

Meet Swoop[®]

Portable MR Imaging System[™]



The Challenge With Conventional MRI

Conventional magnetic resonance imaging (MRI) uses a powerful magnetic field, radio waves, and a computer to create detailed pictures of the body's internal structures, like the brain. Doctors use these images to diagnose a variety of medical conditions. However, fixed conventional MRI systems can be inconvenient and inaccessible for providers and patients, especially when time is critical. Transport to the MR suite demands complicated scheduling coordination—assembling teams of clinicians to help move and disconnect patients from ventilation, monitoring, and medications and, often, patient backlogs. These complications compromise the utility of MRI as a diagnostic tool in time-sensitive settings. Furthermore, high capital investments, electrical power needs, and significant maintenance requirements present barriers to adoption across all populations, especially for developing countries and rural geographies.



HYPERFINE.

Swoop—the Hyperfine Solution

Swoop, the world's first MR imaging system capable of providing neuroimaging at the point of care, can inform the timely diagnosis and treatment of acute conditions within a broad range of clinical settings.

The Swoop Portable MR Imaging System expands patient access while being more cost-effective than conventional high-field MRI systems. And, unlike high-field MRI, which requires specialized infrastructure and radiologic technicians to operate, Swoop system operation, navigation, and safety training is simple, which allows for expanded user access.

For the clinician, the Swoop system is easy to use. It can be driven directly to a patient's bedside and

plugged into a standard electrical outlet. Utilizing the provided iPad®, the operator can initiate a scan and capture, display, and export images of the brain within minutes—offering clinicians workflow efficiencies with the potential to impact critical decision-making without the need to transport the patient away from the point of care.

For the patient, Swoop is a convenient and potentially low-stress experience. It is helpful in diverse environments, can reduce the length of time a patient has to wait for an MRI scan, and provides expanded access to patients who might not otherwise be candidates for an MRI at the time of care.¹

1. Prabhat, AM. et al. Methodology for Low-Field, Portable Magnetic Resonance Neuroimaging at the Bedside. Front Neurol. 2021 Dec 10;12:760321. doi: 10.3389/fneur.2021.760321.

“The global MRI market is on the brink of a new era as word of the once ‘mythical’ affordable and portable MRI spreads,” commented Poornima Srinivasan, consultant at Frost & Sullivan. “With its groundbreaking design, Hyperfine’s portable MRI can extend access to cost-effective imaging and, subsequently, its clinical utility and healthcare value and settings, and geographical regions worldwide.”



Patient-centered care

The Swoop system has an open layout designed to decrease anxiety associated with conventional MRI. Clinical staff and loved ones remain at the patient's bedside.

