

Welcome!

District Two Traffic Safety Team E-Bike Safety Conversation

August 6, 2025 • 2:00 pm

AGENDA:

- Welcome Attendees: Andrea Atran, *Community Traffic Safety Team Program Manager*
- E-Bikes in the News, Florida Legislation, and Local Ordinances
- Fire Hazards and Resources Available
- Cycling Safety: Mark Sekelsky & Brian Benwick, North Florida Bicycle Club
- E-Bike Injuries: Rebecca Melvin, UF Health TraumaOne
- Increase in Trauma: Jackie Morrison, Wolfson Children's Hospital
- Engineering Concerns: Holly Walker, PE, RSP, CPM
- Open Forum
- Adjournment



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In the News



ST. JOHNS COUNTY, Fla. — For months, Action News Jax has reported on a series of serious e-bike crashes involving children in the county. The resolution, presented by county attorney Richard Komando, **encourages S.A.F.E.T.Y practices:**

Stay visible: If operating on any public roadway, an electric bicycle, electric motorcycle, or other electric motorized devices should have a front white light, a rear red light, turn signals, and an audible horn capable of being heard within twenty feet of a vehicle under normal operating conditions.

Avoid accidents: Operators should yield the right-of-way to pedestrians and take such precautions as may be necessary to avoid accidents or collision causing injury to any person or property.

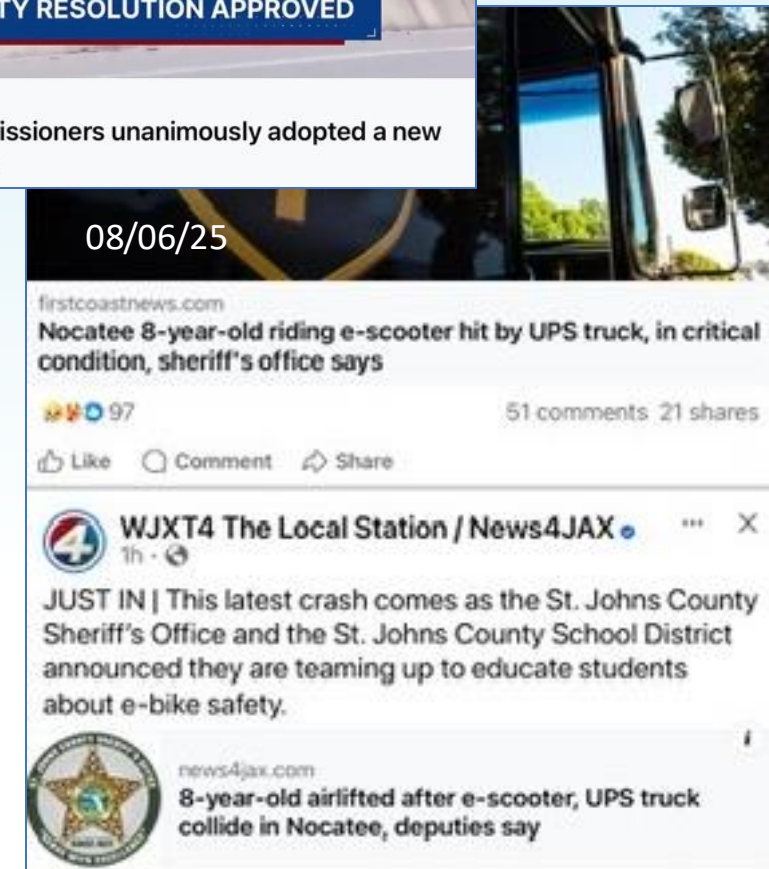
Far-right: If a bicycle lane is not available, operators should ride on the far-right side of the travel lane.

Exercise due care: Operators should use due care while operating on sidewalks and verbally announce they are approaching pedestrians as required by Florida law.

Ten mph or less: If operating on a pedestrian path, operators should limit their speed to 10 mph or less.

Your helmet: Operators of e-bikes, e-scooters, and other electric motorized devices should wear a helmet.

The sheriff's office says that through their education campaign, they've made contact with **200** individuals, increased their interaction with riders, and distributed education materials. In the new school year, the sheriff's office and St. Johns County Schools will join forces to teach more **e-bike safety classes** in 17 district middle schools.



