

THE 2016 B-SIG RIDER'S GUIDE



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Notes: This guide is the product of the volunteer efforts of many B-SIG Leaders over many years. A special word of thanks goes to B-SIG Coordinators Carol Waaser, Liane Montesa, Eva Wirth, Mark Gelles, Wayne Wright and Fred Leffel.



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 a 4 timed laps around Prospect Park followed by an indoor orientation session. Beginning in week 2, the B-SIG groups will be broken down into three "pace" categories: 16, 17 and 18. Please note that each group is always referred to as B16, B17, and B18, even though they will go slower (approximately 2 mph slower) in the early weeks and gradually build up to the stated pace. Also note that the NYCC's SIG's indicated pace reflects the cruising speed on flat terrain. (E.g., a B17 group would maintain a cruising speed on a flat of 17 MPH.) Obviously, climbs will be slower and downhills somewhat faster. The average speed for an entire ride is generally 3 MPH below the SIG's indicated speed on the flat. The first B 16 ride will be approximately 40 miles and the first B 17 and 18 ride will be approximately 50 miles. By the 9th week, the groups will build up to a ride of 80 - 105 miles.

Each of the pace categories is further broken down into 3 or 4 subgroups consisting of 10 -12 SIG participants and 3 (and in some cases 4) 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.

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. The B-SIG will emphasize safe cycling habits. We urge you to review this informative website: <http://BicycleSafe.com>.
(Our sport does have risks. Each B-SIG participant must sign in before each ride. The sign-in sheets have 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, we review the skill for that week in a short class before the ride and 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.
- **Fun** – While we're pretty 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 progressively 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.

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.

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. (Four laps around Prospect Park.) 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 self-classification works well as an initial placement tool. But it is 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.

Note: 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. So, 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 greatly. 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. You should also appreciate that by their very nature, group rides take longer than a solo ride of comparable length, and that food and rest stops will be longer than you may be used to. Finally, it's critically important that you ride safely, both for your own sake and for the sake of the others in the group. Coming to each week's ride properly prepared, and with the proper expectations, 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.

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. Topics include *Bike Handling in a Group*, *Spinning*, *Gearing*, *Riding in Traffic*, *Pacelining*, *Climbing/Descending*, and *Ride Leading*. All the information in the cycling skills classes is documented in this guide beginning with the section called "Basic Cycling Skills" (see the Table of Contents).

We have a specific attendance policy

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 the SIG.

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

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. Before your make-up ride, review the class material you missed, outlined in this Riders' Guide, 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.
- Stay alert. Pay attention.

What the B-SIG Expects of *You*

- Every B-SIG participant must be 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, your Saturday's "are spoken for" when you join the B-SIG.
- All B-SIG participants must complete the timed, 4-lap qualification ride on March 5, or, in special cases, make arrangements to provide the SIG Coordinator with a time before the program starts.
- 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. (See the sections "Bike Preparation" and "Routine Bike Maintenance Checklist")
- 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. 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.

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 ride is cancelled on Saturday, the ride will be re-scheduled to 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, at nycc.org, following 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 log in to 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. We will notify you of your acceptance via email.

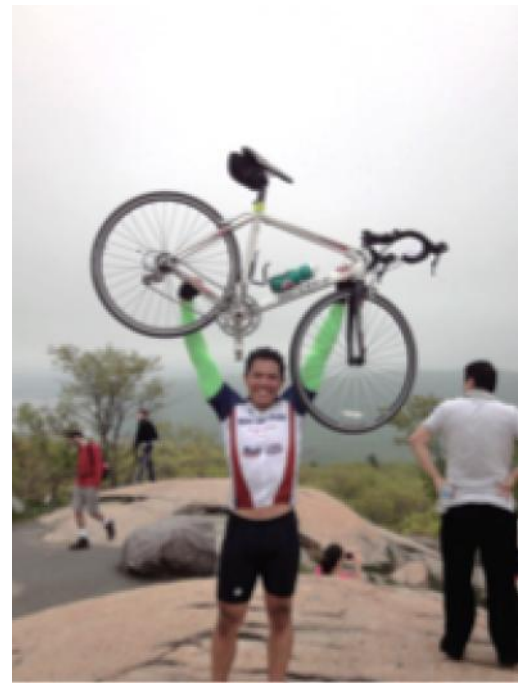
Required Group Riding Skills (how we cycle on a group ride)

1) Be Predictable by:

- Riding in a straight line
- Always pedaling (do not coast)
- Maintaining the speed of the group
- Signaling any changes
- Adjusting your speed and direction gradually
- Communicating with your fellow riders

2) Safe Group Riding:

You should “always protect your front wheel.” Less experienced cyclists frequently get nervous on a group ride. Bikes could be anywhere—in front, to the side and close behind. It’s hard to know how to avoid danger. However, you are unlikely to crash unless your front wheel is hit. So visualize a halo surrounding your front wheel and protect that sacred space from intrusion.



3) Mechanicals:

When a rider has a flat or other mechanical problem, or if there’s an accident, don’t stop abruptly. Instead, keep moving forward, and call out “mechanical” while stopping gradually. Pull off the road away from traffic. Assess the situation and (after checking for traffic) turn around, if necessary, to help the person with the problem. If you’re in front of the mechanical, and hear the “mechanical” call out, pass it up to the leader, one by one. **LOUD!**

4) Hand Signals:

- Right turn: right arm held straight out to the right.
- Left turn: left arm held straight out to the left.
- Slowing or stopping: arm held diagonally down towards the side, palm open to the rear.
- Road hazards: point down to left or right in the direction of the hazard.

