WELCOME!

SONOMA COUNTY SAFE ROUTES TO SCHOOL PROGRAM PRESENTS

A PARENTS' GUIDE TO E-BIKE SAFETY FOR YOUTH

METROPOLITAN TRANSPORTATION COMMISSION

Sonoma
BETTER TRANSPORTATION FOR ALL OF SONOMA COUNTY

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SONOMA COUNTY BICYCLE COALITION

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Safe Routes to School Education Program in Sonoma County

- ✓ 8915 students annually
- ✓ 55 K-8 grade schools
- ✓ We do bike safety classroom presentations and on-bike education for 4th graders, middle school students and families

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***Instructors are *League of American Bicyclist Certified* – the gold standard of bicycling education**

Question

What brought you to this webinar?

- ✓ I am considering an e-bike purchase for my youth.
- ✓ My youth already owns an e-bike.
- ✓ I'm just here to learn more about e-bikes.
- ✓ Other reason

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Our Presenters

David Levinger, *SRTS Educator, League of American Bicyclists Certified Instructor*

Sarah Hadler, *SRTS Program Manager and Educator, League of American Bicyclists Certified Instructor, mother of a 14-year old bicyclist*

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The importance of E-Bike Education for Families

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We will cover:

- Pros and cons of owning and riding an e-bike
- 3 classes of E-bikes
- Distinction b/w an e-bike and an e-moto
- Main safety issues to know about teens and e-bikes

First Ask: Does my teen even need an e-bike?

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What are the benefits/pros of riding an e-bike?

- ✓ Teen / Parent Independence
- ✓ Overcome barriers to biking like steep hills/carrying heavy loads/traveling long distances
- ✓ Reduce traffic congestion making safer streets and healthier environment
- ✓ Reduce overall car trips
- ✓ Integrated lights and racks
- ✓ Thick tires

First Ask: Does my teen even need an e-bike?

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What are the risks/cons of riding an e-bike?

- ✓ Speed!
- ✓ Heaviness makes them harder to control/stop/difficult to transport and store
- ✓ Passenger Safety
- ✓ Youth Brain–Helmets
- ✓ Maintenance is more challenging and expensive
- ✓ Environmental considerations related to battery production and disposal

Parent advice for making decisions for bikes and e-bikes

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Parent Advice

Set youths up for success and being safe!

- ✓ Does the e-bike fit my youth's size and ability?
- ✓ Does my youth know the laws and follow them?
- ✓ Can my youth stand up to peer pressure?
- ✓ Buy local, buy legal - know what you are buying:
  - ✓ Maintenance, especially for brakes, is frequently needed
  - ✓ Just because it has a label, doesn't make it legal.

"If your student cannot ride a conventional bike, they should not ride an e-bike"

Sharing Stories

THOMAS—A 14-YEAR OLD ON A REGULAR BIKE, COMMUTING DAILY TO SCHOOL AND AROUND TOWN

RYAN—AN 18-YEAR OLD ON AN E-BIKE, HEADING TO COLLEGE

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Make an informed and thoughtful decision

"We know that **the best bike for lighter, smaller, cognitively different youth to use while establishing strong bike handling and public street riding skills is a lighter, slower, more manageable foot-powered bike.**

Youth peripheral vison changes over time. Their brains are developmentally different. Their strength, weight and height is different—and all of that matters a lot on faster, heavier e-bikes."

—Penny Ellson, parent and SRTS Advocate

Shop at your local Bike Shop, not online!

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What is an electric bicycle?

As defined by **California Vehicle Code** (**CVC**) §**312.15:**

"An 'electric bicycle' is a bicycle equipped with

1. **Fully operable pedals**
2. **Electric motor of less than 750 watts**.
3. **Motor assistance that cuts off at 20 mph (Class 1 and Class 2) or 28 mph (Class 3)**

Electric motors work either with a "pedal assist mode" and/or a throttle. Importantly, electric bikes are **low speed devices**.

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Class 1 E-bikes

20 mph max with only pedal-assist, no throttle. These e-bikes are legal on any paved surface a conventional bike is allowed to operate unless otherwise indicated. These are the e-bikes we recommend for youth (there is no age restriction).

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Class 2 E-bikes

20 mph max with throttle function.

These e-bikes are legal on any paved surface a conventional bike is allowed to operate unless otherwise indicated.

***Class 2 e-bikes don't have a minimum age restriction in Sonoma County *at this time*, but if they exceed 20 mph, they are *illegal* for 16 and under.**

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Class 3 E-bikes

28 mph max, only pedal-assist, no throttle. Riders **must be 16 or older** and **wear a helmet**. These e-bikes are legal on any paved surface a conventional bike is allowed to operate unless otherwise indicated. No driver's license required.

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Distinction b/w E-bikes and E-motos

E-moto Characteristics

- Built on a **bicycle-style** frame
- Electric motor **>750 watts**, plus a **throttle**
- Can go **faster than 20mph** without pedaling
- May not have **operable pedals**
- **Falsely** advertised and sold as an **e-bike**
- **Unsafe** and **unregulated**