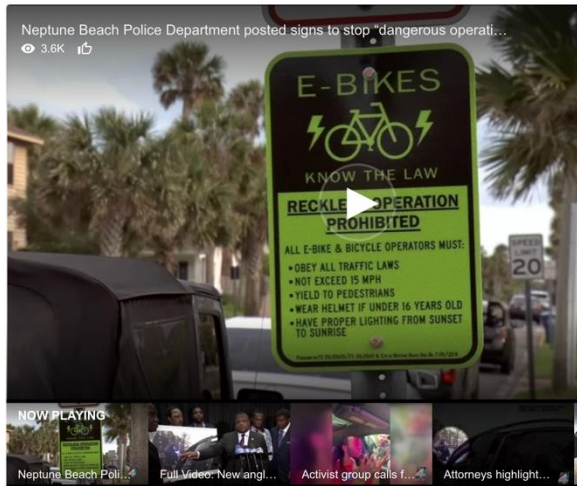
In the News



E-bike and e-scooter concerns are found locally, throughout Florida, and around the world.

Neptune Beach Police Department posts signs to stop 'dangerous operations of e-bikes'

Anyone violating the rules is subject to a \$62.50 fine



NEPTUNE BEACH, Fla. – The [Neptune Beach](#) Police Department has posted signs to e who ride electric bikes and regular bikes know traffic laws.

Atlantic Beach City Commission to introduce legislation targeting e-bike safety



ATLANTIC BEACH, Fla. – The Atlantic Beach City Commission will start the process of adopting new rules regarding electronic bikes on the road.

State lawmakers continue to discuss solutions on e-bike safety, regulations



St. Johns County Sheriff's Office increasing enforcement, education for e-bike riders after increase in accidents



Deputies will be handing out e-bike safety information cards that have all of the information you need to know about safe riding practices, traffic laws, and the classifications of bikes. (Copyright 2025 by WJXT News4JAX - All rights reserved.)

ST. JOHNS COUNTY, Fla. – The St. Johns County Sheriff's Office said it is stepping up its enforcement of violations on e-bikes and education for riders of all ages.



ABC Brisbane on Instagram: "Parents and public health experts are calling for e-scooters to be banned for young people, with new research highlighting the huge number of children injured or maimed while riding. By Lexi Hamilton-Smith for ABC Brisbane. To personalise your news & stay in the know, download the ABC News app via the link our bio. #Scooter #EScooter #Brisbane #ABCNews" [instagram.com](#)

Florida Legislation



[Senate Bill 462 – Transportation](#) was approved by Governor Ron DeSantis. The bill [[Chapter No. 2025-149](#)] went into effect on **July 1, 2025**, and will give local governments the authority to adopt additional regulations related to electric bicycles.

Key provisions of SB 462 include allowing local governments to:

- Adopt ordinances establishing **minimum age requirements** for operating an electric bicycle.
- Require operators of electric bicycles to possess **government-issued IDs** while riding.
- **Provide training** on the safe operation of e-bikes and compliance with relevant traffic laws.

St. Johns County lawmaker considers bill to require a license to operate an e-bike

Rep. Kim Kendall says something needs to be done "quickly" after two teens were hospitalized in crashes this week.



Rep. Kim Kendall says she wants to take this bill one step further. "I still want to see, and I think other people want to see, something uniform around the state," said Kendall. She says she plans to file a bill next legislative session.

Contact Kim Kendall, District 18 (St. Johns County)

<https://www.flhouse.gov/Sections/Representatives/custom/details.aspx?MemberId=4905>

Local Ordinances



Atlantic Beach City has new legislation regulating e-bikes, bikes, and personal mobility devices (PMDs). Key changes include a **10 mph** speed limit on sidewalks and multi-use paths, and the restriction of motorized use in city parks and trails.

Neptune Beach has an ordinance in place regarding e-bikes, primarily focusing on safety and speed. E-bikes are allowed, but with a maximum speed **limit of 15 mph** within city limits.

St. Johns County has opted to enforce existing state laws regarding e-bikes rather than creating a new ordinance.

