedestrians – They tend to listen for traffic, not look for it. Be ready to yell "heads up," use your cycling bell, bark like a dog, or use another technique to gain their attention *courteously*. No swearing or rude hand gestures, please. You are representatives of the NYCC, and of the cycling community generally.
        - Pedestrians are trained to look for cars in the road, not bicycles
        - Pedestrians will use cycling lanes as sidewalk extensions
        - Pedestrians consistently underestimate the speed of cyclists and will walk out in front of a bicycle in situations where they would never step in front of a car
        - All the same, pedestrians ultimately have the right of way. Do your best to avoid them!
    - Private motorists – they may be not used to / scared of being on the road with cyclists
    - Potholes, metal "tire-eating" construction plates and grates – especially when wet
    - Grooves or cracks running parallel with your line of travel

FINAL THOUGHTS

- Try to make eye contact with drivers when interacting with their vehicle
- Don't count entirely on a vehicle's turn (or lack of turn) signals
- The best way to indicate that you're planning to stop is to unclip and put your foot down
- <u>You Go Where You Look</u>:
    - Avoid target fixation by looking past where you are going.
    - Pick your line and always look ahead.
    - Keep seeing your way through and past the turn.

- When dealing with cars, cabs and trucks, even if you're doing everything right, the vehicle is bigger and more powerful than you. Watch out!

And remember this famous epitaph:



LESSON 3: SPINNING AND GEARING

SPINNING

Spinning is about RPM (revolutions per minute, or "cadence"), not MPH

- Spinning gives you more bike control, especially on dirt or gravel
- If you spin, you will ride further with less effort
- The more you spin the more you reduce the risk of a physiological cycling injury
- Spinning helps you maintain a consistent heart rate

In general, try to use gear combinations that keep your chain as straight as possible to maintain 85- 95 RPM cadence on flat roads while keeping the pace of the group

- If your cyclometer has a cadence function, use it, trying to stay between 85 and 95 RPMs during regular riding
- If you don't have a cyclometer with a cadence function, learn what 85 to 95 RPMs feels like and stick to it
- Count your cadence; 14 to 18 strokes in 10 seconds are what you're seeking
- Use a song to pace yourself. Popular songs from various generations with approximately 90 beats per minute:
    - Roar – Katy Perry
    - Going Under – Evanescence
    - Irreplaceable - Beyonce
    - No Diggity – Blackstreet & Dr. Dre
    - In Your Eyes – Peter Gabriel
    - Piano Man – Billy Joel
    - Isn't She Lovely – Stevie Wonder
    - Me and Bobby McGee – Janis Joplin
- Take advantage of the full circular pedal stroke.
- Try to keep your foot relatively flat throughout the complete rotation. Avoid "ballet toes."
- Avoid "mashing" – jamming down forcefully on the downstroke and relaxing on the upstroke. Keep power on through the upstroke.
- Pull your foot backwards from approximately 5 o'clock through 7 o'clock, as if you're a scraping mud off the bottom of your shoes.

Spin at all times. Do NOT coast

- Keep your legs moving. It signals to other riders that you intend to continue moving. If you coast, the rider behind may think you are stopping, and brake. On a group ride, that creates havoc.
- If you don't want to gain speed, you can pedal without putting power into the rear wheel (sometimes referred to as "soft-pedaling")

LESSON 3: SPINNING AND GEARING

GEARS ARE YOUR FRIENDS

You have lots of gears so that you can always be in the right one. Don't be afraid to use them!

Gearing and spinning go together. Learning to ride in the right gear (the right gear for *you)* under various conditions allows you to spin more effectively -- and therefore ride more efficiently.

Chainrings:

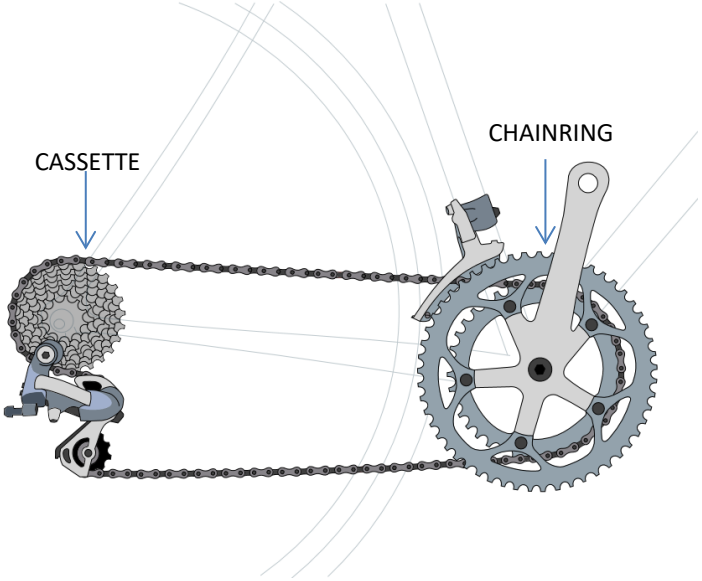
Chainrings are the gears in the front, those that you shift between with your left hand. You may have two of them (a "double") or three (a "triple").

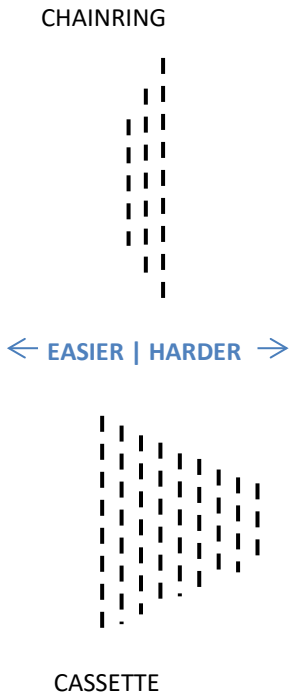
- Smaller chainring = easier pedaling
- Bigger chainring = harder pedaling

Cassettes:

Cassettes are composed of gears in the back (aka "Cogs"), those that you shift between with your right hand.

- Smaller cog = harder pedaling
- Bigger cog = easier pedaling





Finding the right gear

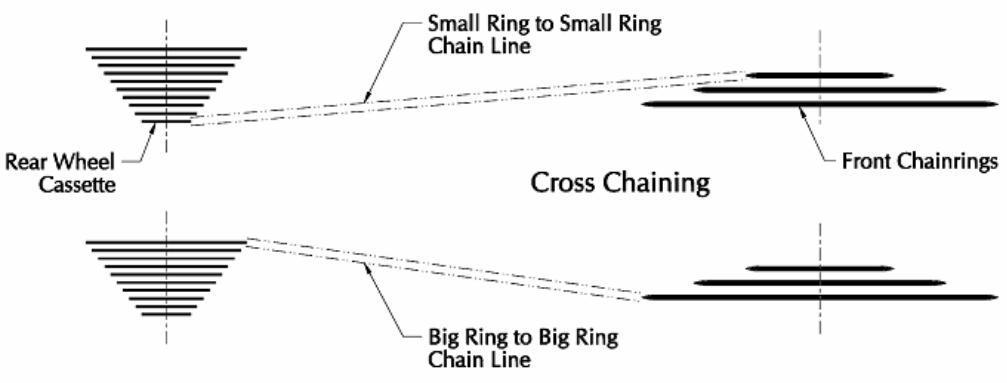
The combination of chainring and cassette placement of your chain determines (1) the distance your bike travels for each full rotation of the pedals (aka "Gear Inches") and (2) the resistance you feel when pedaling.

