## New Snell M2020 Standard Premium Head Protection

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### Helmet in 1950s





# How to Choose among Today's Motorcycle Helmets?







# Motorcycle Helmet Effectiveness

 NHTSA estimates that motorcycle helmet usage leads to:

• 37% reduction of crash fatality

67% prevention of brain injuries



#### Fact Check

- DOT Standard has not changed for more protection since 1974.
- Snell Standards Update Every 5 Years.



#### Current M2015 Standard





# New M2020 Standard Effective October 1, 2019





## Newer Helmets and Greater Protection

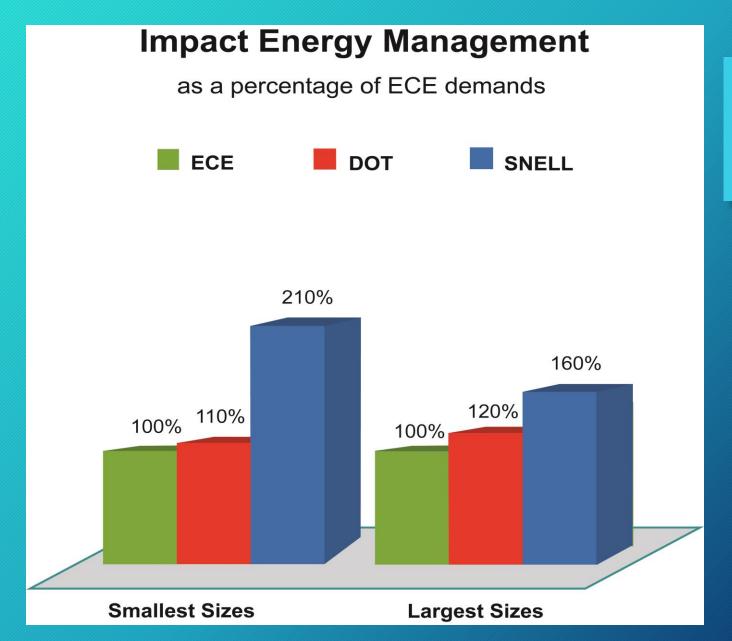
- The effectiveness of helmet has increased from 29% between 1982-1987 to 37% between 1993-2002. (NHTSA reports)
- Tougher Snell Standards
- DOT Standard Unchanged
- Better Designs and Materials



## Snell Motorcycle Helmet Standards









## Snell Means Premium Protection. DOT and ECE are Minimum Requirement.

### **Impact Energy Management**

**Medium Size Helmets** 

ECE 22.05 (45%)

**DOT (51%)** 

**SNELL** (100%)

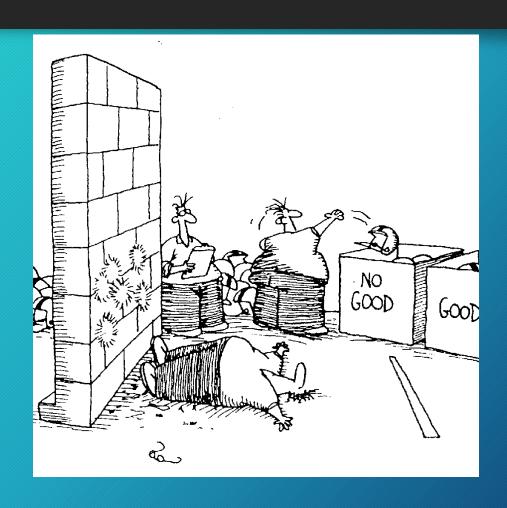


#### Effectiveness of Standards

- Standards = Documents
- Effectiveness of standards depend on
  - \* Strict and independent certification
  - \* Enforceable compliance
  - \* Experience and competence
- Testing and More Testing

