



Group Riding Techniques

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A. Group Riding Terminology

Thanks to the [Ottawa Bicycle Club](#) for allowing us to use content from their website!

A.1 Groups and Packs

A “group” is several cyclists who wish to travel at about the same speed. BCC Rides are typically grouped into Beginner, Easy Roller, Touring, Classic and Sportif groups. If a group is large, it will be divided into smaller packs of 6 to 12 riders.

A.2 Tour Leader

The tour leader organizes the tour and plans the route, making announcements and giving directions at the start of the tour. If a group consists of a single pack of riders, then the tour leader also acts as pack leader. If the group consists of multiple packs, then the tour leader leads one of the packs and assigns leader(s) to the other pack(s) and provides them with directions or cue sheets.

A.3 Pack Leader

The pack leader is responsible for knowing the route, monitoring and enforcing group speed (see Section B.11), and ensuring that each rider follows BCC touring rules and group riding techniques. The pack leader calls changes in formation from double to single file and vice-versa. Each pack leader must know how many riders are in the pack to ensure that no one goes missing.

A.4 Lead Riders

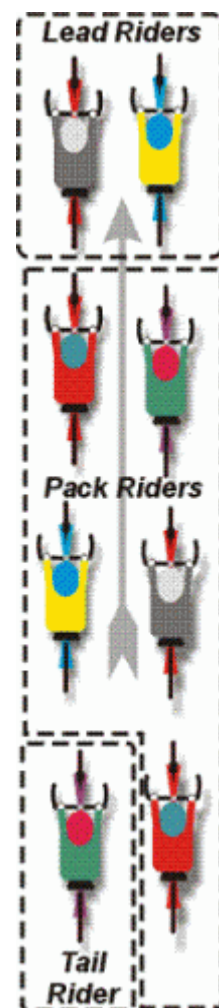
These are the two riders in front. They are responsible for calling out turns and stops, and warning of bad road conditions. The inside rider (closest to the curb or shoulder), is responsible for maintaining the speed within the pack. The outside rider is responsible for signalling oncoming traffic, and decides when the pack is to rotate.

A.5 Pack Riders

The riders behind the leaders and ahead of the rear riders are pack riders. Each is responsible for passing information from the lead riders to the riders behind.

A.6 Tail Rider (sweep)

The tail rider is the last rider on the outside. Like all other pack positions, this is a rotating position. Whoever is in the tail rider position is responsible for signalling vehicles approaching from the rear and for initiating left turns and lane changes after confirming that it is safe to do so (*for more detail on left turns, see Section B.7*). The tail rider also ensures that nobody is left behind: if riders are at risk of being dropped, the tail rider passes this information to the pack leader so that the speed can be adjusted.



A.7 Rotation Definition

Rotation is the process of changing the lead riders so that all riders share the work -- it's about 30% harder "pulling" in front than drafting behind another rider. Riders change positions in the pack so that each rider takes only a short turn at the front, followed by a longer opportunity to draft behind other riders. *(See Section B.4 for more details.)*

A.8 Pack Size

If the group size is too large for safety on the intended route (a size of up to 12 is reasonable) the group shall be split into packs of no more than 12 riders. The tour leader will designate experienced riders as leader for the extra pack(s). If the packs formed from a group will be riding at different speeds, the fastest packs shall start first. The distance between any two packs should be at least 200 metres to allow other vehicles to pass safely in two manoeuvres.

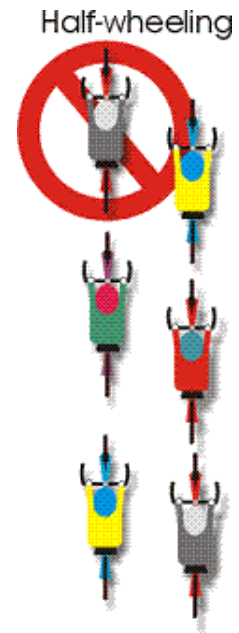
B. Group Rotation & Manoeuvres

B.1 Starting

The leader will announce that the group is starting and moves off slowly. The other riders fall in behind and take up position in double file. Only when the lead riders confirm (by looking back) that the pack is together, do they begin to increase speed.

