



**Ulman Cancer Fund for Young Adults'  
Cycling Safety Guide**

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## Section 1 – Basic Rules of Cycling

Safe riding conditions are the responsibility of everyone who uses the roads. A thorough understanding of the basic rules of cycling and the use of common sense will help to guide a cyclist safely through traffic. The basic rules of cycling are to:

**Follow the law.** As a vehicle traveling on a road, cyclists must obey all traffic rules. This includes obeying traffic signals, staying under speed limits, stopping at stop signs, and signaling turns.

**Ride in the direction of the traffic.** Riding against traffic is illegal and increases a cyclist's risk dramatically, because it increases closing speeds.

**Pass on the left.** Cyclists should always pass motor vehicles, cyclists, and pedestrians on the left.

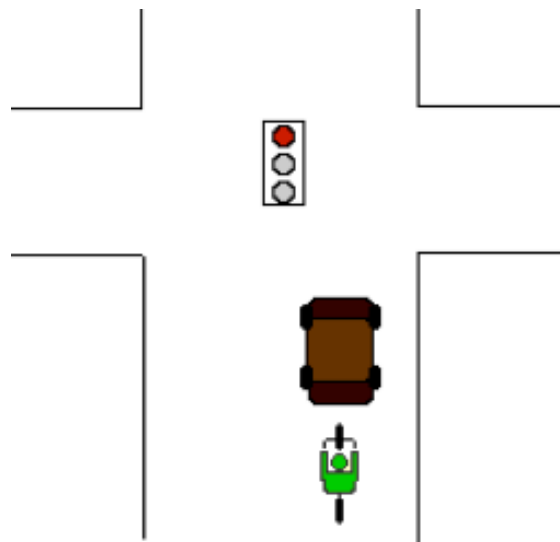
**Be alert.** Cyclists should never ride with headphones or other items that limit their ability to be alert to their surroundings.

**Be predictable.** Riding in a straight line and signaling well before changing lane position helps make cyclists' intentions clear to everyone on the road.

**Be visible.** Proper lane positioning, bright reflective clothing, and bicycle lights help with visibility.

**Think ahead.** Anticipating the next move of motor vehicles, other cyclists, and pedestrians will help cyclists ride safer.

**Navigate intersections like other vehicles.** Cyclists should stop in the middle of the appropriate traffic lane. Stopping inline with traffic makes the cyclists visible to vehicles on all sides.



**Stop safely.** Finding a safe location to stop is extremely important. Cyclists should always turn 180 degrees, face traffic, and be at least 3 feet off of the road when stopping. Parking lots and grassy areas are safe locations for a cyclist to stop. Cyclists should not stop on a narrow shoulder, at the entrance to a driveway, around a sharp curve, near the top of a hill, or in front of a guardrail.

**Ride ready.** Before setting out on a ride, cyclists should properly hydrate, check their bicycle, and ensure they have required safety equipment.

**Be courteous.** Cyclists should yield to slower vehicles, other cyclists, and pedestrians. If an altercation does occur, cyclists should remain calm.



## Section 2 – Safety Equipment

Having the proper equipment will result in a safer experience. All equipment should fit and function properly. Below is a list of common safety equipment:

**Helmet.** A proper fitting helmet is the most important piece of safety equipment. If a helmet is cracked or does not fit well, it must be replaced. After every crash or impact on a helmet it must be replaced. Wearing a bike helmet with loose straps is the same as not wearing a bike helmet at all.

**Red flashing light.** Red lights should be mounted on the back of your bicycle. Red lights must be turned on to a flashing setting and used during the day and night. Red lights should be at least 45 lumens.

**Front white light.** White lights should be mounted on your handlebars. The white light must be turned to flashing during the day and a solid light during the night to aid with visibility. Front lights should be at least 100 lumens.

**Identification.** Identification and medical information will be invaluable to EMS responders. This is found on your Road ID wristband.

**Reflective material.** Reflective material makes cyclists more visible. All cyclists are required to wear a reflective band when riding.