Nassau County permits the use of electric bicycles (e-bikes) on County sidewalks, County-maintained multi-path trails, Bicycle paths and trail network. The **maximum speed** for e-bikes in these areas is **10 miles per hour**, regardless of class.

In **St. Augustine Beach**, e-bikes are allowed on the beach, but with restrictions to ensure safety. The city's ordinance prohibits operating an e-bike at a speed greater than reasonable for the conditions (or above any posted speed limit). Additionally, it's prohibited to weave through pedestrians, operate with riders on the handlebars, or fail to yield the right-of-way to pedestrians.

To our knowledge, other municipalities do not have a specific e-bike ordinance beyond the general Florida state laws that treat e-bikes like regular bicycles. This means e-bikes generally have the same rights and responsibilities as traditional bicycles, including following traffic laws and yielding to pedestrians. However, **Jacksonville Beach** does have regulations regarding sidewalk use and speed limits, which apply to all bicycles, including e-bikes.

Fire Hazards

Lithium-ion battery fires continue to make headlines due to incidents, often involving electric vehicles, e-bikes, and other devices. These fires are frequently linked to **thermal runaway**, a dangerous chain reaction where batteries overheat and can lead to explosions or combustion. While these batteries are generally safe when used correctly, damage, overcharging, or overheating can trigger thermal runaway.



PREVENT FIRES

Lithium-ion Battery Safety Tips

DAMAGED BATTERY IDENTIFICATION

- Batteries that have leaked or vented.
- Batteries suspected of being damaged but cannot be diagnosed.
- Batteries showing signs of physical or mechanical damage, such as:
 - Swelling, relative to the same battery in its original state.
 - Discoloration of the battery casing.
 - Smell or corrosion.
 - Loose or damaged wires.
 - Known conditions of use or misuse.

NEVER CHARGE OR USE A DAMAGED BATTERY

Signs a battery cell is about to fail include:

- White smoke
- Hissing
- Popping
- Extreme heat buildup

IF A LITHIUM-ION BATTERY IS SHOWING SIGNS OF FAILURE CALL 911

Battery Disposal:

- Putting lithium-ion batteries in the trash or recycling at home is illegal.
- Recycle batteries by taking them to a battery recycling location (Home Staples) or the Jacksonville Household Hazardous Waste Facility.
- Bag batteries individually or tape ends before disposing of them at a

Take Damaged Batteries To:

Jacksonville Household Hazardous Waste Facility
2675 Commonwealth Ave
Jacksonville, FL 32254
904-387-8847

PREVENT FIRES / SAVE LIVES



PREVENT FIRES

Lithium-ion Battery Safety Tips



Lithium-Ion batteries are used in various devices such as in golf carts, cell phones, laptops, vape pens, electric cars, scooters, E-bikes, cordless tools, and other rechargeable products.

MISUSED, DAMAGED, OR DEFECTIVE BATTERIES CAN OVERHEAT, CATCH FIRE, OR EXPLODE.

When using any devices powered by lithium-ion batteries:

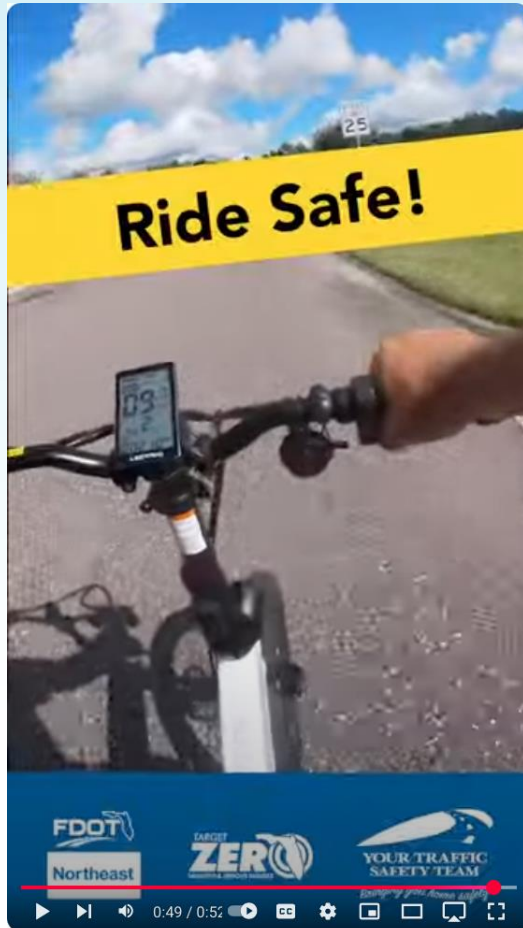
-  Only use electronic devices / equipment that is listed by a qualified testing laboratory, such as Underwriters Laboratories. The UL mark shows that the product has been safety tested.
- Never leave any batteries on charge unattended or while you sleep. Always follow the manufacturer's instructions for charging and storage.
- Don't charge mobility devices or large battery packs in the living areas of your residence or any hallways that lead to an exit.
- Do not charge a device under your pillow, on your bed, or on a couch.
- Always use the manufacturer's cord and power adapter made specifically for the device.
- Only use a qualified tested battery that is designed for the device.
- Keep batteries / devices at room temperature. Do not place in direct sunlight.
- Store batteries away from anything flammable.
- If batteries become wet, do not use, or charge them.

