

Vevo[®] MD

The World's **First** Ultra High Frequency
Ultrasound Imaging System



Seeing More Matters

FUJIFILM | VISUALSONICS

The wait is over

After years of developing ultrasound systems for research, FUJIFILM VisualSonics is pleased to introduce the world's first Ultra High-Frequency ultrasound system for clinical use.

Vevo MD allows healthcare professionals to:

Champion new medical breakthroughs by using **cutting edge technology**



Visualize tiny anatomy not visible with conventional ultrasound



Ultra high frequency means the highest resolution diagnostic ultrasound available today. This ground breaking development opens up new possibilities for medical imaging that have never been seen before. Whether imaging tiny infants in the neonatal

ward, detecting the tiniest of suspicious lesions or monitoring the subtle changes in blood flow in the major arteries of the body, the Vevo MD produces unparalleled image resolution. Resolution as fine as 30 μm . Yes, 30 μm . That is less than half the size of a

“Every healthcare professional should have the opportunity to experience the exquisite resolution of the Vevo MD, simply because **Seeing More Matters.**”



Experience a user-friendly customizable touchscreen interface, **to improve workflow and reduce examination times**



Utilize **a range of highly advanced transducers**, designed for the smallest of patients



grain of sand. Imagine the potential of such groundbreaking technology and its impact on the medical field to see what has never been seen before. When it comes to patient care and uncovering the smallest and most detailed information, the Vevo MD is the most

revolutionary ultrasound technology to come along in decades. FUJIFILM VisualSonics designed this latest system because we care, because we can, and simply because...**Seeing More Matters.**

Discover the Power of High Resolution

Powered with Vevo® HD Technology for superior image quality

Imaging Modes:
B-Mode
M-Mode
Color Doppler

Intuitive 10" touch screen interface

Foldable 19" High Definition LCD monitor

Ergonomically designed for ease-of-use

4 x USB 3.0 Ports
Ethernet Port

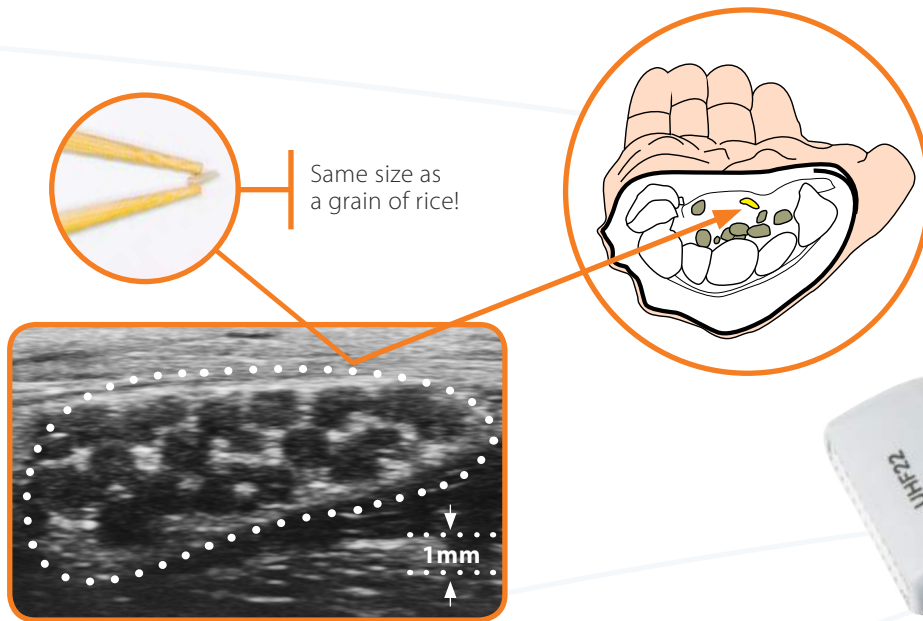
DICOM Integrated Patient Management
Image Review and Management
Real-time zoom

Supported languages:
English, French, Italian,
Spanish and German

Easy to transport, lightweight and steerable

(Note: An inset image shows a multi-panel software interface with various ultrasound views.)