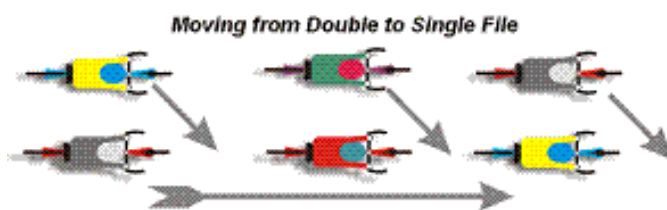
B.2 Formation

Ride side-by-side with your wheels level to your neighbour's. Try not to pull ahead (known as "half-wheeling" as shown in the diagram to the right). Follow the rider in front, but with a slight offset so that your front wheel aligns with one of the pedals of the rider in front of you. This provides extra braking distance in an emergency. Do not make sudden changes in speed or direction without warning following riders. Always have your hands close to your brakes so that you can react quickly.



B.3 Single File

Traffic and road conditions dictate when to ride single file. If motorists are having difficulty passing the pack because of heavy and continuous traffic in the opposite direction, the pack leader will decide whether to change to single file. The key factor is the width of the roadway or lane. It may be safer to hold up traffic if there is insufficient width for it to pass comfortably. Riding single file may not benefit either cyclists or motorists, because it doubles the length of the pack and could make passing more hazardous because of poor sight distances. Although we try to accommodate motorists, riders' safety must never be compromised purely for the convenience of motorists. When single file is called, the inside riders put a bike length

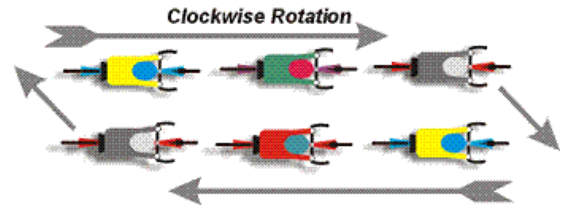


between them and the bike in front. The outside riders then move in ahead of the rider on the right. As soon as the heavy traffic has passed the pack should revert to double file.

B.4 Rotation Process

The lead riders should rotate frequently to avoid fatigue. If you are tired, rotate through the front quickly. If you feel comfortable in front then spend a little more time there, but remember your partner!

The pack rotates clockwise when the outside lead rider calls "ROTATE". The outside lead rider accelerates slightly (1 to 2 km/h) to move straight ahead but does not move across to the right until the inside lead rider calls "CLEAR". Outside riders move up one place and inside riders back one place. The inside rear rider moves over to become the tail rider.



Note: the most common mistake made during a rotation is the outside lead rider speeding up too much and gapping the group. This can cause the lead rider to brake or the pack to accelerate in order to close the gap – and the combination of those two adjustments can result in collisions within the pack.

B.5 Hazards

The lead riders call out hazards such as bumps, gravel, and road kill. Point out the position of the hazard so that following riders know on which side to pass. Following riders repeat this information to the riders behind. Hand signals are preferred to shouted warnings although some roads requiring warnings are so rough that you will want to keep both hands on the handlebars!

B.6 Right Turns

Lead riders call for the turn. The tail rider should signal the turn. Stop if required, then proceed as traffic permits. If it is not necessary to stop, coast through the turn with right pedal up.

B.7 Left Turns

Lead riders call for the turn. The tail rider determines when it is safe to take or cross the lane, signals the turn to following traffic, calls "CLEAR" and instructs the rest of the pack to move across the lane. Riders move across the lane from rear to front. This manoeuvre is repeated as necessary for multi-lane roads. Stop if required, then proceed as traffic permits. If it is not necessary to stop, coast through the turn with left pedal up.

On a *very busy road* with multiple lanes of traffic there may be no opportunity for the group to safely move to the left turn lane. In this situation the group should proceed in the right lane to the intersection where they make right turn (instead of a left turn) on the cross road. The group then proceeds to a point in the road where it is safe for the group to make a U-turn and returns to cross the intersection.

B.8 Crossing Busy Uncontrolled Intersections

Crossing a very busy road or highway at a two way stop sign (no traffic lights) is one of the most challenging and high risk situations that our tour groups will typically encounter. Each cyclist in the group must observe on-coming vehicles in both directions and look for a break in the traffic that will give them sufficient time to safely cross the road.

The safest and fastest method for the entire group to cross in this situation is for all group members (assuming the group does not exceed 12 members) to line up side-by-side across the lane at the stop sign. When a sufficient break in the traffic is available, all the cyclists can proceed together across the intersection.

Note that if any individual cyclist, for any reason, is not confident crossing with the other group members, they should wait behind until they are comfortable crossing the road on their own. In this situation the other group members should wait (off the road) for the remaining member(s) to complete the crossing.