If a battery overheats and begins smoking or you notice an odor, change in shape/color, leaking, or odd noises from a device discontinue use immediately. If safe to do so, move the device away from anything that can catch fire and call 9-1-1.

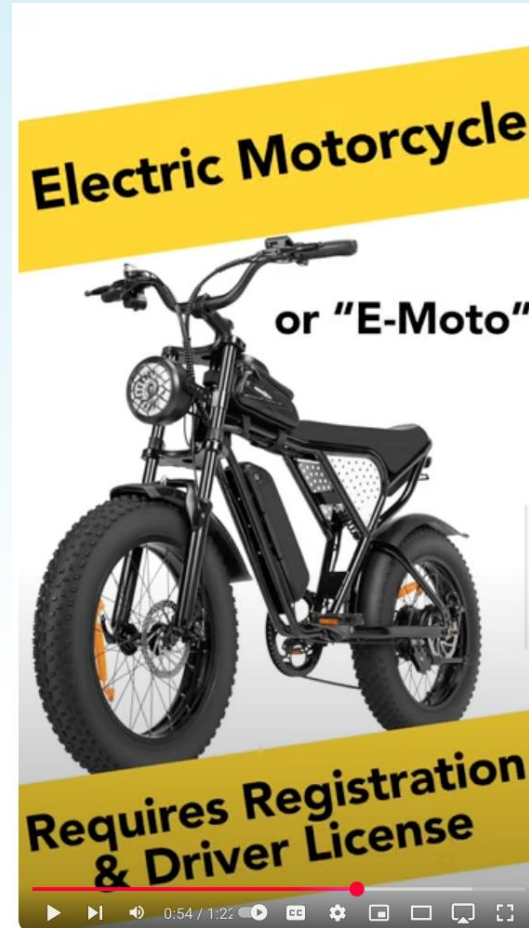
PREVENT FIRES / SAVE LIVES

Resources

Links to related articles, safety tip cards, social media graphics, and videos available online: <https://trafficsafetyteam.org/e-bike-safety/>



ROAD RULES for Using EBikes and Electric Micromobility Devices



Take a Quick Look at the Ebike Classifications - Florida ROAD RULES for Electric Bikes



Safety Warning: Lithium-ion Fire Hazard for E-bikes and Electric Devices - ROAD RULES

Safety Tips for E-Bikes & More



- **Wear a helmet!**
- **Stay visible.** Wear bright clothing. E-bikes must have a front white light and a rear red light.
- **Use your bell or horn.** Warn others of your presence or when passing.
- **Ride on the right side** and in a straight, single line. Obey traffic signs and signals.
- **Look to the side** when changing lanes.
- **Don't use a phone** while riding.
- **Watch for potholes** and other road hazards.
- **Keep your tires properly inflated** and check them regularly.
- **Learn the rules of the road** and obey traffic laws.
- **Always wear your seat belt** when driving.

No Regrets... When You Wear Your Helmet!



You have one brain. Protect it!

In Florida, kids under 16 must wear a helmet when riding a bike, and it needs to fit properly and be securely fastened with a strap.

