Resona 7
Premium Ultrasound System

New Waves in Ultrasound Innovation

With Zone Intelligence

mindray
healthcare within reach

New Waves
in Ultrasound Innovation

Since the company was founded, Mindray has been continuously exploring new ways to improve diagnostic confidence. Powered by the most revolutionary ZONE Sonography® Technology, Resona 7's new ZST+ platform brings ultrasound image quality to a higher level by zone acquisition and channel data processing.

As well as the premium level image quality, Resona 7 also enhances clinical research capabilities with the revolutionary V Flow for vascular hemodynamic evaluation, and the most intelligent plane acquisition from 3D datasets for fetal CNS diagnosis. Combining the most intuitive gesture-based multi-touch operation and all the essential clinical features, Resona 7 is truly leading new waves in ultrasound innovation.

It rises.
With core platform advantages of ZST⁺

The channel data based ZST⁺ is an extraordinary innovation, representing an ultrasound evolution. Transforming ultrasound metrics from conventional beamforming to channel data based processing, ZST⁺ is able to deliver multiple imaging advances: Advanced Acoustic Acquisition, Dynamic Pixel Focusing, Sound Speed Compensation, Enhanced Channel Data Processing and Total Recall Imaging.
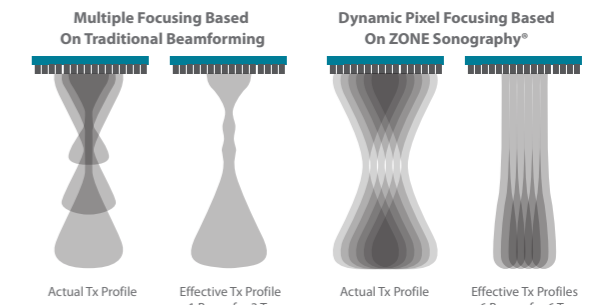
Powered by **ZST+**

Advanced Acoustic Acquisition
By transmitting and receiving a relatively smaller number of large zones, Advanced Acoustic Acquisition extracts more information from each acquisition, 10 times faster than a conventional line-by-line beamforming method.

Line-by-line Acquisition · Advanced Acoustic Acquisition
Time to Form Ultrasound Image · Additional Time for Advanced Modes
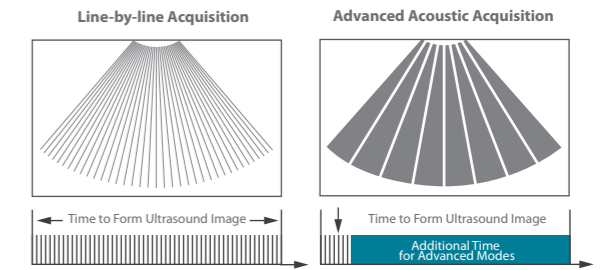
Dynamic Pixel Focusing
Dynamic Pixel Focusing technology allows the Resona 7 to achieve extreme uniformity at the pixel level throughout the entire field of view. Now there's no need to adjust the focal position to achieve uniformity across patient exams.

Multiple Focusing Based On Traditional Beamforming · Dynamic Pixel Focusing Based On ZONE Sonography®

Actual Tx Profile · Effective Tx Profile 1 Beam for 3 Tx · Actual Tx Profile · Effective Tx Profiles 6 Beams for 6 Tx

Sound Speed Compensation
By retrospectively analyzing complete channel data stored in channel data memory, the Resona 7 is able to intelligently choose the optimal sound speed to improve image accuracy even with tissue variation, allowing for adaptive tissue-specific optimization.