Now see more than ever before



Median Nerve UHF70

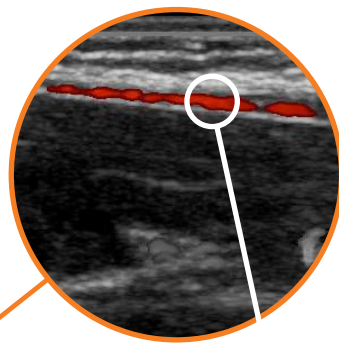
Custom-designed and optimized to operate with the Vevo MD are the new UHF Series transducers. This patented technology allows for the finest resolution of any general purpose ultrasound system available today. Ergonomically designed for ease-of-use, the UHF Series transducers come in a range of sizes and resolutions to allow for great flexibility. See below for more details.



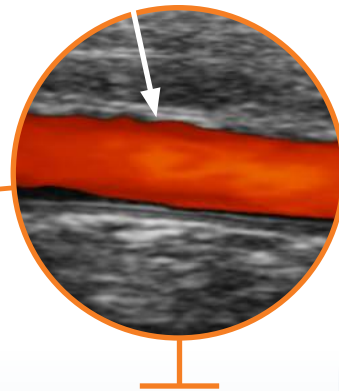
Applications	Model	Bandwidth (MHz)	Performance		Design Specifications		
			Axial Resolution	Lateral Resolution	Image Width (Max)	Image Depth (Max)	Focal Depth
Neonatology & Pediatrics Peripheral Vascular MSK Small Parts Dermatology	UHF70	29-71	30 μm	65 μm	9.7 mm	10.0 mm	5 mm
	UHF48	20-46	50 μm	110 μm	15.4 mm	23.5 mm	9 mm
	UHF22	10-22	100 μm	220 μm	32.0 mm	38.4 mm	18 mm

Seeing More Matters in Neonatology and Pediatrics

When it comes to ultrasound, not all systems are created equal. The Vevo MD stands apart from the rest, especially for the smallest of patients. Small patients require small transducers with great resolution.



Using conventional ultrasound



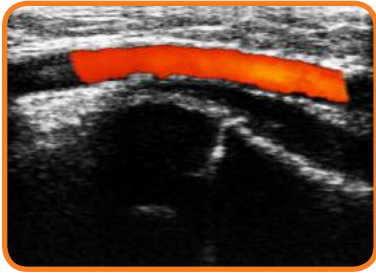
Using Vevo MD

The Vevo MD is designed to see the smallest of patients in the greatest detail and resolution possible. Imagine the challenges faced when imaging a high risk premature newborn infant; trying to visualize tiny vessels and structures in their body. For example, in a Neonatal Intensive Care Unit (NICU) a doctor may try to perform a line insertion into a critically ill premature newborn¹. This involves finding a blood vessel in a baby with a wrist that is the size of your pinky finger.

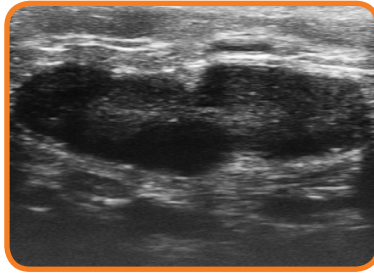
Only the Vevo MD can perform the proper visualization in this scenario within the critical time window that is required.

¹ Latham et al. High-frequency micro-ultrasound for vascular access in young children - a feasibility study by the High-frequency UltraSound in Kids studY (HUSKY) group. Paediatric Anaesthesia. 2013, Jun; 23(6):529-35.