- Note that everyone is different. The right gear for your buddy may or may not be the right gear for you on the same terrain. Experiment and find out what works for you in different riding conditions
- In general, try to use gear combinations that keep your chain as straight as possible

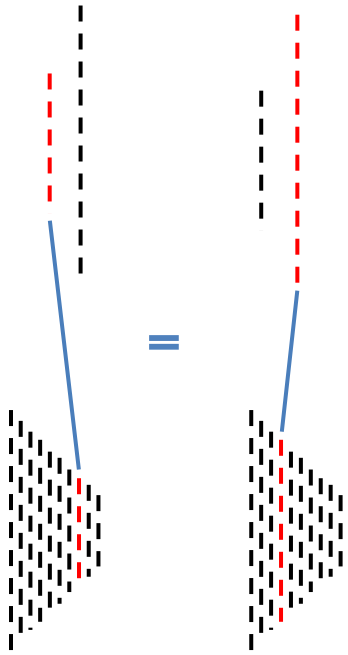
LESSON 3: SPINNING AND GEARING

- Combinations of large chainring + large cog and small chainring + small cog are known as “cross-chaining” and should be avoided because they are less efficient when pedaling and can also contribute to mechanical failures

DO NOT DO THIS



In general, a 1-gear shift of a double chainring is equivalent to a three- or four-gear shift in the cassette:



Therefore, shifting into the big chainring when approaching the smallest cogs, and vice-versa, will provide the most efficient movement as well present a wider range of gearing choices.

LESSON 3: SPINNING AND GEARING

Gearhead Terminology Demystified

Three terms that often come up in conversations about gears are “gear ratio,” “gear inches” and “development.”

- The “gear ratio” is the number of teeth in the front chainring divided by the number of teeth in the rear cog for the specific combination of front ring and rear cog that you’re riding in.
    - For example, if you were riding with the chain in the big ring, and your big ring is “54” (the number refers to the number of teeth in a ring or cog), and your chain in the rear is in the 27 cog, your gear ratio is 2 (54/27).
    - The gear ratio tells you how many times your wheel goes around with each full pedal stroke (ie, each complete 360 degree turn of the crank).
- “Gear inches” is number that results when you multiply the gear ratio by the *diameter* of the wheel (measured in inches of course). It’s simply a useful way of comparing different gearing combinations.
- To get the actual distance your bike travels with each full pedal stroke, multiply the gear ratio by the *circumference* of the tire. This is called the “development” of the gear.

Hence:

- The lower the gear ratio, the easier it is to pedal, but the bike move less for each pedal stroke.
    - You want to “gear down” (get into a lower gear ratio) when you approach a hill.
- The higher the gear ratio, the harder it is to pedal, but the bike moves farther for each pedal stroke.
    - When you crest a hill and are back on the flat, or you start descending, you want to “gear up,” to get into a higher gear ratio.

Shift Early and Often

- Anticipate what gear you’ll need BEFORE you actually need it!
- As you approach a hill, downshift, and get into the gear combination that will work for you on that climb
- Do NOT try to shift gears when your chain is under load
- Do NOT attempt to shift the chain over too many cogs at once
- Do NOT move both shift levers at the same time
- And do not be afraid to use the big chainring – when maintaining a steady speed, it will provide smoother and more efficient pedaling

There’s a lot more that you can get into on gearing if the topic interests you. There are excellent articles online by Sheldon Brown, Dick Marr has a book for DIY gearing charts, and there are many, many other books and articles to peruse. (Here’s a good short one on gear terminology: http://www.competitivecyclist.com/learn/a-matter-of-gearing.) Many of the B SIG leaders will be happy to talk gearing with you. The club message board frequently has threads on gearing esoterica. Finally, the NYCC is full of serious “gearheads” who love to offer their insight and advice. Just ask around!

LESSON 4: CLIMBING AND DESCENDING

CLIMBING HILLS

Successful hill climbing depends on proper gearing and a proper riding style

Gearing on Climbs

- When climbing hills, change gears before you need to. There is no way to climb a long hill without reducing the gear as much as you can to keep spinning and to reduce lactic acid build-up in your muscles.
- Ideally the same cadence should be maintained from flat terrain to the hill, the gears and pressure of the foot on the pedal must be adjusted to accommodate the various stages of the hill
- As you approach the hill in a particular gear, you should shift to a lower gear as soon as the climb begins and your RPMs drop.
    - The message that may be passed down from the leader is “Gear down.” If you hear this, don’t wait -- shift to a lower gear right away.
    - If you downshift too late, after are already on the hill, you increase the risk of dropping a chain.
- Continue shifting down to maintain your cadence until you find the gear in which you can spin up the climb. Shift BEFORE you need to reduce lactic acid build-up, which might occur if you are pushing too big of a gear
- At the top of the hill, increase the gearing to maintain the constant cadence and pedal down the hill. (Soft-pedal, do NOT coast on the descent.) Do not stop pedaling at the crest of the hill because riders behind you will have to slow down to avoid hitting your back wheel. Be courteous.

Climbing Styles

Each cyclist has a different climbing technique. Eddy Merckx sat down and had a running technique; Greg LeMond stood up and ran; Chris Froome spins at a very high cadence. All three of these guys have won more Tours de France than any of us likely will. The two main options are:

- Staying in the saddle, spinning
    - On steeper slopes, the spinning may become low cadence “mashing”
    - On really steep sections, you may want to apply extra pressure during the pedal stroke when the pedal is at the 1 or 2 o’clock position. You may want to shift back in the saddle very slightly when you’re doing this.
- Standing out of the saddle, as high as you can while keeping the bike straight
    - Before lifting out of the saddle, call out “STANDING” to alert riders immediately behind you
        - The act of standing causes a brief pause in momentum that can actually shift the bike backwards an inch. If another rider is directly behind you and unaware you are about to stand, the two of you may collide

LESSON 4: CLIMBING AND DESCENDING

Helpful Hints for Hills

- If sitting, keep your weight in your rear end and focus on pedaling technique
    - Place your hands on the top of your handlebars, straightening your back
    - Turn the pedals in full circles, feeling the same amount of pressure all the way around.
    - Pay particular attention to the upstroke (roughly 5 o'clock to 10 o'clock). When you come to the bottom of your pedal stroke, visualize scraping mud off the soles of your shoes (heel down and toes up).
- Don't stare at the hilltop, it's self-defeating and psychologically drains you. On the other hand, don't look at your feet. It is best to look a few yards ahead of you
- Get into a steady rhythm and look (carefully) at the scenery. Hills are often accompanied by beautiful views
- Breathe deeply and slowly
- As you are climbing, SMILE. Smiling helps us take in more air as we breathe
- On long hills, play tricks with your mind (and your body): estimate how many strokes to the top and count them out; count pedal strokes backwards, starting from 100 or 200; count pedal strokes backwards, in three's; alternate putting the most pressure on one leg for 10 pedal strokes, then the other, then even; concentrate on the upstroke (5 o'clock to 10 o'clock) for 10 strokes for one leg, then switch emphasis to the other leg. Play around and see what works for you.

