PHILIPS

Ultrasound

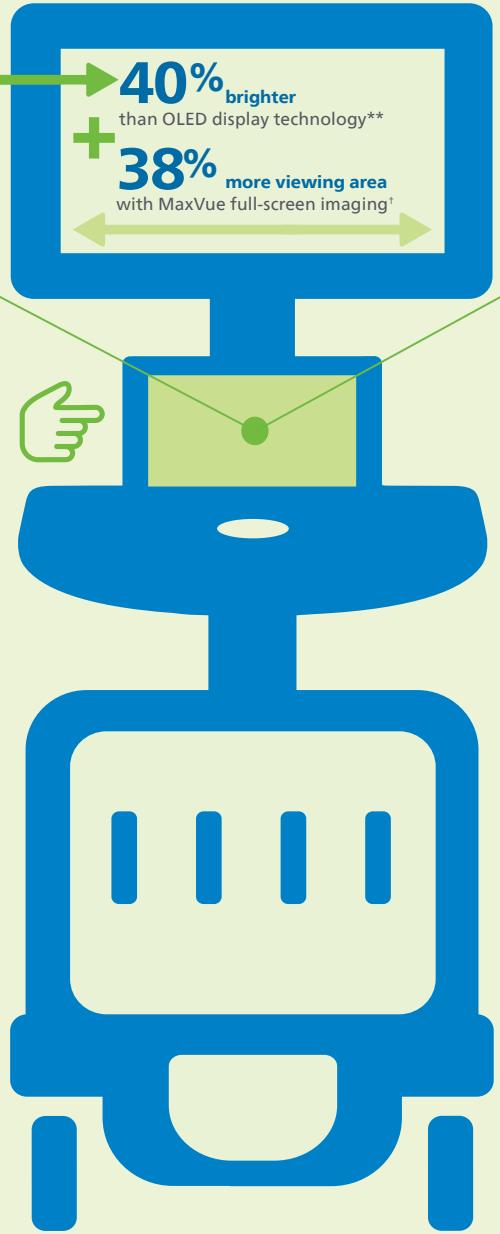
Philips EPIQ Elite and Affiniti

# Redefining performance in pediatric ultrasound

Pediatric patients come in all shapes and sizes. From the tiniest premature newborn baby to adult-sized pediatric patients, Philips offers a complete imaging solution to help elevate diagnostic confidence in even the most challenging cases.

Ultrasound is becoming the preferred first-look imaging modality for pediatrics because of technological advances and its lack of ionizing radiation.[1] In addition, ultrasound is widely available, easy to use and more cost-effective than other imaging methods such as MR.[2] It can help clinicians reliably assess pediatric patients, rarely requiring the use of sedation. Worldwide obesity has nearly tripled since 1975,[3] and so it's important to be able to confidently scan patients with high BMIs.

# Intuitive experience



## HD MAX display*

**40%** brighter than OLED display technology**

\+ **38%** more viewing area with MaxVue full-screen imaging†

## Tablet-like interface

Dramatically reduces reach and button pushes, with **40% to 80% less reach and 15% fewer steps.‡**

## Superb ergonomics

More than 80% of sonographers experience work-related pain, and more than 20% of them suffer a career-ending injury.[8] **Multiple degrees of articulation for both control panel and monitor offer 720° of freedom for scanning comfort.**

## SmartExam

**Enhances user workflow with system-guided protocols** that can be easily customized to suit your needs, and with Image Reorder, you can select and move images within thumbnail views.

## CIVCO Verza biopsy guide§

Directly attaches to the transducer, allowing needle guidance with a minimal blind zone.

## Image duplication screen

Displays a duplicate monitor image on the touchscreen for **enhanced workflow** during interventional procedures.

## Next Gen AutoSCAN

**Improves image uniformity,** adaptively adjusting image brightness at every pixel, reducing rib shadowing and the need for user adjustment while also improving transducer plunkability. **Reduces button pushes by up to 54% with pixel-by-pixel real-time optimization.¶**

## Post-processing controls

**Reduces the need for repeat scans.** 84% of users reported that rescanning the patient due to unsatisfactory image quality resulting from inappropriate image settings could be avoided.#

