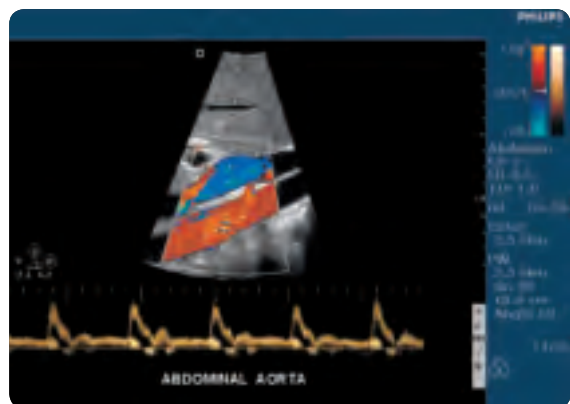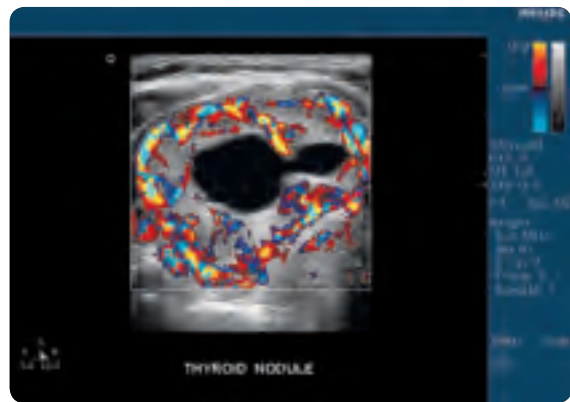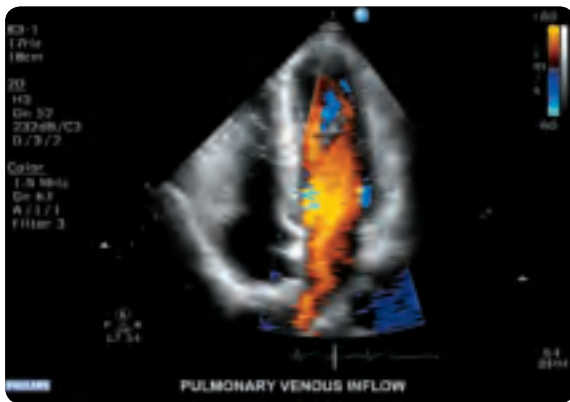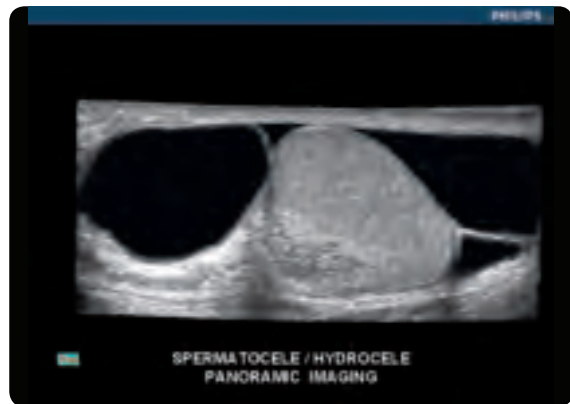# Choose versatility

Philips HD11 XE ultrasound system

PHILIPS

Fully equipped

The HD11 XE is ready to expand with your clinical needs. It is a complete, digital imaging system that delivers high-definition imaging and ease-of-use in a compact, ergonomic and reliable package. You can also add powerful capabilities like 4D Imaging, QLAB quantification, 3D Fetal Echo STIC, iSlice and more.

31 - WEEK FACE

SPERMATOCELE / HYDROCELE
PANORAMIC IMAGING

PULMONARY VENOUS INFLOW

THYROID NODULE

LIVER METASTASES

ABDOMINAL AORTA

The right system

In this full-featured performer, Philips has combined broadband beamforming, automated image optimization tools, and clinically proven technologies. All of which make the HD11 XE ideal for public and private hospitals, satellite clinics or specialized practices. And it's built on an upgradeable platform to protect your investment, backed by Philip's award-winning* customer support program.

