ThinkFirst
National Injury Prevention Foundation

Bicycle Safety for Teachers

As a teacher, you see students riding bicycles to and from school every day, exercising their bodies — and their independence. How safe are these young riders, sharing the roads and sidewalks with cars and pedestrians? Incorporating bicycle safety into health and science lessons can help kids become responsible, safe riders.

Why is Bicycle Safety Education Needed?

- More than 600 bicyclists are killed and more than 50,000 are injured in traffic crashes each year.
- Brain injuries are the most serious injuries and the most common cause of death among bicyclists.
- One-fifth of all bicycle-related deaths occur among children under the age of 16.

Even though bicycle helmets have been estimated to reduce the risk for head injuries by 85%, helmets have been slow to become the norm. According to the 2011 Youth Risk Behavior Survey, of the high school students who ride a bike, 87.5% reported they rarely or never wear a bicycle helmet. While helmets are worn by serious riders and professionals, we have much to do in helping kids understand the importance of wearing a helmet.

Sources: National Highway Traffic Safety Administration (nhtsa.dot.gov)
Thompson, R.S.; Rivara, F.P.; and Thompson, D.C. (1989)
Centers for Disease Control and Prevention (cdc.gov/yrbss)

Influencing Behaviors

Just as attitudes and social norms have shifted with other safety practices, such as the use of safety belts and child safety seats, so must attitudes toward the use of bicycle helmets. Teaching students how a brain injury would affect them, and how effectively a helmet can prevent a traumatic brain injury helps students understand the science and logic that justify their use. Wearing a helmet becomes far more appealing than dealing with a brain injury.

Promoting helmet use through school and district-wide efforts can help reduce stigma and increase acceptance among students — nobody wants to be the only one wearing a helmet, even when they want to protect themselves. As all join in the norm shifts, leading to an increase in helmet use and a decrease in head injuries.

Choose Your Objectives

As you begin the planning process, determine the objectives of your program, such as:

1. Develop a district policy requiring students and employees to wear a helmet when riding a bicycle to and from school.
2. Implement bicycle safety education and reinforcement within health or science classes in each grade.
3. Involve students in creating school-wide positive messaging through posters, school announcements and other means.
4. Provide information to parents on bicycle safety to encourage full family involvement in safe riding and helmet use.
5. Utilize local health, police and other organizations to provide safety presentations.
6. Start a bike club that plans fun, local rides and demonstrates safe bicycling practices.
7. Establish a means of rewarding students for school-wide helmet use.

Form a Lesson Plan

Bike safety can be offered at each grade, with age-appropriate information, to provide continued learning and messaging on riding safely. This is particularly important as kids progress from riding with their parents to riding unsupervised, riding on the street and making their own decisions on helmet use. Establish a bike safety week at the beginning of each school year or bike season and integrate bike safety into each day.

Discussion Topics

Bicycle Safety for Teachers

Q. What is the most important thing you can do to protect yourself when riding a bike?

A. Wear a helmet! The impact of a crash is absorbed by the helmet, rather than your head and brain. Talk about the brain, how easily it can become injured, and how recovering from a brain injury can be difficult or impossible, depending on the extent of the injury. Protecting your brain is important! For a helmet fitting instructional handout go to thinkfirst.org.

Q. Do you need to wear a helmet for other wheeled sports?

A. Yes! Helmets should be worn whenever you are riding any type of wheeled sports equipment such as bicycles, scooters, skateboards, in-line skates and roller skates.

Q. Where should you ride?

A. Most children under the age of 9 or 10 do not have the developmental skills necessary to be alert and react quickly in traffic, and therefore should not be allowed to ride unsupervised in traffic. Teach courtesy for pedestrians they are sharing the sidewalk (where allowed) or bike path with. Help them develop alertness by watching for and avoiding obstacles on the sidewalk or bike trail, as well as vehicles backing out of or entering driveways. Parents should carefully assess their child's skill levels to determine when they are ready to cross intersections alone or ride on the street.

Q. Once you are riding on the street, must bicycle riders follow the same rules of the road as cars?

A. Yes! Bicyclists are required by law to follow the same traffic signs and rules as cars and other vehicles. Obtain a bicycle Rules of the Road guide from your state for specific rules to teach students, including traffic signs and signals. Do not assume even older children know the meaning of traffic signs or rules that are important for navigating traffic and intersections.