**Basic tool set.** A basic tool set includes tire levers, a multi tool, a spare tube and a frame pump.

**Mirror.** Handlebar or helmet mounted mirrors can offer cyclists an easy way to see traffic or other cyclists approaching from behind.

**Flag.** Cycling flags add an additional reflective service for motorists to see.

**Bell or Horn.** Bells or horns are useful for alerting cars, pedestrians, and other cyclists.



## Section 3 – Lane Positioning

Choosing a lane position is a fundamental of safe riding. Cyclists should either ride far right or take the lane. The correct position will change depending on the area the cyclist is riding and the traffic conditions. Riding far right is less obstructive to traffic and allows vehicles to pass with more room. In most instances riding as close as practicable to the right-hand curb or edge of the roadway is the safest. There are exceptions to this rule when cyclists should take the lane and ride 4 – 5 feet left of the road's edge. Cyclists should take the lane:

- When overtaking and passing another vehicle.
- When traveling at or near the same speed as other traffic.
- When preparing for a left turn.
- When a lane is too narrow to share safely with another vehicle.

To avoid any condition that makes it unsafe to continue along the right-hand curb or edge. These conditions include:

- a. Gravel shoulders
- b. Grooved pavement
- c. Debris filled shoulders
- d. Sewer grates

When riding near parked cars. Cyclists should ride at least four feet from the side of parked cars to eliminate the risk of being struck, or being caused to swerve into traffic, by a suddenly opened door.

When crossing railroad tracks, cyclists should align their wheels perpendicular to the tracks and slow down.

Changing lane position safely is just as important as choosing a safe lane position. While riding you will have to change lane positions often as road and traffic conditions change.

- Prior to changing your lane position, cyclists should look back, signal, and yield.
- Cyclists should merge over 100 – 200 feet before needed if possible. This distance will give the appropriate time to safely change lane position or stop riding. (Information about looking back and signaling can be found in the safety skills section.)
- Signaling intent to move does not give cyclists the right of way to move. To traverse across several lanes, cyclists should negotiate each lane change one at a time.



## Section 4 – Bicycle Safety Check

Before each ride it is important to conduct the “ABC Quick Check”. This check is an easy to use system to increase bicycle safety.

“A” is for air. Cyclists should

- Inflate tires to the pressure listed on the side of the tire;
- Use a pressure gauge to insure proper pressure;
- Check for damage on tires and replace if damaged.

“B” is for brakes. Cyclists should

- Inspect pads for wear; replace if there is less than  $\frac{1}{4}$ ” of pad left;
- Check pad adjustment; make sure they do not rub the tire;
- Look to see that they can fit their thumb between the brake lever handlebar when the brakes are squeezed all the way;
- Inspect brake quick releases to insure that they are engaged.

“C” is for Chain. Cyclists should

- Check that their chain is free of rust and unbent links;
- Ensure chain is properly lubricated;
- Check that chain is free of dirt and debris.

“Quick” is for quick releases. Cyclists should

- Make sure quick releases are all closed;
- They should all be pointing to the back of the bike, so that they don’t get caught on anything.

“Check” is for check it over. Cyclist should

- Take a quick spin around a safe area to make sure everything is working properly.



## Section 5 – Avoiding Common Collisions

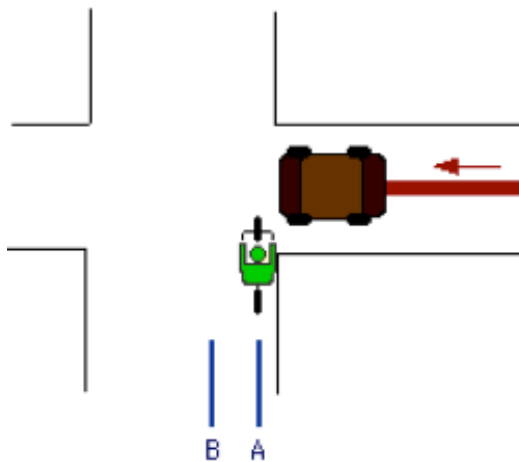
The proper use of safety equipment, choosing proper lane position, navigating intersections safely, passing properly, and selecting safe roads can avoid the majority of cycling collisions. The most common collisions involve:

**Turning vehicles.** A right or left turning vehicle entering or exiting a roadway shared with cyclists, may sometimes result in collisions. A turning vehicle can either pull in front of or into a cyclist.