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PETALUMA 1858 POLICE

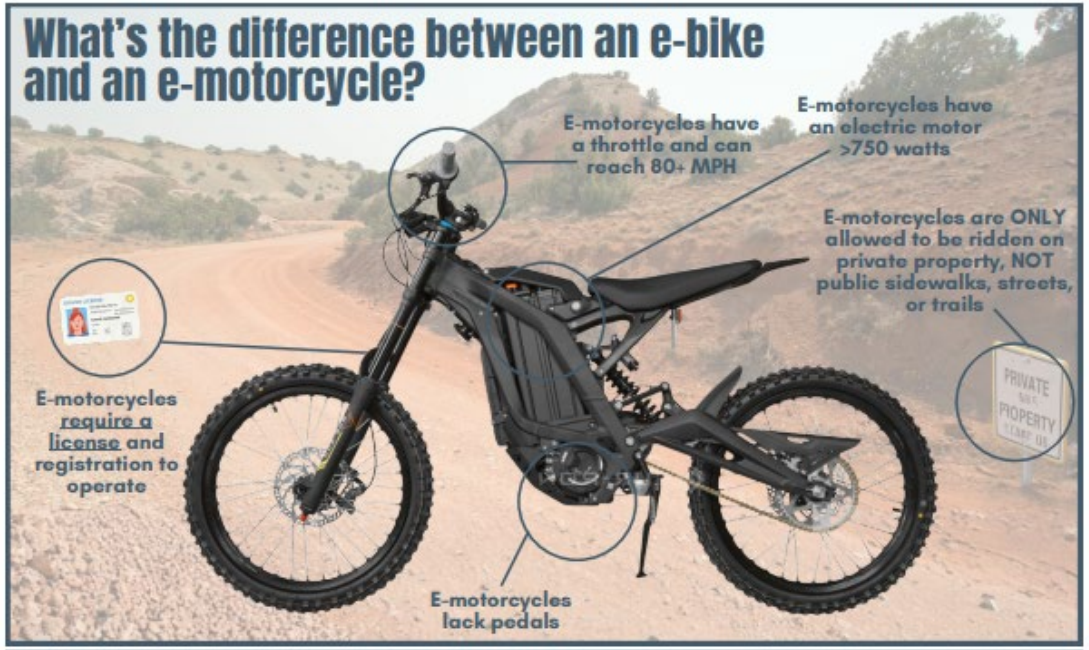
E-MOTORCYCLE GUIDE FOR SCHOOLS

Off-road e-motorcycles are ILLEGAL for students and are NEVER permitted on public roads!

Common e-motorcycles include:

Surron | Talaria | Segway | E Ride Pro

What's the difference between an e-bike and an e-motorcycle?



Need more support?

The Petaluma Police Department offers bicycle & e-bike safety presentations for school administrators, staff, and students.

Presentations include:

✓ Legal classifications ✓ Age restrictions ✓ Safety best practices ✓ Compliance guidance

👮 Officers are also available to assess e-bike legality at school sites.

📞 Contact the Petaluma PD Traffic Team to schedule a presentation or request guidance: 707-776-3722

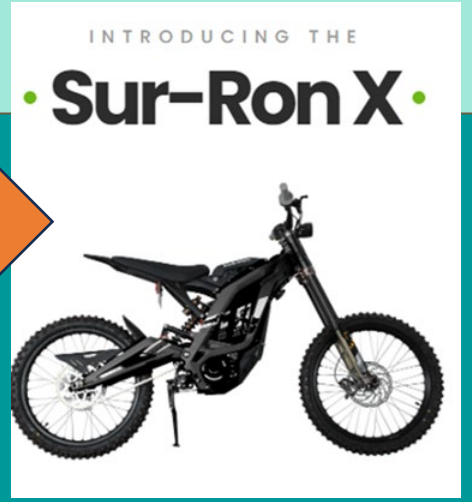
Distinction b/w E-bikes and E-motos

Any bike that go faster than 20 mph on motor power alone (Class 2), or 28 mph (Class 3) and or/ has a motor that exceeds 750 watts is considered "out of class" and is not an electric bicycle; it is an e-motorcycle and is not street legal and can only be ridden on private property.

Examples: Super 73, Sur-rons

- California Vehicle Code states that it is illegal to tamper with or change the speed capability of an electric bicycle unless the label on the bicycle is also changed.

This is an electric motorcycle and requires a motorcycle license to operate.



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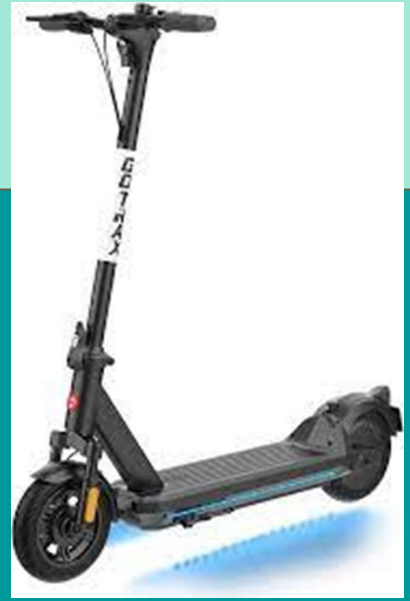
E-Scooters

- In California, E-Scooters are
- legal to ride if you are at
- **least 16 and have a valid driver's license or permit**.
- E-Scooters cannot be ridden on the sidewalk and must go **no faster than 15 MPH**.