SSC OFF · SSC ON

### Enhanced Channel Data Processing
Channel data based ZST⁺ provides Enhanced Channel Data Processing for greatly improved image clarity. By multiple and retrospective channel data processing, it makes the best use of acoustic information for image improvement.
- **HD Scope:** higher definition image within ROI.
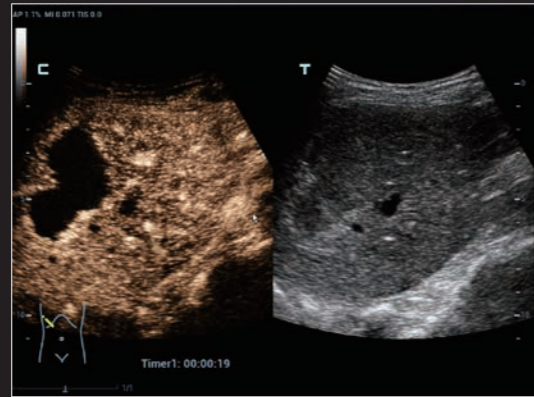

HD Scope OFF · HD Scope ON
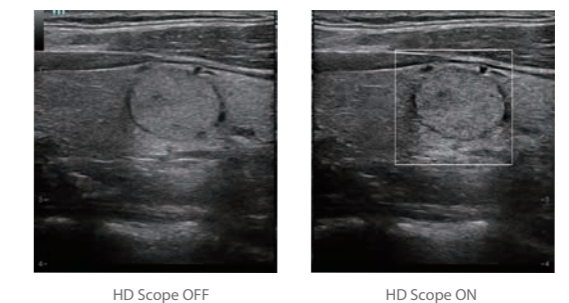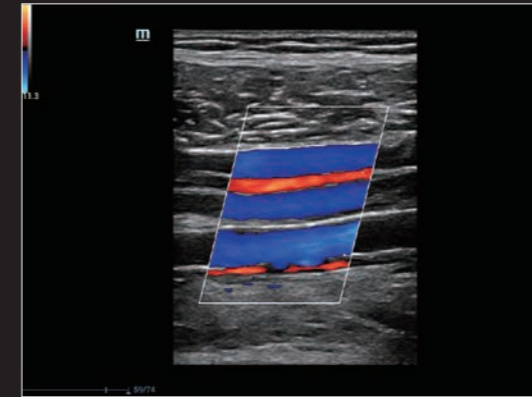
Total Recall Imaging
ZST⁺ captures and stores the complete acoustic raw data set. Total Recall Imaging allows the system to do retrospective processing on channel data and also permits users to modify numerous imaging parameters on stored images to maximize clinical output.
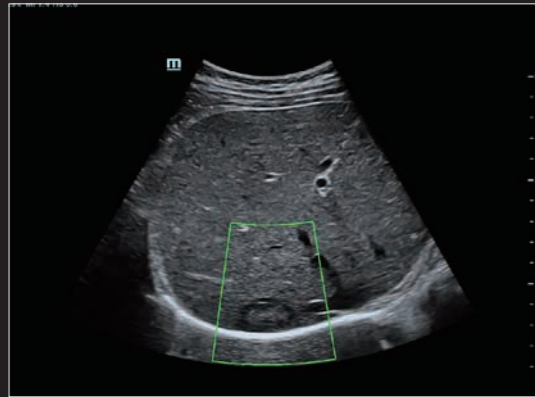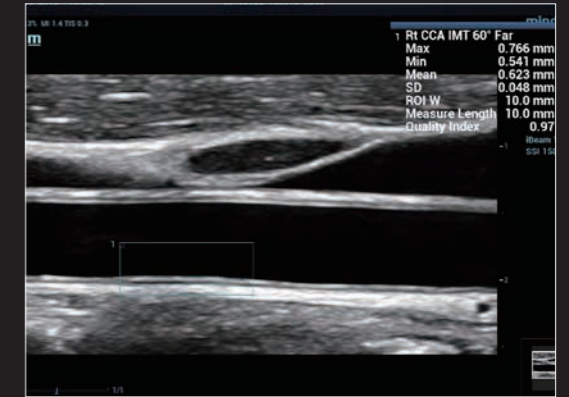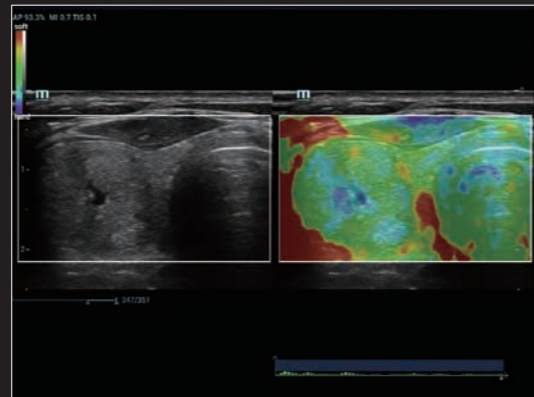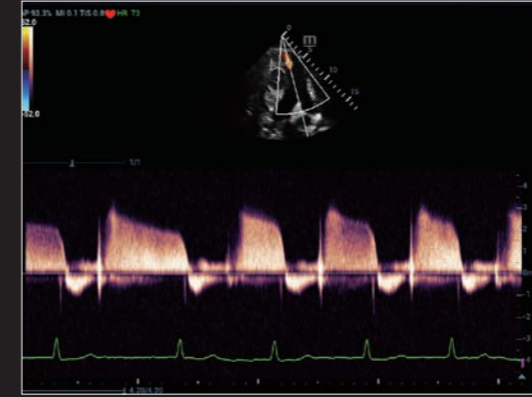
Liver Mass with HD Scope