- If, on a steep climb, you approach a sharp curve to the right, move to the center before the curve begins. (Watch out for oncoming traffic, though.) Roads are banked, and staying on the inside path will only make the turn more difficult.
- Before passing on a hill, make sure this is room to get back over the right after the pass. You don't want to get trapped on the left with a car coming up from behind.
- Ride "through" the hill. Mentally, you must maintain 100% effort not just to the top of the hill, but until the point at which you have started the down slope. Which brings us to….

LESSON 4: CLIMBING AND DESCENDING

DESCENDING

General Tips

When descending, everything happens more quickly – changes in the road, hazards, curves, etc. – but your brain still operates at the same speed as before. Therefore, maintain a safety cushion to allow time for decision-making and subsequent adjustments.

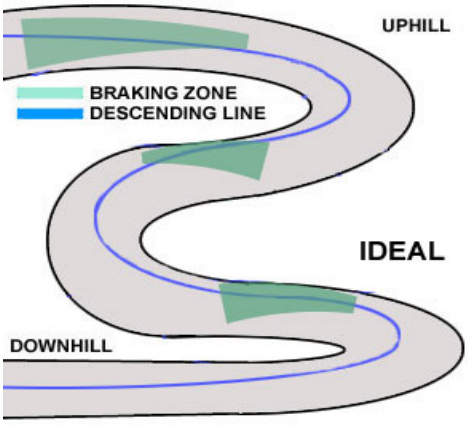
- Concentrate on the road ahead – looking further ahead than when on flat terrain.
    - Keep your head up and continually scan for hazards
    - Look 20-30 feet down the road so you can anticipate what's coming
- Anticipate what you'll do next, and remember to look where you want to go
    - Where your eyes go, so goes your bike
    - Some carry this further, and concentrate on pointing their nose where they want to go
- Keep your weight back by sliding your butt toward the back of the saddle or even off the back edge of the saddle
    - Your center of gravity should be over your back wheel
    - Keep your elbows bent. A lot of your control comes from a strong, engaged core, and straight arms prevent the core from engaging.
    - Moving your hands to the drops of your handlebars lowers your center of gravity and helps to shift your weight distribution more evenly over the front and back wheels, helping to maintain traction. It also gives you better access to and leverage with the brakes, and helps prevent your hands from coming off the bars if you hit a bump
        - It takes practice to feel comfortable riding in the drops. But if you can't get comfortable in the drops, it's OK to descend with your hands on the bar, near the hoods.
        - If you are descending with your hands in the hoods, make sure you "close the loop" – that is, have one or two fingers wrapped entirely around the bar and making contact with the rest of your hand. This will prevent your hands from flying off the bar if you hit a rough spot when descending at a high speed.
    - Lifting slightly out of the saddle provides natural "suspension" on rough roads, helping you to maintain the proper weight distribution and line of sight
- Shift into a higher (harder) gear. This will increase control of the bike.
- Keep soft pedaling, helping dissipate any lactic acid build-up from a climb
- Give yourself extra room behind cyclists in front of you
- Sand, gravel and leaves can be especially troublesome on a descent, causing tires to lose traction. This is particularly important when turning at speed. Be cautious if you see sand gravel or leaves on the road during a descent.
- RELAX – any tension in your body will be transferred to the bike, making it harder to control
    - Let go of tension in your upper body
        - Unclench your jaw
        - Drop your shoulders

        - Relax your neck
        - Take a few deep breaths
    - Make sure your hands are not clenching the handlebar with a death grip
    - Bend your knees and elbows
    - Uncurl your toes and let your feet lie flat in the bottoms of your shoes
    - Keep breathing!

Control Your Speed

- Focus first on taking corners smoothly, then gradually increase your descending speed along with your confidence
- Brake by pulsing the brakes (especially rear brake), quickly putting pressure on and off the brakes. This is called "feathering" the brakes.
    - On a steep descent, apply the pressure to both brakes simultaneously, in 2 -3 second intervals.
        - Sudden pressure to the front brake can cause you to flip over the handlebars, while just using the rear brake can cause you to skid
    - To avoid overheating your rims, do not constantly apply the brakes. Feather instead.
- If you reach a speed that feels uncomfortable, gradually slow down. Do NOT jam on the brakes!
- You can also slow down by raising your upper body, creating more wind resistance
- On steeper descents, move your hands to the drops
    - While this position will make you go faster, it gives you more control over the brakes because your hands have more leverage on the brake levers
    - Some cyclists find that they feel more secure descending if they hook one or two fingers around each brake lever
        - You can actually depress the lever slightly without engaging the brake, and you might find that this is a comfortable position for you
        - However, make sure you don't depress the lever enough to engage the brake until you actually want to do so. This will become a matter of "feel."

Taking Corners



- Set your gaze on the point where you want to end up. Not on your wheel, not on the rider or the bend in the road immediately in front of you. Focus *past* the bend.
- Choose your intended line before the turn begins.
    - You want to approach the turn from the outside of the approaching curve and aim for the inside of the *exit* of the curve, not the inside of the *beginning* of the curve.
    - This is usually less of a problem on curves to the left than curves to the right.
    - On curves to the right, try to move to the middle of the road before the turn begins. (If the road is one way, you can move slightly into the left hand land -- but watch out for traffic behind you!) This will put you in a better line to take the turn.

  - If you need to reduce your speed, gently brake *before* the turn, trying not to brake while in the turn
  - Keep your head up and look through the turn, again, focusing attention on the *exit* of the curve
  - Maintain your line
- Be predictable to both drivers and other cyclists
- Do not wander into oncoming traffic
- Lean your bike (NOT your body) into the corner – do not try to turn the handlebars
- Keep the outside leg straight and push down on the outside pedal. (Your outside leg takes most of the weight.) The faster and steeper the turn, the harder you can push down. At the same time press down on your *inside* hand on the handlebar.
  - This keeps your weight pressing vertically down on the tire contact points with the road
  - Slightly drop your insider shoulder to further reduce the center of gravity

- Keep the INSIDE pedal UP and the outside pedal down, to avoid scraping your pedal on the road – a potentially dangerous situation
  - For you downhill skiers, this turning technique is similar to that on skis
- Stick out your inside knee in the direction of the turn.
- Relax. Breath.
- When you hit the corner, release the brakes and ride smoothly through
- Start pedaling as soon as you come out of the turn
- As you exit the turn, straighten the bike. (This should start to happen naturally.)