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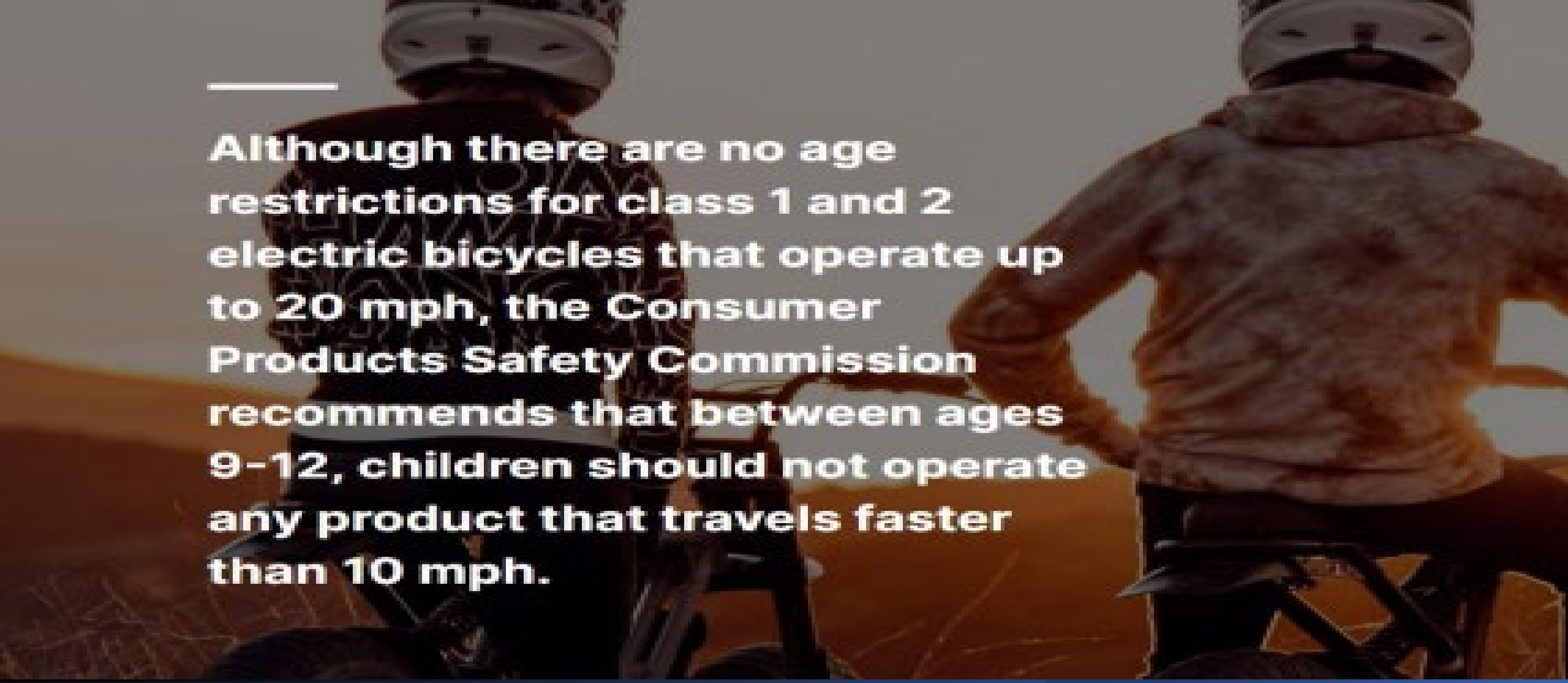

California Highway Patrol – on-line education (August, 2023)

Parents are legally and financially responsible for their children until 18 years of age.

“

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Why e-bike awareness and education is critical

- We recommend that youth up to age 16 or who **do not have** the requisite bicycling street skills shouldn't be operating a device/product that goes over 15mph.

- If your teen came to you and asked if you would get them a motorcycle, what would you say?

Parents are ultimately liable for their children's actions on bikes and e-bikes!

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Why e-bike awareness and education is critical

E-bike education must address the increased speeds and maneuverability challenges of a heavier and faster device

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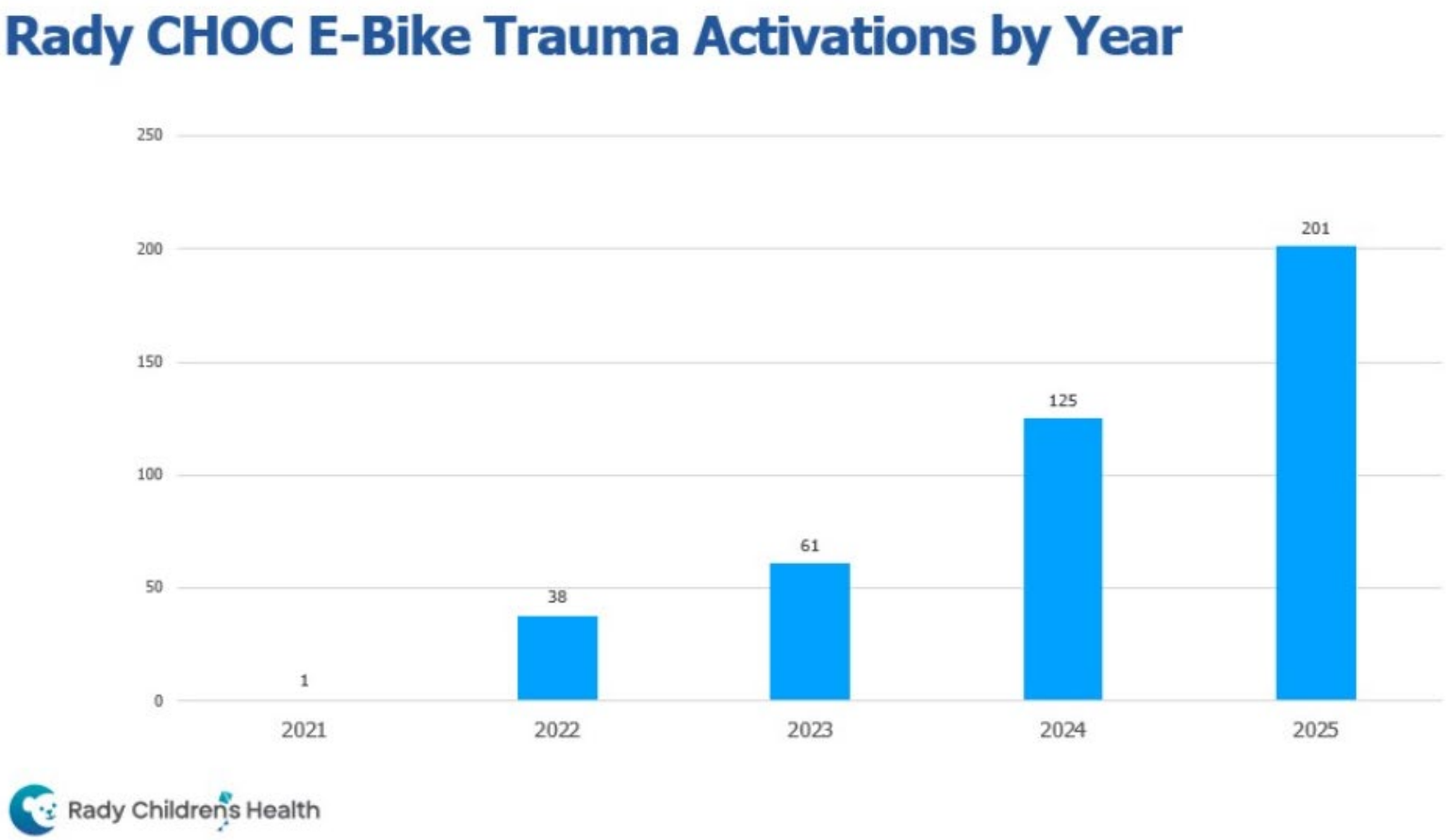
As bicycling advocates, we are committed to prioritizing the safety of children.