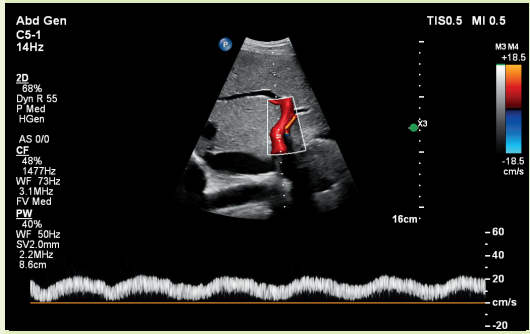
## Battery backup

**Enables near-instantaneous boot-up** through a battery life of 45 minutes. One of the greenest systems we've ever designed, EPIQ consumes **25% less power** than our legacy premium ultrasound system.§§

Uses **25%** less power

## Reduces number of button pushes by

**68%**[6]




Abdominal imaging with the C5-1 transducer

## Auto Doppler

Adjusts optimal flow sensitivity and resolution, reducing **10 steps to 3 steps** and also reducing the number of repetitive button pushes by an average of **68%.**[6]

* Not available with the Affiniti ultrasound system.
** Internal specification comparison of OLED on EPIQ CVx vs. EPIQ HD MAX.
† Compared to our previous monitor without MaxVue.
‡ 2013 engineering study comparing Philips iU22 ultrasound system with EPIQ.
§ Not available on all transducers.
¶ When comparing release 10 performance to release 7 performance.
# Based on a sample size of n=37 users.
§§ Compared to its predecessor product, iU22.

# Confident imaging

## mC12-3 transducer

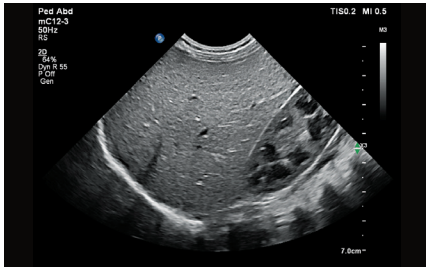
**Designed for pediatric applications,** the mC12-3 transducer provides an additional 30% improvement in penetration.†

## mL26-8 transducer

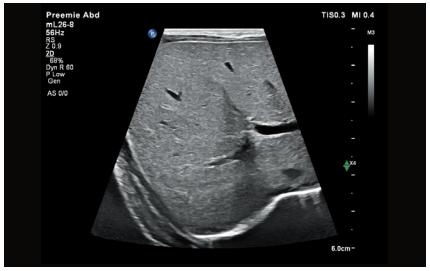
**High-frequency transducer‡ for superb superficial imaging with excellent detail resolution.** With a small footprint for small anatomy, the mL26-8 transducer improves spatial resolution 36% and penetration 64% in superficial applications.§

## eL18-4 transducer

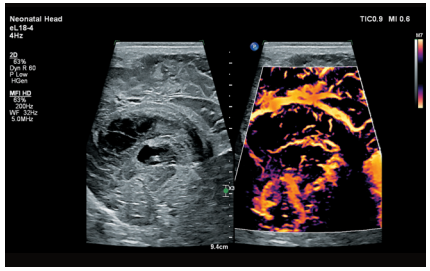
**Supports a wide range of anatomies,** with PureWave crystal transducer technology for outstanding image quality, even in technically difficult patients (TDP).[4]



