



Bike Helmet Promotion Program

YOUR NAME

TITLE

AGENCY

EMAIL

PHONE NUMBER



Train-the-Fitter Objectives

Bike Injury Facts

Bike Safety Education

**Bike Helmet Fitting
Techniques/Recommendations**



Did You Know?

- ❑ While only 2.4% of all trips taken in the US are by bike, bicyclists face a higher risk of crash-related injury and deaths than occupants of motor vehicles do.¹
- ❑ In 2016 in the US, 835 bicyclists were killed in crashes with motor vehicles. 87% were those ages 20 and older.²
- ❑ Fifty-one percent of bicyclists killed in 2016 were not wearing helmets. Helmet use was unknown for 33%.²



National Bike Injury Facts

The number one killer of people 1 through 44 is Unintentional Injury¹

34% or 103.7 million Americans (ages 3 and older) road a bike in 2014.⁴

Helmets reduce the risk of head injury by at least 45 percent, brain injury by 33 percent, facial injury by 27 percent and fatal injury by 29 percent.^{7,8}



Who's At Risk?

- ❑ Non-helmeted riders are much more likely to be involved in a fatal crash than helmeted riders. You are only given one head, protect it.
- ❑ Adolescents (15-24 years) and adults aged 45 years and older have the highest bicycle death rates.⁶
- ❑ Children (5-14 years), adolescents, and young adults (15-24 years) have the highest rates of nonfatal bicycle-related injuries.⁶



What are the Major Risk Factors?

- Males are much more likely to be killed or injured on bicycles than are females.
- Most bicyclist deaths occur in urban areas and at non-intersection locations.



Brain Matters

Traumatic Brain Injury is a major cause of death and disability in the United States contributing to about 30% of all injury deaths.



Can Traumatic Brain Injuries Be Prevented?

- Any bicyclist who does not wear a bicycle helmet is at increased risk of head injury.
- Wearing a properly fitted helmet every time you ride a bicycle is one important prevention method.
- While there is no concussion-proof helmet, a helmet can help protect from a serious brain or head injury. Even with a helmet, it is important to avoid hits to the head.



There is no cure for brain injury



Brain Injury

Can change everything about you . . .

- ❖ **The way you look**
- ❖ **The way you walk**
- ❖ **The way you talk**

Head injuries can cause seizures. The seizures may not begin until years later.



Injuries & Deaths Prevented!

- Bicycle helmets**
- Bicycle helmet laws for children**
- Active lighting and rider visibility**
- Roadway engineering measures**



“Time” for Thought

Children are more likely to die from motor vehicle-related crashes:

- **At non-intersection locations**
- During the months of May through August
- **Between 3 and 6 p.m.**

Children ages 14 and under are nearly 4x's times more likely to be injured bike riding in non-daylight hours (e.g., at dawn, dusk, or night)



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- Most bicyclist deaths occur in urban areas and at non-intersection locations.
 - The typical bicycle/motor vehicle crash occurs within one mile of the bicyclist's home.
 - Children under age 5 are more likely to be injured around the home (driveway, garage, yard).



Collisions with Cars

Increased risk for:

- Severity of injury
- Probability of head or brain injury
- Death



Florida Bike Facts

The Florida Department of Highway Safety has released their 2017 Traffic Crash Facts report.⁶ According to crash reports submitted by local police departments and the Highway Patrol . . .

- Bicyclist fatalities are going down.

2015 - 154

2016 - 140

2017 - 128

- Reported bicyclist injuries decreased from

2015 - 6,691

2016 - 6,234

2017 - 6,263

- Of the 128 fatalities in 2017, 13 of the cyclists were wearing a bike helmet.



Economic Impact of Motor Vehicles Crashes Involving Bicyclists (2014) in Florida

48 Median age of fatally injured riders in Florida

41% Bicycle fatalities related to TBI

92% Bicycle fatally injured in Florida who were Florida residents

7 Non-fatal hospitalizations for every bicyclist fatality

43 Non-fatal ED visits for every bicycle fatality

32% Bicycle hospitalizations and ED visits who self-paid or did not have enough coverage

\$4,506 Median hospital charge for bicyclist treated and released from a Florida ED for the treatment of bicyclist injuries

\$65,308 Median hospital charge for bicyclist admitted to a Florida hospital for the treatment of bicyclist injuries



Bike Defensively

- Drive with the flow, in the same direction as traffic.
- Obey street signs, signals, and road markings.
- Assume the other person doesn't see you.
- No distractions.