Why e-bike education is necessary



"It's kind of intuitive: The faster you're going on an e-bike, the more the force of the crash and the more internal injuries that necessitate hospital admission"
-- Dr. Laura Goodman, pediatric general and thoracic surgeon; trauma medical director at Rady Children's

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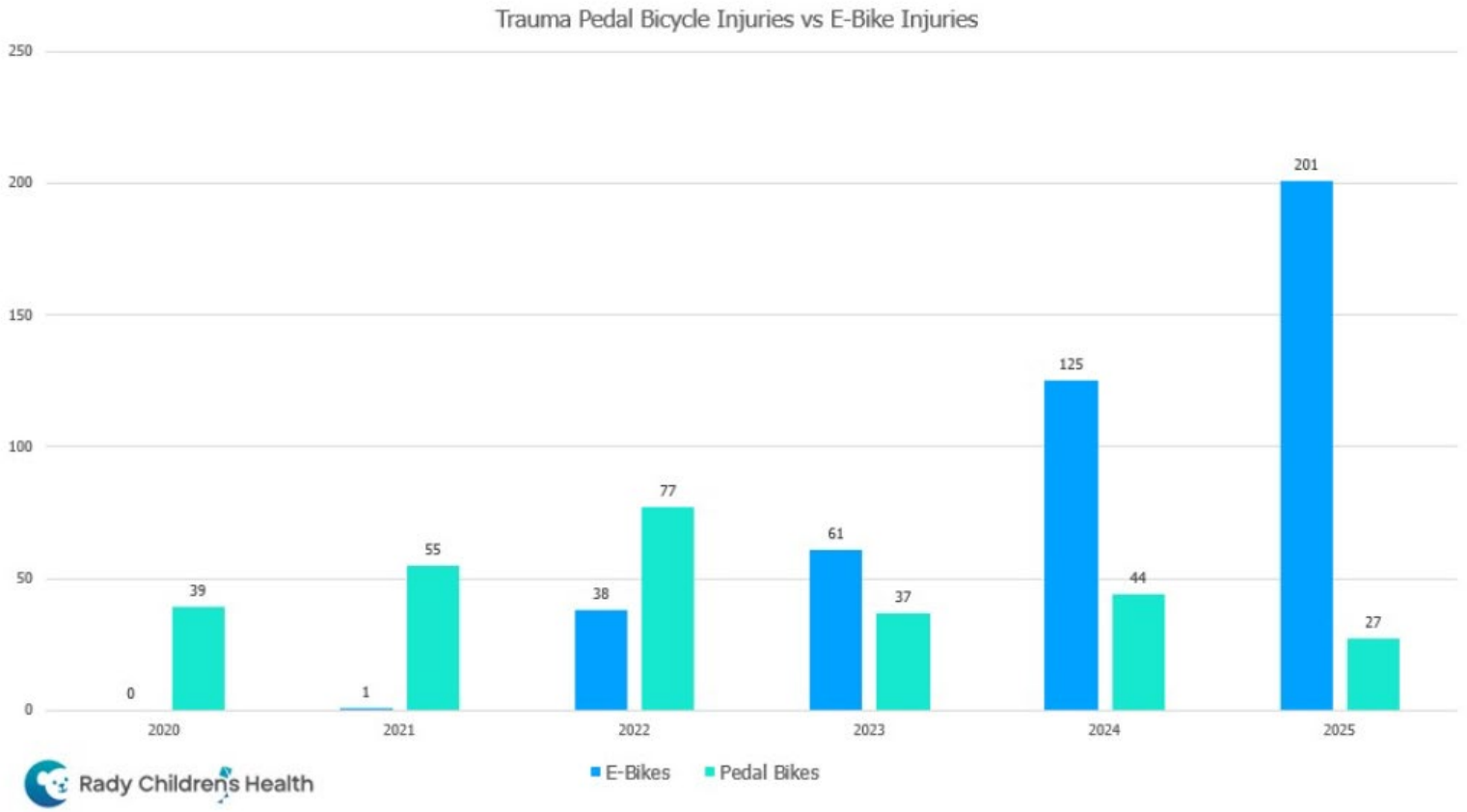
Why e-bike education is necessary



"When a person crashes on a bicycle, as opposed to a motorcycle, they often don't go to the ED. I think there's now a fine line between e-bikes and motorcycles."
--Dr. Zoe Flyer, fellow at Rady's Children

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Better regulation of e-motorcycles

E-Bike Injuries Are Up 1,800%, But It's Not Actually E-Bikes: It's Electric Motorcycles
velo.outsideonline.com

*Counts of electric two-wheelers parked at a dozen northern California middle and high schools found that **almost 90%** may not meet the standards for legal electric bicycles. Some have as much as eight times more power than legal limits.*

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Sharing Stories

MOLLY and EME—An 11 and 12-year old on an e-bike

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Why e-bike education is necessary

Greater the speed the greater the risk of severe injury.