Set up in seconds

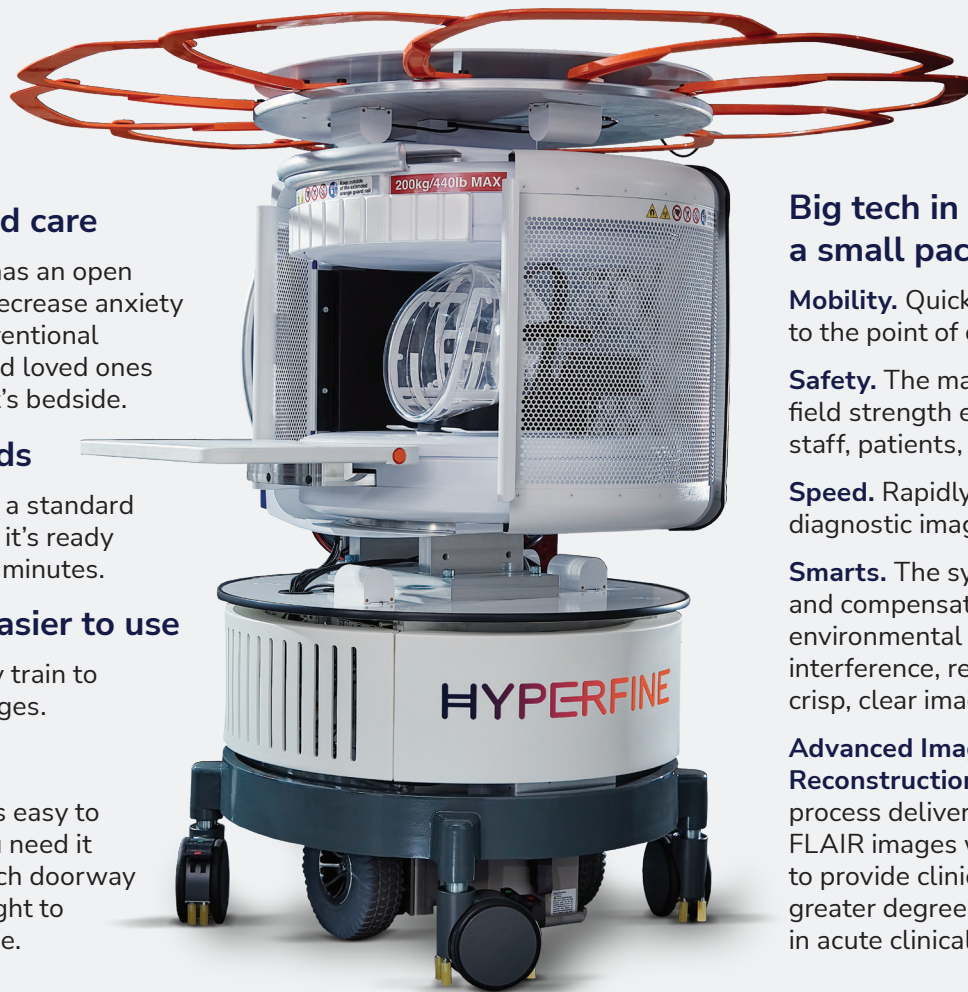
Plug the system into a standard electrical outlet, and it's ready to scan in under two minutes.

Easy to learn; easier to use

Clinicians can quickly train to scan and upload images.

There in a flash

The Swoop system is easy to maneuver where you need it —through any 34-inch doorway or elevator and straight to your patient's bedside.



Big tech in a small package

Mobility. Quickly deploys to the point of care.

Safety. The magnet design and field strength ensure low risk to staff, patients, and loved ones.

Speed. Rapidly produces diagnostic images.

Smarts. The system detects and compensates for high environmental electromagnetic interference, resulting in crisp, clear images.

Advanced Image Reconstruction. This enhanced process delivers T1, T2, and FLAIR images with the potential to provide clinicians with a greater degree of confidence in acute clinical diagnosis.



Learn About Advanced
Image Reconstruction



Review Sample
Case Images



Review Selected
Publication Highlights



Awards, Recognition, and Partnerships



BILL & MELINDA
GATES foundation



Reimbursement

Reimbursement coding refers to coding classification systems and medical nomenclature. CPT codes are used by hospital outpatient departments, ambulatory surgery centers, independent diagnostic testing facilities (IDTF), and physicians to describe professional services and procedures.

Medicare reimbursement for diagnostic imaging procedures is comprised of a **professional component**, the amount paid for the physician's interpretation and report, and a **technical component**, the amount paid for all other services (including staffing and equipment costs). When combined and paid to the same individual or entity, this amount is often referred to as the total or **global reimbursement**.

CPT Code	Description
70551	Global reimbursement Magnetic resonance (e.g., proton) imaging, brain (including brain stem); without contrast material
70551-26	Professional component
70551-TC	Technical component

Swoop Specifications

The Swoop Portable MR Imaging System can go nearly anywhere. Compact and highly portable, the Swoop system is at home in ICUs, pediatric facilities, or anywhere else you can imagine.

The Swoop magnet is 64 mT. The system stands 59-inches tall and 33-inches wide and weighs 1,400 pounds. Imaging sequences include T1, T2, FLAIR, and DWI (with ADC map)—all directed by a tablet interface.



Regulatory Clearances:

- **February 2020.** The world's first bedside Magnetic Resonance Imaging (MRI) system, specifically for brain imaging of patients aged two and up. (US FDA K192002)
- **August 2020.** For brain imaging of all patient ages. (US FDA K201722)
- **January 2021.** Deep learning analysis software. These advanced artificial intelligence (AI) applications measure brain structure and pathology in images acquired by the Swoop system. (US FDA K202414)
- **July 2021.** Additional automatic alignment and motion correction features to the Swoop Portable MR Imaging System. (US FDA K211818)
- **November 2021.** Deep learning image reconstruction techniques that enhance the quality of T1, T2, and FLAIR images generated by a portable MRI system at a patient's bedside. (US FDA K212456)

[View the Full List of Hyperfine Clearances](#)



Swoop Portable MR Imaging System

Hyperfine designed the Swoop system to address the limitations of current imaging technologies and make MR imaging accessible anytime and anywhere.