Children.....

Cannot see things out of the corners of their eyes, as well as adults

Have trouble telling where a sound (like a siren) is coming from

Have trouble judging speed and distance of oncoming cars

Feel powerful & invincible (can go a “zillion” miles an hour to get out of the way)

Focus on things that interest them most (i.e. friend across the street)

Believe that adults will look out for them....



Teach Predictable Riding

- Stop at the end of the driveway--look left, right, then left again before entering the road
- Ride on the right, with the traffic
- Ride single file
- Ride straight--no surprises!
- Look back and signal before turning
- Yield to people walking (on sidewalks and in crosswalks)
- Use lights if riding at night
- Obey all traffic laws



Road Safety

Whether you are driving a car or a bicycle, always remember:

- Driving on the road requires care and courtesy,
- 3' law
- Look Left, Right, Left again before pulling out in traffic or making a turn



Reasons.....

To Wear

Not To Wear



Do you know what . . . ?

The single most effective safety device available to reduce head injury and death from wheel-related crashes is a _____

Helmets Save....



**Every \$12 bike helmet
generates \$570 in benefits to
society.**

Source: Injury Prevention: What Works? 2010)

The “LAW” F.S. 316.2065(3)(d)

A bicycle rider or passenger who is under 16 years of age must wear a bicycle helmet that is properly fitted and is fastened securely upon the passenger’s head by a strap and that meets the federal safety standard for bicycle helmets, final rule, 16 C.F.R. part 1203.

A helmet purchased before October 1, 2012, which meets the standards of the American National Standards Institute (ANSI Z 90.4 Bicycle Helmet Standards), the standards of the Snell Memorial Foundation (1984 Standard for Protective Headgear for Use in Bicycling), or any other nationally recognized standards for bicycle helmets adopted by the department may continue to be worn by a bicycle rider or passenger until January 1, 2016.

As used in this subsection, the term “passenger” includes a child who is riding in a trailer or semitrailer attached to a bicycle.



The “Law” Section 316.2065

Selections

- Bicyclist must obey all traffic control signals; yield to pedestrians, and give audible signal before passing
- Shall be equipped with a brake that stops within 25' at 10 MPH
- May not carry more persons than the number it was designed to carry
- May not allow a passenger to remain in a child seat when not in immediate control of the bike
- At night-must be equipped with a front light visible at 500'; rear red light visible at 600'

Proper Bike Size

**Able to straddle the frame
with both feet on the
ground (without leaning)**

Seat & Handlebars

SEAT

- While straddling the seat, adjust until you can stand without leaning to one side

Handlebars

- Standard ~ Grips should be at or above the seat level
- Dropped ~ Positioned so upper part of the bar is level with or slightly below the seat and tilted down

70% weight on seat / 30% on handlebars

ABC Quick Safety Check

AIR

BRAKES

CRANK/CHAIN

Clothing for Consideration

- Wear light, bright, or reflective clothing**
- Tuck away shoelaces, strings, or cords so they don't dangle**
- Avoid loose or baggy clothing**



Avoid sandals, flip flops or going barefoot



Hand Signals



What's Wrong With Picture?





Helmet Fittings

Time invested in fitting a helmet, pays big safety and comfort dividends!

***Objective:* Snug,
Level
& Stable**



Pre-Event Consideration

**Consider hair nets
or Prayer**



Event Experience

Take:

- Scissors
- Trash Container
- x-tra pads – optional
- Table / Chair
- Tylenol

Fitting Anxiety~ Snap before putting on

Write in helmets???



Doing Less Is Better

Get participant involved in the process:

- **Adult**
- **Youth**
- **Some children**
- **Parent**



Teach for the Future

Before shopping:

- Measure just above eyebrow

Look for:

- Correct type of helmet
- CPSC
- Smallest that fits properly (Try in store)

Not recommended for under 1yr.