ER doctors are seeing severe head trauma and pelvic injuries similar to motorcycle crashes

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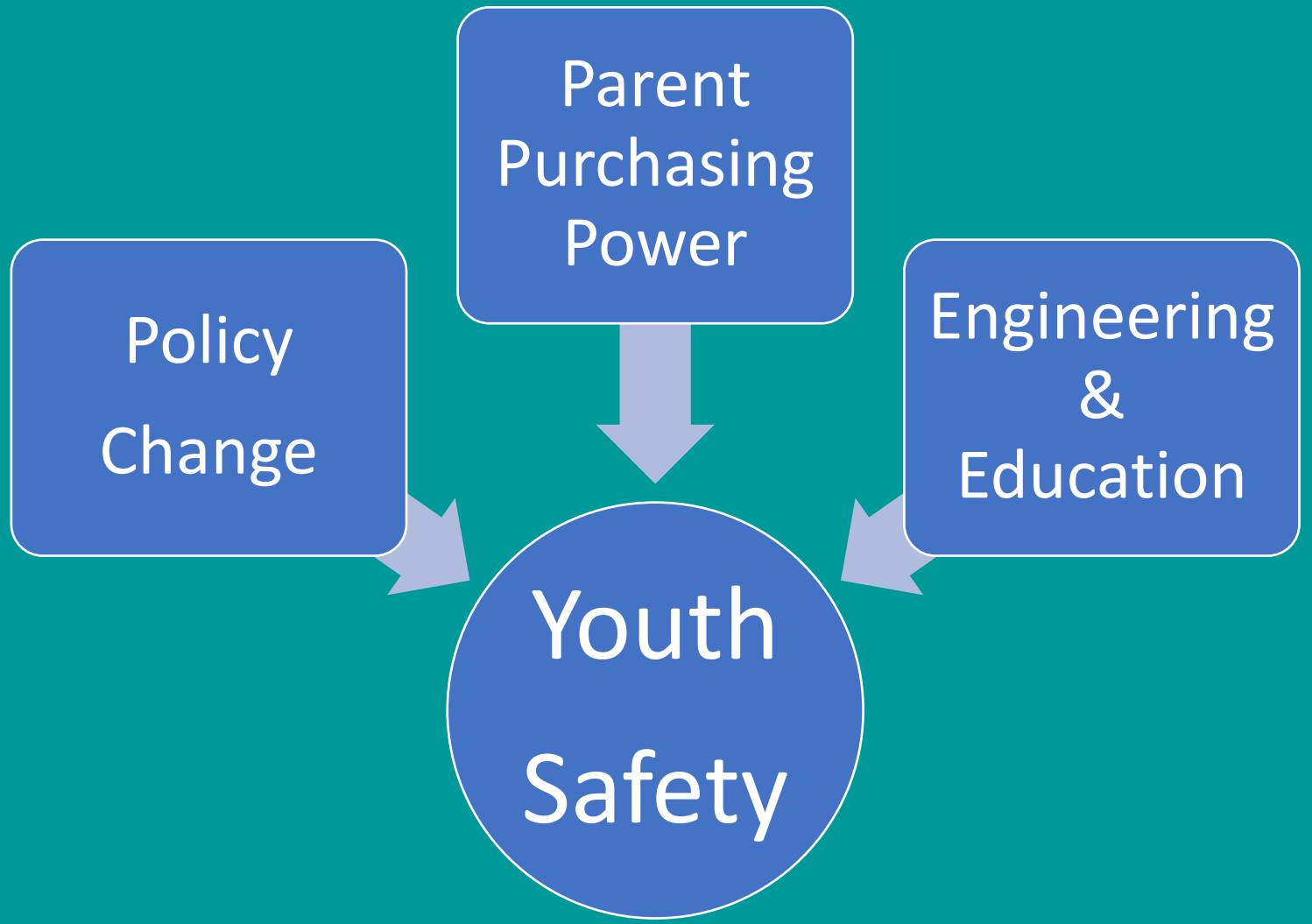
Why e-bike education is necessary

What Must Be Done?



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Why e-bike education is necessary

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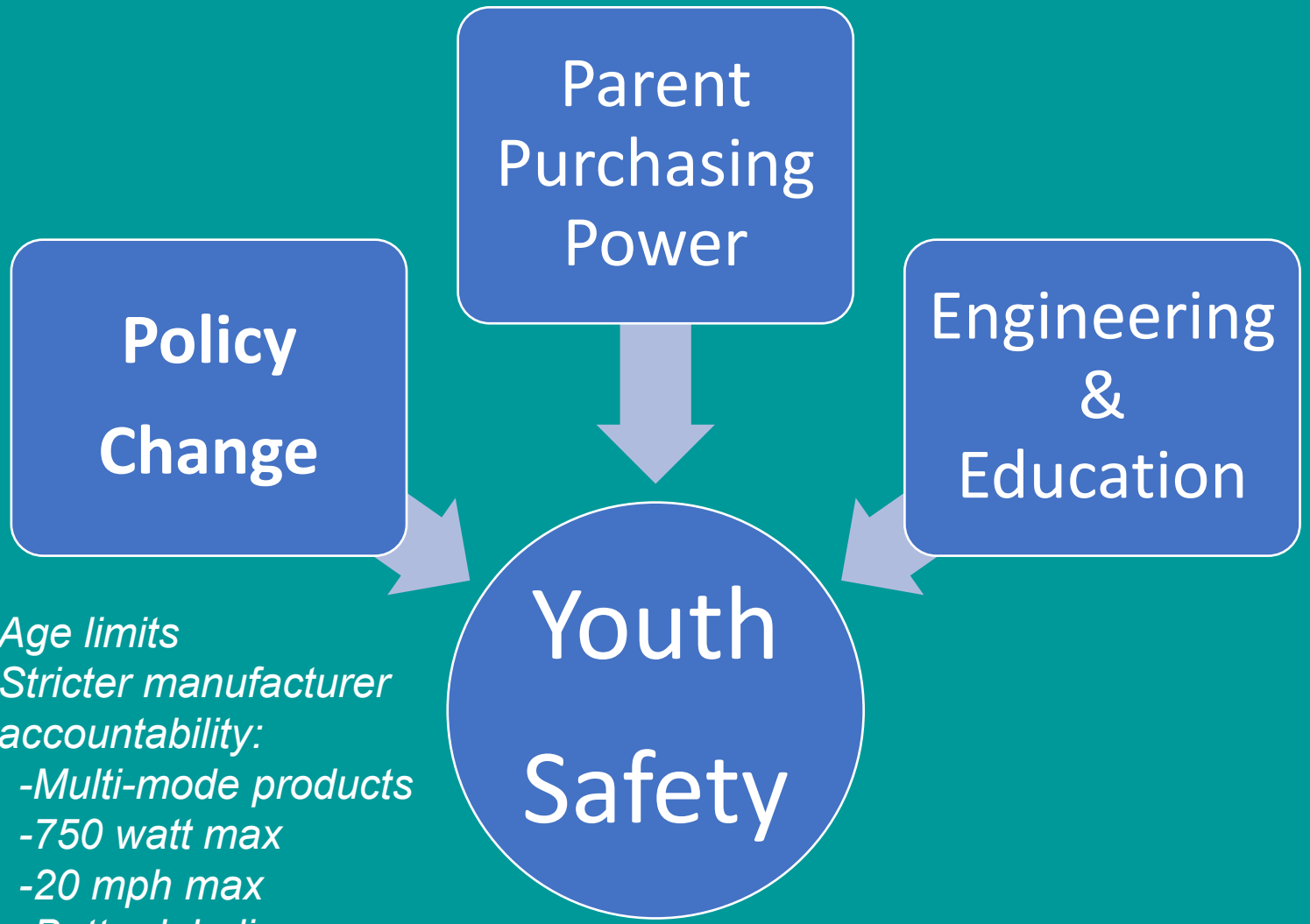