Note: Use hand signals only if it is safe to take a hand off the bars without threatening the stability of the bike. Otherwise use voice signals (e.g. “Hole Right!”). Then using hand signals, it is best to move the opposite hand to the area on the handlebars near the stem before removing the hand that will indicate the signal. Use voice signals when road conditions are rough.

5) Voice Signals (Be sure to always call out LOUDLY!):

- “Car up” = car approaching from opposite direction
- “Car back” = car approaching from rear
- “Car right/left” = car approaching from right/left side
- “Slowing” or “stopping” (particularly important for unexpected stops when your hands are busy on the brakes)
- “Hole right/left”...“bump” “gravel” “glass” “grate” “rough road” “door”
- “Off the back” = when one or more riders fall behind the main group (typical reason is red lights). This is critical to keep a group together. The first rider of the second group, knowing that he/she will be caught at

a light and splitting the group, has the primary responsibility of calling out “off the back” The last rider of the group ahead should communicate forward that the ride is split, allowing the leader to slowly stop the ride to allow the other group to rejoin. Make sure that this signal is relayed up to your Leader, who will acknowledge the message by either slowing or stopping. Remember: LOUD!!

Note: Make sure you know who is behind you. Often you are in the best position to communicate if riders are “off the back”, because those already off the back are most likely to be out of range to be heard. It’s all part of looking out for your group members.

- “All On” is very important, making sure to inform your Leader that the “off the back” condition no longer applies. Your Leader acknowledges the message by speeding up. Make sure you pass the “All On” message back (when it’s a question coming from in front of you) and forward (when it’s the answer coming from behind you.) As you go through an intersection that is not regulated by a stop sign or light, each rider will call out “Going Through,” which indicates to the other cyclists behind you that you are not stopping.

Note: Do NOT call out “All Clear” when going through an intersection. Road conditions can change in the time it takes the next bike to get to the intersection. It is essential that each cyclist check for traffic independently before entering an intersection. (Leaders pet peeve – Riders that call out “Going Through” before the riders ahead have entered the intersection and indicated they are “Going Through.”) In these types of situations, an experienced Leader will slow the ride somewhat to allow each rider behind him/her to navigate the intersection thus preventing the accordion effect from stretching out the group.

6) Road Etiquette:

- Stay in line. On most roads we will ride single file. (In some parts of New Jersey it is illegal to ride double file.) The Leader will indicate if the group can go double file by holding up two fingers, and or calling it out. If that happens, the even-numbered riders move to the left.
- If riding double file and the Leader indicates single file by holding up one finger or calling it out, the rider on left falls back behind the rider on right. The next rider back, on the right, slows to open space in for the rider moving in from the left.
- At red lights, pedestrians in the cross walk have the right-of-way, so the group must stop and yield right-of-way to pedestrians. If your Leader and any Siggies have already passed through the crosswalk and a pedestrian enters the crosswalk, the remaining riders following must stop! (And call out “Off the back.”) After such a stop, your Leader or rider in front will determine when it is safe to start again.
- Don’t bunch up at lights. **STAY IN LINE!**
- Pass on the left. **NEVER** pass on the right. Call out to the person being passed: “passing” or “on your left.”
- If passing on a hill, make sure you have the stamina to pass as many cyclists as necessary to get back into line—never box someone else in on a hill!
- When passing on a hill, do not remain on the left or in the middle of the road – instead, move back to the right as soon as it is safe to do so.
- Before standing (especially on a hill), call out “standing” before you shift gears and stand. This warns the person behind you that you will momentarily slow down.
- Finally, do not blow snot rockets!

7) Turning Left:

From Single Lane. Before the intersection, move toward the center of the lane and signal left turn. If a car ahead of you is signaling left turn, stay in line behind that car and make the turn finishing on the far right side, allowing other cars make the turn to pass. If stopped at a light where you will turn left, stay toward the center of the lane so

that cars cannot pull up beside you. If you are too far left, a left-turning car might pull up next to you on your right, which makes it difficult to get to the right after the turn.

From Left Turn Lane. Before an intersection, move to right side of left turn lane. Turn wide so that you stay on the right side of the lane so cars turning left will stay to your left. If you approach the intersection with a car ahead of you in the left turn lane, stay in line behind that car and take the lane so that other cars turning left will stay behind you. As you turn, stay on the right side of the lane.

8) Turning Right:

From Single Lane: Don't go wide on right turns; tuck in the radius as much as possible.

From Right Turn Lane. If you're going straight at an intersection where there is a right turn lane, move to the left side of that right-hand lane so that cars turning right can pass you on the right as you go straight.



What to Eat

NUTRITION FOR CYCLING (Carol Casalino, MS, CNS)

How to Get Energy to Your Muscles (Food: Keep Your Tank Filled!)

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, ShotBlocs, jelly beans, baked potato, etc.
- If fading, eat/drink sugary carbohydrates ASAP!

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 (known as 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 (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!

What To Wear

- Clothing that wicks away sweat (synthetics and wool good choices; cotton poor choice).
- A few light layers work better than one or two thick layers.
- Keep extremities warm: head, hands, feet (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.
- Bright colors help you be seen; 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 forefoot).
- Wear eye protection (such as sunglasses): protect your eyes from glare, dust, pebbles that shoot up, and insects that fly into you.
- Trial and error (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.