Most bike helmets are only made for speeds up to 20 mph. Look for helmets with an NTA-8776 rating. These helmets offer better protection at higher speeds and cover more of your head for extra safety.



Cycling Safety: eBikes

Mark Sekelsky & Brian Benwick

North Florida Bicycle Club



Will YOU Have an Accident?

- We have looked over the last 20 years and all accidents have one thing in common:
 - Nobody planned on an accident that day



Safety is a state of mind

Accidents are an absence of mind



General Safety Messages For All Riders

- Helmets required for ALL riders
- Head up, Eyes Forward. Head up, Eyes Forward
- Ride Within Your Means. Speed AND effort
- Obey all traffic laws including stop signs and red lights
- Ride predictably and communicate intentions
- No ear buds, headphones or using phones while cycling



eBike Specific

- Ride Within Your Means
 - Just because your BIKE can go faster does not mean you have the skill and reaction time
 - At 25mph you travel a HALF BASKETBALL COURT per SECOND
- Operation of an electric bicycle just in “throttle mode”, without pedaling, is not permitted
- Disengage the motor during maintenance, rest breaks and stops in order to avoid lurching
- More detailed eBike Policy on our website



How We Communicate

- Safety Briefing at start of every ride
- Email
- Wheelspeak (Club Newsletter)
- Website
- Social Media



eBike Insurance Considerations

- In Florida if you are on a (legal) eBike and are involved in a crash and you have liability, **you most likely do not have insurance**
- Recommendation
 - Consult with your insurance company
 - Carry a blank check on all rides

Injury Prevention Program

E-BIKE INJURIES

Rebecca Melvin, B.S., EMT-P
Trauma Injury Prevention, Education and Outreach Coordinator



Common Injuries



Head Injuries

- Higher occurrence of severe traumatic brain injuries
- Increased risk for skull and facial fractures
- Increase in loss of consciousness

Chest and Abdominal Injuries

- Higher prevalence of rib fractures
- Handlebar Injuries

Orthopaedic Injuries

- Multiple bones usually involved
- Pediatric patellar fractures are becoming more common
- Increased risk for spine and pelvic injuries

What's Different?

- Helmets
 - NTA-8776
- Reaction time is reduced
 - Speed of e-bike
- Lack of knowledge about traffic flow
 - Unlicensed riders
- Offensive vs. defensive riding
 - Speed over safety
- Weight of e-bike
 - 40-80 lbs vs. 15-30 lbs
- Road infrastructure
 - Speed, education, charging
- Affluence



PROTECT YOUR BRAIN
E-BIKE SAFETY
Don't sabotage your safety

YOU HAVE ONE BRAIN, PROTECT IT

- Most bike helmets are only rated up to 20 mph. If your e-bike can **exceed** 20 mph you need to upgrade your helmet.
- Look for helmets with an **NTA-8776** rating. This rating provides better protection at high impact speeds and physically covers more of your head.
- If your e-bike can **exceed 28 mph**, look for a light motorcycle helmet for proper protection.

UFHealth
UNIVERSITY OF FLORIDA HEALTH

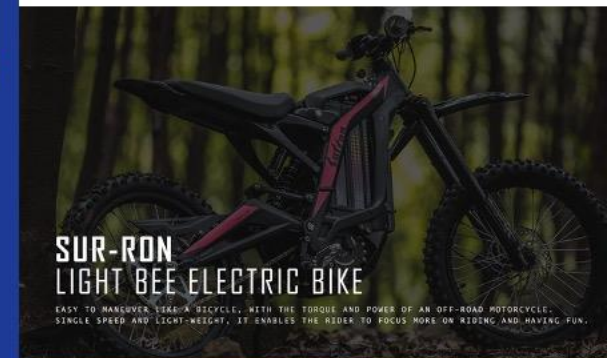
TRAUMAONE



RAMBO!
KIDS EBIKE SIZING GUIDE

LIL' WHIP

AGE: **5 YRS** HEIGHT: **3'11"** WEIGHT: **43 LBS**
(MODEL SIZE FOR REFERENCE)



SUR-RON
LIGHT BEE ELECTRIC BIKE

EASY TO MANEUVER LIKE A DISCYCLE, WITH THE TORQUE AND POWER OF AN OFF-ROAD MOTORCYCLE. SINGLE SPEED AND LIGHT-WEIGHT, IT ENABLES THE RIDER TO FOCUS MORE ON RIDING AND HAVING FUN.

