






Changes to Wheelchair Transportation Regulations


Thinking Beyond Safety

Early History of Special Needs Transportation


Prior to **1973**


- Disabled children not afforded equal opportunity to receive an education outside of their home or designated institution
- Access to school considered implausible, impractical, or impossible
- Limited educational services provided
- Federal Legislation needed to force school districts to provide equal access

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Equal Access Finally Provided






Individuals with Disabilities Act

Passage of the **Rehabilitation Act of 1973 and IDEA** guarantees disabled children the right to free & appropriate education

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Compliance



- Additional Federal Mandates - IDEA reauthorized in '86 & '91, and ADA in '90 - further rights of the disabled
- Over time, the weight of these mandates forced compliance on school districts in all 50 states
- Result: No longer could districts deny disabled children access to an appropriate education

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Transportation Challenges



Access to public education became a right
But...
Providing safe transportation
became a challenge

- Eligibility for Special Education services determined through case study evaluation
- Transportation became of the most fundamentally related services in the IEP
- In PA: Districts & IU's charged with providing specialized transportation (often contracted)
- More Involved: may require special seating, adaptive technology, WCs, lifts, and other modifications to a standard school bus

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Result: ANSI/RESNA WC-19



While Progress was made on the educational side,
most WCs auxiliary equipment was not transport
ready or crashworthy

In 1990, NHTSA concluded that:

- 1) WC passengers should ride forward facing
- 2) Wheelchair and Passenger securement should be independent
- 3) Lap and Shoulder belt systems should be used
- 4) Securement tie-downs should be 4-point systems

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Recent Securement Regulations



1990

Americans with Disabilities Act

- Civil rights law
- Minimum legal requirements governing access, not safety
- Provide accessible space and some form of securement



1996

Society of Automotive Engineers - J2249

- Governs the design, manufacture, testing and WC securement equipment
- Recommended "Best Practices"
- Became securement standard required by transportation agencies - DOT & DOE
- Specs: National School Transportation Specification & Procedures

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Post ADA / SAE-J2249



Wheelchair securement improves

But...

Wheelchairs themselves are observed to be "weakest link" in passenger safety

- WC manufacturers not focused on improving transportability
- Disclaimer: "WC should never be used as a seat in a motor vehicle"
- Result: SAE merely making the best of what was common and available

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Result: ANSI/RESNA WC-19



Work together to research, develop and publish standards for stronger, safer, transport ready wheelchairs

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ANSI/RESNA WC-19

WC19 2000

- Voluntary standard for WC manufacturers
- Regulates the design and crash testing of WC's to be used in vehicles
- Main provision: 4 crash tested securement points

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PATRIENT SURE-L-LOCK

WC19 Implementation

2000

Slow Acceptance

- Manufacturers: Reluctant to modify WC's because of added expense in design, engineering and testing
- Public: Cost & awareness

2011

Gaining Momentum

- Efforts by ANSI / RESNA
- Attention from lawsuits
- US Dept. Veterans Affairs now only funding WC-19 chairs
- Other agencies/insurance providers following suit
- Compels WC manufacturers to upgrade their devices

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Result: Regulations Updated in 2012


WC19 Revised

- Manufacturers now required to offer an integrated lap belt for all WC-19 chairs
- Lap belt must be:
 - Crash tested
 - Attached to chair
 - Adaptable with shoulder belt
- Goal: Facilitate the use of occupant restraints

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PATRIENT SURE-L-LOCK


WC18: Revised & Updated SAE J2249




WC18

Effective Dec 2015

- Similar testing requirements to SAE J2249
- Critical Difference: the WC19 Lap Belt
 - Tie-Downs must now secure wheelchairs with an integrated lap belt
 - Increase in loads on tie-downs by 60%
- Compliance will require new heavy duty retractors




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 SURE-LINK

Regulations Review

WC18


Larry Schneider, Professor,
University of Michigan, and
chair of SAE-J2249
standards committee






START MOVIE CLIP

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What Does This Mean for Transportation Providers?




WC19

your ticket to ride safety

- Increase in WC19 compliant wheelchairs
Securement: Easier, Quicker, Safer & Reduced Liability
- Post 2015:
As WC-18 replaces SAE-J2249 as industry safety standard, WTOR will need to comply



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 SURE-LINK

WC18 / WC19 Compliant Retractors







QRT-360

TITAN800

- 1st retractors to meet new WC-18 / WC-19 standards
- 4-point, fully automatic, self-tensioning

- Heavy Duty: Stronger than any previous retractors
- Available Now

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Resources

All videos shown in this presentation can be found on our Youtube Channel:
www.youtube.com/user/qstraint

For additional information on ANSI/RESNA, please visit:
www.resna.org

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