Bike Preparation

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 they 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!

Always go through the following checklist the night before, not the morning of the ride. Why? 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 recover.

- Tires must be in excellent condition: the tread must not be worn threadbare, with no cuts that go all the way through the tire tread and no 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.
- 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.

Tools and Equipment for Rides

1) Mandatory:

- Cyclometer. Fancy cycling computers and Garmins are great, but all you really need for the SIG is are the basics: speed and distance. (A cadence meter is preferred, but not required.)
- Two spare tubes that fit your wheels (make sure your tubes are protected with valve caps in your seat-pack so they will not get ruined as they bounce around), with valve stem lengths to match your rims; tire irons; and hand pump or CO2 inflator that fits your tire valves. Know how to fix/ change a flat tire. If you bring a CO2 inflator instead of a pump, be sure you know how to use it!
- Allen wrenches (hex keys), box wrenches or small adjustable wrench, spoke wrench, flat-head screwdriver, chain tool (only if you know how to use one). (All can be had in one multi-tool.)
- Two water bottles or a hydration pack (e.g., CamelBak), plus snack food.
- 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 LETTERS** and dark color (magic marker on masking tape will do).
- Protective eyewear.
- Money for lunch or emergency transportation.
- 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) (<http://web.mta.info/bike/#buses>)
- Identification and health insurance card(s).

2) Nice to Have:

- Cell phone with I.C.E. (in case of emergency phone #) entry in memory.
- Lock. Preferably, small, "crime of opportunity" lock (eg, retractable ski lock), but not a heavy one.
- Sunscreen

- Handi-wipes
- Small first aid kit (bandages, antiseptic, aspirin or ibuprofen)
- Tissues or handkerchief
- Separate bike wallet
- Musette bag

3) Frills:

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



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. **DO NOT 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 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.

Basic Cycling Skills

1) Share The Road:

- Pedestrians have the right of way.
- Use common sense and courtesy when dealing with automobile traffic. And, remember that you are in a group and your actions must take into consideration the safety of others. So when in doubt err on the side of everyone's safety.
- Avoid "road rage" situations.

2) Good Bicycling Position:

- 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.
- Relax! Keep elbows slightly bent with shoulders down and relaxed. Relax the hands; don't grip the bars tightly.



3) Brake:

- 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.
- Slow the wheel rather than locking the brakes; there's more surface area between brake pads and rim than between tire and road. Feather the brakes by alternating between front and rear brakes.
- The front brake is more powerful than the rear brake!
- Do not use the front brake without also using the rear brake.
- Anticipate braking situations.
- Brake before entering a corner.
- Don't squeeze the brakes forcefully!
- Brake and ride with intention.
- When riding with a group, keep pedaling even when using your brake to slow. Do NOT coast.

4) Turning your bike - Cornering:

- 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.

5) 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 steering the bike (not just turning handle bar)
- 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 Steering – Nirvana – making you and your bike one:

Do everything from lean (above), and:

- Straighten your outside leg, almost standing on the outside pedal,
- Straighten your inside arm and continually push down on the handlebars.
- Push more for a tighter turn, less for a wider turn.

6) 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.

Pedal Stroke and the Art of Spinning

1) Bio-Mechanics of a Pedal Revolution:

- Place body in good bicycling position.
- We use our gluteus muscle initially at the top of the stroke, 12 o'clock position, quads on the rest of the down-stroke and our hamstrings on the up-stroke.
- Down-stroke motion is easy and intuitive; the up-stroke needs to be learned.
- You want to turn the cranks in full circles, feeling the same amount of pedal pressure all the way around.
- To gain power on the up-stroke, when come to the bottom of your pedal stroke, visualize scraping mud off the soles of your shoes. Another visualization trick that accomplishes the same thing is, when at the bottom of the stroke, think of pushing your knees toward the handlebars.
- Practice these techniques every opportunity to get. The goal is to maintain equal application of power during the entire pedaling cycle. You will find this skill particularly useful in improving your performance as a rider.
- Try one-legged pedaling on a solo ride; this will help you to achieve a smooth pedal stroke.

2) What Is Spinning? It's RPMs or Cadence:

- It's not about miles per hour; it's about revolutions per minute (RPMs).
- Spinning is simply crank revolutions per minute, cadence, regardless of what gear you're in. You generally want to turn the crank at a consistent rate between 90 and 105 RPMs. Watch a good cyclist—his/ her cadence is consistent, and their upper body is quiet. You want to isolate your upper body from your lower body; in other words, your torso should be motionless.

3) Why Do We Spin?

- Spinning gives you more bike control, especially on dirt or gravel.
- If you spin, you will ride further with less effort, because you will use less energy, or to be technical, less of your finite supply of glycogen for fuel.
- The more you spin the more you reduce the risk of a physiological cycling injury.
- Spinning helps you maintain a consistent heart rate.

