

Orthopaedic Injuries from Bicycle Accidents

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Disclosures

- Partner, Keys Medical Group
 - ❖ Key West, Florida
- No corporate affiliation, interests, or royalties
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Epidemiology

- Participation in bicycling has steadily increased over the past decade
- Proven health benefits, transportation
- Commensurate increase in accidents
- Estimated 544,000 injuries in US in 2009
- Children: 300,000 exams/year for injuries
- Approx. 900 deaths annually, 2/3 in children

Orthopedics 36(4):287-9, 2013

Contributing Factors

- Rider carelessness
 - ❖ Cell phone use
 - ❖ Failure to yield
 - ❖ Other distractions
- Bicycle malfunction
- Environmental factors
- Other vehicles
 - ❖ Increased severity of injury due to ↑ energy
- Cyclists at fault 58.7% of the time



Public Health Impact

- Costs associated with caring for injured cyclists is significant
- In 2000, an estimated \$8 billion was spent in the US for care of bicycle crash victims

Injury 34(11):825-829, 2003

- Costs increased to \$22.4 billion in 2013
- Bicycling had highest absolute number of injuries per year of all sports!

Sports Med 31(9):691-699, 2001

Common Injuries

- Sprains and strains
- Minor abrasions
- Concussion and CHI
- Trauma
 - ❖ Clavicle fractures (20% of all fractures)
 - ❖ Forearm/Wrist fractures (31.6%)
 - ❖ Tibia fractures
 - ❖ Facial fractures

Emergency Med 3(2), 2013

Common Injuries



My own experience

- 29 months in practice here in Key West
- Numerous office visits, consults to ED for bicycle-related injuries
- 9 surgical cases
 - ❖ 4 clavicle fractures
 - ❖ 2 wrist fractures
 - ❖ 2 tibia fractures
 - ❖ 1 femur fracture
- Many nonoperative cases!
- Observed 2 bicycle vs. MVAs!

Suggestions for Accident Reduction

- Safer cycling infrastructure
 - ❖ Bike lanes
 - ❖ Improved lighting
- Enforcement of laws
 - ❖ Speed limits
 - ❖ Reduce cell phone use
 - ❖ Require lights on bicycles
 - ❖ Encourage helmet use, especially in children

**RIDERS AREN'T ALWAYS IN THE RIGHT.
BUT THEY ARE ALWAYS FRAGILE.**



Take the high road and give bicyclists the space they need to ride safely.
Check our website for more road sharing tips.

VISIT ORTHINFO.ORG/BIKESAFETY



A scenic sunset over a body of water. The sky is filled with vibrant orange, yellow, and pink clouds, reflecting on the calm water. On the right side, there is a building with a white roof and a covered outdoor area with palm trees. The overall atmosphere is peaceful and beautiful.

Thank You!

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