Ready to scan in less than two minutes, the system produces its first images just minutes after that, enabling care decisions without the need for patient transport to radiology.

Small and highly portable, the system is ideal for use in the neurointensive care units and pediatric settings.

Designed to fit inside elevators and through 34-inch doors, the Swoop system effortlessly maneuvers through crowded healthcare environments to a patient's bedside at the point of care. Imaging sequences include T1, T2, FLAIR, and DWI (with accompanying ADC map).

1. AI-Enabled. The Swoop system automatically maps and corrects for electromagnetic interference within the imaging environment. The result is crisp, clear T1, T2, FLAIR, and DWI (with ADC map) sequences. Advanced AI Applications also offer automated and auto-aligned brain volume measurements, ventricular volume, and midline shift.

2. Power Supply. The Swoop system plugs into a standard 120V wall outlet and is ready to scan in less than two minutes. Astonishingly efficient, the system uses just 900 watts, about the same power as a coffee maker.

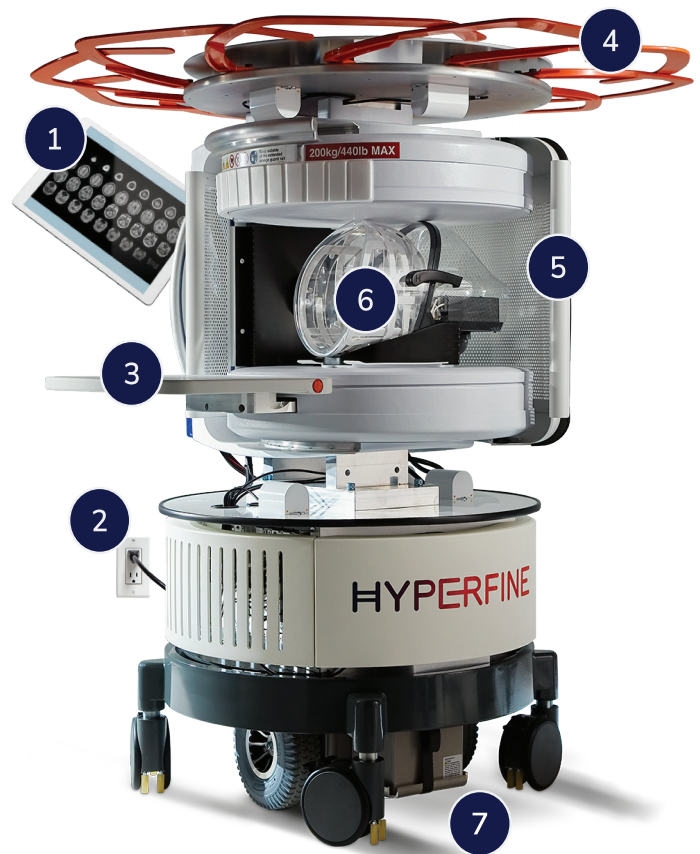
3. Transfer Bridge. Unfold the transfer bridge for easy bedside patient loading. Fold the bridge back up to move the system to your next patient.

4. Gauss Guard. Even in a crowded health care environment, the system assures safety with a convenient 62-inch diameter 5 gauss guard that quickly expands and contracts.

5. Shield Door. Operation requires no external shielding with built-in continuous 'noise cancellation' of electromagnetic interference and the specific design of our aluminum screen.

6. Head Coil. An 8-channel removable head coil comes encased in clear, durable, and easy-to-disinfect polycarbonate plastic.

7. Casters and Joystick. The Swoop system effortlessly glides between patients, courtesy of a joystick and powered drive wheels.



Indications for Use: The Swoop Portable MR Imaging System is a bedside magnetic resonance imaging device for producing images that display the internal structure of the head where full diagnostic examination is not clinically practical. When interpreted by a trained physician, these images provide information that can be useful in determining a diagnosis.