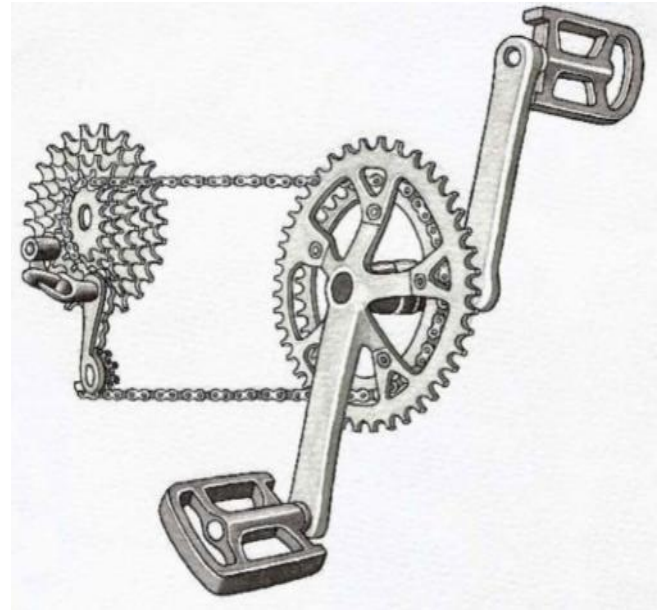
4) Spinning Technique:

- 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").
- Maintain the pace of the group, but don't focus on to your MPH; rather pay attention to your RPMs. This will help you find your right gearing and enable you to ride more efficiently and comfortably.
- If your cyclometer has a cadence function, use it, trying to stay between 90 and 95 RPMs during regular riding.
- If you don't have a cyclometer with a cadence function, count your cadence; 15 to 18 strokes in 10 seconds are what you're seeking. Learn what 90 to 95 RPMs feels like and stick to it unless the terrain prevents you from attaining this goal.
- After a while, you will know, without counting or looking at your cadence function, that you are at 90 to 95 RPMs.

- If spinning feels unnatural to you and you find yourself with a lot of upper body motion, try moving slightly forward on the saddle. As body motion decreases, move back to the center of the saddle.
- Spin down hills, soft-pedaling, with hands in the drops with a quiet upper body. Whenever you go downhill, slide your rear end back in the saddle.
- Ride an exercise bike at 90 to 95 RPMs while balancing a book on your head.

Gearing

You have lots of gears so that you can always be in the right one. Use them! The underlying purpose of having so many gears is to help you maintain your most comfortable and efficient cadence regardless of terrain changes. If, for example, you're at 90 rpm's on a flat road and you approach a 2-3% roller, down-shift one or two gears to avoid riding in a slower, less efficient cadence. On non-SIG days, practice with different gear combinations. You can be in the big chain ring with easier cogs or in the small chain ring with more difficult cogs and achieve the same cadence. You will learn the reasons for both.



In cycling, the word “gears” has many meanings, among them the chainrings and cogs on your bike as well as the ratio between them that defines the speed when you pedal. There are many tutorials online about bicycle gearing, www.sheldonbrown.com one of the most respected. A small book, [*Bicycle Gearing: A Practical Guide*](#), by Dick Marr, remains a great resource.

Gear Inches and Gear Ratio

In cycling, the gain that you achieve from the effort that you expend is measured in “gear inches”. The mathematics can get complicated and intimidating, but the basic concept is very simple: “Gear inches” is the distance that the bike travels due to one full rotation of your pedals.

Think of it this way: Remember the old “penny farthing” bikes - the ones with the huge front wheel and the tiny one in back? How did the rider propel them? The pedal (and crank) were directly attached to that big front wheel. Every time the rider moved the pedal around fully, that big front wheel went around one full circle.

Therefore, for every complete rotation of the pedal, the wheel went around once and the bicycle traveled a distance equal to the circumference of the front wheel.

Today, we have gears on our bike by means of which we regulate how much one complete rotation of the pedal moves the wheel (actually, the rear wheel, since our bikes today are “rear wheel drive” vehicles.) But the concept is the same – gear inches is the distance the bike travels for every full pedal stroke.

The gearing on our bikes is based on the different combination of our front ring (the chainring) the rear ring, or cog, which accomplished with the chain and the derailleur. The front derailleur simply moves chain between the front chainrings and the rear derailleur moves the chain between the rear cogs. With all the different variations in chainring sizes and combinations, the math can get a little more complicated. But the basic concept is not that hard.

Since the all rings on our modern bikes – those in the front chainring and those in the cogs in the rear -- are all made up of identically-sized teeth, we call the size of the ring (and cog) the number of teeth it has. (50, 32, 24, 10 and so forth).

The gear inches formula for our bikes is the size (number of teeth) in the front (chainring) divided by the size (number of teeth) in the rear (cog), times wheel size (circumference --in inches or cm, or whatever). This formula will give you the gear inches for each combination of chainring and cog – that is, how far your bike will actually move for each full pedal rotation. There are many auto-calculators online that will chart your gear inches for each combination of chainring and cog on your bike, or you can easily do it yourself. Excellent sources are Sheldon Brown for online or Dick Marr's book for DIY charts.

Another term you'll hear sooner or later is "gear ratio". All that means is the first part of the formula in the preceding paragraph: the size (number of teeth) of the front ring divided by the size (number of teeth) of the rear cog.

So ... If your derailleur is set so that you're in a 50 front chainring and a 25 rear cog, your gear ratio is 2. If you're riding tires with a circumference of 210 cm (which is the approximate circumference of a "700" roadbike wheel, your bike will travel approximately 410 cm every time you push the pedals around one complete rotation.

Piece of cake, right?