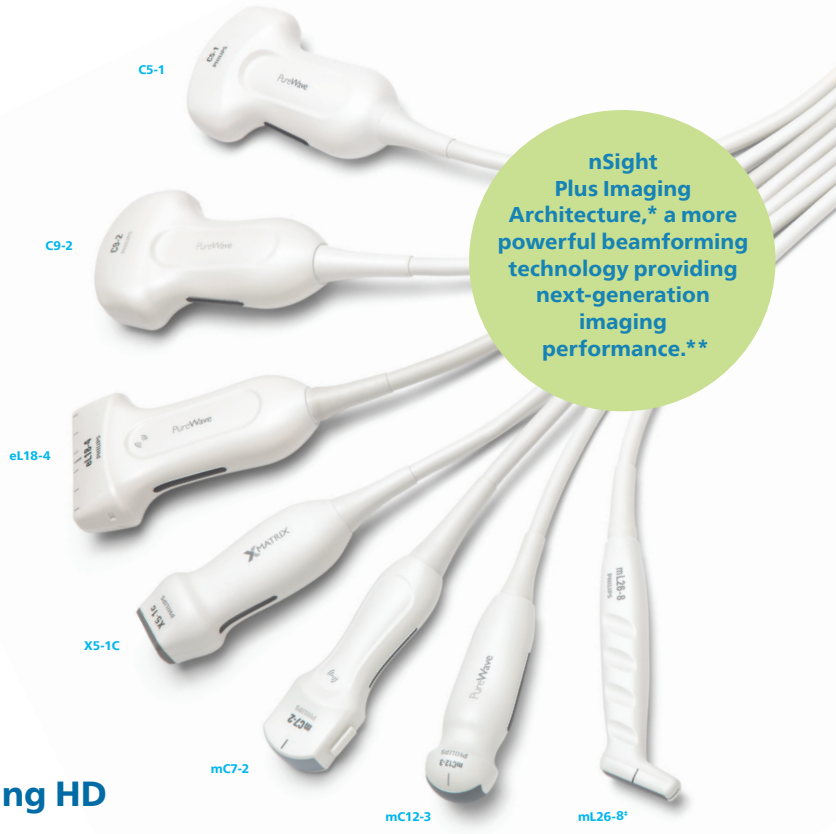

Abdominal imaging with the mC12-3 transducer




Liver imaging with the mL26-8 transducer



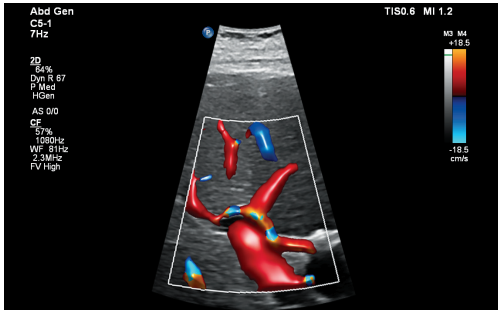

Neonatal head imaging with the eL18-4 transducer




**nSight Plus Imaging Architecture,* a more powerful beamforming technology providing next-generation imaging performance.****

## Flow Viewer

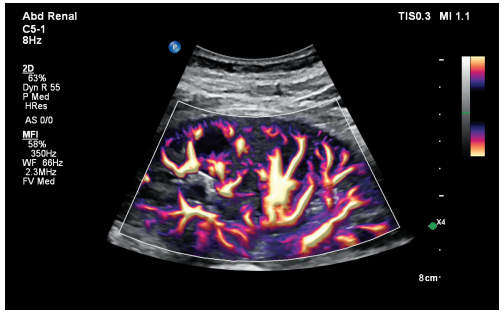
**Defines vasculature with a 3D-like appearance** using both the velocity and power of the Doppler signal to accurately represent vascular flow topography.




Liver imaging with the C5-1 transducer with Flow Viewer

## MicroFlow Imaging (MFI)

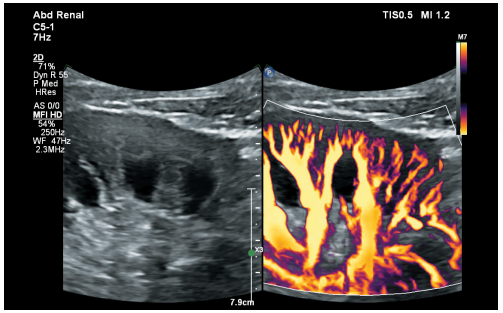
Provides remarkable sensitivity and detail in **assessing blood flow.**¶




Renal imaging with the C5-1 transducer with MFI

## MicroFlow Imaging HD (MFI HD)

**Offers 2x the sensitivity and resolution**¶ of MFI in assessing blood flow.‡




Renal imaging with the C5-1 transducer with MFI HD

"The smooth, ergonomic, rounded edges on this transducer [Philips mC12-3 PureWave] provide a comfortable experience for our patients and their families."*

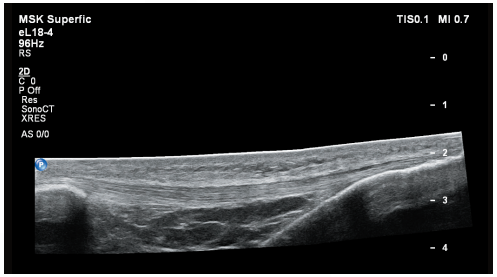
– Monique Riemann, RDMS, Phoenix Children's Hospital, Phoenix AZ

* Results may vary.

* Not available on all transducers.
** Compared to release 7.0.
† Internal measured comparison on calibrated tissue phantom between the mC12-3 and C8-5 transducers on the EPIQ Elite ultrasound system.
‡ Not available with the Affiniti ultrasound system.
§ Compared to the predecessor L15-7io transducer.
¶ Internal measured comparison on standards MFI to MFI HD using clinical targets and standard measurement methodology.
# Compared to the predecessor L15-7io transducer for all depths greater than 1.6 cm.