Replace after a major impact

Replace as manufacturer recommends



Helmet Longevity

According to the study: “Age Does Not Affect the Material Properties of Expanded Polystyrene Liners in Field-Used Bicycle Helmets”

Bicycle helmet foam liners absorb energy during impacts. “Based on these data, the impact attenuation properties of EPS foam in field-used bicycle helmets do not degrade with the age.”⁹

Five Basic Helmet Sizes

Toddler

Child / Small

Youth / Medium

Adult / Large

Adult / Xtra

- **Remember:**

Always try, before you buy

Helmet Certification

Bicycle helmets manufactured after 1999 must meet the U.S. Consumer Product Safety Commission (CPSC) standard

Use CPSC compliant helmet for:

- **Bicycling**
- **Recreational roller or in-line skating**
- **Riding a non-powered scooter**



Helmet Use

Do Not Use When:

- On playground equipment
- Climbing in trees





Hair “Don'ts”

Cannot achieve appropriate fit with hair beads / pony tails / big styles



Snug, Level, & Stable

Side straps should form a “V” just under the ear



Two Finger Test

Two fingers over eyebrow

**Should be able to see tip of
helmet**



And...Two for the Chin Strap



**Two fingers fit under the
helmet chin strap**





Helmet Slipping

- Helmet too large?
- Install padding
- Make sure the strap is evenly adjusted



Adding the Padding

Padding supports a proper fit

Too much padding may be a sign of an incorrect size



The Lift Test

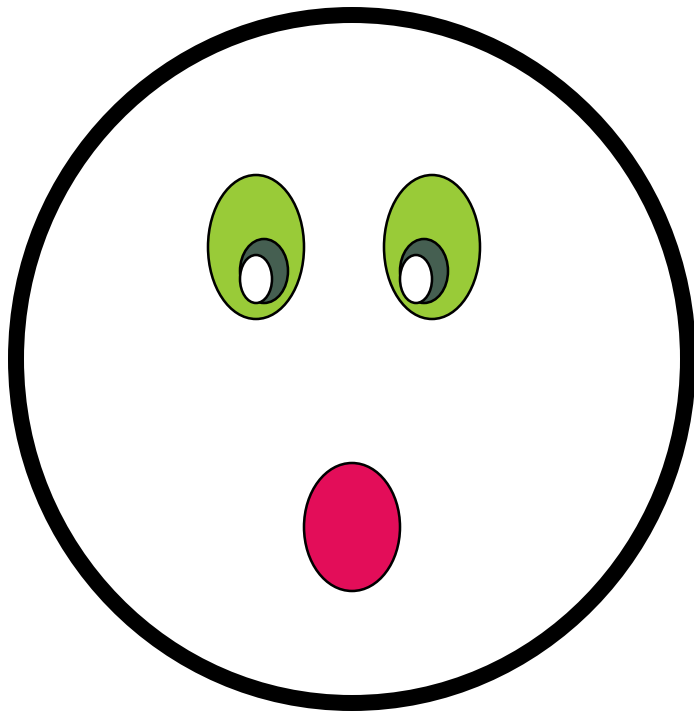
Gently lift front to test

- Helmet too large?
- Front strap needs tightened?
- Need to install pads?

Lift Test - Continued



“O” Ring



Straps must go back through the “O” ring gripper.





The Good, Bad and Oh no!



We All Need Helmets That Fit Properly



Florida Bike Helmet Promotion Program

You've taken the first step. Follow the remaining steps to be a part of the Bike Helmet Promotion Program:

- Become a Community Partner
- Create a Plan for Distribution of Bicycle Helmets

For helmet program information, go to:

http://www.pedbikesrc.ce.ufl.edu/pedbike/How_To.asp



REMEMBER

- People who have been trained via this program are the only ones who can fit the grant helmets
- The helmets must be fitted, not handed out – yes, each helmet
- Have fun when fitting helmets
- Remind EVERYONE you see that they need a helmet
- Return your evaluations after EACH event



References

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- ¹¹Dellinger AM, Kresnow M. Bicycle helmet use among children in the United States: The effects of legislation, personal and household factors. *Journal of Safety Research*. 2010; 41.