But, beyond the mathematical detail, here are some key takeaways:

- The higher the gear inches, the faster the speed and harder the pedaling.
- The lower the gear inches, the slower the speed and easier the pedaling.
- For climbing, generally you want low gear inches

Chainrings

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

As noted above, ring size is measured by the number of teeth in the ring (e.g., 52). Road Doubles are typically 39T/53T; compact doubles are typically 34T/50T; triples are typically 30T/42T/52T.

Smaller ring = easier pedaling | **Bigger ring** = harder pedaling

Cogs (aka Sprockets)

Cogs are the gears in the back, those on the hub of your rear wheel that you shift between with your right hand. A cog with eleven or twelve teeth (11t or 12t) would be typically the smallest cog. A large cog can range from 21t (for racing, not for us) to 34t.

Smaller cog = harder pedaling | **Bigger cog** = easier pedaling

Derailleurs

The front derailleur pushes the chain back and forth across the chainrings.

The rear derailleur uses pulleys and springs to lift the chain from one cog to another. If the rear derailleur becomes bent, it will not operate properly and may contribute to mechanical damage or an accident.

- Be very careful not to bump or lean your bicycle against the rear derailleur! When placing your bike on the ground, make sure the bike is on its left side so the gears are protected.
- If you have a triple chainring set, avoid the combination of the large chainring and large cog, and the combination of the small chainring and small cog. These combinations put the chain at a bad angle and are known as “cross-chaining” or “extreme chain deflection” (see illustration). Extreme chain deflection puts added stress and wear on the drivetrain, is less efficient when pedaling, and contributes to mechanical failures.
- In general, try to use gear combinations that keep your chain as straight as possible to maintain your 90-95 RPM cadence.

Technical proficiency:

- Using references such as Marr above, you may prepare a shifting chart for yourself so as to have a strategy to shift progressively between gears according to the terrain and your needs.
- Some technical understanding of the shifting process will aid in your development as a proficient cyclist, rendering your rides safer and more enjoyable.
- NOTE: Everyone is different! The right gear for your buddy may or may not be the right gear for you! Experiment and find out what works for you in different riding conditions.

Shift early and often:

- Anticipate what gear you’ll need BEFORE you actually need it!
- When riding on the flats, get into a gear combination that gives you a comfortable spin for the speed of the group. (Usually between 90 & 95 RPM)
- As you approach a hill, downshift, and get into the gear combination that will work for you on that climb.

Be Careful:

- Carefully consider when to look down at your chain, not in heavy traffic or when on uneven road surfaces, and not for too long a time; a glance will suffice when it is safe to do so.
- Do NOT back pedal.
- 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.

Last Word: Experiment using different gears. It’s a quite often occurrence that B-SIG participants stay too long in the same gear or ring (too big or too small), whether because they are afraid of shifting, unaware of the difference changing gears can make, or under the mistaken impression that pushing a high gear will make them stronger. Staying in the wrong gear for too long will tire you out and/or slow you down unnecessarily.

Conversely, riding in the appropriate gear will be more efficient, less tiring and will allow you to go faster. Therefore, riding in the proper gear (for you) will improve your entire riding experience.

Also, you should be aware that while bikes are sold today with only a few standard gear configurations, you may find that, because of the type of riding you do or for some other reason, an entirely different gear setup will work better for you than the one your bike came with. (Eg, triple vs double; touring set up vs standard road, etc.) Some of these changes are relatively inexpensive to make. If you have questions along these lines, ask your leaders. Several SIG leaders are quite knowledgeable about the subject, and there are plenty of “gearheads” in the club who will be eager to provide advice as well.

Cycling In Traffic

1) Where Should YOU Be at Intersections?

- 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.
- Going Straight: In one lane of traffic, stay to the right. In two lanes of traffic, if there is a right turn-only lane, stay to the left of the right-turn 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.



2) In General, Where Should YOU Be?

- Two-Way Traffic: Stay to the right, especially outside urban areas and on busy roads with fast-moving traffic.
- 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.
- Heavy Traffic: Especially w/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.

3) On NYC Streets:

- Use the left-most lane on Avenues, 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.
- 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.
- Avoid riding parallel close to grooves, ridges, and the sides of metal plates in/on the roads.
- 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.
- Go slowly in stand-still traffic. It's full of surprises.
- **BE ABSOLUTELY SURE TO YIELD TO PEDESTRIANS WHO HAVE THE RIGHT OF WAY.**

4) Top Threats to Cyclists on City Streets:

- Themselves - Aggressive riders who assume their right of way. (Ride courteously, cautiously & defensively.)
- Pedestrians (they tend to listen for traffic, not look for it) – be ready to yell "heads up," bark like a dog, etc.
- Private motorists – they aren't used to having bikes as part of the mix.
- Cabbies – they drive aggressively, but they ARE used to dealing with bikes. If you see a cab's roof light go on, beware – they're about to let out a fare, so expect a door to open.
- Potholes.

- Metal “tire-eating” construction plates and grates are hazardous, especially dangerous when wet.
- Grooves running parallel with your line of travel.

In Groups:

- Ride single file, except in situations where your group is directed by your Leader ride double file; then take over the lane.
- Exception: police in Bergen County (NJ) will stop and occasionally ticket groups of cyclists who don't ride single file, even in situations where riding double file makes sense.
- Always follow the wheel in front of you, maintaining at most a length, regardless of whether it's single or double file riding.
- Always attempt to stay with the group. If a light is changing, but the group has started going through, continue going through unless you're riding right into traffic. The group as a whole should be considered as a “vehicle,” unless it is an especially long line. If you are about to enter the intersection, and are in doubt about the safety of continuing, call out “Stopping!” and slow to a stop. Do NOT stop abruptly.