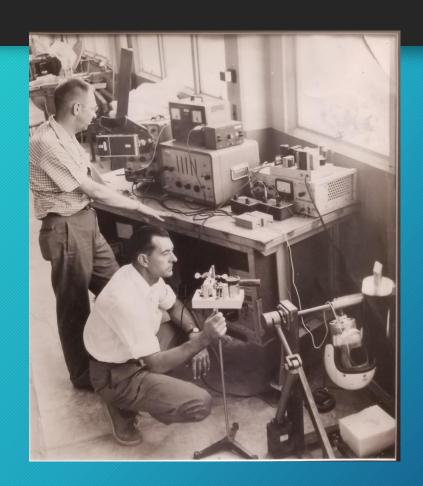


#### Not how Snell tests helmet





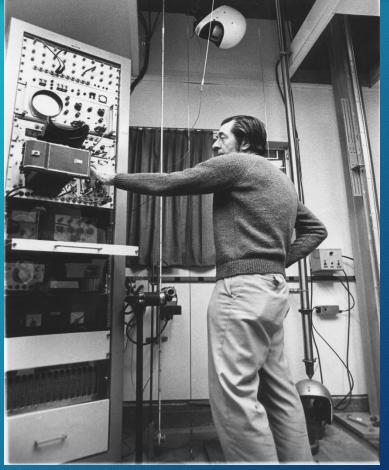
### Oldest Snell Testing Photo





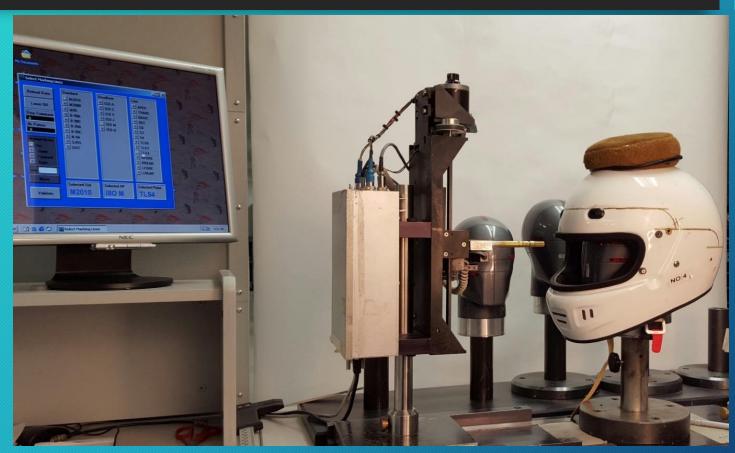
## Snell Lab in Early 1960s







## Snell Test Lab Today





### Scientifically Valid & Repeatable Test







### Snell Impact Test





# Wireless Head Form for Rotational Impact Test







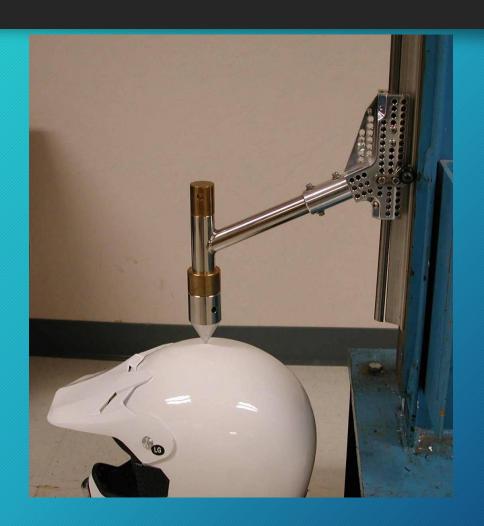
### **Snell Retention Test**







#### **Snell Penetration Test**





### Roll-off Test





#### Snell Face Shield Test





### Some fail tests.





### **Experience and Expertise**





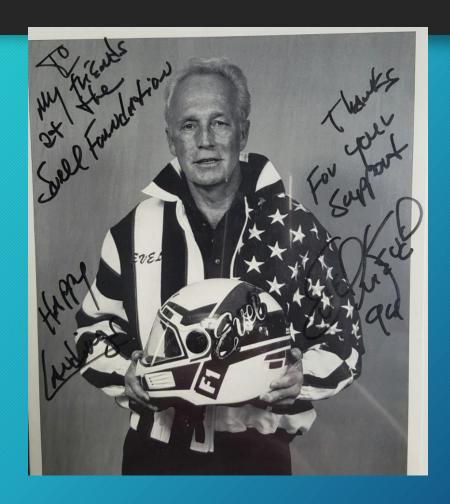


### Snell Tests For Public Safety

- Snell Web Site Helmet List
- Updates Each Day
- Certified Helmets by Name and Size
- Decertified Helmets Noted



#### Snell Helmets Save Lives.





# Austin Dillon Walking Away from 2015 Crash NASCAR Daytona Finish





#### Helmet Fit Research

Well-fitted helmets protect better.

 Dr. Amy McIntosh reported in 2012 that children with help fitting a helmet had concussions reduced by 41%.



## Shell Spreads the Load. Liner Foam = More Braking Time





#### Snell's Mission

Evidence Based Helmet Standards

Premium Protective Helmets

Injury Prevention Education



# We Don't Make Helmet. We Make helmets Safer.





#### Helmet Dos and Don'ts

- Replace every 5 years.
- Fasten chin strap.
- Clean with only soap and water.
- Do not cut or alter the helmet liner.
- Do not put helmet near hot muffler or engine.
- Do not place helmet atop mirror or handle bar.



#### More Information

- Videos in Snell Youtube Channel
  - How Helmet Works to Protect the Brain
  - Why Helmet Standards Matter
  - Snell Lab Tour
  - Snell Facebook/Twitter
  - Call Snell Lab and Office: 916-331-5073



#### **Last Words**

- Riders have no direct indicators of helmet protective capability
- Riders can look for indirect indicators (e.g.:a serialized Snell sticker)
- There are reasonably foreseeable crashes that will exceed a helmet's protective capabilities.
- In serious crashes riders need all the impact management capability a helmet can offer.
- www.smf.org 916-331-5073 for more info

