



SNELL STANDARDS FOR GLOBAL TRAVELERS

SMSA Annual Conference, Columbus, Ohio

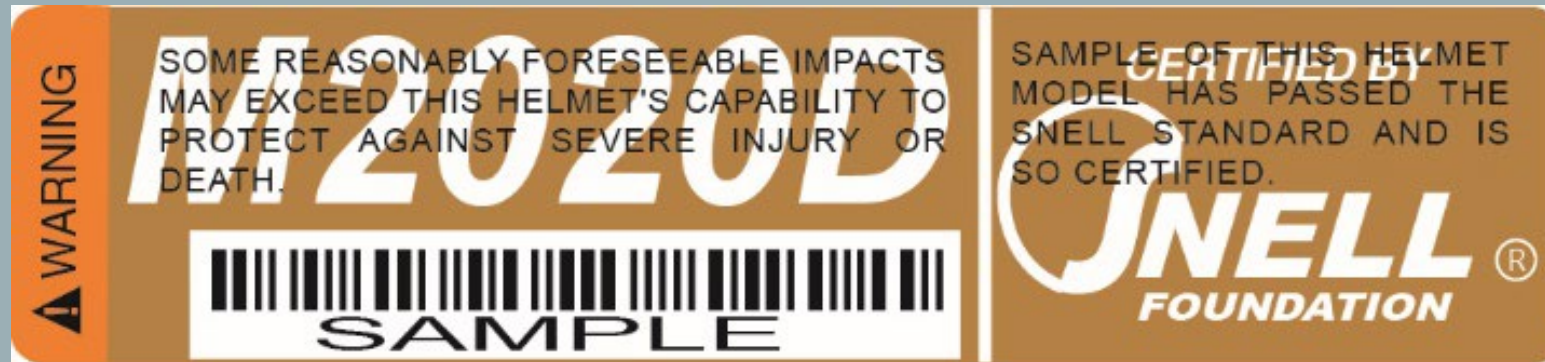
September 15, 2023

By Ed Becker

Snell Foundation

Director of Education

YOU MAY KNOW SNELL ONLY BY THE SNELL STICKERS



BEGINNINGS



Amateur Racer William "Pete" Snell
Rollover Crash in Arcata, California,
August 6, 1956

Pete died of head injuries
Sustained in a then state-of-the-art helmet



PETE SNELL'S HELMET



HELMETS

Why Helmets?

A helmet may save your life

Some localities insist on them

What Helmets?

DOT certification is the minimum US requirement

DOT + Snell is much more demanding

ECE homologation is required throughout Europe and elsewhere

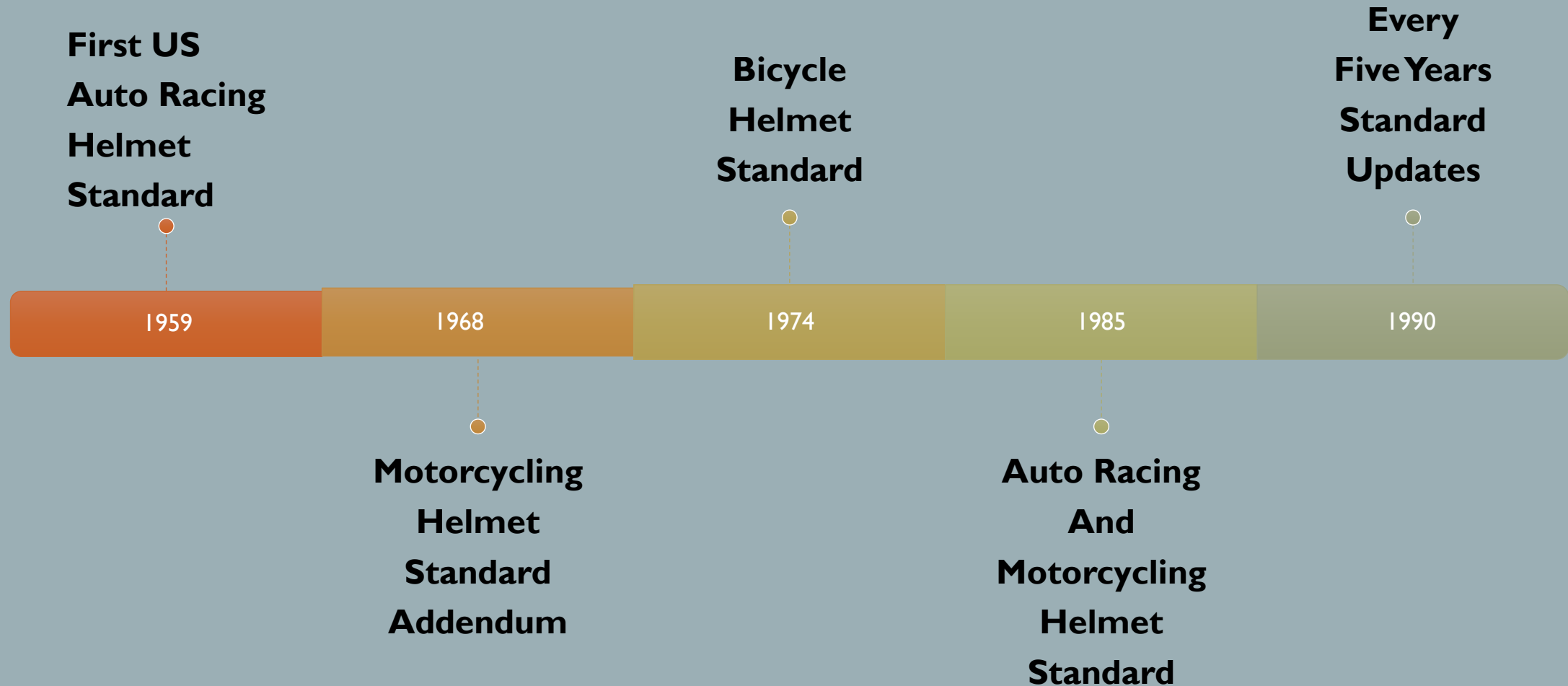
ECE + DOT is better... add Snell for a big improvement