One more thing...



Data is inconsistent. ICD-10 codes are only as good as the history provided for the crash.

“The only effective vaccine against the disease of injury is prevention.”

J.J. Tepas III, MD

Questions? Reach out!



rebecca.melvin@ufhealth.org

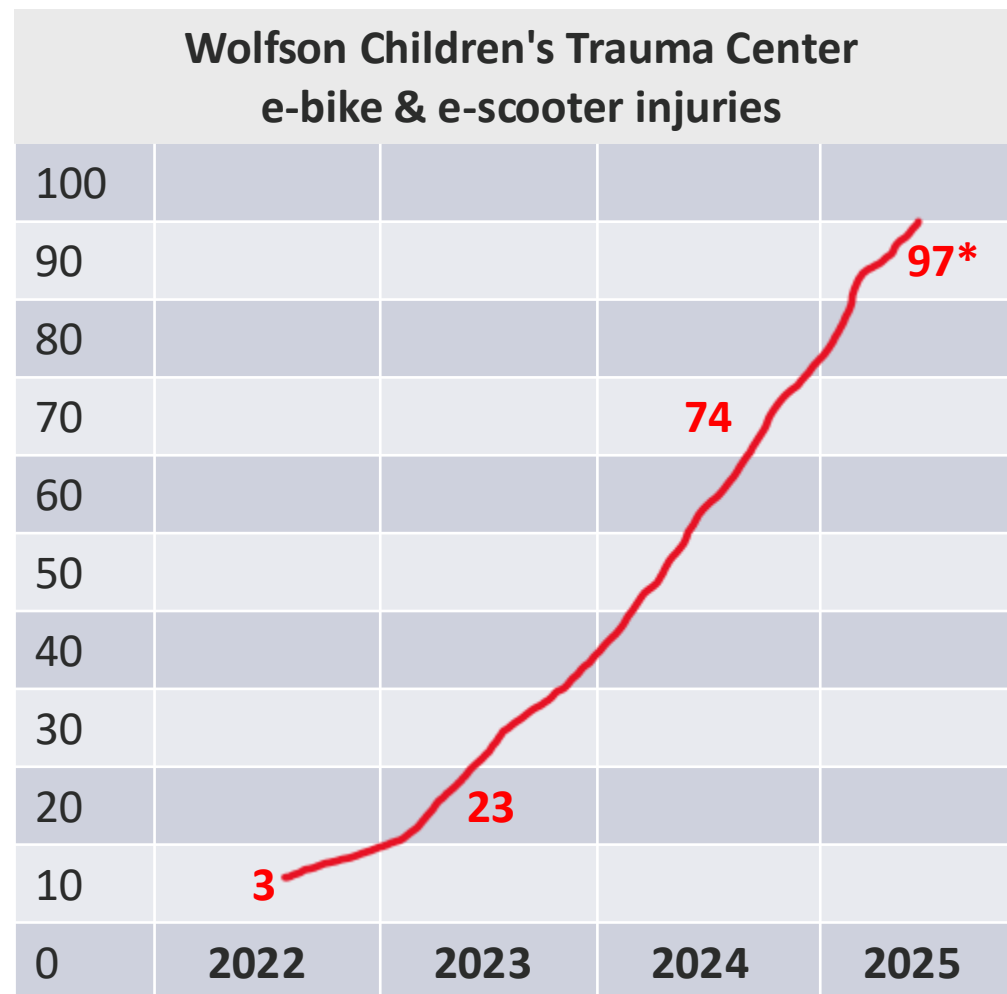
222% INCREASE in Trauma related E-bike/E-scooter Injuries

Wolfson Children's Hospital saw a 222% increase in e-bike and e-scooter injuries from 2023 to 2024. Early data indicates the numbers may again double in 2025.

- 80% are 10 years or older
- a few patients under 7 were passengers on an e-bike/scooter
- 78% are male
- 35% had a documented helmet use
- 20% where admitted to the hospital went to Operating room for treatment of their injuries
- 10% were admitted to the Pediatric ICU due to critical injuries needing extra monitoring or because they needed to be on a ventilator with a breathing tube, are unconscious, or have unstable vital signs needing medication, fluids, and/or blood to correct.