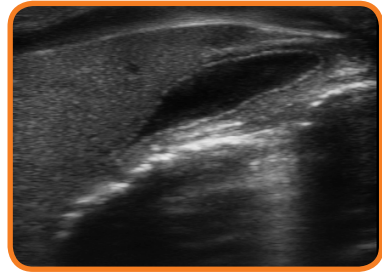




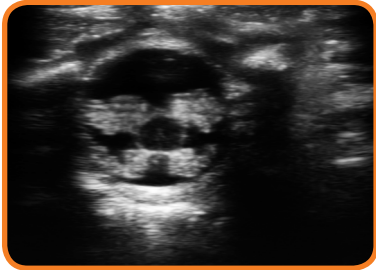
Radial Artery - 8 months



Lymph Node - 8 months



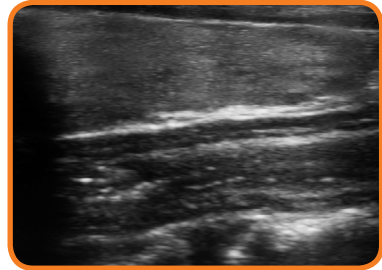
Gall Bladder - 1 month



Spinal Cord - 1 month



Liver (Middle Hepatic Vein) - 8 months



Esophagus (Sagittal) - 8 Months

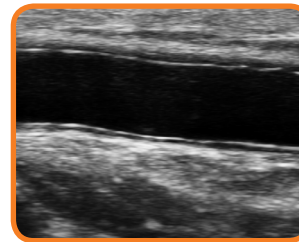


Vascular

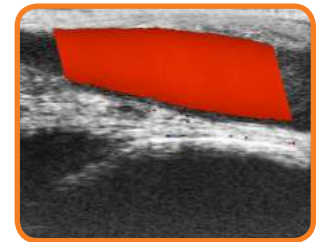
The Vevo MD was designed specifically with vascular applications in mind. The ultra high frequency resolution allows for visualization of the smallest vascular anatomy imaginable:

- Arteries and veins in pediatric and neonatal patients ¹
- Sub-millimeter measurement of Intima-Media Thickness (IMT) for research and assessment of cardiovascular health ^{2,3,4}

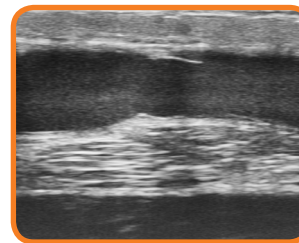
- Assessment of vein wall morphology for cannulation readiness in AV fistula patients ⁵
- Assessment of peripheral vessels in diabetes and other circulatory conditions
- Visualization of flow patterns in atherosclerotic or abnormal vessels



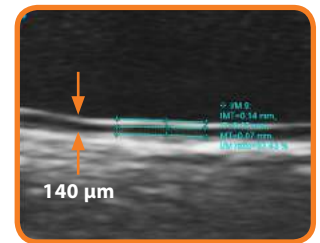
Radial Artery



Venous Blood Flow



Vein with Valve (Hand)

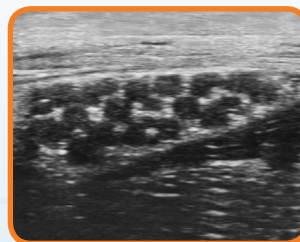


Radial Artery Intima Media Thickness (IMT)

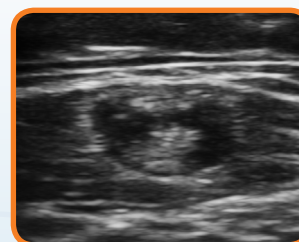
Small Parts

Small anatomy requires high resolution to be properly visualized. The Vevo MD can be used to image:

- Nerves ⁶
- Hand transplants ⁷
- Thyroid and glands
- Lymph nodes
- Male reproductive organs



Median Nerve



Submental Lymph Node



Thyroid (Adult Female)

¹ Latham et al. High-frequency micro-ultrasound for vascular access in young children—a feasibility study by the High-frequency UltraSound in Kids study (HUSKY) group. Paediatric Anaesthesia. 2013,Jun; 23(6):529-35.

² Sarkola et al. Transcutaneous very-high resolution ultrasound for the quantification of carotid arterial intima-media thickness in children - Feasibility and comparison

with conventional high resolution vascular ultrasound imaging. Atherosclerosis. 2012 Sep;224(1):102-7.

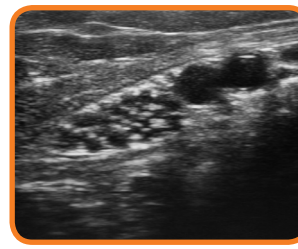
³ Eklund et al. Radial artery intima-media thickness predicts major cardiovascular events in patients with suspected coronary artery disease. European Heart Journal - Cardiovascular Imaging. 2014 Jan;15(7):769-75.