You'll also want good fit, ventilation, comfort etc.

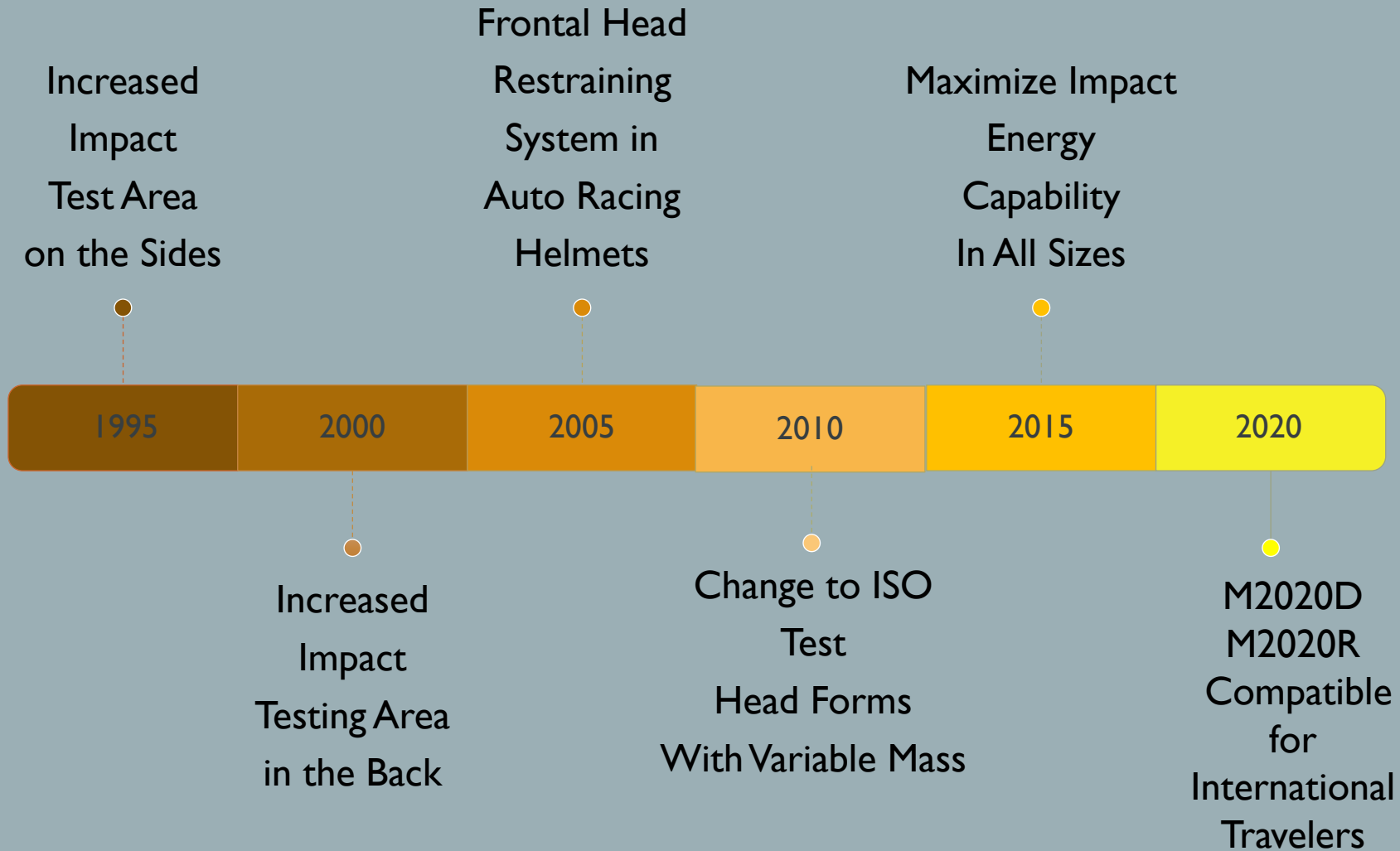
Most drivers won't wear an uncomfortable helmet.