<u>Passing Other Riders</u>

- In the SIG, we generally discourage passing on steep descents
- However, if you do have the need to pass someone on a descent:
  - Don't pass unless you check for car traffic behind and in front
  - You need to make sure that there is enough room for you to get by the cyclist ahead of you clearly, without jeopardizing you or the other riders
  - Be sure to yell "on your left" as loudly as possible so the rider in front knows not to swerve into your line
  - Pass, and move back to the right, out of traffic

Finally, don't overthink it; descending often comes down to sensing the road's changes and bike's movement in the moment. As you gain experience and improve your skills, you'll start to "feel" the descents, thus increasing both speed and confidence.

LESSON 5: RIDING IN FRONT

Three rules define the proper way to ride at the front of a group:

1. **Keep the pace**
2. **Keep the group together**
3. **Know where you are and where you are going**

In order to accomplish the above, **your cycle computer (aka "cyclometer") should become your best friend on the road**. The computer can be very basic, as long as it displays speed and distance.

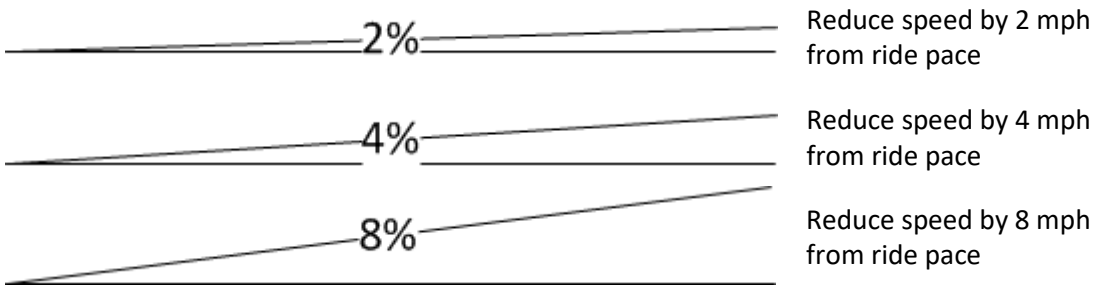
Refer to it regularly throughout the ride, just as you would your speedometer when driving a car.

NOTE: For those with fancy GPS units, be sure that your display is set to include speed and distance on the screen you will utilize as your default view.

RULE 1: KEEP THE PACE

Use your bike computer to maintain the ride's designated pace.

- The "advertised" pace is the speed maintained on flat roads
- The speed should be adjusted up or down for the terrain
    - As a general rule, reduce speed by 1 mph for each 1-degree of incline, even on the slightest grades



    - On declines, the speed may increase as long as it is safe to do so
- Speed changes should be gradual
    - Increase gradually, a few mph at a time
    - When decreasing speed, do so gently
        - Lightly tap the brakes when on flats or downhills

- When on uphills, decrease speed by a few mph at a time until you reach your target speed – there is a good chance the incline will do this for you and you will not need to use your brakes
- When coming off of a descent, onto a flat road or into an uphill, bleed off your speed naturally, without using the brakes if it is safe to do so
    - The riders behind you should not be forced to brake on the downhill unless required for safety reasons
    - This will allow others to enjoy the downhill, too, and take advantage of any gained momentum if immediately tackling an ascent

RULE 2: KEEP THE GROUP TOGETHER

<u>The leader must always remember that there is a line of riders behind him / her</u>, and all actions should take that into account when on the road.

- When crossing intersections / turning left across oncoming traffic, try to ensure that traffic allows for others in the group to cross, as well
    - This may not be possible on busy roads. In those cases, notify the riders that they should go through, in turn, when it is safe to do so. After crossing through the intersection, maintain a slow pace (1/2 target speed) until receiving word that all have made it safely through the intersection
- At intersections controlled by stop lights, utilize crosswalk pedestrian signals to gauge how much time remains before a stoplight turns red

"Walk" = good chance entire group will get through

"Flashing Don't' Walk" = time is running out, continue through but be prepared to hear "Off the back!" and react accordingly

The crosswalk signals with countdown timers are especially useful in this situation to judge whether your entire group will make it through before the light turns red

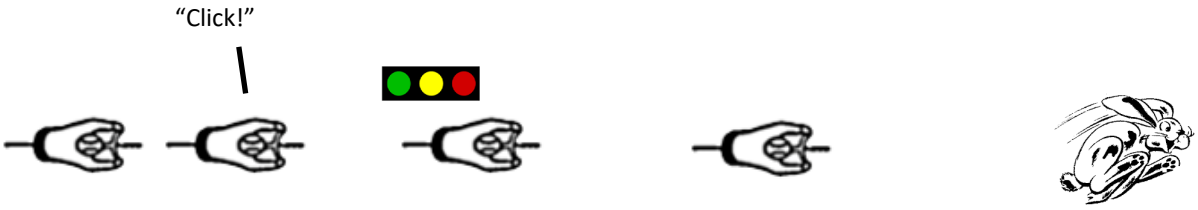
"Steady Don't Walk" = STOP! Light will turn red very soon. The steady signal usually corresponds to the traffic signal for cars turning yellow

- Periodically check whether the group is still together and riding as a cohesive unit
    - A great time to do this is when making turns or riding along a curve; simply glance over your shoulder and find your "sweep"

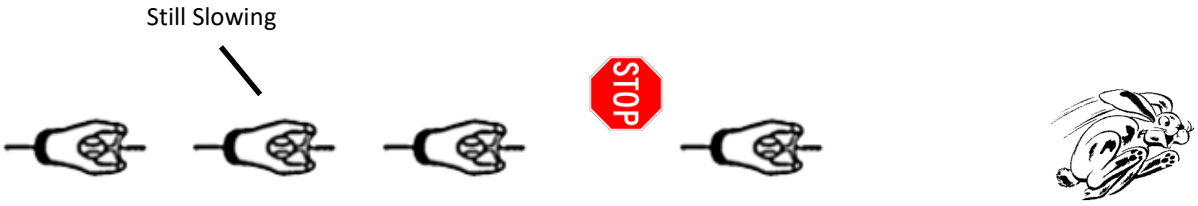
Don't be a jack~~ass~~ rabbit

When starting from a stop, or when accelerating after slowing down, you must do so **S-L-O-W-L-Y**