## Panoramic view

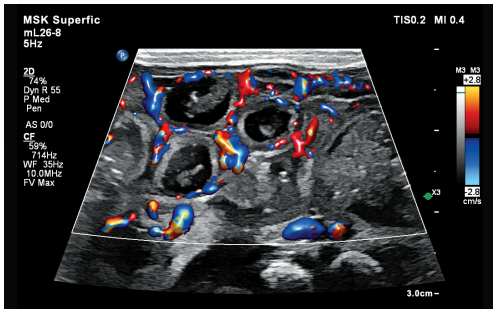
**Provides the entire landscape** in a single view for a global representation of MSK anatomical structures.




MSK imaging with the eL18-4 transducer

## Trapezoid imaging with true trapezoid color

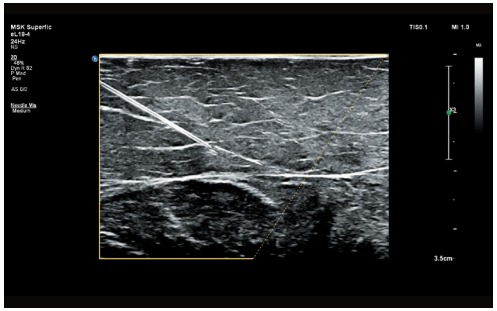
Displays a wider field of view using the mL26-8 transducer,** which provides **a 75% larger field of view.**†




Bowel imaging with the mL26-8 transducer

## Needle visualization

**Enhances needle visualization** for interventional procedures.



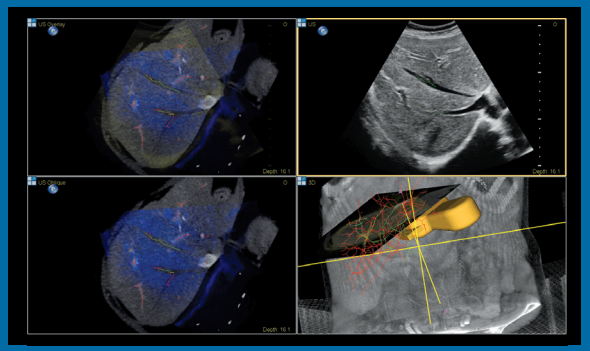
Interventional imaging with the L18-4 transducer

# Advanced insights

Advances include an ultimate solution for liver assessment.

## Fusion and Navigation for pediatrics

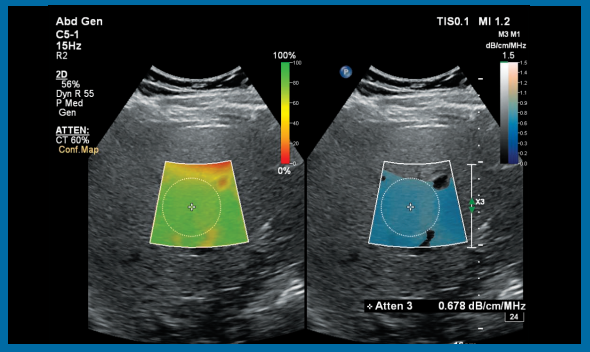
User-assisted co-registration is a **one-button method** for co-registering CT images to ultrasound.



Multimodality fusion imaging

## Liver Fat Quantification (LFQ)

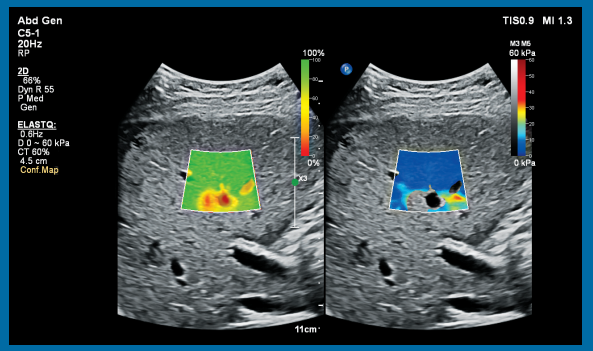
Rapid, noninvasive quantitative measure allows for **more complete liver assessment** and can be used to screen or patients with nonalcoholic fatty liver disease (NAFLD) or nonalcoholic steatohepatitis (NASH) and for surveillance of patients on therapy.[6]




LFQ with the C5-1 transducer

## ElastQ imaging

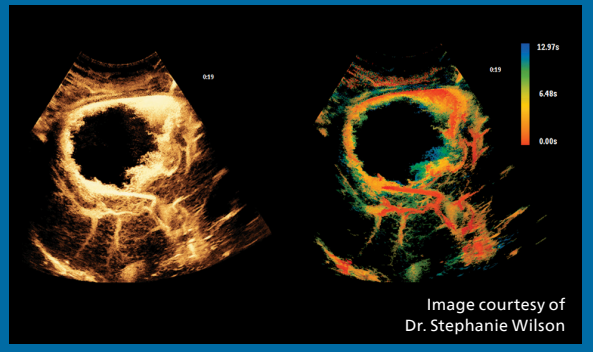
Real-time quantitative assessment of liver tissue stiffness. Features a Philips confidence map display for additional assurance that user measurements are from tissue areas with adequate shear wave propagation.