Advanced features

The following advanced modes and technologies are available on the HD11 XE system:

• SonoCT compounding performs beam-steered spatial compounding in both transmit and receive modes. It acquires multiple lines of sight simultaneously, without any special transducer maneuvers, compounds them in real time and displays exceptionally clear images. You can count on more clinical data for increased diagnostic confidence, patient after patient.
  – An independent clinical study** determined that SonoCT technology produces images superior to conventional imaging in up to **94%** of the patients and changes patient management in **17%** of the cases.

• XRES adaptive processing virtually eliminates speckle noise artifact, enhancing borders and margins for better diagnostic review. And SonoCT and XRES working in tandem display images with breathtaking clarity and accuracy adding to your diagnostic confidence and allowing you to make patient management decisions earlier.

• 2D with Pulse Inversion Harmonic Imaging, Philip's patented method for producing pure, broadband harmonic signals for superb grayscale presentation.

• 3D imaging with multiplanar views, for qualitative freehand 3D images and interactive visualization through three planes.

• Adaptive Color Doppler, which automatically selects the optimal Doppler or angio frequency for highly sensitive resolution, as well as Color Power Angio technology for assessing amplitude and direction of flow.

• Pulsed wave and continuous wave Doppler with Adaptive Doppler technology to boost weak signals and reduce noise, and high PRF capability for measuring higher velocities than ordinary pulsed Doppler ultrasound.

With the HD11 XE system, you get an uncompromising platform, plus the advanced options you need in a highly mobile and easy-to-use system.

Designed to meet your needs and challenges

The HD11 XE ultrasound platform offers powerful, clinically proven innovations designed to match your clinical environment.

Volumetric imaging

The HD11 XE brings 4D imaging into the mainstream by delivering it on a platform with an unmatched combination of versatility and value. Move seamlessly through 2D and Doppler modes right into breathtaking 4D studies. The system's powerful architecture supports continuous, precise, quantitative volume acquisition and display, with easy, simultaneous visualization and measurements in three planes. Numerous innovations are on- and off-cart to give you stunning image quality and the potential to improve your exam efficiencies by changing the way you acquire and visualize ultrasound data.

- Once you have acquired your volumetric data – use iSlice to find the images with the best views and content for review and diagnoses. You can adjust the format to display 4, 9, 16 or 25 2D images based on precision slicing of the volume set—you control the data to best suit the exam needs. When you rotate the volume view, you also update the 2D views to reflect the new perspective. This is done instantaneously so you are always looking at updated data.

- The thick slice feature allows you to select a slice of data, control the thickness, and manipulate it for enhanced contrast resolution and improved visualization of anatomical structures.

- Invert—is a volume display method that allows the direct visualization of anechoic structures such as the chambers and major vessels of the fetal heart.

- Color Invert—enables the user to visualize directional bloodflow within the inverted volume.

- 3D fetal echo STIC (Spatio-temporal Image Correlation) technology presents the fetal heart beating in a multiplanar display, preserving spatial relationships in the B and C planes. This allows for a more detailed view of fetal heart valves and wall motion to aid in detecting anomalies during routine obstetrical exams.

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iSlice THYROID

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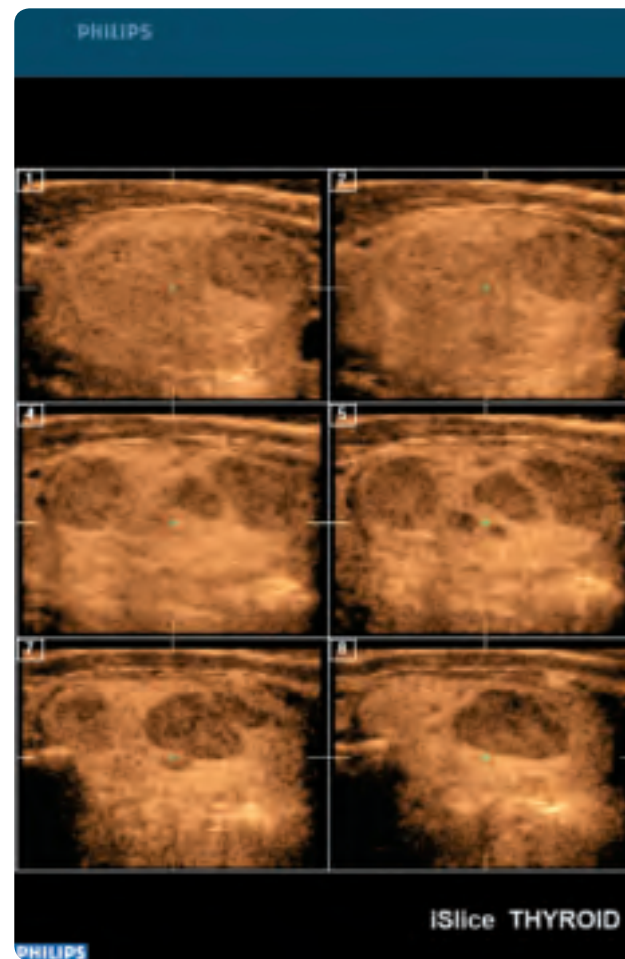
You'll quickly find that iSlice and thick slice augment your diagnostic, decision-making and patient management processes.