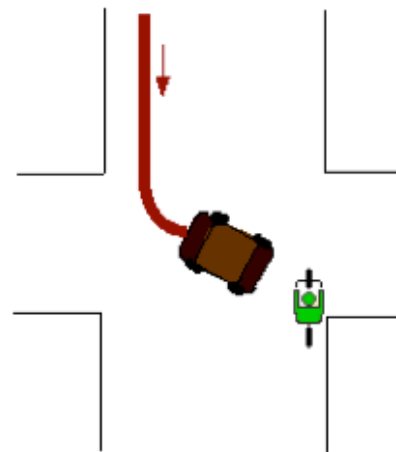
Cyclists can help avoid these collisions by

- Taking the lane. If possible, cyclists should safely change lane positions to take the middle of the lane. A cyclist riding in the middle of the lane is more noticeable than a cyclist riding far right.
- Slowing down. If a cyclist cannot make eye contact with the driver, they should slow down so much that they are able to completely stop if they have to.
- Waving. Waving makes cyclists more noticeable.

### “The Right Cross”



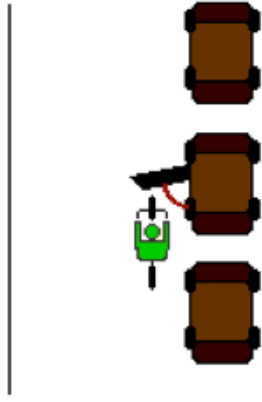
### “The Left Cross”



**Getting “Doored”.** Getting “doored” occurs when a cyclist collides with a door opened in front of them. This occurs when a cyclist is riding within 4 feet left or right of stopped cars. This is very common in cities and around taxis. Cyclists can help avoid this collision by

- **Slowing down.** While riding near parked cars or taxis, cyclists should travel at slow enough speeds to stop at a moment’s notice.
- Riding a safe distance from cars. Cyclists should never ride within 4 feet of a parked car.





**Being rear-ended.** Being struck from behind while cycling mostly occurs when cyclists ride erratically, ride on high-speed roads, are not visible or do not properly change lane positions.

**Trucks.** Large trucks are more dangerous to cyclists than other vehicles. This is due to their size, wide turning radii, and large blind spots. To avoid collisions with trucks cyclists should

- Not linger next to a truck on any side, in any lane. If a cyclist is riding near the same speed as a truck, they should slow until they are behind the truck. This rule applies to all vehicles sharing a roadway with a truck.
- Avoid blind spots. Cyclists should never stop or pass through a truck's blind spots. Cyclists are small objects in large blind spots.
- Watch for trucks making wide turns. Trucks cannot physically make a right turn from the right curb, so they will often leave a large, inviting opening on their right prior to a turn. They will also move straight into the intersection before starting to turn. When a truck turns right across it is very dangerous and hard for the cyclist to avoid the rear wheels.

## Section 6 – Road Selection

There are many factors that a cyclist needs to consider when selecting a road. The most important of these are volume and speed of traffic. Cyclists should look for roads with speed limits under 55 MPH and with light traffic. Other factors cyclists should consider when selecting safe roads are:

**Bicycle Lanes.** Cyclists should be careful when riding in bicycle lanes next to parked cars as they are at a high risk of getting “doored”. A dashed line in bicycle lanes means that traffic will likely be traveling across the lane.

