Consumer Product Safety Commission

Bicycle Fact Sheet

CPSC Document #346

The U.S. Consumer Product Safety Commission estimates that over 600,000 persons suffered bicycle-related injuries serious enough to require hospital emergency room treatment in 1994. Here are some typical cases:
"Karen applied her hand brakes and lost control of her bicycle. She went down an embankment into a creek, and fractured her shoulder."
"As Jimmy was riding his bicycle downhill, the front wheel of his bicycle suddenly became loose and twisted. Jimmy lost control, fracturing his knee."
"Bob was riding a bike without a chain guard when his foot caught between the pedal and chain. He fell, suffering a concussion and skull fracture."
"Michele was riding her bike alongside a friend's. As her friend moved his bike to the right, the two front wheels collided, causing Michele to fall. She suffered a concussion and fractured a wrist."
These case histories illustrate some major accident patterns associated with bicycles. They are:

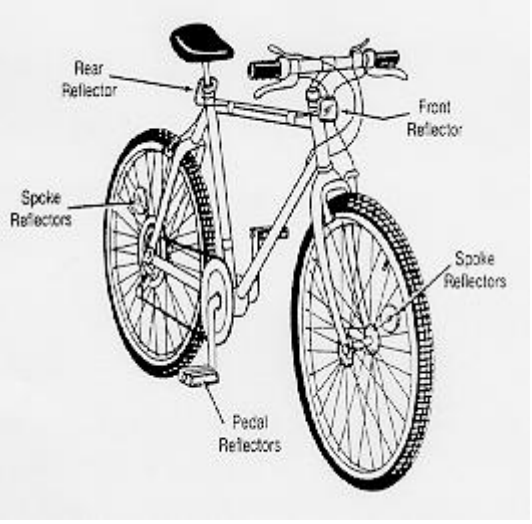
- Collision with a car or another bicycle.
- Loss of Control -- This occurs because of a number of factors, including: difficulty in braking; riding too large a bike; riding too fast; riding double; stunting; striking a rut, bump, or obstacle; and riding on slippery surfaces.
- Mechanical and Structural Problems -- These include brake failure; wobbling or disengagement of the wheel or steering mechanism; difficulty in shifting gears; chain slippage; pedals falling off, or spoke breakage.
- Entanglement of a person's feet, hands, or clothing in the bicycle.
- Foot slippage from pedal.

To make bicycles safer, the U.S. Consumer Product Safety Commission developed a mandatory safety standard for bicycles to help eliminate injuries due to mechanical and structural failures. The CPSC regulations establish strict performance and construction standards for the brakes, wheels, steering system and frame. They require reflectors on the front, back, sides and pedals to make bicycles visible at night; require elimination of uncovered sharp edges and jutting parts; and require brakes on bicycles with seat height of 22 inches or more. New bicycles are required to meet the standards.
The U.S. Consumer Product Safety Commission offers the following safety tips when shopping for a new bike or taking care of an old one:

Selecting the Bicycle

- If you're buying a bicycle for a child, choose one to fit the child's size today, not one he or she will "grow into" later.
- A bicycle should suit the rider's ability and kind of riding.
- Check hand and foot brakes for fast, easy stops without instability or jamming.
- Avoid slippery plastic pedals. Look instead for rubber-treated pedals, or metal pedals with serrated rattrap edges or with firmly attached toeclips.

Using the Bicycle



- Always wear a helmet to help prevent head injuries. CPSC is setting a new mandatory standard for bike helmets.
- Observe all traffic laws and signals, just as automobiles must do.
- Don't ride double or attempt stunts.
- Ride near the curb in the same direction as traffic.
- Find alternate routes, rather than ride through busy intersections and heavy or high-speed traffic.
- Walk -- don't ride -- your bicycle across busy intersections and left turn corners.
- Avoid riding in wet weather. When wet, handbrakes may require a long distance to stop.
- Avoid riding in the dark. If you do, be sure the bike is equipped with a headlight, a taillight and reflectors. Apply retro-reflective trim to clothing, or wear reflective vests and jackets.
- Avoid loose clothing or long coats that can catch in pedals or wheels. Leg clips or bands keep pants legs from tangling in the chain.
- Avoid crossing raised sewer grates.

Maintaining the Bicycle

- Regular maintenance is essential for safe riding. Refer to the owner's manual for the manufacturer's maintenance recommendations. An experienced repair technician should do complicated work.
- Align (or "true") wobbly wheels for better control. Spokes also may need adjustment.
- Replace all missing, damaged, or worn parts; for example, brake pads, chainguards, chain links, spokes, screws and bolts, handlebar grips.
- Tighten and/or adjust loose parts.
- Periodically inspect frame, fork, spindles and other components for cracking.
- Parts should be adjusted to manufacturer's torque specifications.
- Inflate tires to recommended pressure, and replace worn tires.
- Lightly oil and clean moving parts. Keep oil off rubber.
- Keep bicycle indoors when not in use -- moisture may cause rust and weaken metal parts.