

PHILIPS

Advancing pediatric care with Philips BlueSeal 1.5T helium-free MRI

Nicklaus Children's Hospital brings hospital-quality imaging to a mobile environment

When most people think of MRI, they picture a dedicated suite inside a hospital. At Nicklaus Children's Hospital, advanced imaging now operates outside hospital walls – in a **first-of-its-kind mobile MRI unit** powered by **Philips BlueSeal 1.5T helium-free technology**.

"There's a global helium shortage ... that's a major cost and supply challenge. The helium-free unit is not just a clinical upgrade, it's an operational and financial advantage."

Iris Berges | Vice President of Operations and Clinical Service Lines, Nicklaus Children's Hospital



Why mobile? Why helium-free?

To meet growing pediatric demand, Nicklaus Children's Hospital had a clear challenge: to expand MRI access while ensuring clinical excellence and a patient-centered experience.

A mobile MRI became the only practical way to add capacity quickly and without construction. But not all mobile systems are viable options, as helium-dependent MRI introduces major logistical and financial hurdles in a mobile environment.

Helium-free design made mobile deployment simpler and more flexible to site. Conventional MRI magnets rely on thousands of liters of liquid helium, which can introduce operational complexity. By contrast, Philips BlueSeal 1.5T uses a magnet with only about seven liters of helium, permanently locked inside.

No refills. No quench pipe. No helium-related disruptions or downtime.

“Speed isn’t just about throughput; it’s about comfort, safety and image quality – especially when you’re scanning children.”

Dr. Juan Infante | Pediatric Radiologist, Nicklaus Children’s Hospital



Clinical confidence, child-friendly care

Pediatric imaging is complex: children move, they worry and costly sedation is often needed. **Philips BlueSeal 1.5T with SmartSpeed acceleration** is helping Nicklaus Children’s overcome these challenges with up to 3x faster scanning¹ and up to 80% sharper images² – reducing the likelihood of repeat exams.

With less time required to stay still, **many children can now complete scans awake, without sedation.** The result is less risk, faster recovery and a more relaxed experience for kids and their families.³

The exam environment is equally important. Philips Ambient Experience transforms the mobile unit into a welcoming, child-centered space. Lights, colors and movies provide a positive distraction – helping children stay calm and engaged, which improves cooperation and image quality.

Operational resilience, reliable performance

For Nicklaus Children’s, operational strength matters just as much as clinical quality. Traditional MRI systems depend on large volumes of helium, creating service risks, maintenance downtime and unpredictable costs. **Philips BlueSeal 1.5T’s helium-free design removes those vulnerabilities,** allowing the mobile MRI to run reliably every day.

With fewer interruptions, staff can stay focused on patient care. And because the mobile unit integrates smoothly with existing workflows, technologists experience minimal disruption.

“Operationally, it’s a game-changer. Helium-free MRI isn’t just an innovation; it’s resilience in healthcare infrastructure.”

Iris Berges | Vice President of Operations and Clinical Service Lines, Nicklaus Children’s Hospital



Cost savings that scale

By removing helium from the equation, Philips BlueSeal 1.5T gives Nicklaus Children's Hospital a more **predictable and sustainable cost model**. Day-to-day operating expenses stabilize, maintenance becomes simpler, and siting and ownership costs drop – all while delivering the imaging quality clinicians expect.

And because Philips BlueSeal 1.5T enables mobile deployment with no construction required, the hospital can **expand access without adding square footage** – at a fraction of the cost.

“Adding a mobile MRI is like adding another scanner to your hospital footprint – instant capacity with minimal disruption.”

Eileen Lavin | MRI Technologist

The total Philips solution

Philips BlueSeal 1.5T is part of a wider ecosystem for high-performing, mobile-ready MRI programs:

- **BlueSeal 1.5T helium-free MR:** eliminates refills, quench pipes and helium logistics
- **SmartSpeed AI acceleration:** fast, high-quality imaging across pediatric applications
- **Ambient Experience:** supports smoother, more efficient exams
- **Pediatric workflow tools:** help complete studies with fewer risks and delays
- **Mobile-ready platform:** flexible placement with fixed-suite performance

The bigger picture: advanced imaging access, anywhere

Nicklaus Children's Hospital proves that advanced MRI doesn't have to stay inside a hospital. With helium-free technology, the hospital expands access, avoids helium-related risk and brings advanced imaging closer to home for the children and families who need it most.

This mobile model is built to scale – combining portability and performance to bring high-quality MRI wherever patients need it.



References

1. Compared to Philips SENSE imaging.
2. Compared to Philips SENSE / C-SENSE imaging.
3. Runge S.B., et al. [Children centered care: Minimizing the need for anesthesia with a multifaceted concept for MRI in children aged 4–6](#), European Journal of Radiology. 2018;107:183–187.