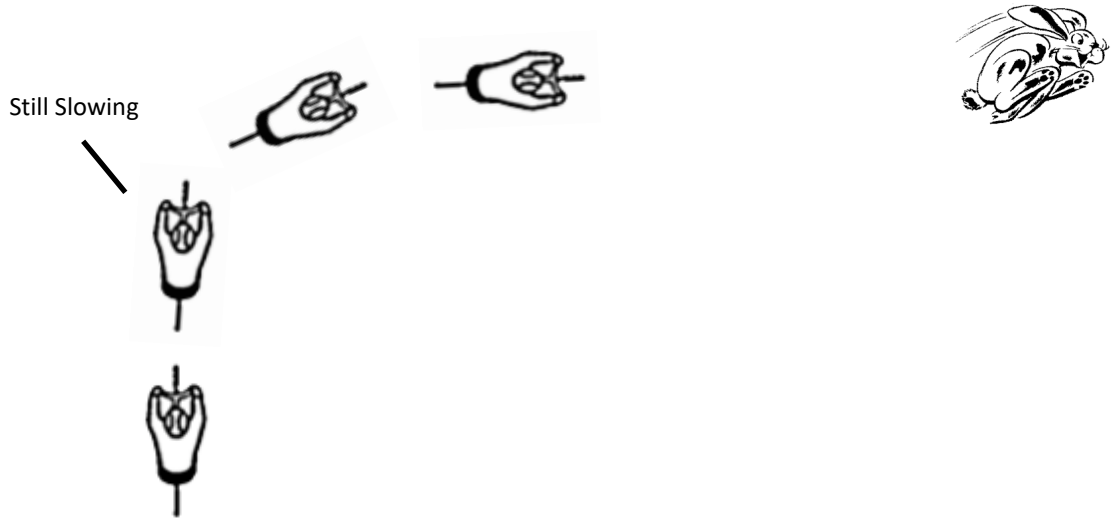
- When the leader puts full power into a start / acceleration, it is known as a "jackrabbit" start. Do not be a jackrabbit!
- Accelerate much more slowly than is natural, gaining speed at only a few mph at a time. For example, when starting from a stop light, the leader should only be at 5mph by the end of the intersection
    - The line of riders moves much like a train led by an engine. The engine starts rolling, and it takes time for the momentum to reach the individual cars behind.
    - In a similar manner, while the leader and first riders are gaining speed, the riders behind are still clicking into their pedals or slowing down to proceed through a stop sign.
    - Utilize your cycle computer and watch your acceleration speed when:
        - Starting from a full stop



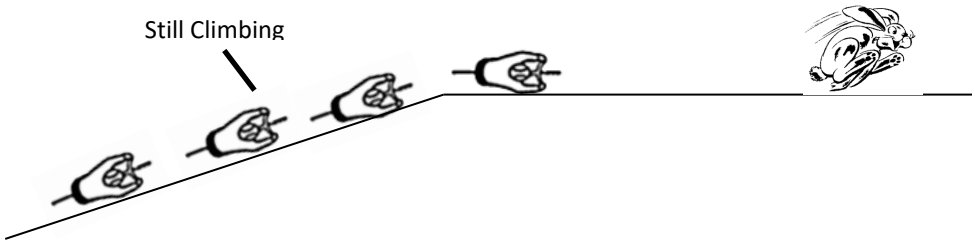
        - Going through a stop sign



        - Turning a corner

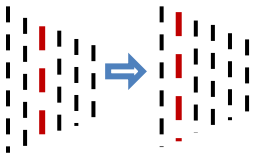


- At the top of hills



Useful techniques to ensure measured acceleration:

- Stay seated in your saddle. This will limit the amount of power you put in your pedals.
- Shift into one gear easier on your cassette. This will decrease the distance moved for each revolution of your pedals.



RULE 3: KNOW WHERE YOU ARE AND WHERE YOU ARE GOING

- Maintain situational awareness at all times
  - Keep a constant scan for hazards such as road conditions (potholes, glass, and other debris), planning a safe course around them
  - Be aware of traffic, anticipating situations that may require avoidance
- Refer to the cue sheet at regular intervals
  - Confirm you are aware which street / line of the cue sheet you are riding
  - Just after making a turn, glance at the cue sheet for
    - The next instruction, with street / landmark and
    - The distance until you need to follow that direction
  - Don't rely on "Total Miles" as anything other than an approximation – cue sheet totals can sometimes be off by up to 0.5 miles due to rounding of incremental mileage numbers

Turn	Total Miles	Street	For
L	0.0	Park Drive East	2.0
S	2.0	AC Powell Blvd [*exit park*]	1.3
R	3.2	W. 135th St.	0.5
L	3.7	Madison Ave [*cross bridge*]	0.4

Instruction

Total Mileage

Street / Landmark

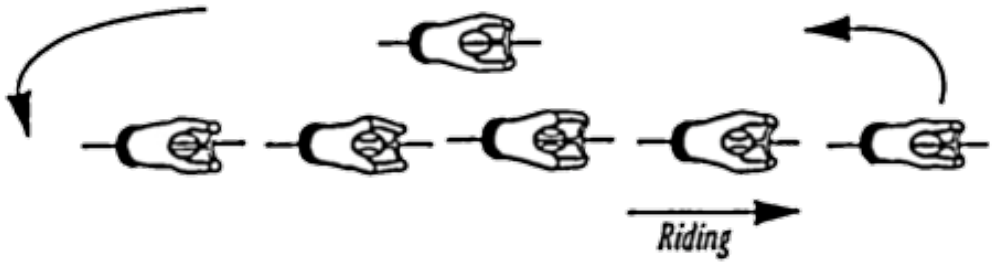
Distance to Next

LESSON 6: PACELINE RIDING

WHAT IS A PACELINE?

Pace lines are those neat single file lines you see in the Tour de France, and the technique is a great way to cover a lot of distance fast, with much less energy expended by everyone in the group.

Pacelining is the ultimate form of ***cooperative group riding***. The group of riders travel in a line, one close behind the other, in order to conserve energy by riding in the draft of the riders in front, thus enabling the group to travel at a faster rate than any of the riders in the group could do alone.



When the group gets it right, if feels awesome – individual cyclists coming together to work as one cohesive unit on the road.

WHY PACELINE?

To draft means to pull, and the air current created by the front rider (aka, the “draft”) pulls along (“drafts”) the rider behind.

- The concept is that wind resistance is your enemy (as much as 40% of your energy is spent overcoming wind resistance), and by following someone close behind, you can use less energy
- Riding in a paceline can significantly reduce the group’s average energy expenditure
- The person in front does most of the work, and the riders rotate turns at the front so that everyone gets a break and the person in front always has “fresh legs” to maintain the pace

It also looks very cool.

PACELINE TECHNIQUE

In a paceline, everyone lines up behind the first rider, who maintains a constant speed. The rotation occurs when the front rider pulls off to the side and drifts to the back of the line. The next rider then sets the pace

NOTE: The efficiency of riding in a pace line comes at the cost of added risk

- Riding in a pace line is not as safe as riding by yourself

- If the rider ahead of you (or behind you or on either side for that matter) does something unexpected, you could find yourself on the pavement in an instant
- Therefore, **it is especially important for ALL riders in the paceline to ride <u>smoothly</u>, <u>cooperatively</u>, and above all, <u>PREDICTABLY</u>**

On the Front of the Paceline

- Maintain a constant speed consistent with the pace of the ride
- For small or gradual climbs
    - Drop down one gear and keep a constant effort
    - Try not to accelerate up the grade
    - DO NOT STAND
    - It's OK for your pace line speed to drop 2-3 MPH or more on an uphill drag
- In a smooth running pace line riders do not have time to see and avoid obstacles, such as rocks, holes, cracks in the pavement, old muffler pipes, etc.
    - The riders behind you depend on you to be the eyes of the pace line and to either point out or shout out a warning (hole, glass, gravel, etc.)
    - These warnings should be passed down the pace line by each rider
- Use GRADUAL movements to avoid obstacles
- Depending on conditions, each pull should be no more than 30-seconds (approximately <u>1/8 (or 0.1 – 0.15) of a mile at a B pace</u> – use your cycle computer!)
    - However, do not switch leads on uphill, downhill, or on a curve