**Sharrows.** Sharrows or Shared-lane markings are pavement markings installed on streets popular for cycling. The arrows are meant to help cyclists with their positioning on the streets by keeping them at least 4 feet from parked cars. They also help alert motor vehicles of the presence of cyclists.

**Road Shoulders.** Shoulders are useful to cyclists traveling on roads that do not have a dedicated bike lane. If a shoulder is too narrow or has a great amount of debris, cyclists should travel in the lane. Cyclists should look for a shoulder at least 4 feet wide.

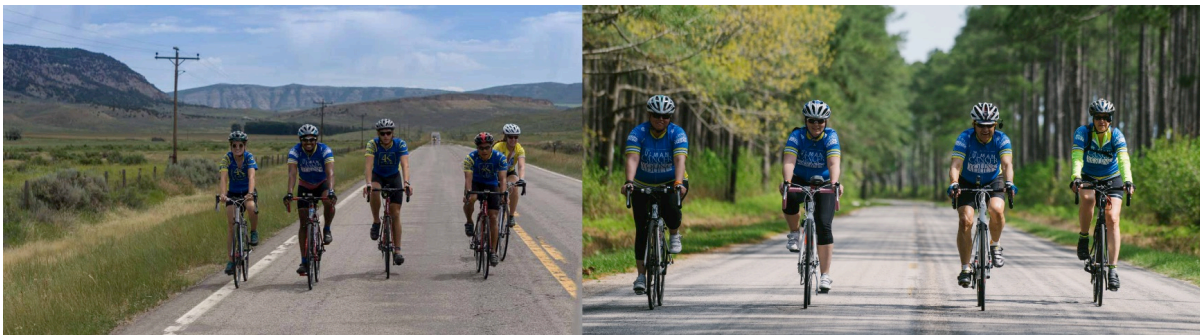
**Pull off Areas.** Cyclists should select a road that has an adequate room to safely pull off the road. Cyclists should be able to safely pull off the road and not impede traffic. Cyclists should be off of the pavement or behind guardrails when not riding.

**Multiple Use Paths.** When traveling on a multiple use path, cyclists should yield to other trail users traveling slower and be mindful of debris.

**Exit Lanes.** Exit lanes are designed for cars to exit a roadway without impeding traffic. Cyclists should try to avoid roads with many exit lanes as they present a problem for cyclists traveling straight. Cyclists should be extra attentive and cautious whenever approaching an exit lane. Taking the lane is sometimes a good way to travel through intersections with exit lanes.

**Restricted roads.** Some roads, such as interstates prohibit cyclists from sharing the roadway. These roads should be avoided at all times as they usually have very high speed limits, high traffic volumes, and exit ramps.

**Sidewalks.** Cyclists should never ride on sidewalks. It is unsafe and often illegal. Whenever on a sidewalk, cyclists should dismount and walk their bicycle. Sidewalks and crosswalks are for pedestrians, and riding a bicycle there puts those individuals in danger of being hit and injured. Finally, many cars simply do not see cyclists on a sidewalk as well as they would on the road.



## Section 7 – Passing

Cyclists who do not pass vehicles, other cyclists, or pedestrians safely can cause accidents to one or multiple parties. As a vehicle on a roadway, cyclists should always pass motor vehicles, cyclists, and pedestrians on the left. The only exception to this is if a motor vehicle or cyclist is in a left turning lane attempting to exit the roadway. Cyclists should never ride along a shoulder, between lanes, or on the sidewalk to pass. Cyclists should know how to safely:

**Pass motor vehicles.** Cyclists should pass vehicles on the left, signal their pass and pass at a safe speed with sufficient room. Cyclists should only pass motor vehicles when it is safe and legal to do so.

**Pass other cyclists.** Cyclists should pass other cyclists on the left, announce their pass and pass at a safe speed with sufficient room. A simple, “on your left” or “passing” will suffice.

**Pass pedestrians.** Cyclists should pass pedestrians on the left, announce their pass and pass at a safe speed with sufficient room. A simple, “on your left” or “passing” will suffice.