The most common injuries that require admission to the hospital include:

- **57%** had a traumatic brain injury ranging from concussion to severe brain bleeds
- **91%** had a broken bone in areas like: face, skull, arms, legs, spine, ribs, pelvis, hands and feet.



***NOTE: Data as of July 15, 2025**

Patients' Stories

Traumatic Brain Injury (TBI): A teenager riding an **e-bike with helmet** on in a neighborhood. The patient was **struck by a vehicle** and **thrown against a tree**. Patient was found by EMS **unresponsive, needing a breathing tube** placed. The patient was flown by helicopter to Wolfson Children's as a Cat 1 Trauma activation. Cat 1 trauma activation is the highest level of care for a trauma patient and assembles a team of providers, nurses, and support staff to be present on patient arrival due to the seriousness of the patient's injuries.. The patient suffered from a severe brain injury with **bleeding on the brain** that was compressing his **brain skull fractures, multiple facial fractures, extremity fracture, spinal cord ligament injuries**—making the spinal column unstable. The patient was taken emergently to operate for **brain surgery**, where the skull was removed to relieve the compression on the brain. Patient was on a **ventilator to help with breathing** and had **tubes for feeding and urine elimination**. The first 72 hours a patient with these injuries is extremely critical After being on a **ventilator for over 3 weeks**, the patient had made enough progress to be taken off and breathe on their own. After being in the hospital for over a month, with most of that time in the Pediatric Intensive Care Unit. The patient was sent to **inpatient rehab for intensive** therapy. At time of **discharge**, patient could only **say a few words**, could **not move left side of their body**, a **feeding tube** was in the stomach to ensure proper nutrition. This patient was able to be discharged from Wolfson, but the patient's quality of life and any permanent deficits will take time to determine long term effects of the injuries sustained..

Orthopedic injury: A teenager riding an **e-bike hit a parked car**. The left **ankle** was **deformed** with a **large wound** and **bone exposure**; the foot was turned into an unnatural position. The patient was taken by ambulance to a facility that doesn't care for pediatric patients initially and was then transferred to Wolfson Children's for pediatric specialty complex injury The patient received **IV antibiotics** due to high risk of infection from having an open fracture that has dirt, grass, leaves and other outside debris in the wound. Taken emergently to the **operating room to wash out/ clean out wound** and **reposition the foot into proper alignment**, the **wound was not able to be closed due to significant loss of skin** but a specialized dressing was placed onto wound. After **multiple days of IV antibiotics**, the patient had to **return to the operating room** for final fixation of the broken bones and closer of the large wound. The wound was so large that plastic surgery was consulted for possible skin graft in future if the wound was unable to be closed, but orthopedics was able to cut away the bad tissue and close the wound. A cast was placed onto the leg. The patient worked with **physical and occupational therapy**, who recommended outpatient therapy services once discharged. The patient was discharged home with family, **not being able to bear weight on the leg for at least 8 weeks**. A **walker, bedside commode and shower chair** were ordered for home use. The patient will have **months of physical therapy** and follow up appointments.

Pedal "human-powered" Bikes

Jan to July 15, 2025, total of 42

July 15, 2024, to July 15, 2025, total of 82

- 30% are under age of 10 years old
- 70% are 10 years and older
- 83% are male
- 12% had documented helmet use
- 26% Were admitted to the hospital and then went to the Operating Room for treatment of their injuries.
- 7% had injuries critical enough to need pediatric ICU admission
- 56% had a traumatic brain injury ranging from concussions to brain bleeds
 - 1 patient had to have procedure due to bleeding in the brain, with most not requiring a surgical procedure, but needed to be observed over a period of time.
- 95% had an orthopedic injury of arm and leg fractures



Top 5 Things to Know



According to the American Academy of Pediatrics (AAP), kids are not ready to walk to school alone until about fifth grade or around age 10.” At age 10 or so the eyes have usually achieved its normal round shape and the muscles of the eye can now help track and follow moving objects much better. However, when the signals from the eye get to the brain, all the different parts of movement are still difficult to interpret, such as peripheral vision, distance, speed, and depth perception. Same is true for riding a bicycle!