Pulling off the Front

- Check to make sure the former leader has drifted back into line and that the way for you to drift back is clear of traffic, glancing back to confirm
- Indicate your intention by holding your arm to the left and saying, so that others can hear, **"Pulling Off!"**
    - If you do not say "Pulling Off" the riders behind may follow you to the left, thinking that you are simply avoiding a road hazard
- Move about 1 arm-length out to the left with a decisive motion
    - Be careful to not pull out too far, and possibly into traffic
- When pulling off the front of the pace line ease up on your pedaling but don't stop
    - Once clear of the line, let the other riders slowly pass you
    - As the last rider approaches, begin to put more pressure into the pedals and accelerate,
        - If you wait to accelerate until the last rider is ahead of you, you are likely to have trouble getting back into his or her draft
- To assist the person dropping back in understanding their position, when to begin accelerating, and when to pull back into line
    - The next-to-last person in the line calls out **"Next-to-last"** as they pass
    - The last person in line calls out **"Last"** as they pass
- Ease in behind the last rider, keeping an eye on the riders in front – do not let your concentration lapse

Taking the Lead

- Look at your cycle computer, and note the speed the prior leader maintained
- The pace should remain consistent when you get to the front
    - Watch your computer and try to keep with 1/2 MPH of the last leader's pace

    - There is a tendency to speed up when taking the lead; be aware of this and try to avoid it
- Concentrate on keeping your line and your motion smooth. No sudden movements allowed in a paceline!

Riding in the Paceline

- Focus on what is going on around you! A paceline is not the place to allow your mind to wander!
- Try to maintain a distance of three to six feet behind the rider you follow
- Do NOT overlap the wheel in front (which is the fast way to roadrash)
    - Control your speed by sitting up, feathering brakes (lightly!) and/or slowing your cadence
- Do NOT stare at the wheel in front of you
    - Look beyond the rider's left shoulder (in front of you) so you can see if someone ahead swerves or hits a bump
    - Ideally, look 2 or 3 riders ahead to anticipate problems
- As the line picks up speed going downhill, open up space between yourself and the rider in front
    - With greater speed comes greater efficiency of drafting and less time to react to any tricky situation that might arise

PACELINE RULESAND ETTIQUITTE

There are three basic rules to Paceline riding:

1) Don't do anything suddenly!
2) Don't do anything suddenly**!**
3) **DO NOT DO ANYTHING SUDDENLY!!**

Utilize all of the skills from last week's lesson "Riding on the Front" and remember that your actions affect those around you.

Maintain a proper and safe distance from the rider in front of you

- You can get a good draft a wheel's length away, so getting too close is not absolutely essential
- Do not ride up along the side the rear wheel of the person in the pace line ahead of you,
- This is called "overlapping wheels" and can cause you to fall if the person ahead of you swerves to avoid an object in the road.

Don't stop pedaling – NEVER COAST

- Always keep pedaling unless you're stopping and have signaled that to the riders behind you. NEVER COAST
- Alternating pedaling and coasting makes you impossible to follow; your speed will be inconsistent and you won't be predictable to the next rider
- Try and stay in a gear that you can spin around at 85 – 95 RPM.
- If the speed of the pace line slows just pedal slower ("soft pedaling" -- pedaling without applying a lot of force to the pedals)
- This keeps your pedaling motion going and prevents you from unintended acceleration when you go from motionless to pedaling again. It also prevents the person behind you from being startled
- You can also reduce your speed without braking by raising your body (while staying seated) to create more air resistance or moving over slightly out of the draft of the person ahead of you

Remain in the saddle on hills

- NEVER GET OUT OF THE SADDLE IN A PACE LINE!!!
    - When you get out of the saddle you tend to throw your bike back 6-12 inches, which may cause a crash
- Generally pace line and hill should not be used in the same sentence
    - Everyone has a different climbing style and you may end up in a ditch from an overlapped wheel
    - Gradual hills are fine, just slightly increase the distance between you and the bike in front of you for safety

Avoid Unintended Acceleration

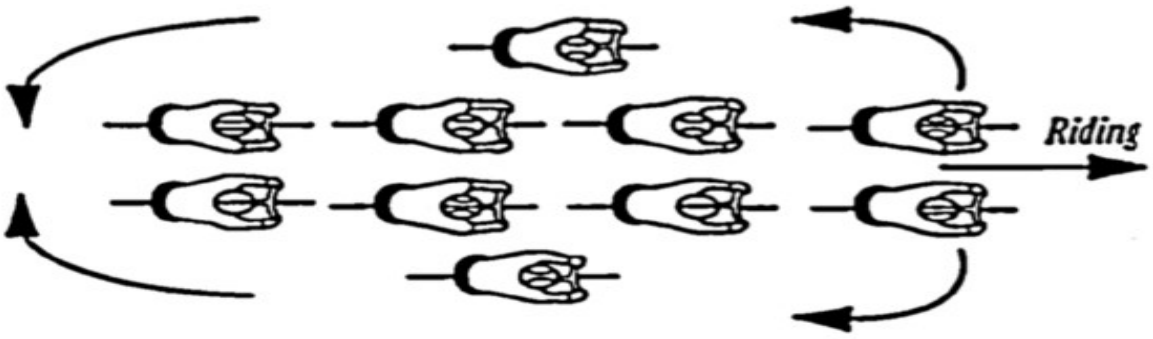
- If you are in front in the pace line, being "off the front" irritates everyone in the pace line
- It happens when you get to the front and subconsciously feel that you are not moving fast enough. You find yourself picking up the pace without realizing it
- At some point you look back either to see no one, or a bunch of really annoyed riders
- You can avoid it by looking at your computer and noting the speed before taking a pull at the front and trying to maintain that speed.
- Stay within 1.5 MPH or less of that speed and avoid acting like a jackass rabbit!! 

Drinking and Expectorating

- The lead cyclist should never reach for a water bottle
- It's probably best to get a drink when you're at the back of the line, so you won't mess someone else up if you swerve while swigging you favorite tonic
- The same goes for spitting, “snot rockets,” and other expectorations: these should only be done if you are the last rider (and please consider whether they need to be done at all!)