CEUS of Liver Hemagioma
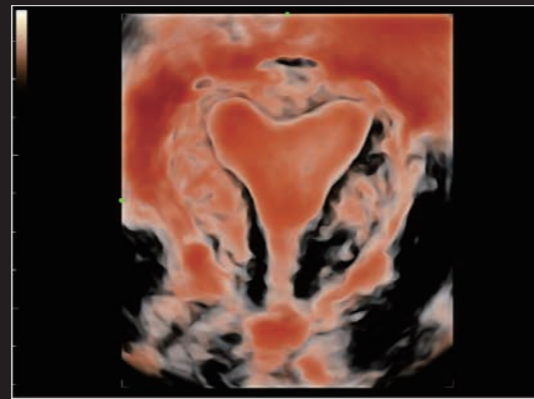

Hyperplasia Of Mammary Glands

Elastography of Thyroid Mass

Choriod Plexus on a 14 week fetus
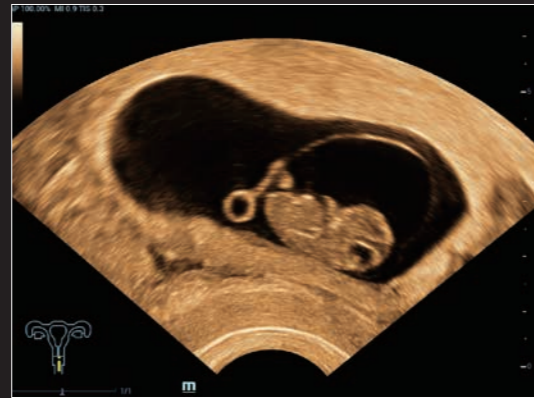
High definition image on an 8-week fetus

A Vivid Fetal face with iLive

Uterus Arcuatus with Hyaline

Tibial Vein and Artery

CCA IMT

Cardiac Pulmonary Regurgitation

Cardiac HCM

It releases.
A new standard of image clarity

Better vision, deeper understanding. Based on the cutting-edge ZST+ platform, Resona 7 redefines a new standard of image performance to meet the needs of the most challenging clinical practices.
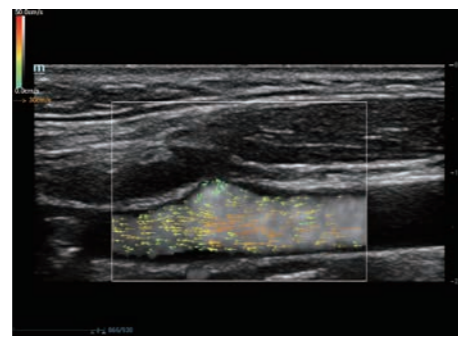
It progresses.
Innovative clinical tools for confident diagnosis