B.9 Riding Uphill

On short hills or sustained but gradual inclines, the lead riders should reduce their speed to match the slowest riders in the pack. This will result in less time waiting for riders at the top and a higher average speed for the whole ride.

If the pack breaks up on longer, steeper hills, slower riders should keep to the right. Before passing a rider always call “ON YOUR LEFT” and shoulder check for riders or cars coming up behind you before pulling out to pass. *Never pass on the right.*

If the formation does break up on a climb, riders should stop at the top of the hill to regroup. Do not leave slower riders behind; if they are slower, they will have difficulty catching up.

If you need to get out of the saddle to climb, wait for the part of the pedal stroke where you are actively pushing down. This will reduce the "pause effect" which occurs when you are not actively applying power to at least one of the pedals while climbing. The “pause effect” can result in the rider behind you coming into contact with your back wheel.

B.10 Riding Downhill

The lead riders must continue to pedal, so that the drafting pack riders minimize braking on the downhill. Pack riders follow the lead riders but gently increase the distance from the rider in front to allow more reaction time in case of emergency. If your speed picks up too much, do not pull out of formation to pass other riders – just gradually decrease your speed.

On longer, steeper downhills where the pack may break up, it is critical that you keep well to the right unless you are passing someone and that you call “ON YOUR LEFT” before passing another rider.

B.11 Maintaining an Appropriate Group Pace

Pack leaders are responsible for monitoring and maintaining the pace of the pack but every rider in the pack has a role to play in ensuring that the ride is appropriately paced. Even though a tour leader may announce a target average speed of, say, 25 km/h for the ride, the lead riders may have to work fairly hard to maintain 21 km/h going into a stiff breeze on the flat. Riders in the pack should be glancing down at their speedometers occasionally to get a sense of how fast the group is moving in varying conditions, e.g. headwind, hills, cross wind, tailwind. That way when they get to the front they will maintain a speed that keeps the pack together.

If at any time during a ride you are having trouble keeping up with the group, don't hesitate to call "EASE UP". This is especially critical when you are at the back and there is a good chance that you are going to be dropped by the group. Let the riders beside you at the back know that you are struggling and have them pass the "EASE UP" call up to the front of the group.

If you find yourself challenged by the speed of a ride that you can usually handle, please make sure that you keep up your part of the bargain by making sure that you drink to stay hydrated, eat to avoid the bonks and either keep your turns at the front very short or stay out of the rotation by tucking in at the back of the pack.

Note: If "EASE UP" is called, don't stop pedaling or, worse still, apply your brakes! Instead lessen the pressure on your pedals a bit and bring the speed down by a couple of km/h.

B.12 Passing Other Riders

When approaching a single rider or slower group from the rear, check that the way is clear, call out "ON YOUR LEFT", and then pass, allowing plenty of room. Do not cut in front of the riders you have passed. If there is oncoming traffic and the lane is not wide enough for both packs side by side, the pack leader should either wait until it is clear or change to single file and then pass. If there is following traffic, the tail rider should indicate that the group is going to cross the centre line (left turn signal), and signal the following vehicle to wait. The leader of the front pack should assist the pack behind to pass, if necessary by slowing the pace a little.

B.13 Passing Slow or Stopped Vehicles on the Right

When approaching a vehicle(s) from behind that is moving slowly or stopped neither the group nor any cyclist in the group shall pass the vehicle(s) on the right except when a clear right lane is available allowing the cycling group to safely change lanes to the right. This would apply to a right turn lane approaching an intersection but only if the cycling group is making a right turn at the intersection.

Our cycling group may pass vehicles on the right if we are riding in a bicycle lane that is clearly marked on the road. However, even when riding in a marked bicycle lane the group should exercise extreme caution when passing vehicles on the right approaching an intersection as the vehicle's driver may not signal and/or check their blind spot before making a right turn.

In all other situations the cycling group should remain behind the stopped or slow vehicle(s) and only proceed with the normal flow of traffic.

B.14 Slowing

Lead rider or pack rider calls "SLOWING". Stop pedalling and prepare to brake. Riders slow down in order from rear to front to avoid catching the rider ahead.

B.15 Stopping at an Intersection

Lead riders will call "STOPPING". Gear down, stop pedalling, and brake gently. Avoid sudden braking. *See Section C.4 for more details about approaching Stop signs.*

B.16 Stopping at the Side of the Road

There are often reasons that necessitate our cycling groups or individual cyclists in a group to stop on the side of the road. These could include a flat tire, chain off, or other mechanical issue. Often we stop to allow riders to add or remove layers of clothing, to get something to eat or drink, to regroup after long hill climbs, etc.

