

**PHILIPS**

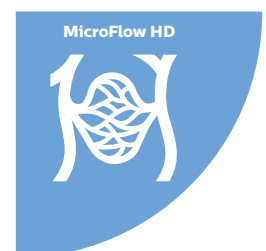
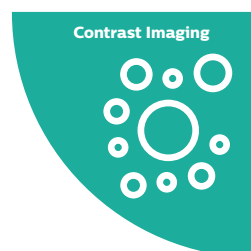
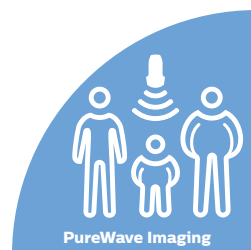
Ultrasound

# Revolutionary tools to elevate pediatric care

## The ultimate ultrasound solution for pediatric assessment

Pediatric care is evolving. Because advances in pediatric medicine are helping children overcome once-fatal conditions, clinicians are able to shift their focus from just diagnosing acute cases to continuously treating chronic pediatric diseases and managing a variety of complex cases.

The Philips ultimate ultrasound solution for pediatric assessment is customized to provide quick and confident, yet gentle imaging tailored to the specific needs of children, elevating their care as never before.



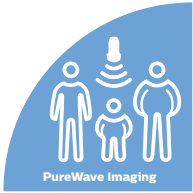


# Quick, confident imaging from the start

The Philips ultimate ultrasound solution for pediatric assessment is the first of its kind to seamlessly combine the capabilities of an array of Philips innovations on the EPIQ Elite ultrasound system. Now clinicians can quickly and easily gain diagnostic insights for pediatric patients throughout their care.

“In many cases we can use diagnostic ultrasound to make the diagnosis that helps support critical clinical decisions without having to move on to other, invasive imaging modalities.”

Jeffrey Miller, MD, Chief of Radiology – Pediatric Neuroradiologist, Phoenix Children’s Hospital, Phoenix AZ



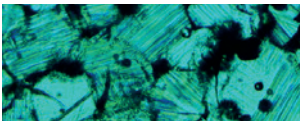
# PureWave transducers optimized for pediatrics

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

## Exceptional clinical performance

The Philips mC12-3 PureWave transducer has been shown to provide an additional **30% improvement** in penetration when compared to the previous generation of pediatric transducers.\*

## The power of PureWave



Conventional PZT (x800)



PureWave crystal (x800)

The pure, uniform crystals of PureWave are 85% more efficient than conventional piezoelectric material, and have virtually perfect uniformity for greater bandwidth and exceptional clinical performance.



The world's first family of premium PureWave transducers optimized for pediatric imaging, including the mC12-3.

Neonatal Head  
mC12-3  
23Hz  
RS  
2D  
55%  
Dyn R 55  
P Off  
HRes



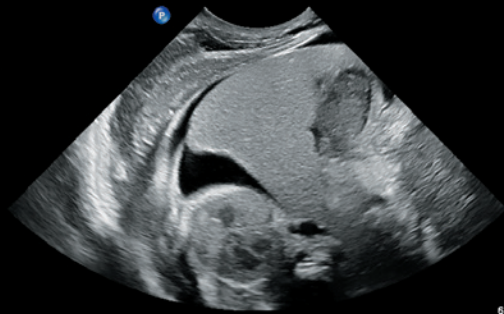
Neonatal head using the mC12-3 transducer

TIC0.6 MI 0.8

MD



Ped Abd  
mC12-3  
39Hz  
RS  
2D  
55%  
Dyn R 55  
P Off  
HRes



Transverse liver with ascites using the mC12-3 transducer

TIS0.3 MI 0.8

M3

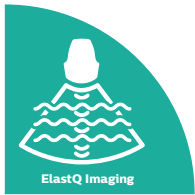


“The smooth, ergonomic, rounded edges on this transducer [Philips mC12-3 PureWave] provide a comfortable experience for our patients and their families.”

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



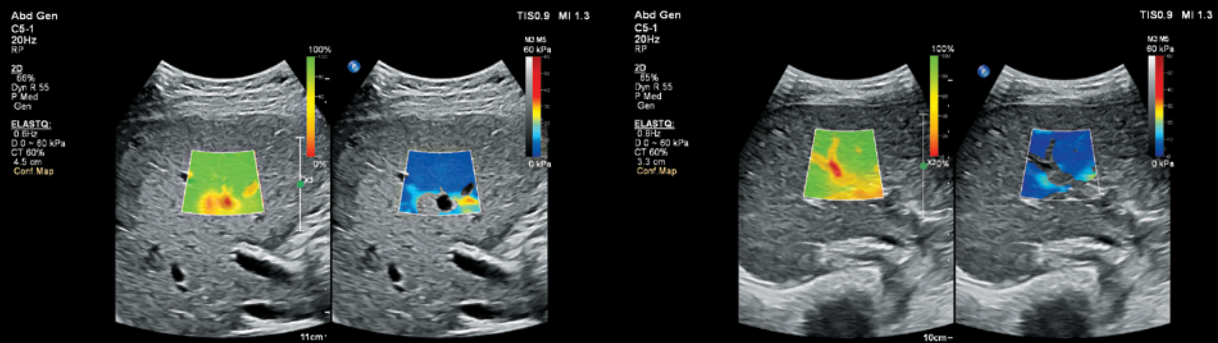
\* Internal measured comparison on calibrated tissue phantom between the mC12-3 and C8-5 transducers on EPIQ Elite ultrasound system.