V Flow

V Flow (Vector Flow) is a novel approach for vascular hemodynamic analysis. V Flow uses color coded vector arrows to indicate the velocity's magnitude and direction of blood cells. With ultra-high frame rates, it provides extremely vivid, accurate and angle-independent visualization of complex vascular hemodynamic profiles. With comprehensive data information, V Flow is the most valuable tool for vascular clinical research.
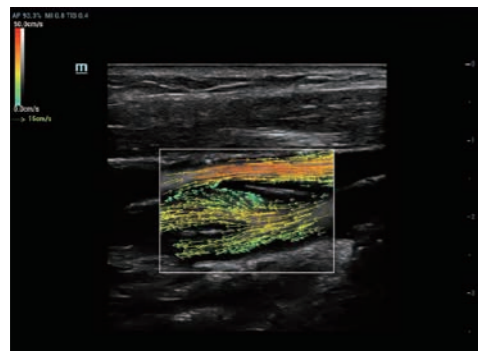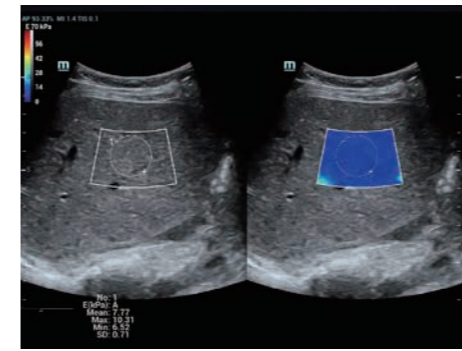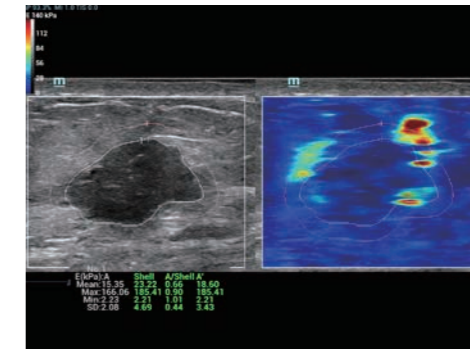

V Flow of Carotid Bulb and JV

V Flow of CCA and ICA

UWN$^+$ Contrast Imaging

UWN$^+$(Ultra-Wideband Non-linear Plus) CEUS enables the Resona 7 to detect and utilize both the 2nd harmonic and non-linear fundamental signals, generating significantly enhanced images, resulting in greater sensitivity of minor signals and longer agent duration with lower MI.

TIC Analysis of CEUS

Micro Flow Enhancement

Sound Touch Elastography (STE)

STE is integrated with Mindray's exclusive Ultra-wide Beam Tracking technology for real time 2D shear wave elastography. The integrated measurement tools enable comprehensive quantitative elastic analysis. Meanwhile, the operator independent STE ensures good reproducibility and highly consistent quantitative elastic results.
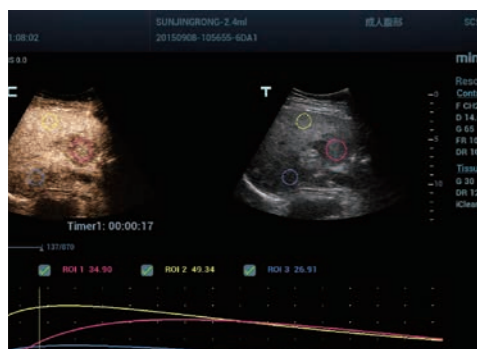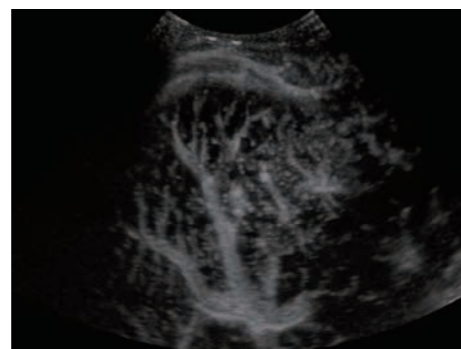