## Section 8 – Safety Skills

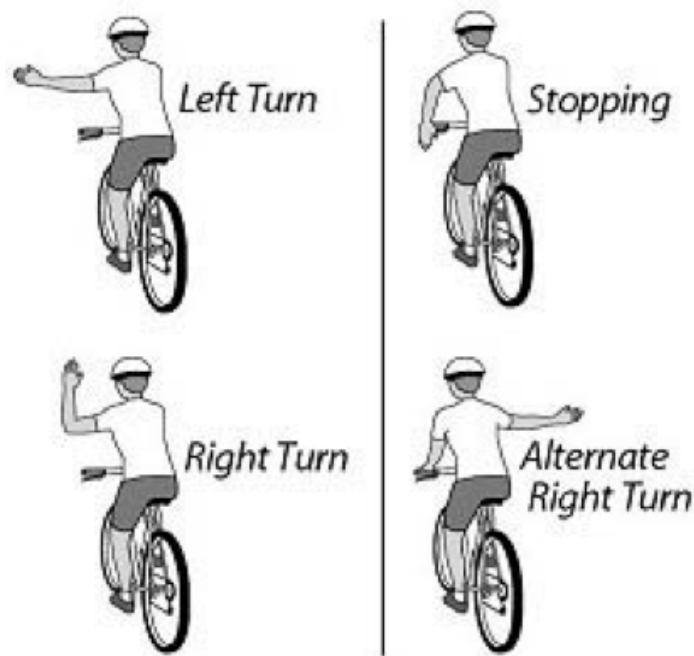
There are many skills needed to ride a bicycle, but there are certain basic safety skills that should be practiced before sharing a roadway with other vehicles. Cyclists should be comfortable:

**Looking back.** It can be a dangerous activity for a cyclist to look back to check for cars, and yet it is often a necessary one, especially when crossing lanes or turning. There is a tendency for some cyclist to turn the bike in the direction he or she is looking. To counteract this tendency, some cyclists will drop their opposite elbow about two inches or angle their bicycle slightly in the opposite direction.

**Braking.** To slow down, cyclists should be comfortable braking and know how long it takes for them to stop. Cyclists should also be aware while riding in wet conditions that braking will take longer. Cyclists should rely mainly on the rear and front brake in tandem to stop. Cyclists should avoid braking with just the front brake as it could send them over their handlebars. Cyclists should shift their weight back on the saddle to avoid going over their handlebars.

**Signaling.** Cyclists have a responsibility to signal when making a turn, or a stop. They should assume that other vehicles may not notice their signal and be sure to look both ahead and behind to ensure their signal has been seen before changing direction or stopping.

- To signal a left movement or turn, cyclists should extend their left arm straight out to their left parallel to the ground.
- To signal a right movement or turn, cyclists should extend their right arm straight out to their right parallel to the ground.
- To signal slowing or stopping, cyclists should extend their left arm with a 90 degree bend in the elbow so that their hand is pointing straight down.





## Section 9 – Riding in Groups

Riding with a group of cyclists can be very different than riding alone. It is important to recognize how to maintain safety and rely on each other while riding together.

**Signal.** Where there are situations that need pointing out such as turning or stopping, the rider in front will signal first and then the signal is passed from rider to rider going back.

**Announce Hazards.** There may well be occasions where situations demand that you call out a hazard to avoid incidents. Bear in mind that there could be riders several feet behind you who cannot see the hazard. This could be anything ranging from a dog running out in front of the bunch to a large pothole, grate or debris.

**No sudden turns or braking.** Quick turns or braking when riding in groups can result in multiple riders falling. If you need to slow down quickly or dodge a hazard, announce it to your fellow cyclists.

**Leave room.** Cyclists should allow room for error. When riding in groups it is important to leave a safe distance between each other to avoid domino collisions from occurring.