5) Tips:

- Try to make eye contact with drivers when interacting with their vehicle. Attempt to stick with the group going through an intersection. If you are closely following the wheel in front of you, 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!**
- Don't count entirely on a vehicle's turn (or lack of turn) signals – watch the car's front tires, which always point where the car is going.
- The best way to indicate to an approaching motorist that you're planning to stop is to put your foot down.

Climbing Hills

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

1) Gearing on Climbs:

- You should spin through the climb.
- 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.
- There are three parts to any hill climb: the approach, the climb and the place where the hill tapers off to a crest.
 - 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. Change to the gear that will bring the RPMs above normal.
 - 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.
 - As you approach the crest, the hill tapers off and your RPMs will increase. Immediately shift to a higher gear to maintain your cadence. Continue with this shifting process until you crest the hill. 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.

2) Four Basic Climbing Styles:

- Sit down and spin.
- Sit down and mash (lower cadence), sitting way back and dropping your heels.
- Stand as high as you can, while keeping the bike straight.
- Stand up as high as you can, fall back on your heels, and “honk” the bike (pull up with your arms against downward pressure with your leg).

Each cyclist has a different climbing technique. Eddy Merckx sat down and had a running technique; Greg LeMond stood up and ran; Lance Armstrong spun at a very high cadence. All three of these guys have won more Tours de France than any of us likely will.

3) Hints for Hill Climbing:

- Try to keep the pressure off the calf muscle by using the bigger muscles instead of the small muscles. Using the big muscles allows you to pull back with hamstrings and your butt, pulling the bike with the hands, and putting extra pressure on the pedal....“honking.”
- Don't look (stare) at the hilltop, it's self-defeating and psychologically drains you. Hills are never as steep as they look. On the other hand, don't look at your feet. It is best to look a bit ahead of you, but, again, don't fixate on the slope of the hill.



- 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 accelerated on the down slope, establishing your gear for the descent, and starting to recover without loss of momentum.
- As you are climbing, do not frown (dreading the climb), instead smile (thinking about your improving fitness – this hill will help you get stronger). This really works!

Descending Hills

- Concentrate on the road ahead.
- Keep pedaling, helping dissipate any lactic acid build-up from the climb.
- Control your speed. If you reach a speed that feels uncomfortable, gradually slow down. Do NOT jam on the brakes!
- Practice descents, increasing your speed as your bike handling skills improve.
- Keep your weight back by sliding your butt toward the back of the saddle or even off the back edge of the saddle.. Stay low and back, so that if you must brake or hit a bump your center of gravity is low and bike is stable.

1) Controlling your speed while descending:

- Slow down by raising your upper body, creating more wind resistance.
- Brake by briefly applying the brakes (especially rear brake), then re-applying briefly as necessary. This is called feathering the brakes.
- Do not constantly apply brakes.
- Brake before turns, trying not to brake while in a turn.
- On steeper descents, move your hands to the drops of your handlebars. Your body will be more compact and therefore more stable. This position will also make you go faster, but you can control your speed by feathering both brakes, as mentioned. This is also the most efficient braking position as your hands are lower on the brake levers giving you more leverage.

2) Learn how to increase your down hill speed:

- Proper bike handling skills (page 19) will allow you to obtain more speed on descents. Practice mastering the counter-steering technique.
- As your skills improve, try going a little faster on descents.
- You want to strive for the feeling that your body and the bike are one.

3) Passing on a descent:

Be sure to yell “on your left” as loudly as possible. Don’t pass unless you have checked for car traffic and you see that there is enough room for you to get by the cyclist ahead of you clearly, without jeopardizing you or the other riders. Pass, and move back to the right, out of traffic.

Paceline Cycling

1) What Is Drafting?

- Drafting is when you ride closely behind the cyclist in front of you so that they block the wind, allowing you to travel at the same speed as them with less effort.
- When you are drafting behind another cyclist, you are said to be 'on their wheel.'
- Because the entire paceline drafts behind the lead cyclist, each individual saves between 15% and 30% of their energy compared to riding alone. Even the cyclist in the lead gets a slight advantage over solo riding.
- The group can maintain a consistently higher pace easily while conserving energy.

2) How Does Riding in a Paceline Work?

- The lead person sets the pace.
- Each following rider stays between 18 and 36 inches behind the next forward rider.
- Stay in line, calling out hazards down the line (Good communications is key).
- 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.

3) Tips:

- Focus on what is going on around you! A paceline is not the place to allow your mind to wander!
- 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. Do NOT stare at the wheel in front of you.
- Do NOT overlap the wheel in front. Control your speed by sitting up and/or feathering brakes and/or slowing your cadence.
- The rider immediately behind the lead rider should keep their wheel slightly to the right of the leader's rear wheel so that the leader can easily look for traffic and pull off with obstruction.
- If you start to overlap, soft-pedal and gently feather your brakes to slow down. Do NOT brake suddenly. If you are overtaking the rider in front too quickly and need to act immediately to avoid a collision, pull out of the paceline slightly, adjust your speed and reintegrate yourself into the paceline as quickly as possible.
- Be consistent, so the next rider can anticipate.
- If you are in the lead when the group approaches a red light, slow the group down gradually, well ahead of the intersection. Think of a train arriving at a station.
- If you are in the lead when the group stops, accelerate slowly when starting off, as it takes a while for everyone to get going. Think of a train leaving a station. (Seven to ten pedal rotations is usually sufficient time from leaving a light to begin accelerating back up to pace.)