STE of Liver Fibrosis

STE Shell of Breast Mass

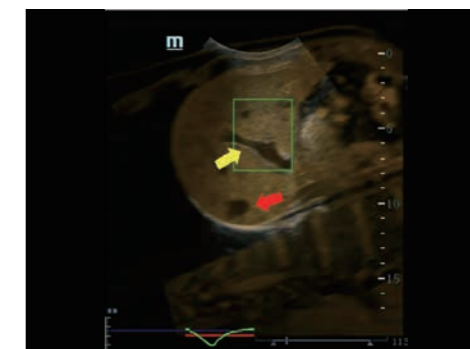### iFusion with Respiration Compensation

Bringing the precision of fusion imaging to a new level, Mindray's innovative and exclusive respiration compensation technology - supported by a sensitive magnetic motion sensor with millimeter accuracy - can help eliminate distortion and fusion inaccuracy caused by patient respiration.
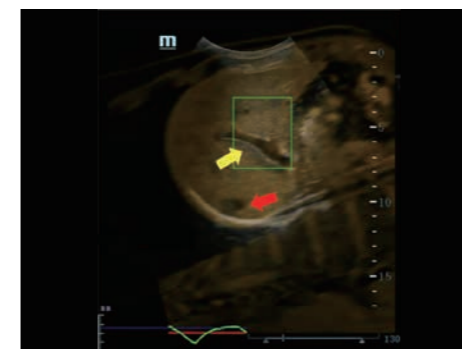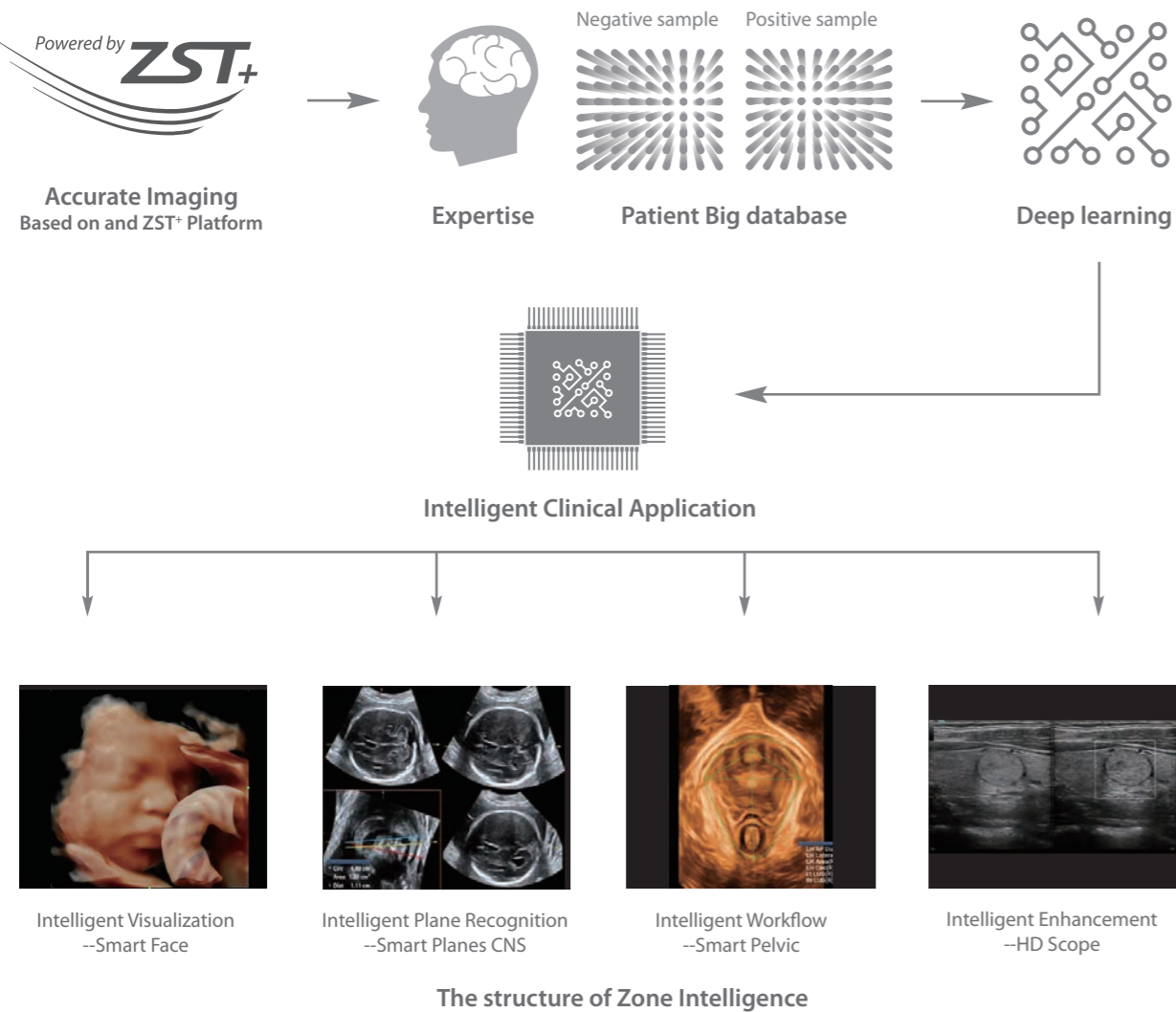

