Car Seat Safety and State Legislation

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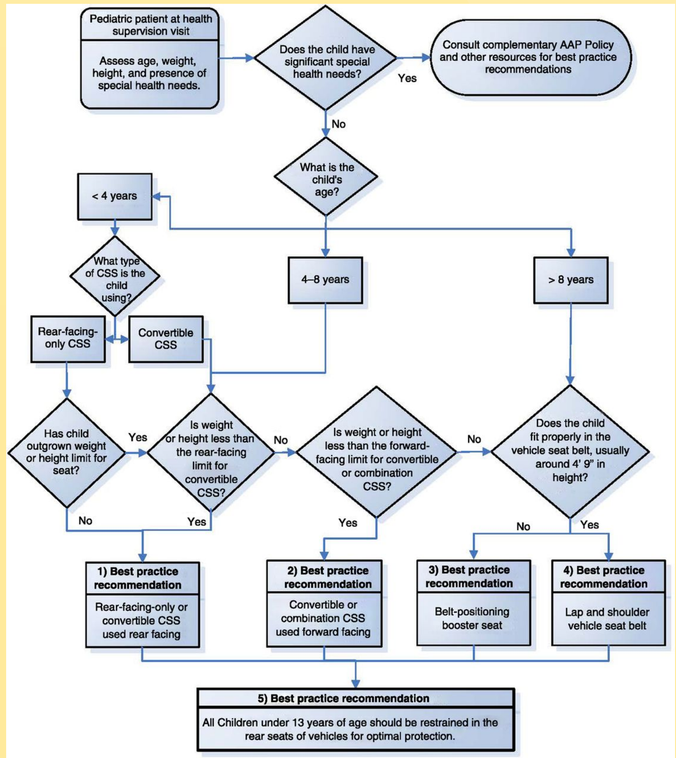
INTRODUCTION

Road injuries are the leading cause of preventable deaths and injuries to children in the United States. Correctly used child safety seats can reduce the risk of death by as much as 71 percent, but more than half of car seats are not used or installed correctly. In the state of Missouri, we also do not currently have legislation that is congruent with the AAP's recommendation of keeping children rear-facing for as long as possible (at least two years of age). In this study, we will consider the background and research behind the AAP's most recent recommendation's on car seat safety. An update on the progress that has been made over the past 2-3 years in the Missouri House and Senate toward passing legislation to uphold these guidelines through new bill proposals will also be presented.

BACKGROUND

In Fall 2018, the AAP updated their policy on car seat safety. While specifying five evidence-based best practice recommendations, the only major change to their policy includes removing the specific age for rear-facing car seat usage from "two years of age" to "as long as possible." The previous policy published by the AAP in 2011 included more significant changes; this is when they first recommended extended rear-facing recommendations to two years of age (previously age for transition to front-facing was 12 months of age) largely based on data from a 2007 study that found decreased risks of injury for children ages 1-2 years who were rear-facing in a crash compared to forward-facing. Physiologically, rear-facing is recommended due to the need to support the young child's posterior torso, neck, head, and pelvis and to distribute crash forces over the entire body. Developmental considerations put young children at risk for head and spinal cord injury in the event of an automobile accident. Rear-facing car seats address this risk by supporting the child's head, preventing the relatively large head from moving independently of the proportionately smaller neck. Below is a decision algorithm the AAP published to help practitioners guide families toward providing the safest and most appropriate options for child passengers. Prevention of motor vehicle crash injury is unique in health supervision topics, as it is the only topic recommended at every health supervision visit by *Bright Futures*.