Layers of protection to keep our children safe when on rolling equipment



Helmets are the single most effective tool for preventing head injuries—properly fitted helmets reduce head injury risk by 45–78% . There is not a US standard for e-bike helmets. NTA-8776 helmet is a Dutch certification.



Slower speeds reduce both the chances of crashing and severity of impact. When traveling at 20mph it takes approximately 40 feet to come to a stop.



Following road rules (riding with traffic, signaling, using bike lanes or trails) makes you predictable and visible to drivers . Most places sidewalks are for riding under 10mph.



Visibility always use reflectors; white light on the front & red flashing lights on the rear of bicycle. Wear bright and reflective clothing, shoes, and accessories. Wearing dark colors are first seen approximately 55 feet away, giving autos less than 1 second of reaction time.

What can we do as a community to help?

- Become a Certified Bicycle Helmet Fitter – next class is August 25. Call 904-202-4322 to register.
- Educate yourself -
 - Take the Florida Bicycle Associations' [Bike Quiz](#)
 - Take an [E-Bike Course](#)
- We have tip sheets to share. Request some to share with your community.
- Share or create safety social media messages.



ER & Trauma: What would you never allow your kids to do?

6,934,109
Impressions

326,612 (5.6%)
Engagements

(5 total posts)



Lisa Nichols shared: "I have received much positive feedback from colleagues who have seen the video across the country as well!! Many kudos to this team and the idea for the video!"

78K shares

238K reactions

3.4K+
comments!



"Crazy that three of them said e-bike or scooter. Seems it's a common occurrence."

"E bike? I never thought of them as dangerous!"

"I guess I'm missing something. I have an E bike - a cheap one that assists only when you peddle. Is it more risky than a regular bike?"

"Speak more abt the e-bike pls why not?"

"Why not e-bike nor e-scooter?"

"Why no electric bike or scooter?"

"What about E-Bike with helmet?!???"

"Someone explain the electric bike, please!"

"We're looking at pedal assist e-bikes so we can continue riding as a family. I would never put her on a throttle e-bike. This is an important distinction that I haven't seen mentioned."



Trauma & ER Teams Went Viral on Social Media!



	2.2M Impressions
	2.2M Impressions
	2.0M Impressions
	1.5M Impressions

Total of 6.9M impressions
across all networks

[Click to watch:](#)

<https://baptist-health.box.com/s/iq6rzi72hcrzx6mzh9og7dmcme8gk4d0>

Data as of July 15, 2025

Engineering Concerns



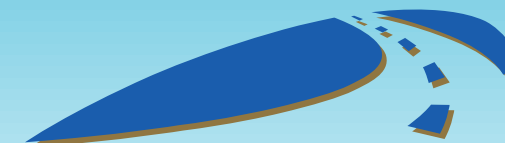
- **Crash Data Gaps:** Florida's crash report forms do not distinguish e-bikes, preventing meaningful analysis.
- **Inadequate Pavement Markings & Signage:** Existing infrastructure may not provide proper guidance, visibility, or protection for faster-moving e-bike users.
- **Regulatory Confusion:** Laws regarding where and how e-bikes may operate vary by class, but there is little visual support (e.g., signage or stencils) to guide user behavior.
- **Modal Conflicts:** E-bikes often share space with slower cyclists, pedestrians, buses, and cars—raising the risk of conflict without proper separation or intersection design.

Engineering Roadway Concerns



You are our expert eyes on the road.

Help everyone *Arrive Alive in 2025!* Look for traffic safety issues on the road in Northeast Florida and report them to us.



**YOUR TRAFFIC
SAFETY TEAM**

Bringing you home safely.

Submit a Traffic Safety Concern:



E-Categories:

- Engineering
- Education
- Enforcement
- Emergency Services

Primary Concern Types:

- Crash Analysis / Safety Study
- Bike / Pedestrian Issues
- Traffic Signal Issues
- Signing / Pavement Markings
- Speeding / Speed Zones
- Maintenance / Construction Issues
- School Traffic / School Zones



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Thank You!

District Two Traffic Safety Team E-Bike Safety Conversation



- Open Forum
- Adjournment



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