iFusion without Respiration Compensation

iFusion with Respiration Compensation

It leads.
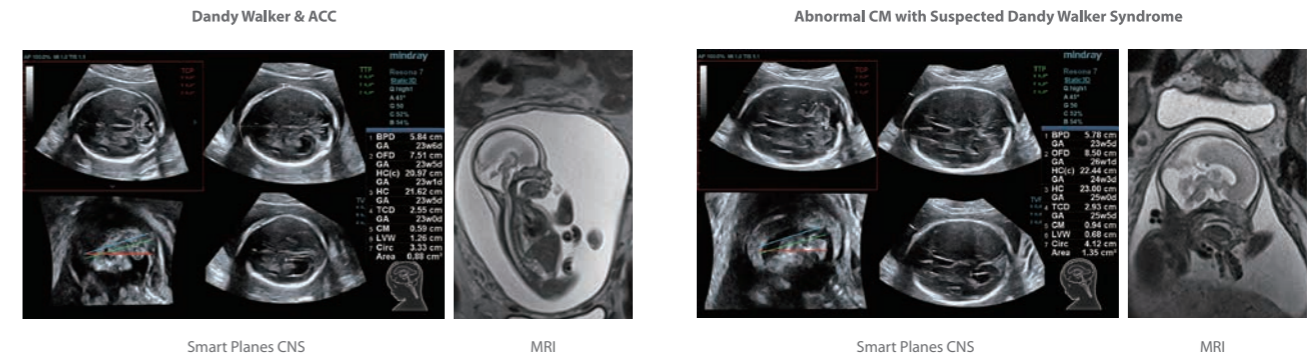## Forwarding smart to clinical intelligence

The Resona 7 elevates clinical intelligence with a complete solution that enables clinicians to manage both routine and advanced studies more efficiently, consistently, and accurately, from acquisition to calculation. As an example, Smart Planes CNS shows exceptional intelligence in accurate diagnosis and analysis of the fetal central nervous system (CNS).

Powered by **ZST+**

Accurate Imaging
Based on and ZST⁺ Platform

Expertise

Negative sample   Positive sample

Patient Big database

Deep learning

Intelligent Clinical Application

Intelligent Visualization
--Smart Face

Intelligent Plane Recognition
--Smart Planes CNS

Intelligent Workflow
--Smart Pelvic

Intelligent Enhancement
--HD Scope

**The structure of Zone Intelligence**

Smart Planes CNS

Mindray's exclusive pioneering technology positions the Resona 7 as the industry's first ultrasound system to allow fully automatic and accurate detection of the most significant planes and frequently used measurements of fetal CNS, leading to intelligent diagnosis, improved throughput, and reduced user dependence.