- ✓ *Age limits*
- ✓ *Stricter manufacturer accountability:*
  - *-Multi-mode products*
  - *-750 watt max*
  - *-20 mph max*
  - *-Better labeling*

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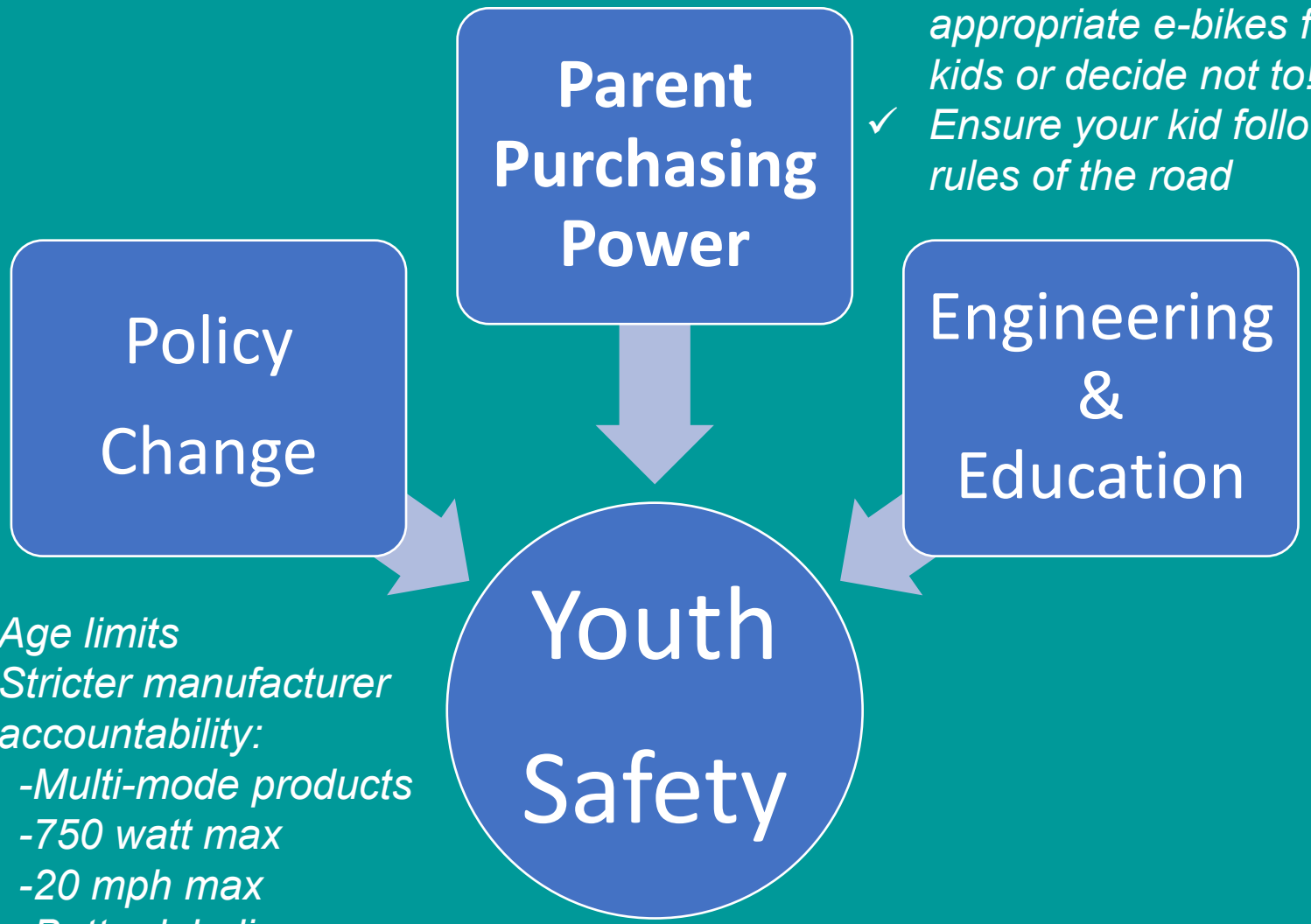
Why e-bike education is necessary

What Must Be Done?