clinical

NODULES
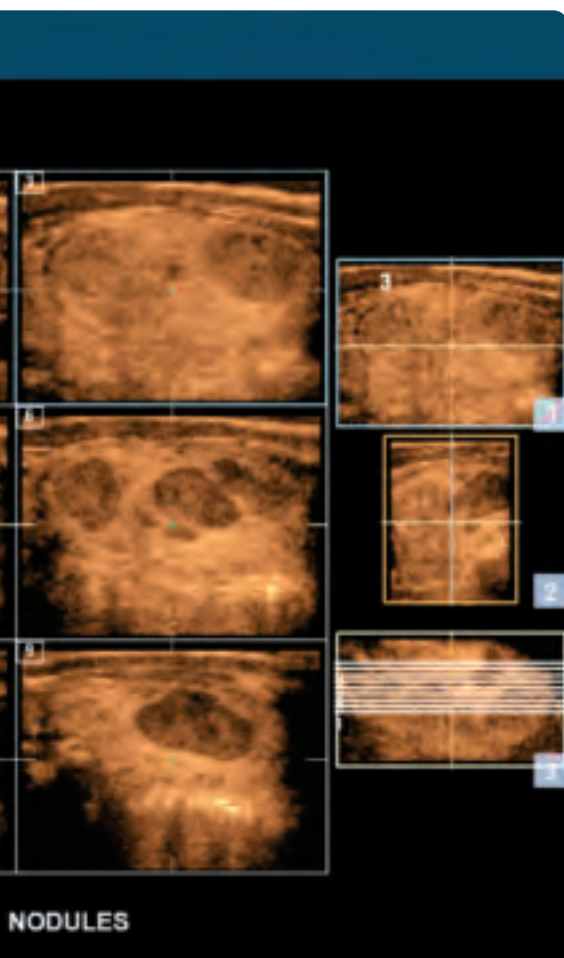
Full cardiac and stress echo capability

The HD11 XE has the versatility to expand into a complete, digital cardiovascular imaging system for further clinical utility and value. You can also add powerful options like QLAB advanced quantification, stress echo, contrast imaging and transesophageal echo to further enhance your cardiovascular imaging capabilities.

• The stress echo option is fully integrated into the user interface for the rapid acquisition and display of high-resolution images, with plenty of flexibility.

• Anatomical M-mode, for more accurate measurements of chambers, walls and ejection fraction; makes it easier to keep the M-mode line perpendicular to the anatomy, even in abnormally shaped or positioned hearts.

• Tissue Doppler Imaging (TDI), including Color TDI to assess direction and timing of myocardial function, and pulsed wave TDI for velocity mapping of vessel wall motion and cardiac tissue.

Contrast imaging

The contrast option equips the HD11 XE to detect harmonic agent signatures using the S3-1 and C5-2 transducers. The option provides a uniform power field, allowing more even excitement of contrast agents throughout the sector. Optimized LVO system settings on the HD11 XE decrease contrast agent destruction and increase ease-of-use by minimizing the need for system adjustments. All of which add up to more complete visualization of contrast throughout the image.

Panoramic imaging

The Panoramic imaging option provides an extended field-of-view display. This feature creates a series of real-time images while the user moves the transducer laterally across the anatomy. When the imaging is complete, the system renders a panoramic mosaic display. The resulting panoramic image provides a larger reference image for documentation of spatial relationships of structures.

The ultimate in and mobility

The HD11 XE is lightweight and easy to push from here to there. And once you've arrived, its intuitive design lets you complete your studies with ease.

Easy to move and use

From the adjustable monitor and control panel, to the easy-to-access transducer connectors and highly maneuverable cart, the HD11 XE was built with enhanced ergonomics in mind.