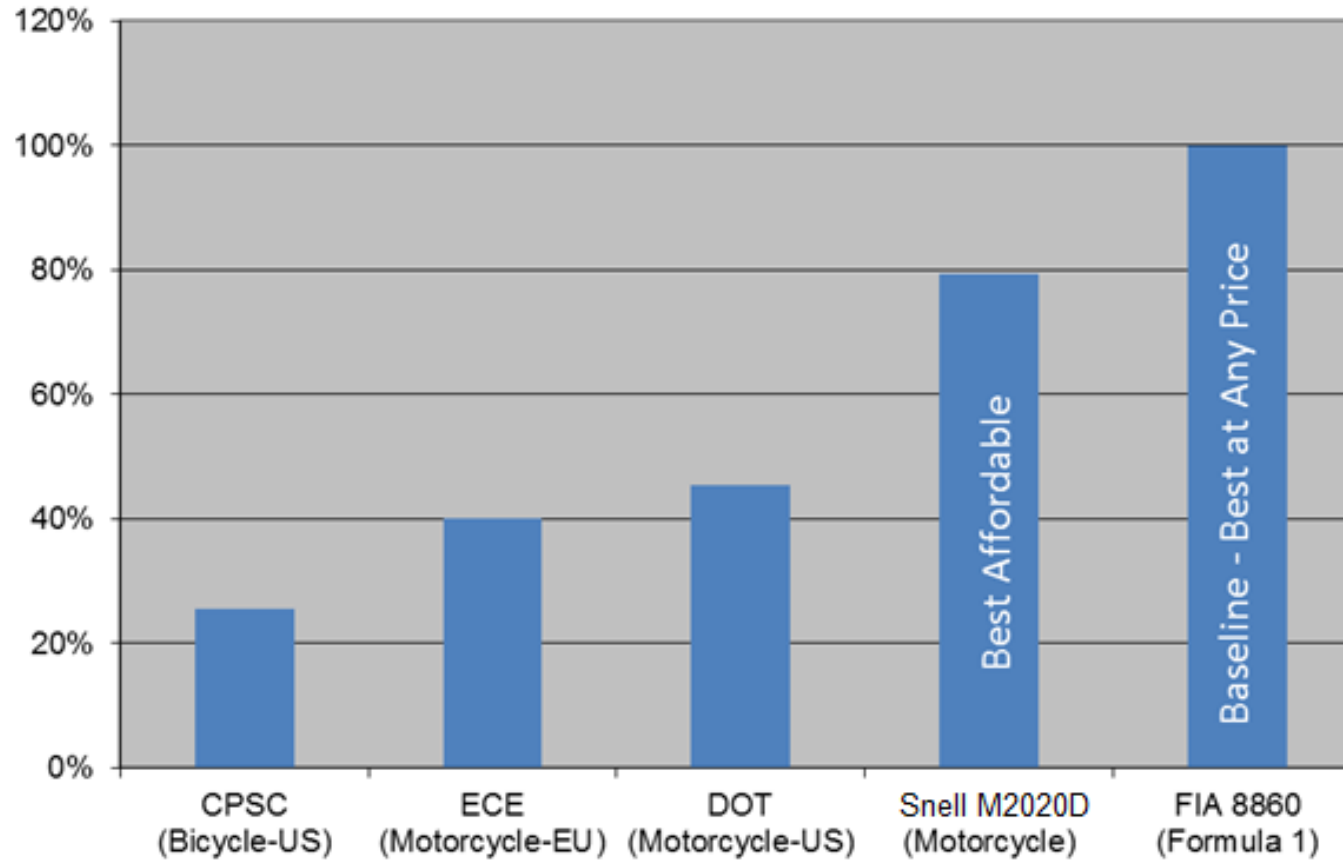
SNELL STANDARDS DEVELOPMENT



SNELL STANDARDS DEVELOPMENT



Impact Energy Management - Hemi Impact - Size Medium



M2020D & DOT - Estimated Single Impact Capability based on double impact testing
ECE - Estimate based on guided fall vs free fall and hemisphere versus kerbstone

Unpublished; E Becker; Snell Memorial Foundation, Inc.



ONE HELMET FOR GLOBAL TRAVELERS



M2020R COMPATIBLE AND MEET DOT



PROBLEMS IN HELMET EVALUATION

Protective Capability is Invisible

No good way to eyeball them for safety

You either

Buy and destroy a bunch of helmets on your own

Or you take the advice of someone who did

Snell Destroys Helmets

We test helmets to destruction

Before they're ever sold with Snell stickers

And as long as they remain in the market afterwards



MOTORCYCLE HELMET STANDARDS

Snell

Current: M2020D, M2020R

Previous: M2015, M2010, M2005,
M2000....M-85

DOT – FMVSS 218

ECE – ECE R 2206, ECE R 2205

FIM – FIM FRHPhe01 & FRHPhe02



OTHER IMPORTANT FEATURES

What Snell Can't Tell You:

Fit Quality

Helmets aren't like hats

they won't change shape to match your head

Ventilation

Noise

Style

Shop Carefully

If your current helmet is inadequate, replace it



HELMET SELECTION

Advance Planning

Know what the rules allow

Know what you want

Get as much of it as you can installed at the factory

Let respected professionals do the rest

Look for new, unused headgear

Try them on before making a decision

KNOW WHAT YOU WANT

Fit – Size and Shape

Comfort - Ventilation, etc.?

Style – Full Face, $\frac{3}{4}$ Open Face

Communications Gear - Bluetooth

Heads Up Displays