Any and all cyclists that stop for any reason on the side of the road must immediately move themselves and their bicycles completely "Off the Road" and away from other possible vehicle traffic. On wide roads with a paved or gravel shoulder you must move at least well onto the shoulder. On narrow roads with little or no shoulder you must move well off the road to the suitable stop area.

B.17 Riding Smoothly and Predictably

All changes of speed and direction should be smooth and gradual. Avoid any sudden movements to left or right (switching) which is dangerous in a group and can lead to crashes and serious injury. Do not remove things from pockets, eat, drink, take off clothing, startle another rider, suddenly break ranks or do anything else that may result in an erratic movement when riding in a group. If the speed is fast you must be especially vigilant. Your hands must be on the bars at all times. To eat, etc., wait until it is your turn to be at the back of the group.

When starting up from a stop, or continuing after slowing to cross rough railway tracks or make a turn, lead riders should be aware that the pack will be stretched in these situations, and that they should accelerate slowly back to cruising speed to allow the trailing riders to catch up to the pack without having to sprint.

Typically, your cadence should be between 80 and 100 rpm for flat riding. On hills this may reduce to 60 rpm or lower. The higher the cadence, the smoother a rider you will be, better able to adapt to changes of speed and other manoeuvres.

Avoid sudden braking at all costs. Be aware that the front brake has a very abrupt stopping action whereas the back brake is less abrupt.

B.18 Bicycle Lanes

When riding on roads which have a clearly marked bicycle lane our cycling group will, as much as possible, ride fully within the bicycle lane. If the width of the bicycle lane and the road surface conditions are sufficient the cycling group may ride in a double file formation. Otherwise the group should ride in a single-file formation.

When riding in a bicycle lane all cyclists in the group should pay careful attention when approaching and passing vehicles on the right near intersections and driveways in case a driver makes a right turn without checking their blind spot.

C. Complying with the Highway Traffic Act

From the Ontario Ministry of Transportation's website:

“As a cyclist, you must share the road with others (e.g., cars, buses, trucks, motorcycles, etc.). Under Ontario's Highway Traffic Act (HTA), a bicycle is a vehicle, just like a car or truck. Cyclists: must obey all traffic laws.”

The Brampton Cycling Club is actively cooperating with police departments in the regions where we ride to support their efforts to make our club rides as safe as possible. As part of this cooperation, in addition to publishing the information in parts A and B of this guide, we have adopted the following guidelines specifically to address concerns often raised relative to the HTA.

C.1 Ride Tight-to-the-Right

Our cycling groups will always ride “tight-to-the-right” and in a “straight line” to minimize our obstruction to other vehicles with whom we share the road. In our normal double file formation tight-to-the-right means the cyclists on the right are riding within a meter of the road's shoulder or curb and the cyclists on the left are riding within a half meter of the cyclist to their right. Of course obstacles or hazards on the road will require the entire group to move cautiously to the left as required.

Our cycling groups will NOT ride in a wide diagonal echelon formation in cross winds.

C.2 Separation Between Packs

To assist motorists to pass safely, we must ensure that there is enough distance (200 m or more) between packs to allow a motor vehicle to pass and return to the lane. This both optimizes the safety of the pack and acknowledges the rights of other road users. To avoid the formation of a large unmanageable group, two packs should not join up.

C.3 Following vehicles and oncoming vehicles

The tail rider indicates when a vehicle behind the group is waiting behind the pack to pass by calling "CAR BACK"). If the pack is impeding the traffic flow the pack leader or tail rider calls for pack members to single-up. Please refrain from waving other vehicles past the group -- it is the responsibility of the driver to pass safely and you risk assuming some liability should an accident result.

If a lead rider sees an approaching vehicle that others in the pack may not yet have seen, e.g. while making a left turn onto a heavily wooded road with restricted lines of sight around the corner, the lead rider calls out "CAR UP".

C.4 Stop Signs

Lead rider(s) will come to an "effective" complete stop, behind the white line if one is present, at all Stop Signs in both urban and rural areas. Note that an "effective" stop does not necessarily require the front riders to unclip and put a shoe down. However it does require that the lead riders brake to the point where they are either instantaneously stopped or at a speed they could make a foot-down complete stop with no further braking.

All group riders behind the lead rider(s) must also brake to a speed where they are safely prepared to make a foot-down stop if necessary.