Q. Are hand signals necessary when approaching an intersection?

A. Yes! Bicycles don't have turn signals or brake lights like cars do, so hand signals are the only way drivers and other bike riders can anticipate your actions and avoid a collision. Teach hand signals, including:

- Left turn: left arm extended out straight and level with shoulder with fingers pointing left
- Right turn: left arm out level with shoulder, elbow bent, forearm and hand straight up, palm forward
- Alternative right turn: right arm out straight with fingers extended or with index finger pointing right
- Slow down/stop: left arm and hand aimed downward, with the elbow bent and palm facing backward

Q. How could the clothing you are wearing cause you to crash?

A. Clothing that is loose, or shoelaces that are untied can get caught in the bike chain or wheel, causing a crash. Explain the importance of shoes that prevent slippage and protect the feet, and clothing that is not loose or with hanging cords or ties. Be sure clothing, eyewear and even hair are not obstructing your vision or affecting your ability to move your body and turn your head easily.

Q. What can you do to prevent being hit by a vehicle or another bicyclist?

A. Take all precautions so motorists can see and avoid you; wear light or brightly colored clothing with reflective stickers or bands, use bike reflectors and lights, and use hand signals as directionals. Stress the fact that motorists cannot easily see someone on a bike, so it is up to the bicyclist to ride defensively. Encourage students to develop skills in riding in a straight line without swerving. Remind them to check for traffic from behind before riding around an object or making a turn. Always ride single file.

Q. Do the terms defensive and distracted driving apply to bike riders also?

A. Yes! Riding defensively means you are taking responsibility for watching for potential dangers and avoiding them. Never assume drivers or pedestrians are looking out for you. Distracted driving refers to letting your attention be pulled or 'distracted' from the road, rather than staying alert to everything around you. Don't wear ear buds or headsets that prevent you from hearing traffic or voices. And of course, don't use a phone while riding— not even to check a message.

Discussion Topics, *continued*

Q. Can parked cars be dangerous also?

A. Yes! Avoid riding close to parked cars, as it is difficult to tell if someone is in a car, ready to open the door or pull away from the curb. It is also a place where children can dart into traffic without being noticed until they are in the street.

Q. What else must you watch for?

A. Not only do you need to be alert to traffic and people around you, you also need to watch the riding surface to avoid cracks, bumps and object such as stones or toys. Wet or icy surfaces can be slippery and should be avoided.

Q. What is the best way to alert a rider or pedestrian that you are going to pass them from behind?

A. Call out "on your left" before passing someone on the left or use a bell. Slow your speed when near other riders or pedestrians and yield to others when you should. Be a courteous rider!

Q. What should you check to be sure your bicycle is safe to ride?

A. Use a bike that fits you properly and is in good working order, with working brakes, properly inflated tires and solid, secure parts. Be sure the chain is in working order and that the handlebars and seat are at the correct height and tightly fastened. Reflectors and lights are needed for riding in low-light situations, and a mirror is helpful for checking traffic behind you. Have someone from a local bike shop talk about the care of a bicycle or conduct a bike check with students.

Q. What about stunt riding?

A. Always use good sense to protect yourself and others. Bicycles are meant for one rider; not for carrying someone on the seat, handlebars or on pegs. Stunt riding should only be done with great caution and supervision in a designated setting designed for stunt riding. Be sure full safety gear is worn and the bike is built with enough strength to withstand impact. Be aware that your body is not built for impact, and the force of landing a jump can easily cause serious, life-long injuries to the spine, even if you don't fall.

ThinkFirst

Chapters of the ThinkFirst National Injury Prevention Foundation are located throughout the U.S. and in other countries, providing useful programs and engaging presentations to schools on bicycle safety, injury prevention and the importance of protecting the brain and spinal cord. For information and chapter locations visit **thinkfirst.org.**

Fitting Your Helmet for Safety

1. Try the helmet on and select a helmet that fits snugly. Adjust the dial fitting system, or adjust the fit with the provided pads.

2. Place the helmet level on your head. The front of the helmet should be one to two finger widths above your eyebrows to protect the forehead.

3. Adjust the slide on both side straps to form a "V" directly under and slightly in front of the ears. Lock the slide if possible.

4. Center the left buckle under the chin. Make sure the helmet is level. Adjust the rear or front straps to assure the helmet is not tilting forward or back.

5. Buckle the chinstrap securely so that no more than one or two fingers fit between the strap and your chin. Secure all straps in the rubber ring, close to the buckle.

6. Replace any helmet that has been in a crash, has been damaged or no longer fits. Check manufacturers instructions for the recommended life of the helmet.

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