FOR YOUR INFORMATION: ADVANCED PACELINES

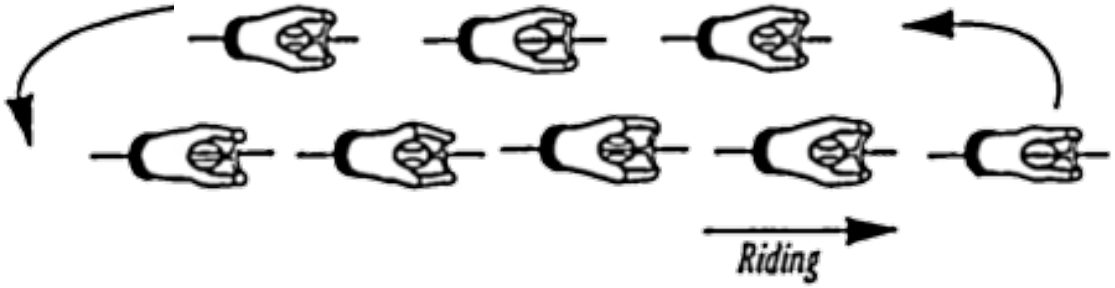
Double Paceline



- Occasionally used by the NYCC when the road is wide enough (i.e., in a lightly-used park or clear bike path)
- Riders line up in pairs, with the lines rotating at the same time in opposite directions

Circular Paceline

- Used by professionals; For advanced cyclists only who are very steady and know each other well
- Not used by NYCC
- Riders cycle in two parallel lines and circulate, each taking an immediate turn once coming to the front



LESSON 7: PLANNING A RIDE AND GIVING BACK

The NYCC SIG program provides each of you with 10 weeks of

- Route planning and leading;
- Group-riding instruction;
- Fitness training;
- Cycling technique tips;
- Individualized coaching, and
- Camaraderie

All for the low price of an annual NYCC membership. The club, the SIG, and all club events are run by volunteers who receive no more compensation than a pair of socks or, for those who give a significant amount of time, a club jersey.

So, how can you show your appreciation? By giving back through of one or more of the many volunteer opportunities presented by NYCC.

LEAD A CLUB RIDE

Disappointed that there are never enough B-ride options on the weekends? Well, the solution is to post and lead one yourself! If you're nervous, you can ask one of your SIG leaders to co-lead with you; you can also include one or two fellow siggies as ride leaders, or the B-rides coordinator can hook you up with an experienced club leader. (He or she will be HAPPY to do that for you!) You can replicate one of the SIG rides, choose a ride from the club's fantastic ride library (nycc.org/cue-sheets), or make up a route yourself. You can even begin by signing up to lead a group for the club's Newcomers' ride, All-Class ride, or one of the rides on our Summer weekend extravaganzas, such as the annual Berkshires event.

Tips for preparing to lead a ride:

- Pick a route you are familiar with and one that you love. Be sure to line up pit and lunch stops along your route beforehand. It also pays to know some bail-out points in case of need
- Recruit a least one co-Leader. Coordinate with your co-Leader who will lead first and where you will switch between leading and sweeping
- Choose a pace that is a little slower than your normal pace. If you normally do B17 rides, for example, you might want to lead a slower-paced ride, such as a B16, as it takes a "little more out of you" when leading. And signing up to lead a C ride is a great way to give back – there's often a shortage of C rides. Just make sure to pace it accordingly.
- **Scout the ride before you lead it!** Scouting will help you prepare by:
    - Reminding you of the route and any tricky turns
    - Enabling you to see the road conditions, including whether detours will be necessary
    - Ensuring that planned pit stops are still viable – gas stations and restaurants close, and it's best to find that out before ride day

Submit your ride through the NYCC website at http://nycc.org/submit-a-ride.

- Rides may be submitted up to the day of the ride. They will be posted in the Current Rides link once the Ride Coordinator approves the ride.
- Before you submit a ride, carefully review the Ride Leader Information at http://www.nycc.org/ride_leader_info
- The minimum number of riders per leader is six (6). The Ride Coordinators have the discretion to request that the number of co-leaders be reduced for rides with limited participant spots.

On the day of the ride itself:

- Bring the pre-populated NYCC Sign-In sheet, Insurance Accident Report Form, a pen, and several copies of the cue sheet. These are all automated for you on the website.
- Make sure everyone has signed in at the start of the ride and has listed an emergency phone number (not 911), contact person, cell phone number, etc.
- Take a look at the bikes that the participants bring. If you notice a poorly maintained machine, explain to that person that everyone is responsible for her/his own bike's condition. Explain that, if someone's bike breaks down, it is her/his responsibility, and that person runs the risk of getting left on the road with a problem.
- Give a pre-ride talk:
    - Tell the riders what to expect
    - Explain the pace you will be going, including a warning that if a participant goes off the front "they are on their own." Conversely, if this ride is too fast for any participants, tell them to notify one of your Leaders that they are leaving the ride and getting home on their own
    - Give a reminder about group riding etiquette, including signals and call outs
- On the ride itself
    - If you have a mechanical or accident, get everyone off the road to a safe spot away from traffic
    - Remember and follow all instructions from our SIG Lesson 4 – Riding on the Front

SERVE ON THE CLUB BOARD

The NYCC Board of Directors comprises the following elected positions:

- President
- Vice President – Rides
- Treasurer
- Content Editor
- Membership Director
- A-Rides Coordinator
- B-Rides Coordinator
- C-Rides Coordinator
- Vice President – Programs
- Secretary
- Public Relations Director
- Webmaster
- Special Events Coordinator
- Escape New York Director
- Merchandise Manager

VOLUNTEER AT A CLUB EVENT

In addition to ride leaders, large club events, such as the All-Class Ride, Newcomers' Ride, and Overnight club trips have opportunities to help off the bike through driving, SAG support, and organizing lunch stops.

Our club's marquee ride, Escape New York, could not happen without the many volunteers who assist before, during, and after the event. Teams include:

- Provisions Acquisition and Return
- Route Marking and De-Marking
- SAG support
- Rest Stop Food Prep and Replenishment
- Sponsorship
- Registration
- Marshalls
- Sakura Park Food Prep, Traffic, and Close Down

BIKES ON A TRAIN

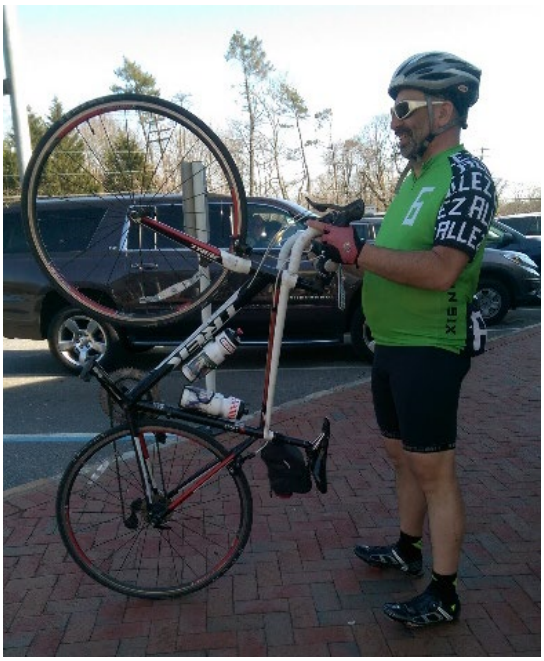
New York's commuter rail lines serve as a wonderful resource to cyclists. Using the trains, you can start an end a ride far outside of the city, thus eliminating the time and frustrations of cycling through city traffic in order to arrive in prime cycling country. Another popular option is to begin or end a ride in the city and cycle one way, thereby extending the time and miles spent on beautiful rural roads, as well as adding a wide variety of new destinations to your route options.

