



SWAN Brain Imaging

See brain vasculature in exquisite detail in one quick, easy scan.

KMH MRI and Healthcare Centres offer state-of-the-art brain imaging with the exclusive SWAN (T2 Star Weighted Angiography) technique. This advanced technology allows you to visualize and clearly delineate small vessels and microbleeds, as well as large vascular structures, and iron or calcium deposits in the brain.

The SWAN technique combines a unique 3D T2*-based multi-echo acquisition with a special reconstruction algorithm. SWAN generates not one but several echoes, which are read out at different TE times, compiling magnetic signatures of a whole range of tissues with varying degrees of T2* contrast. All echoes are then automatically reconstructed and combined as a weighted average by SWAN's innovative post-processing algorithm. Expect clearer images, as SWAN's multi-TE approach is inherently less affected by the chemical shift, which causes image blurring typical in single-TE T2* acquisitions.

The end result is a sub-millimeter-resolution 3D image, which integrates a broad range of distinct tissue contrasts with significantly enhanced susceptibility information and greatly increased signal-to-noise ratio (SNR) on both 1.5T and 3.0T field strength systems.

More tissue contrast and tissue bandwidth

No other MR application captures such a broad spectrum of contrast characteristics specific to a wide range of tissue components as SWAN.

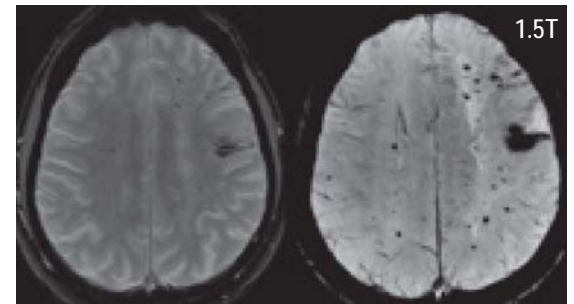
More signal

SWAN generates as much as 2-4 times more SNR than a single-echo T2* acquisition – a KMH MR exclusive.

Less scan time

Simple to use, robust and time-efficient, the SWAN sequence can be further accelerated by ASSET parallel imaging. High-resolution 3D acquisition of the whole brain takes as little as 4 minutes, considerably less time than most other T2*-based techniques.

To find out more or schedule an appointment for your patient at one of our locations
Call: 1-877-564-5227 or 905-855-1860.



The patient's microbleeds are well depicted on the 1.5T SWAN image on the right but are only partially revealed on the standard gradient echo image on the left.

With SWAN, you can:

- Visualize major vessels and large vascular structures.
- Reproducibly image and accurately delineate small vessels and microbleeds.
- Assess iron and calcium deposits in tissue.
- Consistently generate exquisite images with this push-button, robust acquisition and automatic reconstruction algorithm.
- Image the whole brain in 3D high resolution in just 4 minutes.
- Make more accurate, more confident differential diagnoses in patients with hemorrhages, cerebrovascular and ischemic brain diseases, traumatic brain injuries, arteriovenous malformations, neurodegenerative diseases and a variety of other lesions.