4) Rotation in a Single Paceline:

- The goal of a rotating paceline is to ride consistently and efficiently at a higher pace while conserving energy. Short, 30-second pulls are most effective.
- The lead rider both calls out and hand-signals "Pulling off," and then, after checking for traffic, takes 2 to 3 hard pedal strokes to separate themselves from the group, and move safely to the left. Then, slows their pace to fall back to the end of the paceline, staying within one handlebar length of the rider to the right, and continually checking for traffic approaching from the rear. The rider falling back should do so at a speed of 3-4 seconds per rider thus allowing them to get back on the line and away from approaching traffic as soon as possible.

If traffic makes it unsafe for the rider to drop all the way to the rear, they should signal their intention to move back into the paceline immediately, and remain in that position. Safety FIRST.

- The next rider becomes the lead, maintaining the same pace (don't speed up!).
- If there is gap in the paceline and the group is effectively split in two, paceline as two separate groups.

The second group leader should rotate off the front, and the new leader should "pull" the gapping group back to the lead group. If it takes more than one leader rotation, that's fine. If the gap cannot be closed or there is consistent gapping, your Ride Leader will make the decision to slow the pace, or split into two separate paceline groups.

Notes:

It is NOT beneficial to the group to have one person pull for an extended period of time unless issues of safety dictate.

It is NOT acceptable for a rider to jump out of the group that is gapping, to catch the lead group. The gapping group needs to work as a team, rotating leaders to close the gap. If your group remains separate and you are feeling "stuck" in a slow group, speak with your Ride Leader at a break or rest stop, don't just abandon the group.

- Next-to-last person in the line calls out "Next-to-last" to alert the ex-Leader.
- Last person in the line calls out "I'm last" so the ex-Leader can fall in behind by accelerating to keep the line's pace. This call should be made when the ex-leader's bike is even with the rider in front of you.
- Depending on conditions, each pull should be no more than 30-seconds. (We may practice with longer pulls in the beginning, but short pulls are most efficient.)
- Always maintain a steady pace and follow the wheel in front of you.
- On hills, try to maintain the pace of your Leader, even if you are a little slower. If you're leading and know you'll slow down on a hill, pull off the lead before the hill and let a stronger rider take lead. No passing, unless your Ride Leader instructs you otherwise.
- At the top of a hill, the lead rider gradually comes back to pace allowing the line to regroup
- Never switch leads on the uphill or downhill or on a curve (too confusing and potentially dangerous). The draft allows riders to ride faster or with less effort than the leader so if you are in the lead, maintain your speed downhill by continuing to pedal.
- Don't drink or eat when you're first in line or you won't maintain the consistent pace that the rest of the group is counting on. The lead cyclist should never reach for a water bottle or unwrap an energy bar.
- Do NOT clear upper respiratory tract, No spitting or "snot rocks", EXCEPT while last in line.

5) Rotation in a Double Paceline:

- Requires a larger area of road (shoulder) than Single Paceline. Only do this when you have the room, because when rotating you will be riding four abreast!
- The group rides double file with two lead riders.
- When it's time to rotate, the two leaders communicate with each other. They will check traffic, pick a point ahead where they agree to begin pulling off, making sure they both are ready.
- After checking for traffic and calling out, the two leaders take 2 or 3 strong pedal strokes to slightly separate from the group, then pull off; the left leader pulls off to the left and the right leader to the right. The two ex-Leaders move on the outside of the double file line, moving to the back in unison (same drop back rate).

- It is very important for the leaders to anticipate the possibility of the road narrowing and returning to single file when necessary.
- Not recommended for newbie single paceliners.

6) Summary:

A paceline is a beautiful thing! You all move as one and help each other. No “hotdogs” allowed!

The Art of Leading a Club Ride

You have the skills. Why not give something back to the club and lead a ride?

1) List and prepare for your 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. If you are a rookie Leader, ask your SIG Leader for help or recruit a veteran Leader to co-lead. The NYCC B ride coordinator can help you find a 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.
- Bring a NYCC Sign-In sheet, Insurance Accident Report Form, a pen and lots of cue sheets to hand out. If you listed your ride online, print out the pre-populated cue sheet with names and numbers already typed.
- Use the NYCC ride submission program to list and automatically publicize your ride. You can post updates, if relevant, on the NYCC Message Board.

2) At Ride's Start:

- 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 risks getting left on the road with a problem.
- Take a look at the participants. If you have ridden with some of these riders, make a mental note of whom you might want to ask for assistance leading, as needed. If a lot of riders show up, don't be shy about asking for assistance from qualified participants.
- Pre-ride talk is very important; tell the riders before the ride starts what to expect. This talk will set the tone of the ride and helps eliminate any misunderstandings during the ride.
- 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. Leaders should adhere to the pace that was advertised for the ride.
- Briefly talk about group riding and how it is the participant's responsibility to communicate while on the road (i.e., “off the back,” hazards, etc.) to your Leaders and the other participants.