LFQ with the C5-1 transducer

## Microvascular Imaging Super Resolution Contrast-enhanced Ultrasound (CEUS) and Time of Arrival

**Super Resolution MVI improves resolution by more than 200%.*** Time of Arrival provides concise visualization of the temporal patterns of perfusion while maintaining the superb spatial resolution offered by Super Resolution MVI.**




Liver lesion with Super Resolution MVI and Time of Arrival

* Compared to previous MVI capability.
** Not available with the Affiniti ultrasound system.
† Compared to the predecessor L15-7io transducer for all depths greater than 1.6 cm.

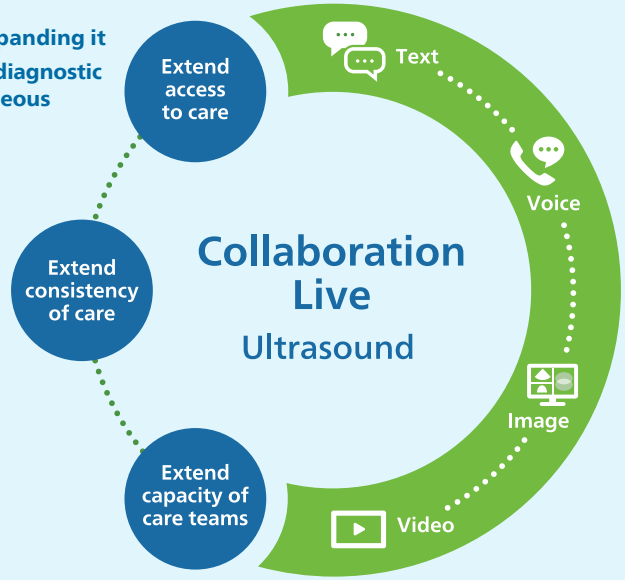
# Trusted partner

## Ultrasound Collaboration Live with Multi-party*

**Extend your team without expanding it**

**Remote access to help elevate diagnostic confidence, now with simultaneous multi-party communication**

Up to six users can quickly and securely talk, text, screen share and video stream directly from the ultrasound system for access to multiple clinical resources at a distance.**





## Flexible financing

Innovative solutions tailored to you, with the financial flexibility to manage capital budgets and return on investment, supporting your continued growth.

## Defense-in-depth security

Philips ultrasound is developed for security as well as clinical capability.[7]

## Award-winning service

Philips has ranked #1 in ultrasound service for nearly 30 years in a row.†

## Comprehensive clinical education

To improve operational efficiency and support patient care.

## A world leader in sustainability

Philips is committed to lifecycle circularity for its systems.‡

* EPIQ and Affiniti ultrasound systems release 10.0.
** Contract required. Collaboration Live is intended for remote diagnostic use on release 9.0 or higher.
† Philips is rated number one in overall service performance for ultrasound for 28 consecutive years in the annual IMV ServiceTrak survey in the USA.
‡ Philips again achieved a #2 ranking in the leading sustainability benchmark in Dow Jones Sustainability Indices and achieved second place in 2020 on the Wall Street Journal's "100 Most Sustainably Managed Companies in the World" list.

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2. RadiologyInfo.Org: www.radiologyinfo.org/en/info/genus.
3. World Health Organization Fact Sheet. Obesity and overweight. June 9, 2021. www.who.int/news-room/fact-sheets/detail/obesity-and-overweight.
4. Chen J, Panda R, Savord B. Realizing dramatic improvements in the efficiency, sensitivity and bandwidth of ultrasound transducers: Philips PureWave crystal technology. Koninklijke Philips N.V. Aug 2006. 2014;203(6):W715-W723. doi:10.2214/AJR.13.12061.
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6. Philips Auto Doppler Clinical Study, Dec 2011.
7. Philips EPIQ and Affiniti Security white paper, document number 452299180531, April 2023.
8. Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003.

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