### Riding Side by Side

- Bicyclists often like to ride side by side so they can talk with each other. Riding two abreast is legal in most places and is acceptable on a straight, flat road. There, drivers can see you from behind, and you can usually see or hear them approach.
- Side-by-side bicyclists occupy a whole lane. On a multilane road with light traffic, cars can pass in the next lane. On a narrow road or with heavier traffic, be courteous! Don't make drivers wait for you. Pull into a single line well before cars reach you. It takes only one thoughtless rider out to the left of the group to endanger the whole group. Call out, "Car back" to let the group know it's time to single up.

### Changing Lanes as a Group

- Some bicyclists fall for a "herd instinct" when riding in groups - as if the group can protect them, or there's nobody else on the road besides the group. It's tempting to play "follow the leader" in a group of bicyclists - tempting but dangerous.
- When preparing a lane change or turn, you must look out for yourself. It can be safe for the bicyclist ahead of you to change lane position, but not safe for you, since cars or other bicyclists could be approaching from the rear.

## Section 10 – Gear Shifting

Learning how to shift gears is an important skill for every cyclist to learn. Similar to many other aspects of cycling, learning how to properly shift gears can take time. The following tips will help you better prepare and ensure smoother gear shifting:

**The Gears.** Most bikes have two or three chain rings in the front and anywhere from 7 to 11 gears, or cogs, in the back. In the back, moving the chain from the smallest rear cog to the largest makes pedaling easier. Moving it between the chain rings in the front results in a more noticeable change—pedaling feels easier in a smaller chain ring and harder in a bigger one

**Shifter Savvy.** The left-hand shifter changes the front gears; the one on the right controls gears in back. If you get flustered on the fly, remember: RIGHT = REAR.

### It's Okay To...

- Use only the rear cogs and the small or middle front chain ring when you're just getting comfortable on a bike.
- Look down to see what gear you're in (but briefly – like checking your mirrors when driving)
- Shift whenever a more experienced rider does.

**When to Shift.** The reason bikes have gears is so you can pedal (relatively) comfortably no matter what the terrain. Shift to an easier gear on climbs or when you're riding into the wind. Use a harder gear on flats or if there is a tailwind. When in doubt, shift before the terrain changes. When you shift, ease up on the pedals, especially on hills; if you're pushing hard, the chain may skip or fall off.

**Avoid Cross-Chaining.** That means the chain is at an extreme slant, either in the big ring up front and the biggest cog in back, or the small ring up front and the small cog in back. This not only stresses the hardware, but it also limits your options if you need to shift again.

### Cheat Sheet

For: Up hills and headwinds

Use: Small or middle front chain ring + bigger rear cogs

For: Down hills

Use: Large front chain ring + a range of rear cogs

For: Flat terrain

Use: Small or middle front chain ring + smaller rear cogs

## Section 11 – Ascending and Descending Hills

Ascending and descending hills can be intimidating as you become more comfortable cycling, but they don't have to be! As you start your ascent up a hill make sure that you:

**Prepare.** Before the hill, it's important that you are relaxed and prepared to climb the hill. This can include taking a drink of water or unzipping your jersey a bit if it is warm outside.

**Downshift.** Shift into an easier gear that allows you to cycle at a comfortable cadence without pushing hard. It can become more difficult to shift gears midway up a hill.

**Move Around.** Alternate sitting and standing to use all your muscle groups. If you run through all your gears and can no longer spin easily, move your hands to the hoods (on top of your shifters) and push against them for leverage as you pedal.

As you begin your descent down the hill make sure you:

**Scan Ahead.** Look for obstacles or hazards so you have time to react.

**Find a comfortable position.** Consider riding in the drops with your hands on the lower part of the handlebar. Your center of gravity is closer to the ground and your weight will be more evenly distributed between the front and rear wheels. This can help maintain traction, especially during braking and turning.

**Brake Carefully.** Always anticipate what you'll need to do next. This will help you avoid sudden braking. For controlled slowing, gently squeeze both brakes equally with two to three-second pulses. Using your brakes during the entirety of big descents can make rims overheat and possibly cause a blowout.