- ✓ *Buy age-legal and skill-appropriate e-bikes for kids or decide not to!*
- ✓ *Ensure your kid follows rules of the road*



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Why e-bike education is necessary

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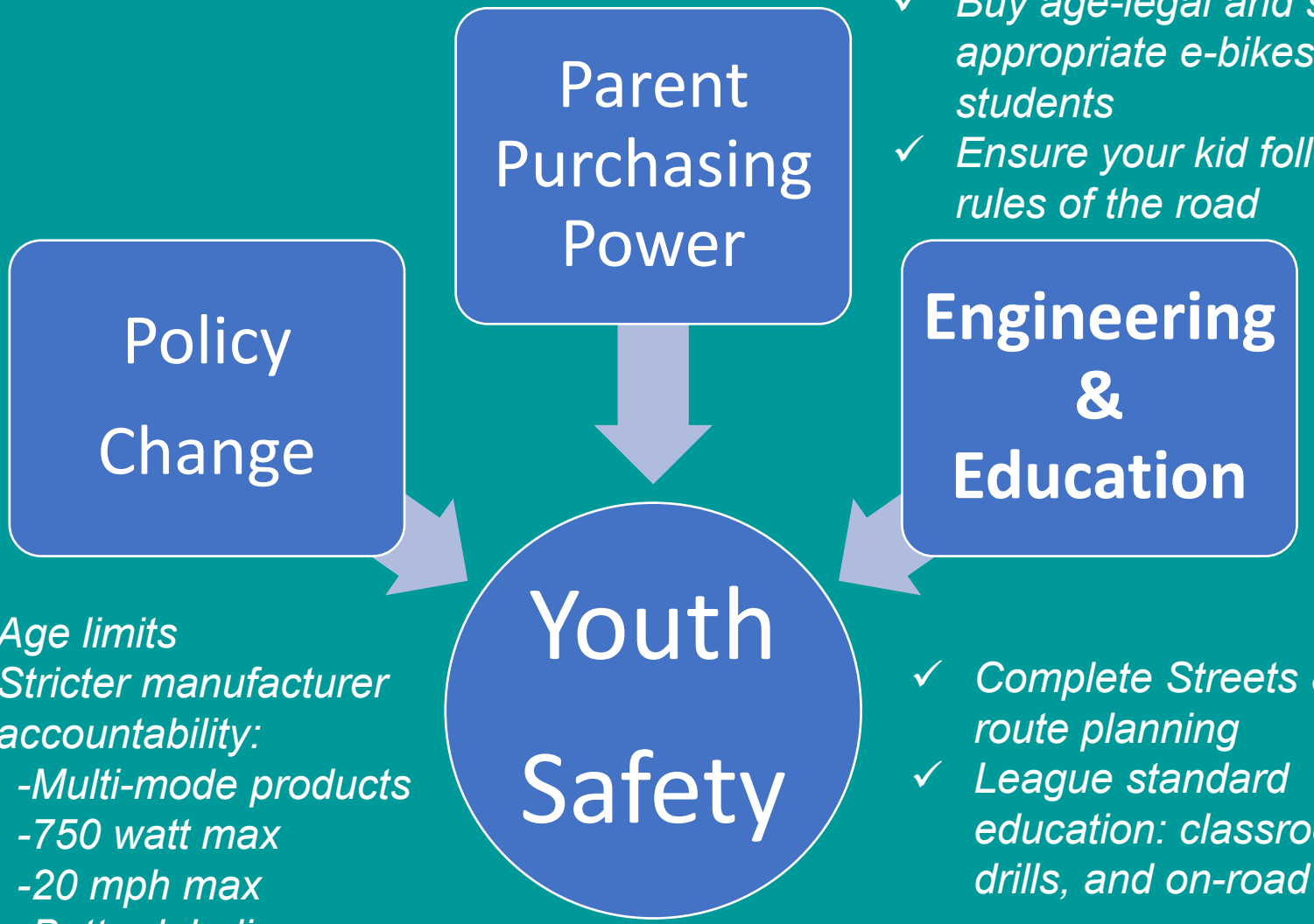

- ✓ *Buy age-legal and skill-appropriate e-bikes for students*
- ✓ *Ensure your kid follows rules of the road*

- ✓ *Age limits*
- ✓ *Stricter manufacturer accountability:*
  - *-Multi-mode products*
  - *-750 watt max*
  - *-20 mph max*
  - *-Better labeling*

- ✓ *Complete Streets & route planning*
- ✓ *League standard education: classroom, drills, and on-road*

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Why e-bike education is necessary

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In-classroom Education

Wear a Helmet and Wear it Properly

You're more likely to have a crash resulting in a brain injury when you ride a faster e-bike compared to a regular bike. **Make sure your helmet fits and that it's properly adjusted and attached before you ride.** Helmets designed for

Practice Passenger Safety

E-bikes are heavier and harder to control with or without a passenger. **Carrying a passenger is legal only if your e-bike has a seat for another person; regardless, the extra weight can make it difficult to maneuver, slow down, and stop.**

SLOW Your Speed

The higher the speed, the higher the risk of severe injury. **At 20 MPH, it could take you almost four school bus lengths to fully stop to avoid an obstacle.** Take your time when riding and don't exceed the

Be Responsible, Predictable, and Visible

E-bike crashes are more likely to lead to severe injury and hospitalization compared to crashes involving regular bikes.

Be responsible: follow laws and stop at stop signs.

Be predictable: ride in the same direction as traffic.

Be visible: use bright clothing and use lights.

"To prevent unintended consequences"

Wear a properly fitting helmet

- You're more likely to have a crash resulting in a brain injury when you ride a faster e-bike compared to a conventional bike.
- Helmet use provides a 63 -88% reduction in the risk of head and brain injury for bike riders.
- Helmets are required by law for all bike riders under the age of 18.
- Make sure your helmet fits and that it's properly adjusted and attached before you ride.

Practice Passenger Safety

- E-bikes are heavier and harder to control with or without a passenger. Make wide turns and brake earlier.
- Carrying a passenger is legal only if your e-bike has a seat for another person; regardless, the extra weight can make it difficult to maneuver, slow down, and stop.
- Passengers must also wear a helmet if they are under 18.

