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Cooling technology and NICU team come to the rescue for Plank family

<http://christianacare.tumblr.com/post/44564839620/cooling-technology-and-nicu-team-come-to-the-rescue-for>

Justin Plank had imagined what the first moments of fatherhood might be like. His wife Brenda would give birth, their newborn son would wail upon gulping his first breath of air, and Justin would cut the umbilical cord, as if to celebrate the grand opening of a new life.

But when Waylon Plank was born Sept. 29 at a Delaware hospital, his father heard no crying. His newborn son looked purple. The doctor immediately knew something was wrong.

A yellow button was pressed, and within 60 seconds a group of nurses was in the room, providing Waylon with oxygen, and letting the new parents kiss their ailing son as they rushed him to the neonatal intensive care unit.

Baby Waylon was suffering hypoxic ischemic encephalopathy (HIE), which means his brain was not receiving enough oxygen. Five minutes of such deprivation can begin killing brain cells. The long-term effects can include intellectual disability, seizures, delayed development and cerebral palsy.

Reducing the brain and body's temperatures can slow damage. Though it may seem counter-intuitive to those

accustomed to seeing newborns placed in incubators beneath warm lamps, the doctors and nurses tending to Waylon in his earliest moments told the Planks their son was a candidate for a cooling technology that could be applied even as they transported him by ambulance to Christiana Hospital, where the [most qualified personnel and equipment](#) would give him a fighting chance.

Justin and Brenda agreed. Waylon was wrapped in a CritiCool blanket, which circulates cold water regulated by a microprocessor that responds to the baby's temperature.



The cooling process must occur within the child's first six hours of life, says Michael Antunes, M.D., medical director of Christiana Care's neonatal hypothermia program.

"Those inflammatory cascades that can be initiated need to be stopped early-on," Dr. Antunes said. The temperature reduction must be sustained for 72 hours. The choice to do so resides with the parents, but it is the job of doctors such as Antunes – he didn't work directly with the Planks – to explain the harrowing scenario and the most hopeful medical response, all while cautioning that for at least the next few years, the parents monitor their child closely for signs of lasting damage.

At about 24 inches tall with a footprint of about 15-by-15 inches and weighing 30 pounds, the CritiCool is a mobile version of larger, stationary devices that serve the same purpose. Christiana Care has two CritiCool units and is the only delivery hospital in Delaware that has the equipment.

"Internationally," Dr. Antunes says, "this has become the standard of care."

Justin Plank, whose family lives in Greenwood, spent that first night of his son's life at his wife's side at the hospital where he was born. The next morning, while his wife continued to recover, Justin went to Christiana Hospital to see Waylon, who would remain hospitalized there for nearly two weeks. (Upon his body's return to its normal temperature, Waylon's blood sugar would have to stabilize.)

"One of the hardest things was to see him lying there, cold," Justin said. "You know it had to be hurting, even though they had him on morphine to reduce the pain of the cooling process.

"You expect your baby to cry and to be overwhelmed with joy when they're born, and we didn't get that. When I got up there, he was on the cooling pad, and when he heard me talk, he opened his eyes. The nurse said that was the first time he had opened his eyes. I'm sure he heard lots of other people's voices, but to me, it seemed he recognized my voice."

That night, Justin again stayed with Brenda at the hospital where their baby was delivered. The next evening they stayed at the Christiana Hospital NICU.

Every morning, as doctors checked in on the Planks' child, Justin would ask questions about the process. It eased his concerns to know that he or his wife could call the staff at any time, day or night, for updates on their son's progress.

"That was really helpful," he says. "It gives you peace of mind."

Waylon has met his milestones in the time since his stay at Christiana Hospital. His parents say the respect and care they felt from the Christiana Care staff went beyond access to information.

"I think that we got the best care that we could've gotten," Justin says.