BACKGROUND

TABLE 1

Summary of Best Practice Recommendations

Best Practice Recommendation	Complementary Information
1) Best practice recommendation: infant-only or convertible CSS used rear facing	Rear-facing-only seats usually have a handle for carrying and can be snapped in and out of a base that is installed in the vehicle. They can only be used rear facing. Convertible CSSs can be used either forward or rear facing and typically have higher rear-facing weight and height limits than rear-facing-only seats.
All infants and toddlers should ride in a rear-facing CSS as long as possible, until they reach the highest weight or height allowed by their CSS's manufacturer.	When children using rear-facing-only seats reach the highest weight for their seat, they should continue to ride rear-facing in a convertible seat for as long as possible. Most currently available convertible seats can be used rear facing to at least 40 lb.
2) Best practice recommendation: convertible or combination CSS used forward facing	Combination CSSs are seats that can be used forward facing with a harness system and then, when the child exceeds the height or weight limit for the harness, as a booster seat with the harness removed.
All children who have outgrown the rear-facing weight or height limit for their CSS should use a forward-facing CSS with a harness for as long as possible, up to the highest weight or height allowed by their CSS's manufacturer.	Most models of convertible and combination CSSs can accommodate children up to 65 lb and some up to 70–90 lb when used forward facing. The lowest maximum weight limit for currently available forward-facing car safety seats is 40 lb.
	A few vehicle models offer integrated forward-facing seats with a harness system. The vehicle owner's manual provides instructions for use of integrated seats when they are present. A crash-tested travel vest may be considered for children with special needs or in situations where a traditional CSS cannot be installed correctly.
	There is a safety advantage for young children to remain in car safety seats with a harness for as long as possible before transitioning to booster seats.
3) Best practice recommendation: belt-positioning booster seat	Booster seats function by positioning the child so that both the lap and shoulder portions of the vehicle seat belt fit properly: the lap portion of the belt should fit low across the hips and pelvis, and the shoulder portion should fit across the middle of the shoulder and chest. They come in both high-back (a seat back that extends up beyond the child's head) and backless models. A few vehicle models offer integrated booster seats.
All children whose weight or height is above the forward-facing limit for their CSS should use a belt-positioning booster seat until the vehicle lap and shoulder seat belt fits properly, typically when they have reached 4 ft 9 inches in height and are between 8 and 12 y of age.	
4) Best practice recommendation: Lap and shoulder vehicle seat belt	The lap portion of the belt should fit low across the hips and pelvis, and the shoulder portion should fit across the middle of the shoulder and chest when the child sits with his back against the vehicle seat back. If they don't, the child is likely too small to use the vehicle seat belt alone and should continue to use a belt-positioning booster seat.
When children are old enough and large enough to use the vehicle seat belt alone, they should always use lap and shoulder seat belts for optimal protection	
5) Best practice recommendation: all children <13 years of age should be restrained in the rear seats of vehicles for optimal protection	CSSs should be installed tightly either with the vehicle seat belt or with the LATCH system, if available. LATCH is a system of attaching a CSS to the vehicle that does not use the seat belt. It was designed to ease installation of the CSS. Whether parents use LATCH or the seat belt, they should always ensure a tight installation of the CSS into the vehicle.
All children <13 y should be restrained in the rear seats of vehicles for optimal protection	

• LATCH, Lower Anchors and Tethers for Children.

LEGISLATION

Currently, MOSB493 is a proposed bill by the Missouri Senate that was introduced during the 2021 Regular Session, sponsored by Senator Elaine Gannon. It is identical to MOHB1055. If passed, this bill would legally require children to be secured in a rear-facing child passenger restraint system until the child reaches two years of age (with the exception that a child under two years of age may be secured in a forward-facing system when the child reaches the highest rear-facing weight or height allowed by the manufacturer of the particular car safety seat). This bill goes on to include guidelines for child restraint for older children as well. Most recently a hearing was conducted at the beginning of March 2021 with the Senate Transportation, Infrastructure and Public Safety Committee. MOAAP expects legislation to be voted out of committee within the next few weeks after return from mid-session break.

In 2020, MOHB2199, which contained similar content to this year's proposed bill, gained significant traction within the House. It passed amongst the House with a vote of 105-41 and was then reported to the Senate.. Unfortunately, likely due in part to the COVID-19 pandemic, it was never voted on by the Senate during the 2020 Regular Session. Because of the inability to complete this bill last session, the new bill was initiated within the Senate for 2021.

NEXT STEPS

Reach out to your local legislators and voice your support for this bill. As pediatricians, it is important to stand on a united front. This allows us to use our expertise and act as advocates for our patients in situations such as these.

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