In order to take advantage of the trains, it is necessary to understand the accompanying rules and etiquette.

TAKING YOUR BIKE ON THE TRAIN IS A PRIVILEGE, NOT A RIGHT

Bicycles are allowed on the commuter trains at the pleasure of the transit authority AND the individual conductor aboard each train. When using the trains, remember that you are the face of the New York Cycle Club and others in the cycling community; therefore, please behave appropriately and be as polite as possible to the train conductors. Other rules:

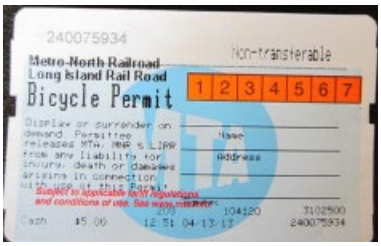
- **Rule #1: The conductor is always right.**
  - Defer to the conductors at all times
  - Look for the conductors as the train pulls into the station and talk to them ASAP about how many are in your group and where they'd like you to board
  - Follow the conductor's instructions no matter what. If the conductor says "jump," you say "how high?" If the conductor insist that the Red Sox are the best baseball team, you respond "They ah wicked awesome!"
- **Rule #2: Do not delay the train.** Nothing makes us look worse than if we delay a train
  - Be ready when the train arrives to board QUICKLY
  - Have your bike up on its rear wheel, ready to move into the car
  - When you enter the car, keep your bike up on its rear wheel and KEEP MOVING – there are other bikes that have to get into the car behind you, and the doors / entry areas can creates bottlenecks
  - Keep moving into the car and worry about where you will put your bike AFTER everyone has boarded and the car doors have closed
- **Rule #3: The conductor is always right.**



TRAIN TIPS and TRICKS

We most often utilize Metro North (Westchester and points North, Grand Central Station), New Jersey Transit (points West, Penn Station) and the LIRR (points East, Penn Station).

- Metro North and the LIRR require each cyclist to have a Bike Pass
    - Available at Grand Central Station ticket windows
    - $5 one-time fee for a lifetime pass
    - It is advisable to “weatherproof” your bike pass (e.g., through lamination) and keep it on you at all times when cycling in the suburbs – you never know when you may need to use the train system.



- Read each rail line’s rules for cyclists and note any days when bikes are forbidden on the trains
- If you have a group of more than 8 people, please make arrangements ahead of time with the rail line. NYCC has a rail coordinator who can help you
    - Groups may need to split themselves up among the train cars – for example, no more than 4 cyclists per car
- Bring bungee cords with you to help stabilize your bicycle.
- Enter the train cars via the Handicapped doors
    - New Jersey Transit double-decker trains have areas with fold-up seats and points for securing your bicycle with a bungee cord
    - Metro North trains have spaces near the handicapped entrances that can accommodate a wheel chair or 2 – 4 bicycles (depending on configuration)

CLEANING AND LUBING YOUR BIKE

1. Clean your chain every 200 miles, or when the chain gets wet, to prevent road dirt from wearing out the chain on the inside. This wearing is sometimes incorrectly called chain stretch because a worn chain is longer, but nothing actually stretches, the links just loosen. A worn chain will eventually wear out the front and rear gears.
2. If you have a stand, mount the bike on the stand so you can freely turn the pedals backwards. But you can also clean and lube without a stand.
3. Put newspaper or a drop cloth (plastic dry cleaner bags work just throw out afterwards) under the bike to catch excess oil spray and drips. Use another rag to shield the lower part of the wheel rim from oil.
4. Using a clean cotton rag on the chain, backpedal 4 times to remove excess dirt and grit. Use a degreaser that will not harm the bike s paint such as WD-40 or a citrus degreaser from a bike shop. The WD-40 comes with a small straw that fits in the nozzle for precise application. The citrus degreaser is a non-petroleum product. Backpedal as you apply the product, then let it sit for several minutes to penetrate and loosen remaining old lubrication and dirt.
5. Meanwhile, apply light bicycle oil or the WD-40 to pivot points on the derailleur. Wipe off any excess. (Don t use on the hubs, bottom bracket or pedals that are greased because the WD-40 or bike oil will can dissolve the grease.). An old-fashioned threaded quill headset (the kind held together by a big nut) could also use some oil, but not a modern unthreaded headset.
6. Another approach to cleaning the chain is a plastic chain cleaner from the bike shop. Follow the directions to fill it with citrus (detergent-based) degreaser, snap it over the chain and rotate the pedals backwards twenty times. Clean out the little tank and do this twice. With practice, this approach can be less messy than hand cleaning and works fine for modern chains. The citrus degreaser can also be used with the hand cleaning approach. Here is the background on the changes in cleaning chains in recent years: Modern bicycle chains (since the mid- 80 s) lack bushings (inner metal tubes) at each link, so they are much easier to clean than before. In the old days, cyclists even cleaned their chains by soaking them overnight in gasoline. Modern chains, with no bushings to hold in the dirt, are very easy to clean so choose the most convenient method for you.
7. Toothbrush off any dirt on clipless pedals, then brush excess dirt from the derailleur, bottom bracket and wheel hubs. Use a sponge or rag dipped in soapy water or a cleaner like Simple Green or Bike Wash to clean the bike frame, wheel rims and spokes. Dry thoroughly. To remove any oil from the wheel rims, wash the wheel rims with a very dilute solution of dishwashing soap and water using a clean oil-free rag or paper towels. As part of your post-ride tire check, make it a practice to wipe dirt off the wheel rims after every ride; it will prolong the life and effectiveness of your brake pads.
8. Now it is time to lube the chain. Choose between wax-based oil like White Lightning and non-wax lube like TriFlo or ProLink. Each has advantages and disadvantages. The advantages of wax-based products are that they somewhat pull dirt out of the chain and they protect well in wet weather. The disadvantage of wax-based lubricant is that it dissipates quickly and must be applied weekly or before each long ride. If you use oil, you will have to choose between light and heavier oil. The light stays cleaner and is good for day trips in dry weather. The heavier attracts more dirt, but is needed for wet weather or multi-day journeys when you might face many prolonged dirty or wet conditions. But don’t lose sleep over this choice; all of the above work fine as long as you use them!
9. Oil products like TriFlo or ProLink should be applied very sparingly then wiped off the outside of the chain so they don”t attract more dirt. Rotate the chain one time only as you add the lube by drops to the links, but don t worry too much about applying to every link. Then rapidly spin the wheel so that the lube applies itself evenly over all the links in the chain. Wipe down any excess with a lint-free cloth. Oil lubes will last several hundred miles between applications, but must be reapplied after riding in wet weather. If you can hear your chain, oil it!
10. Check the wheel rims a final time to ensure that no oil has leaked on them; oil on the rim will adversely affect your ability to brake.