Smart Planes CNS provides a user-friendly tool that greatly improves scanning efficiency through increased accuracy coupled with automated operation. With a simple button click on a 3D fetal brain volume image, the standard CNS scanning planes (MSP, TCP, TTP and TVP) and a range of related anatomical measurements (BPD, HC, OFD, TCD, CM and LVW) are obtained immediately.

Dandy Walker & ACC   Abnormal CM with Suspected Dandy Walker Syndrome

Smart Planes CNS   MRI   Smart Planes CNS   MRI

Smart Face

Acquiring an optimal view of the fetal face in 3D ultrasound is cumbersome and time-consuming. In some cases, it is impossible to get rid of the occlusions such as cord, placenta, uterus and extremities. The new Resona 7 with Zone Intelligence provides a fast and intelligent optimization for fetal face with simply one-touch. It can immediately remove occlusions in the volume data, eliminate unwanted noise information, and generate an optimal view of the fetal face with minimal effort.
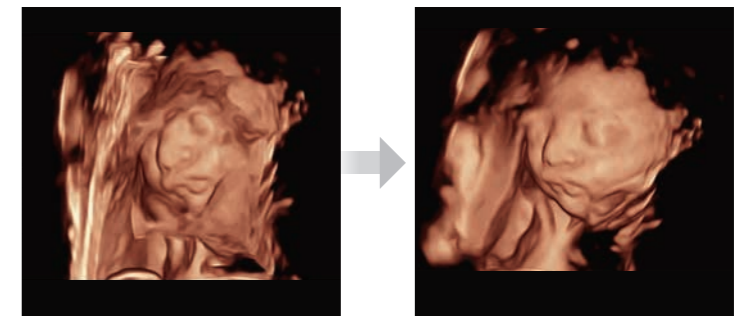
Smart Pelvic

Realizing the increasing importance of ultrasound diagnosis on pelvic floor disorders, the new Resona 7 with Zone Intelligence provides a new solution to greatly simplify the operation procedures, and minimize the exam time for standardized evaluation of the pelvic floor. With extremely simple user-interaction, it generates a standard coordinate system and automatically provides all related measurements within a few seconds.
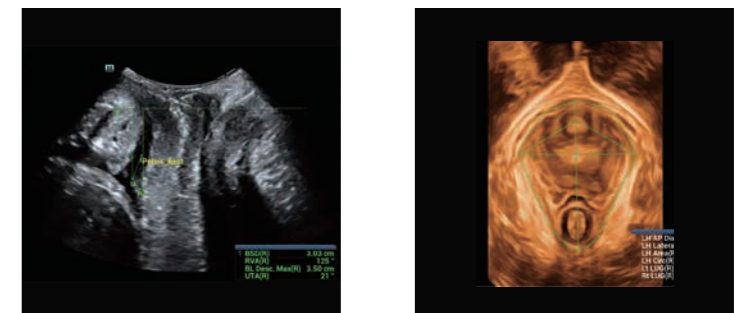
It senses.
Ensuring a better user experience

The Resona 7 is designed around you. Gesture-based operation opens up a new trend in cart-based ultrasound with an agile, smart, and intuitive user experience beyond your expectations. Gel warmer's three level temperature and swiveling angle adjustment of the control panel delivers great patient comfort and user convenience.

High resolution LED monitor with wide angle of view

Tilting multi-gesture touch screen

Gel warmer with three temperature levels

Six direction floating control panel

Pinless transducer with light indicator

It resonates.
With innovation, better diagnosis, and healthier life

Healthcare is, and remains, one of the most pressing challenges facing humanity across the globe. Technology, the core driver in many diverse industries, is transforming healthcare to a new level of resonance with unprecedented clinical precision, diagnostic confidence, patient safety and satisfaction. The same is true for ultrasound.

With more than 20 years' of experience in ultrasound development, Mindray constantly endeavors to integrate the most advanced, reliable ultrasound technology to products of amazing quality, for increasingly enhanced clinical confidence and patient care. Medical minds think alike. By making ultrasound technology better, we are making lives better.