**Avoid Braking Before Turns.** The biggest mistake that cyclists make descending is they wait until they're in the middle of a turn to brake. Instead, reduce your speed before the turn and gently lean your bike into the turn.

## Section 12 – Weather Conditions

Weather conditions are an important factor when preparing for a safe ride. Cyclists should know how to properly prepare for:

**Hot conditions.** Depending on the time of the year or the location cyclists are riding it can get very hot. While riding in hot conditions cyclists should hydrate and rest often. Cyclists should rest when the heat index rises over 110° F. Temperatures are usually hottest around noon, so cyclists should ride earlier in the day.

**Cold conditions.** Cyclist should make sure they are warmly dressed when cycling in cold conditions. Layering is important, but these clothes should not be so bulky that they make riding difficult, or could get caught in the drivetrain.

**Rain.** Rain presents numerous safety hazards to cyclists. Wet roads are harder to safely stop on, turn on, and are generally slicker. Cyclists should consider waiting for rain showers to pass before continuing. Rain also decreases motor vehicles visibility making collisions more likely.

**Thunder and Lightning.** Cyclists should avoid riding during thunder and lightning.

**Snow.** Cyclists should try and avoid cycling in the snow or snowy conditions as road conditions are much more dangerous.

**Wind.** Windy conditions can transform a riding day in a number of ways. A tailwind can make cycling easy, whereas a headwind can make cycling harder. Cyclists should take extra care when dealing with gusts or crosswinds as they can blow them off course.

**Fog.** Cyclists should consider waiting for a fog to lift as it significantly decreases visibility.





## Section 13 – Emergency Action Plan

### *Code Red*

Life-threatening medical emergency or any type of head injury.

I.E. A participant is hit by a car and is unconscious.

### *Code Yellow*

Non-life-threatening medical event.

I.E. A participant falls and has or may have a broken arm.

### *Code Green*

Unsafe or potential threatening situation.

I.E. A van tire blows out on the highway.

<b>Step 1: Initiate EAP</b>	The primary responder (first person to witness an accident or incident) should initiate the EAP and complete the following steps themselves or delegate steps to ensure completion in a timely manner.
<b>Step 2: Check</b>	Check the scene for safety, if the scene is safe, determine if the incident should be classified as a Code Red, Code Yellow, or Code Green. <i>Be sure to follow safety procedures including, stopping or redirecting traffic as necessary, not moving the victim if you suspect a head, neck, or spinal injury, and removing the bike from the road.</i>
<b>Step 3: Call</b>	Call 911 and provide the following information: <i>Name, Location, Situation, Care Currently Provided</i> <i>Answer any questions and stay on the phone until the dispatcher tells you to hang up.</i> Call support vehicles for assistance and possible transportation.
<b>Step 4: Care</b>	Victim Care <i>Provide CPR/First Aid within the scope of your training or until more advanced medical personal can take over, if necessary.</i> <i>If the victim is transported to the hospital a Director should accompany them, if possible.</i> Vehicle Care <i>Coordinate with roadside assistance, police department, or other vendors as needed.</i>
<b>Step 5: Document</b>	As soon as possible someone should begin filling out the Incident Report Form in its entirety. Remember to describe the event with as much detail as possible and include specifics regarding the hospital.
<b>Step 6: Chain of Command</b>	Once the situation is safe, contact the Program Coordinator to make them aware. The Program Coordinator or Primary Responder (if Program Coordinator cannot be reached) should notify UCF Staff by calling and leaving message until you speak with one of the following people. Follow

	<p>the message with a text containing the Code. <i>STS Manager, STS Director, COO.</i> UCF Staff will contact the victim's emergency contact in the event of a Code Red.</p>
<b>Step 7: Return</b>	<p>Safely clean up and document any medical supplies used. Based on the severity of the incident and recommendation of UCF Staff, a decision will be made regarding returning to activity for the victim and team.</p>

\*Remember do not speak with members of the media and direct all inquires to UCF Staff\*