

# Motorcycle Helmets: Are You Kidding Me?

4<sup>th</sup> Annual

*“Current Trends in Orthopedic Trauma”*

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# This is FUN!!! I'm Free!!!



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# Really?



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# Talking Points

- **How Many Idiots?**
- **The MRM (Motorcycle Rider Monkey)**
- **What Else Can We Do?**



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# How Many Idiots?



- Only 20/50 (40%) states have adopted a Universal Helmet Law (UHL)
- 27/50 (54%) have Partial Helmet Laws
  - Most provide that helmet only required age <21yo
- 3/50 (6%) have NO helmet law
  - NH, IA, and ILLINOIS!
- According to US DOT, Head Injury is the leading cause of death in motorcycle collisions

# How Many Idiots?



- According to the independent NTSB, motorcycle-related fatalities in 2009 (4400) outnumbered those associated with aviation, rail, marine, and pipeline combined



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# How Many Idiots? History Lesson

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➤ By 1974, 47 states and DOC were in compliance

# How Many Idiots? History Lesson

## ➤ Proud Moment Alert

- Illinois was first state to repeal UHL after its initial adoption in 1967
- In 1969 the Illinois Supreme Court declared UHL unconstitutional



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# How Many Idiots? History Lesson

- During the 1970's lawyers argued issues such as **parties**
- Many **sure and** reduced **partial'** law (D)
- In 1970 **nalty to** states
- By 1980 only 19 states and the DOC maintained a universal helmet law



# How Many Idiots? History Lesson

- The early 1990's saw a Renaissance
  - With ridership and deaths on increase, several states go back to investigating
  - In 1991
    - Helmets
    - Helmets
    - UHL
    - PHL
    - State increase in fatality rates over states with none or PHL's
    - Because of the 'convincing evidence' that helmets save lives and reduce the 'burden' on society for caring for injured riders the GAO recommended Congress return to penalizing noncompliant states



# How Many... Lesson

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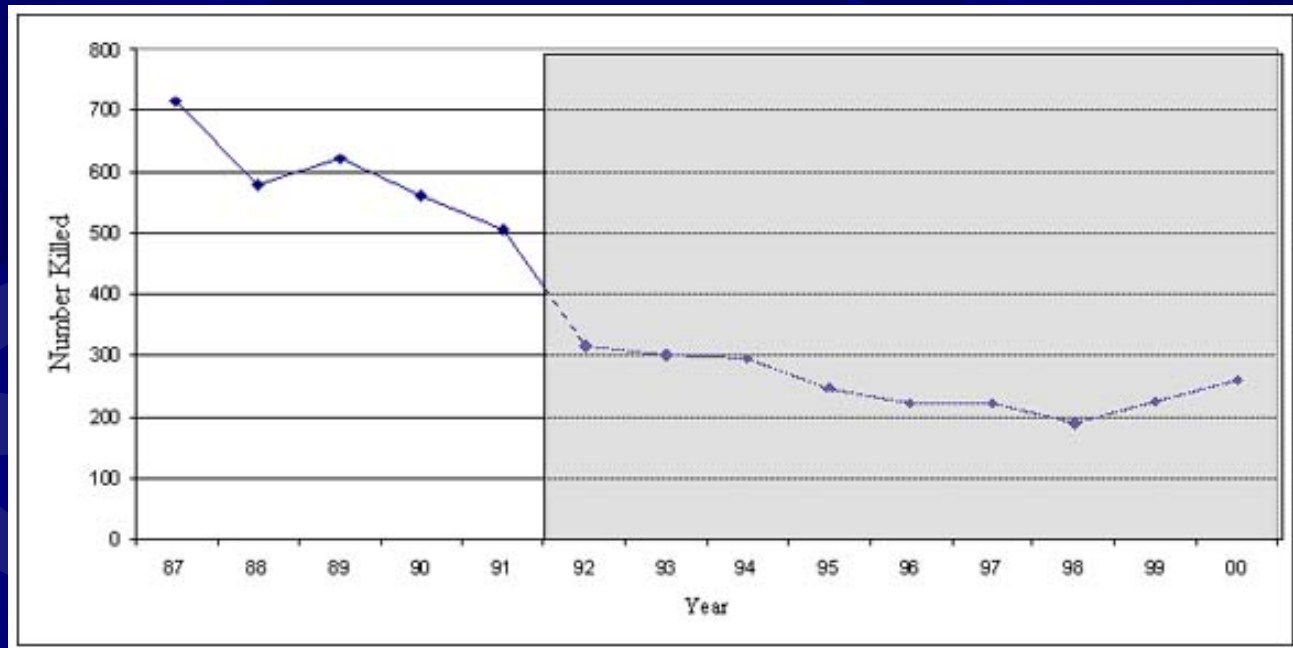
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# How Many Idiots? California



- UHL became law in 1992
- Helmet use increased from 50% in 1991 to 83% in 1992
- Motorcycle fatalities decreased 37% in 1992
- Both severity and number of head injuries decreased

# How Many Idiots? Texas



➤ UHL in

➤ Reenac

➤ 57%

➤ 55%

➤ 1997 –

➤ 51% increase in fatalities and significant increase in TBI and hospital costs associated with treatment

adopted PHL

ies

juries

n (<21yo, <\$10,000)

# C'Mon, Man

## Death on the Highway

In 1997, 1 of every 99 traffic fatalities was



Source: National Highway Traffic Safety Administration  
Photo: iStockphoto

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# Motorcycle Rider Monkey



- **Helmet are too heavy**
- **Helmet are too hot**
- **I have no peripheral vision with a helmet**
- **I can't hear with a helmet**
- **A helmet will cause a spinal injury in an accident**

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# What Else Can We Do?

## ➤ Improve Training/Education? Prevention?

### ➤ 2007 Indiana Study

#### ➤ 2005 data sample looking at effectiveness of beginner rider training program

➤ Those beginners that took the course were more likely to get

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# What Else Can We Do?



# What Else Can We Do?



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# What Else Can We Do?

➤ "One overview more than **\$12 year were due** the Division of Department of statement. "The mandating mo alternative to

➤ However, near **form of increa** said.

➤ Esposito said t without manda percent to 50 p **more likely to wearing a helm**

Read more: [ht for-unhelmete](http://for-unhelmete)



estimates that **expenses per** posito, chief of in the er, said in a gislation a viable

public **in the axes**, Esposito

stration found ed from 99 **three times** an those

**Public-pays-Bno5SVPK**

# What Else Can We Do?

## ➤ Unhelmeted riders involved in an accident

- Higher ISS on admit
- Lower GCS on admit
- Greater hypotension on admit
- Longer hospital stay/more days in ICU
- Higher rate of disability
- Higher mortality rate
- Higher hospital costs



## ➤ Independent predictors of unhelmeted motorcyclists

- Alcohol intoxication
- Riding as a passenger
- Lack of health insurance

(Brown, et al., J of Emergency Medicine, 2011)



# What Else Can We Do?



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# What Else Can We Do?



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# What Else Can We Do?

- OK, not everyone will live just because they have on a helmet ...





**BREAK**  
COM

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**BREAK**  
SYMPOSIUM

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# All Bikes Included



# Enough Said

