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## Born Too Early With A 50/50 Chance Of Survival - Now She Helps Save Other Premature Babies



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**When Sabina Checketts holds her hand a certain way, the tiny scar on the back of it looks like a rocket ship. Checketts got the scar during the first few days of her life, during a tenuous struggle for survival, after she was born at 28 weeks—12 weeks prematurely. Her rocket ship scar, and a few other small ones, are marks left by lines inserted into her tiny, frail body to keep her alive.**

"I don't point these out to parents," Checketts says, "but to me they're badges of honor, because I survived."

The parents she's referring to are the parents of her patients. Thirty-three years after her early birth, Checketts now works as a neonatal doctor in London.

[Watch the film inspired by the story of neonatal doctor Sabina Checketts](#)

Checketts decided to become a doctor at early age, when her mother routinely pointed out a man walking down the street on his way to the hospital and said, "That's the doctor who saved your life". That experience motivates her to be a source of positivity for the families of the babies she treats.

"When I talk to parents about the fact that I was premature, there always is a sense of surprise, I think a little bit even shock, you know. Oh, oh, and you're a doctor," Checketts says. "I think it's a nice way to say to them that prematurity shouldn't be a limit on what a child can do."

"I mean, the advances we've made in even just the last 10, 15, 20 years mean the outcomes are much better than they used to be. And seeing me, who developed before that, as a newborn doctor, I give them a sense of hope and possibility, I think."

Today, she uses vastly improved technologies and techniques to create better outcomes for other premature babies—and more hope for their parents.

As vulnerable premature babies fight to stay alive one of the most critical issues is something most people never think twice about—breathing. A pivotal advance in neonatal medicine—and one that has a major impact in adult critical care—has been the development of better ventilators.

"One of the main challenges for premature babies is with ventilation," says Checketts. "Their lungs are quite stiff when they're first born because they're so immature. They're very fragile."

The ventilator that helped Checketts survive was a far cry from what she sees today when she treats premature babies. "We've gone from a mode of ventilation where you were breathing for the baby to one now where we can breathe with the baby as well," she says.

One ventilation technique that breathes with the patient is called Neurally Adjusted Ventilatory Assist, or NAVA, developed by Getinge, a global leader in intensive care technology for both infants and adults.

[Watch the mini-documentary about the NAVA technology, featuring Sabina Checketts.](#)

Before NAVA, ventilation technology had advanced to the point that a sensor in the breathing tube alerted when a baby was trying to breathe in, and the machine supplied a breath. But there was lag time, resulting in the machine sometimes not supplying air when the lungs called for it, or forcing air into frail lungs that were not ready for it - a problem amplified by premature babies' tendency to take short, rapid and uneven breaths.

Sherry Courtney, a director of clinical research in neonatology, who has worked with premature babies since the 1980's explains, "The diaphragm is a muscle. When it contracts, we're going to breathe. When it relaxes, we're going to exhale. So, NAVA senses the breathing using a catheter that goes down into the stomach and rests close to the diaphragm."

Courtney says she's observed many babies who switch to a NAVA-enabled ventilator almost immediately become more comfortable and less irritable. Their oxygen needs decrease, as do pressure and volume requirements. Babies can be more restful and concentrate energy on the single most important thing they can do during their premature stage—grow.

"We have been switching in our unit more and more to NAVA because the babies seem to love it," Courtney says.

NAVA is also approved for adults, and the features that make the technique successful for neonates translate well to adult patients.

Adults on ventilators generally start with a functioning diaphragm, but it becomes weaker quickly. [Getinge's](#) Medical Director Miray Kärnekull says that advanced ventilator technologies like NAVA are used regularly in adult patients in Europe to keep patients' diaphragm muscles active.

"It's really a groundbreaking technology", says Kärnekull. "NAVA gives the clinician a way to personalize not only the ventilation, but also the weaning process for adult patients".

And in a very recent multicenter randomized controlled trial, results showed that patients with acute respiratory failure on NAVA spent significantly less time on the ventilator and experienced less extubation failure compared to conventional lung-protective mechanical ventilation.

Read more about NAVA and other life-saving technologies: [www.getinge.com/int/life-defining-moments/](http://www.getinge.com/int/life-defining-moments/)

Published on : Tue, 6 Oct 2020