Slow the Fast Down

- The higher the speed, the higher the risk of severe injury.
- Because of the increased weight and speed of e-bikes, you need to give yourself more time to slow down and stop.
- Take your time when riding and do not alter your e-bike's speed to go above the class limit.
- Motorists do not expect bicyclists to be going so fast

Be Responsible, Predictable and Visible

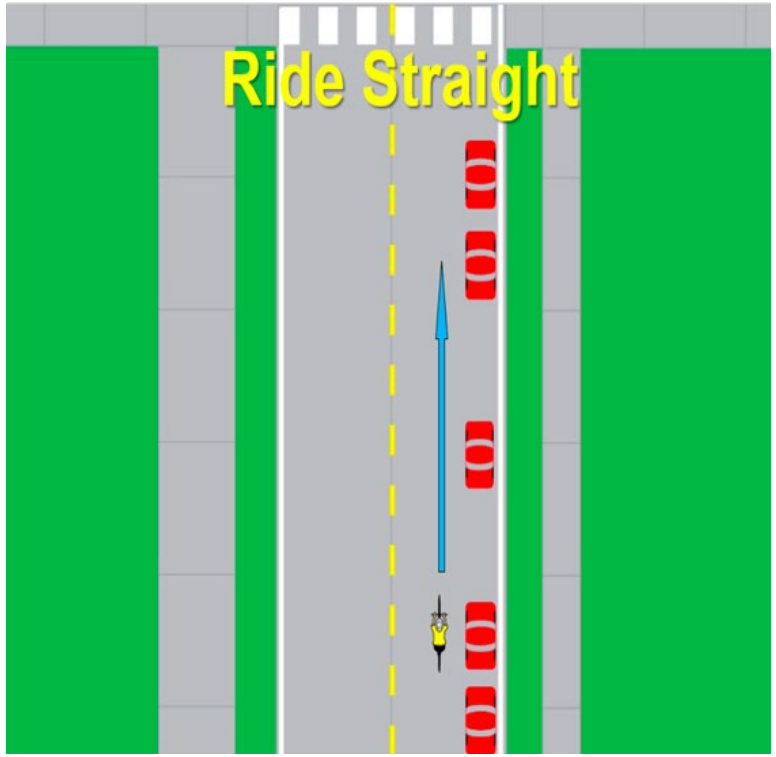
- Be Responsible: Follow laws and stop at stop signs
- Be Predictable: ride in the same direction as traffic; use your hand signals
- Be Visible: Wear bright clothing and use lights, white in front and red in back

Be *Responsible*, Predictable and Visible

Be responsible

- Follow traffic laws and stop at stop signs
- Ride 3-5 ft away from the curb/edge of the street and door zone area
- Yield before entering a roadway
- Be aware at intersections—slow to a speed that allows you time to react
- Do not ride on sidewalks

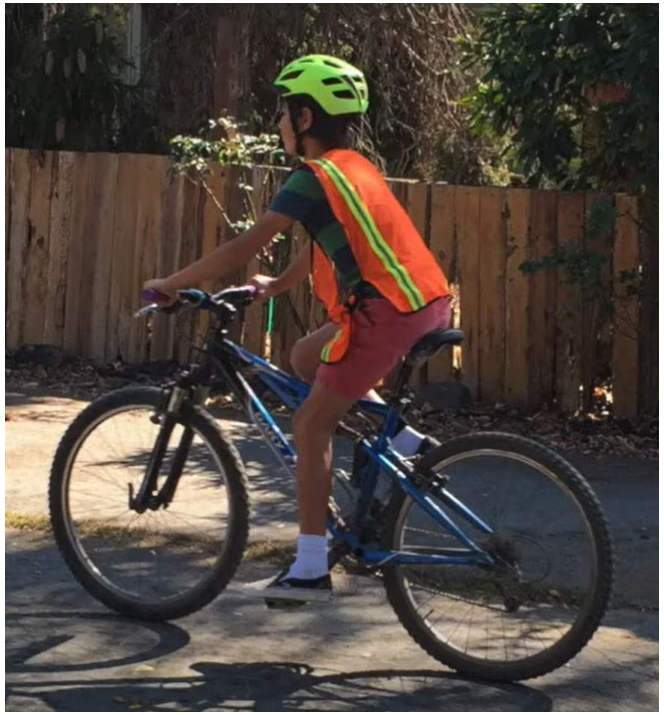
Be Responsible, *Predictable* and Visible



Be predictable

- Ride in the same direction as traffic
- Ride in a straight line and do not swerve
- Signal your turns/make eye contact
- Look back, yield, signal before changing lanes

Be Responsible, Predictable and *Visible*



Be visible

- Wear bright/reflective clothing
- Use lights, especially at dusk/night
- Because you are going faster on an e-bike, compensate by being as visible as possible

Take Care of your E-bike and Battery

- Find a good place to store your e-bike—it should be inside/covered; on floor level; cool and dry
- Take your e-bike into a local shop for regular tune-ups (know that if the speed has been tampered with, they likely won't work on it)
- Be sure to check your brakes often as they wear out faster than on a conventional bike

- Avoid leaving your battery in extreme temperatures (store in a cool and dry place)
- When replacing or swapping out a battery, we recommend using a manufacturer battery rather than an after-market purchase as after-market batteries and chargers have been known to start fires

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On-line resources for e-bike education

RESOURCES

Sonoma County SRTS E-Bike FAQ includes information for parents, students, and school administrators

12 Minute E-Bike Safety Video from Pedal Ahead An easy to follow introductory video all about e-bike safety, including including maintenance needs for batteries & brakes

E-Bike Safety Training by CHP 1 hour, comprehensive training, highly recommend youth complete this training with an adult

The Caring Parent's E-Bike Survival Guide by Beth Black (available for purchase)

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Websites:

sonomasaferoutes.org

bikesonoma.org

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Questions? Concerns?

Contact Info:

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sarah@bikesonoma.org

Christina Panza, SRTS Director
christina@bikesonoma.org

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