3) During the Ride:

- Make sure you constantly watch your speed (the pace) and maintain the advertised pace.
- Be deliberate and predictable when you are in the lead of the pack. Speed up and slow down gradually.
- If your group is not communicating, pull them off the road and tell them nicely that they must pass the word up and down the “line.”
- If you have someone constantly “off the back,” talk to that person in private, telling him/her that he/she needs to stay in contact with the group or perhaps get home on his/her own.
- If you have a mechanical or accident, get everyone off the road to a safe spot away from traffic.

4) After the Ride: Make plans for your next ride lead!

Starting Points

Prospect Park

Specific details will be distributed when finalized.

Central Park Ramble Shed

Is also 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 slightly west of the road.

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 right at the top of those stairs. This particular statue was removed from Manhattan by Mayor LaGuardia in 1941 as he was sick of being mooned by it every time he left City Hall (important stuff)! Alas, the statue was removed in 2013 and all that's left is a vacant statue base.

Woodlawn, Bronx

The last stop on the #4 subway line.

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.



Routine Bike Maintenance Checklist

Some of us maintain our own bikes, others among us depend on a mechanic in a local bike shop, but all of us need to maintain our machines!

And remember – maintaining your bike in good working order is another instance 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.

(By the way, if you've purchased your bike recently from a local shop, the shop probably offers free basic tune ups that will check for most of the items on this list, and correct many of them free of charge. Some offer this for a year, others for a lifetime!)

Checking the following three items, you'll cover about nine-tenths of the causes for trouble encountered on bike rides:

1) Chain - make sure that it is clean and lubricated.

- How does your chain look? Dry, maybe even rusty? Or excessively oily, dirty, gritty? Does the chain run smoothly through the rear derailleur when you backpedal? A dirty, worn chain tears up the rear cogs and front chainrings, is prone to chain-suck, shifts lousy and is less efficient. If you haven't lubricated the chain recently, clean and lubricate it now!
- Is your chain worn? If you've been experiencing difficulty shifting, noisy operation or a rough pedal feel, you may need a new chain. Check this by pressing lightly on the right pedal to tension the chain. Hold a 12-inch ruler against the chain. On a fresh chain, 12 full links (from pin to pin) measure exactly 12 inches long. If 12 links measure 12 and 1/8 inches or longer, the chain needs replacing.

2) Brakes - make sure that they'll stop you.

- When you squeeze the levers, they should go no further than two-thirds of the way to the handlebars before the brakes are fully applied.
- Check the brake pads. Are they centered? The pads should contact the wheel rim at the same time. Are they positioned on the rim correctly? They should touch the rim all at once, not upper or lower edge first, no overhang, not touching the tire. Pads should be slightly angled front to back to eliminate brake squeal.

3) Wheels/Tires - make sure that you're rolling safely.

- Inspect your tires (sidewalls, too) for punctures, cuts, weak spots, and leaky valves. Inflate to correct pressure the evening before the ride and check again before the ride. If not sure, ask your Leader for PSI recommendation.
- Seat the wheels properly. Set the bike on the floor, open the wheel's quick release lever and press down lightly on the frame so that the wheel is fully in the dropout. Hold the wheel in place (both sides of the quick release skewer) when tightening the quick release. Be sure that the wheel is tight to the frame. You have to develop an instinct about how hard you have to turn the quick release lever to lock it, but if it leaves an imprint in the palm of your hand when you close it, it's probably tight enough.
- Spin the wheel to see if it's bent/wobbling. Inspect for rim or spoke damage (cracked or dented rims/bent or loose spokes).
- Every few weeks inspect the tire surface and carefully "pick out" any glass. If you really want to do a good job, deflate and remove tire from rim. Squeeze the deflated tire where it meets the road and pick out the

glass (you will be amazed at how much stuff is embedded). If you find a cut that goes all the way through the tire (outside to inside) it's time to replace that tire.

Other things to check

4) Steering:

- Check the headset for looseness or tightness. Turn the handlebars to the far left and right; make sure that they turn smoothly and have a full range of motion. Standing with the bike straight, lock your front brake and rock the bike back and forth while checking for any gapping between the fork and lower headset cup; listen for any clunking noises.
- The headset is the component that connects the fork to the frame and allows the fork to turn for steering. It's also forced to withstand the massive pressures encountered when the fork transmits shock into the frame (all those rough roads). If you've a loose feeling in the handlebars, rattles or clunks when riding over bumps, or you feel the handlebars "catching," as if there were notches stopping the turning at various points during the fork's rotation inside the head tube, then you need headset maintenance.
- Hold front fork between your knees and try to twist the bar and stem with one hand; if it moves easily, tighten the stem binder bolt a moderate amount.

5) More Lubrication and Adjustment:

- If your gear shifting has been slipping, sluggish, or noisy, inspect the cogs and derailleur for dirt or damage. The front and rear derailleur may need adjustment, as well.
- Check your brake and derailleur cables for kinks and fraying.
- Lightly bounce your bike to listen for rattles indicating parts that need tightening. Check tightness of nuts.
- Check that your saddle is level and doesn't pivot or drop.
- Lubricate brake and derailleur pivot points and springs on clipless pedals.

Whew! That's not all inclusive, but a good start.

There are a handful of excellent, comprehensive bicycle maintenance and repair manuals. One such is Anybody's Bike Book, by Tom Cuthbertson. Also, Bicycling Magazine and Park Tool Company each publish manuals of its own.

Here are a few great online 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.bikewebsite.com/