

Child car seat installation errors common even with top-rated seats

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Errors in installation of child car seats are common, even with seats that have a five-star rating for ease of use, according to a study published in the journal *Traffic Injury Prevention*. The study found that although the rating system was a suitable indicator of ease of use, with fewer errors detected when parents installed seats that had higher ratings, more efforts are needed to ensure optimal safety for young passengers.

Child restraint systems (CRSs) reduce risk of crash-related injury by 50%–85%, however use errors undermine their benefits. The National Highway Traffic Safety Administration (NHTSA) created the Ease of Use (EOU) [rating system](#) to help guide consumers and incentivize manufacturers to improve their products. The EOU rating system assigns one to five stars to four CRS features and overall.

Child passenger safety technicians working in the community and with car seat manufacturers are available to answer questions about installing and using [car seats](#). The NHTSA website provides a [resource directory](#) by [zip code](#) to help parents connect with a local certified child passenger safety technician who can check if the seat is installed correctly or provide help on installing and using an appropriate car seat.

"New parents often receive training on car seat installation before the baby is born. However, it would be beneficial for them to take advantage of the available resources after the child's birth as well, especially during the transition from infant carrier to rear-facing car seat, and then again when switching to the seat to face forward," said lead author Michelle Macy, MD, MS, Emergency Medicine physician at Ann & Robert H. Lurie Children's Hospital of Chicago and Associate Professor of Pediatrics at Northwestern University Feinberg School of Medicine.

Dr. Macy and colleagues analyzed data from Safe Kids Illinois seat check records from 2015 through 2019 and EOU ratings from 2008 to 2020. Errors were most common for seats installed with seat belts (70%) and least common for recline angle (37%).

One of the more common errors that was found around 50% of the time, even with 5-star rated car seats, involved the top tether on forward-facing car seats. The top tether is a strap on the top of the seat that needs to be hooked to an anchor point on the vehicle. Often parents either do not attach the strap or hook it to the wrong location.

"Overall, our study results show that parents can rely on the car seat rating system when choosing an appropriate car seat for their child," said Dr. Macy. "They just need to be aware that installation and use errors can still occur even with the top-rated car seats. We encourage parents to get help from a certified technician to ensure their child's safety on the road."

More information: Michelle L. Macy et al, Ease of Use ratings and real-world child restraint system errors from Safe Kids Illinois seat checks, 2015–2019, *Traffic Injury Prevention* (2023). [DOI: 10.1080/15389588.2023.2233647](https://doi.org/10.1080/15389588.2023.2233647)

Provided by Ann & Robert H. Lurie Children's Hospital of Chicago

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