MSK

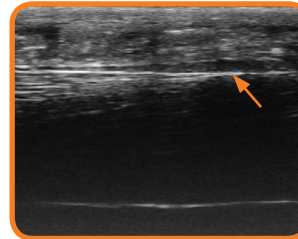


Musculoskeletal (MSK) imaging involves study of the many superficial targets in the hands, wrists, feet, knees, hips, arms and shoulder regions. Many of these areas are within the first 3 cm of the skin surface and are ideal targets for ultra high frequency ultrasound. The Vevo MD can provide unparalleled image resolution in the following MSK applications:

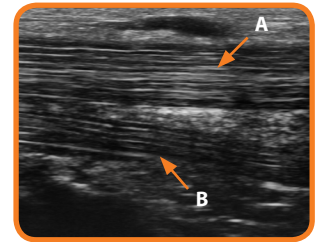
- Detection and monitoring of Inflammatory Arthritis through better definition of synovium and cartilage of the finger and wrist joints
- Differentiation of normal vs. inflamed tendons (Tenosynovitis)
- The “Anatomical Snuffbox”



Tarsal Tunnel



Digital A1 Pulley



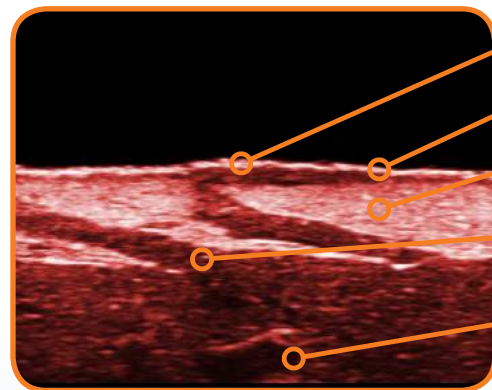
Flexor Carpi Radialis (A) Flexor Pollicis Longus Tendon (B)

- Carpal and Tarsal Tunnel Syndrome
- Assessment of Tendons and Pulleys
- Assessment of Pediatric Hip Dysplasia

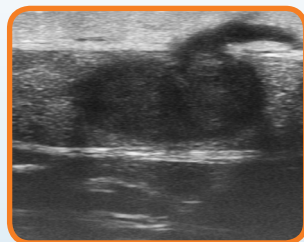
Dermatology

Imaging the skin layer is often difficult with conventional ultrasound. The Vevo MD is the world's first system designed specifically for imaging superficial anatomy and is ideally suited to image the following dermatological applications:

- Skin layers
- Melanoma
- Lipomas
- Hair follicles (hair loss)
- Foreign Body Identification
- Lumps and Bumps



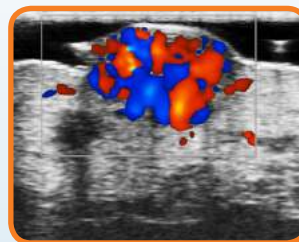
Ephelis (Freckle)



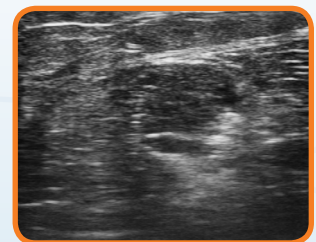
Superficial Lesion



Exophytic Mole



Hemangioma with Blood Flow



Superficial Lipoma

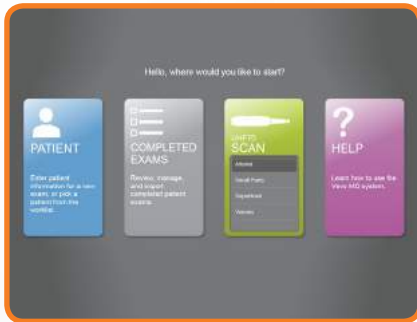
4 Dangardt et al. Obese children show increased intimal wall thickness and decreased pulse wave velocity. *Clin Physiol Funct Imaging*. 2008 Sep;28(5):287-93.

5 Jaber et al. Arteriovenous fistulas for hemodialysis: Application of high-frequency US to assess vein wall morphology for cannulation readiness. *Radiology*. 2011 Nov;261(2):616-24.

6 Stokvis et al. High-resolution ultrasonography of the cutaneous nerve branches in the hand and wrist. *J Hand Surg Eur Vol*. 2009 Dec;34(6):766-71.

