# How to Install a Child Car Seat in my Toyota: There's an App for That! 

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ANN ARBOR, Mich. (March 23, 2021)-When engineering and design come together with a bit of serendipity at Toyota, any issue can be addressed - especially when the development of a solution is powered by a mother's love and passion. Safety is always a priority at Toyota, and the drive for safety innovation continues every day. Sometimes, the genesis is a random conversation between colleagues in the break room.

Jennifer Pelky is a Toyota principal engineer of vehicle performance development for interior safety, vice chairelect of the National Child Passenger Safety Board, and mother of two. Lindsay Babian is a Toyota principal engineer of body design for seats and mother of one. While having lunch in the cafeteria of Toyota's Michigan R\&D facility in 2019, the pair's conversation steered toward the confusion they had both experienced when installing different makes of child car seats in different types of vehicles.

That's when the eureka moment struck. If even professional safety engineers and designers struggled with car seats, then many parents, grandparents and guardians also probably needed more help and information. The conversation resulted in Toyota for Families - a new digital toolkit featuring detailed car seat installation instructions and video that officially launched in March 2021 for the Toyota Sienna.
"I designed the parts for securely attaching a car seat myself, yet there is still some confusion about proper car seat installation, which can become a real problem," Babian said. "When Jen approached me with this, I saw the need for a solution. Now, parents, caregivers and grandparents who find it a challenge will have a tool to help them succeed."

## Always striving for safety improvement

Despite best efforts, vehicle crashes remain a leading cause of death among American children, according to the Centers for Disease Control and Prevention (CDC). Though car seat technology has improved considerably from the days of children sitting on telephone books or riding on package trays, research from the National Highway Traffic Safety Administration (NHTSA) shows that over half of all car seats are installed incorrectly.

Proper installation and use of car seats can reduce injuries in a crash by more than $70 \%$ (NHTSA), and booster seats can reduce the risk of injury by $45 \%$ (CDC). To take advantage of those safety benefits, consumers could use more information about proper car seat installation in vehicles. COVID-19 also created an even greater need for easier access to instruction, since social distancing requirements make it more difficult for parents to get the in-person installation help they often need. Pelky and Babian set out to provide more accessible information.
"With all the different seat combinations that exist in many vehicles, people can use more assistance," Pelky said.

Necessity is the mother of invention. But, in this case, these enterprising mothers were the mothers of invention. With a goal of $100 \%$ of car seats installed correctly, the duo addressed a question that needed a logical, simple answer. How can Toyota use its customer apps and website to demonstrate and explain how to properly install a variety of car seats in Toyota vehicles?

The team also enlisted the help of Janelle Pharris, a mom of two and advanced technology senior planner for Toyota, whose previous work background includes marketing for Newell Brands' Graco ${ }^{\circledR}$ line of car seats and strollers.

Then, the three women got to work on their child seat safety project as a "shared passion project" focusing first on the highly anticipated 2021 Toyota Sienna. During development, the COVID-19 pandemic struck, forcing all to work remotely - Pelky and Babian in Michigan and Pharris in Texas.

The team overcame these challenges and even worked through personal vacations to create Toyota for Families - an elegant and practical solution that Toyota proudly awarded as a winner in both its internal Innovation Fair and Tank2 competitions.

## Modern issues and modern solutions

On the Toyota website or within the Toyota Owners App, users select their vehicle or enter the VIN. Users then select the car seat location they want and then enter the type of car seat they have: forward-facing, rear-facing or booster seat. If they're unsure which one they should use, the toolkit also has a "help-me-choose" guide they can select based on their child's age and weight.

Next, the app shows the user a custom video and written step-by-step instructions detailing installation of a generic child seat into the specific vehicle, in the specific position and installation method they've selected: LATCH or seat belt. If there's a known incompatibility with their choice, the system is designed to automatically flag it and prompts them to choose a valid option.

To help prevent mistakes, the video shows critical steps necessary to achieve correct installation. The video will also show additional steps, such as how to remove a headrest, if that's something necessary prior to installing the car seat.

Toyota envisions a variety of use cases for the toolkit.

- Prospective customers at home or in a showroom can learn about family safety and convenience features while shopping for their vehicles.
- Dealerships can use it as an education tool for customers to learn about safety and convenience features of their newly purchased vehicle. Or, if a customer comes in for service and has questions, the dealership can use it to help answer them.
- Toyota drivers can use the app to find video and written instructions for installing their type of car seat in a specific seating position in their vehicle.

The development of this unique safety offering was a true labor of love for the three women.
"We really took joy working on this project, because it allowed us to combine our passions of being a mom and wanting to ensure the best for our children and all children," Pharris said. "We each have a passion for reaching consumers to help get them to a place of comfort by expanding their knowledge."

Though the App toolkit launched initially with the 2021 Sienna, Toyota plans to expand video directions and written content to other fleet vehicles over the next few years.

Toyota For Families is now accessible through the Toyota Owners App and ToyotaOwners.com. App download is available for iPhone ${ }^{\circledR}$ or Android ${ }^{\mathrm{TM}}$ smartphones.