# Diagnose and stage liver fibrosis

ElastQ Imaging is a clinical tool that provides a real-time large field of view assessment of tissue stiffness, which is ideal for the pediatric patient who may be challenging to image.

ElastQ Imaging shear wave elastography provides clinicians insight into tissue stiffness to aid in diagnosis and treatment planning. Quantitative measurements are easy to perform with the addition of a confidence map display to assist the user in focusing on the areas with the highest shear wave quality.



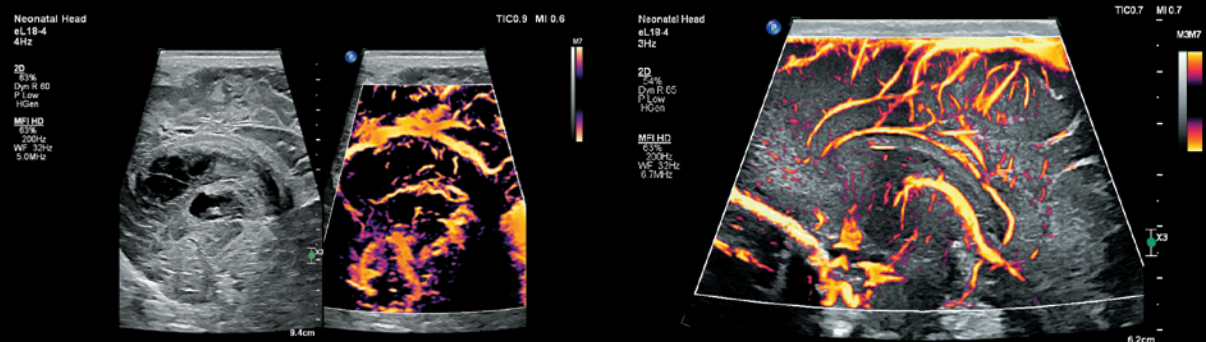
ElastQ Imaging shear wave elastography for pediatric liver assessment



# Gain new insights into small vessels

MicroFlow Imaging (MFI) is a proprietary mode designed to detect slow and weak blood flow anatomy in tissue with high resolution and minimal artifacts, overcoming many of the barriers associated with conventional methods of detection.

MFI maintains high frame rate and 2D image quality while applying advanced artifact reduction techniques. Now MFI HD – a mode that more than doubles the sensitivity and resolution of standard MFI\* – is ideal for definitive analysis of blood flow throughout many pediatric clinical applications.



Neonatal brain using the eL18-4 linear array transducer and MFI HD

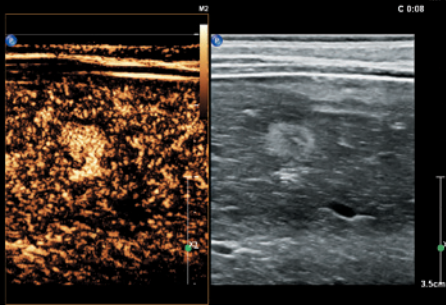
\* Internal measured comparison on standard MFI to MFI HD using clinical targets and standard measurement methodology.



# Contrast enhancement for pediatric applications

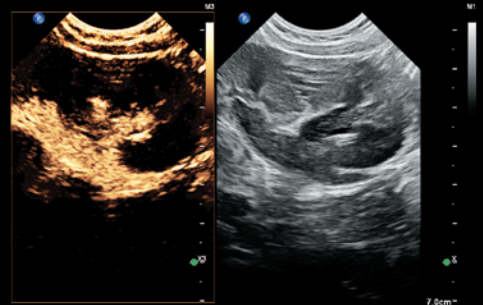
Ultrasound contrast agents are transforming the role of pediatric ultrasound in the liver and other organs. With pediatric contrast-enhanced ultrasound (CEUS), clinicians can now study enhancement patterns of suspicious liver lesions in real time for faster and more confident diagnoses and treatment planning.

ABD CONTRAST  
eL18-4  
8Hz  
RS  
Tissue  
SFS  
C: 58  
Gen  
M10 07  
Contrast  
C: 24  
Gen  
M10 07



CEUS of liver lesion using the eL18-4 transducer

Ped Abd  
mC12-3  
12Hz  
RS  
Tissue  
SFS  
C: 50  
Gen  
M10 07  
Contrast  
C: 28  
Gen  
M10 07



mC12-3 contrast VCUg of left kidney showing Grade III reflux

CEUS for the assessment of vesicoureteral reflux has provided clinicians an alternative non-ionizing approach as compared to traditional X-ray techniques. With EPIQ Elite, CEUS is seamlessly integrated into the standard workflow.

## Elevating care for children

Clinicians who make it their life's work to provide care for children can count on the Philips ultimate ultrasound solution for pediatric assessment to reach decisions with maximum confidence. From the bedside to the NICU, Philips supports you in helping to give children the best chance to lead their healthiest lives.