7 Kaufman et al. Graft Vasculopathy in Clinical Hand Transplantation. *Am J Transplant*. 2012 Apr; 12(4):1004-16.

Customized Workflow – at your fingertips



Intuitive start-up screen to get you imaging quickly



The most important functions are intuitive to use and accessible on your screen at all times



Controls contain smart defaults to help optimize your image quickly



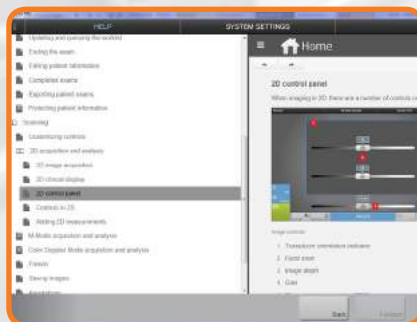
Screen layouts can be customized and saved to fit your personal workflow so you only see the controls that are the most important to you



Measurements and annotations are quick and easy to use and can be made on current or saved images



Images are presented in a straightforward scrollable thumbnail view to enable management and review



Context sensitive help shows you exactly what you need to know, when you need to know it

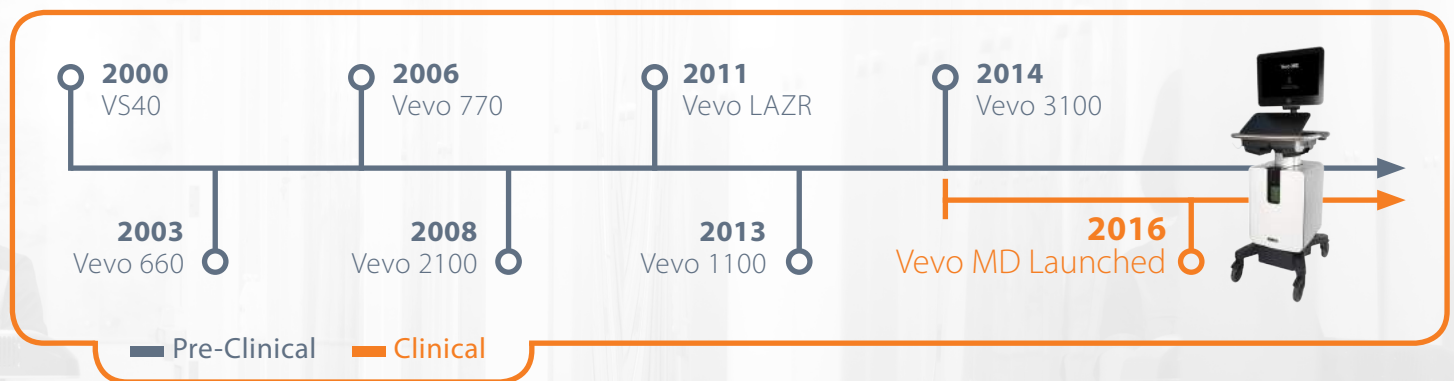


Summary

Timeline of technology innovation

At FUJIFILM VisualSonics, we constantly develop and deliver increasingly advanced technologies designed specifically with the researcher in mind. We are motivated to provide researchers and clinicians the right tools so that you may one day be able to bring to humanity the next medical

breakthrough. We, at FUJIFILM VisualSonics, are inspired to empower you to take your discoveries out of the lab and ultimately to the patients that need them the most. With the launch of Vevo MD and together with you, we are bringing discoveries to patients.



Vevo Support

The Vevo MD Ultra High-Frequency Imaging System is accompanied by an integrated approach to service and support.

Applications Support and Training Customized to Your Needs

- Customer On-site Training
- Workshops
- User Manuals

Online Resources

- Live Webinars
- Imaging Guides and Videos
- Grant Support Program

Technical Support

- On-site Support
- Online Support

For additional resources, support or service requests, visit our websites:

www.vevomd.com

www.visualsonics.com



Seeing More Matters

www.vevomd.com

“With the Vevo MD, we are at the dawn of a revolution...total success...
the transducer works perfectly with very impressive resolution and images”.

- Dr. Charles Raffaelli

*Hospital Practitioner and Head of the Department of Ultrasound
Hopital Pasteur 2, Nice, France*

FUJIFILM
Value from Innovation

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www.visualsonics.com

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