Drop Down Visors

Modular (Flip-Up) Configurations

WHAT TO AVOID

Avoid Helmet Mounted Hardware

No Cameras or Lights, unless very smoothly faired



DON'T MOUNT A CAMERA OR LIGHTS TO YOUR HELMET

...WITHOUT UNDERSTANDING
THE CONSEQUENCES



PROPER USE OF HELMET



HELMET REPLACEMENT

After a Serious Thump

Helmets protect by taking damage

Damaged helmets lose some protective capability

Or after a period of use

Routine wear and tear also sap protective capability

Snell recommends routine replacement after 5 years of use

Snell urges that rulebooks allow either the current or immediately previous Snell standard

DAMAGED LINER



INVISIBLE LINER DAMAGE



HPE test number 6978-10
Disassembly/inspection

SNEAK ATTACK: UNSEEN DAMAGE



DOS AND DON'TS

Wear it correctly

- Cover your brow area

- Do up the chin strap firmly and securely

Keep it away from solvents and volatiles

- Gasoline, petrochemicals, glues, airplane cement

Replace as Necessary

- After an impact or after 5 years of use

FOR 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: 1-888-SNELL99 (888-763-5599)



**WE DON'T MAKE HELMETS.
WE MAKE THEM SAFER.**

Evidence Based Standards

Rigorous Testing

Premium Protective Helmets

Injury Prevention Education



LAST WORDS

Helmet protective capabilities is not readily apparent. Drivers and riders can look for a serialized Snell label for guidance.

There are reasonably foreseeable crashes that will exceed a helmet's protective capabilities.

In serious crashes drivers and riders need all the impact management capability a helmet can offer.

Avoid Crashed Helmets!!!

www.smf.org and 888-SNELL99 for more info