- The HD11 XE adapts to virtually any scanning position for optimal user comfort and convenience.
- Meets Industry Standards* recommendation for independent height adjustment of the monitor and control panel, facilitating neutral working postures and reducing repetitive stress injuries.
- Ultra-bright, virtually flickerless LCD flat panel display reduces eye strain.
- The HD11 XE is the lightest and smallest system in its class, enhancing its portability and making it easy to bring world-class ultrasound to your patients.
- The integrated footrest allows correct posture, reducing stress on the spine.
- Up to five available transducer ports reduce bending to switch out transducers.
- Advanced circuitry produces less heat, helping to keep users and patients more comfortable.

*Society of Diagnostic Medical Sonography, Industry Standards for the Prevention of Musculoskeletal Disorders in Sonography, May 2003.

ergonomics

Automation tools

Built-in automation tools make it easy to achieve the best 2D and Doppler imaging on the HD11 XE, using minimal keystrokes.

- Exclusive iSCAN intelligent optimization technology replaces numerous fine-tuning steps, simplifying and streamlining most Doppler while increasing consistency from user to user.
  - With the push of a button, iSCAN automatically adjusts gain, TGC and compression on 2D vascular images.
  - iSCAN also operates in Doppler modes, providing automatic scale and baseline adjustments.
- High Q automated Doppler analysis provides real-time measurements of user-defined Doppler waveforms.
- Harmonics provides a clear advantage over fundamental imaging in difficult-to-image patients, reducing clutter and increasing the resolution of walls and fine details of tissue structures.
- The Fusion key allows users to optimize the image to patient type by emphasizing Resolution, General, or Penetration imaging characteristics.
- All clinical software packages contain presets for virtually all standard exam protocols. You can also create customized presets for preferred transducers and exam types.
- Adaptive color Doppler automatically picks the optimal color Doppler or angio frequency as a function of focal depth. It automatically sets higher frequencies when you're close to the surface and lower frequencies when you're imaging deep, for fine resolution and high sensitivity.

Innovation and commitment – delivering solutions

Data management and connectivity

Image and data management capabilities allow flexible recording, archiving, editing and even exam reports with embedded images.
- On-screen image thumbnails let you build your study and check exam status, at a glance.
- USB port facilitates easy data archiving.
- Multi-session DVD and optional peripheral devices allow you to meet your documentation and archiving needs.
- Prepare professional patient reports with embedded images.

QLAB supports the iSlice display

QLAB advanced quantification software

QLAB provides on-cart and off-cart access to advanced analysis such as strain and strain rate and essential measurements such as ejection fraction, as well as automated IMT measurements for vascular studies. Just choose the plug-ins you want:
- GI 3DQ – open, view and quantify 3D data sets, and display, review and select 2D images from the iSlice volume display. The automated stacked contours feature enables you to quickly and easily calculate a volume of hypoechoic structures based on the selected content
- Cardiac 2D quantification (2DQ) with semi-automated border technology for cardiac chambers and vessel cavities for fast, easy:
  - Quantitative assessment with Fractional Area Change/Ejection Fraction (FAC/EF)
  - Global and regional wall motion detection using Color Kinesis
  - Mitral Annular Color Kinesis for displaying mitral valve annular motion over time, parametrically
- Strain Quantification (SQ) uses Tissue Doppler imaging (TDI) for quantifying velocity, strain rate and strain image data
- Automated Intima Media Thickness (IMT) provides measurements of carotid and other superficial arteries
- Region of Interest (ROI) quantification allows researchers to analyze pixel intensities from 2D or color Doppler data sets in up to 10 user-defined regions, and graph them over time
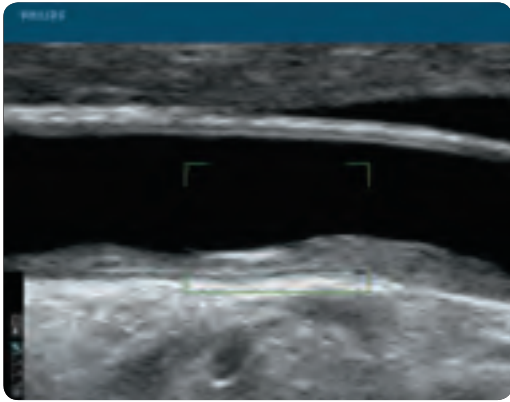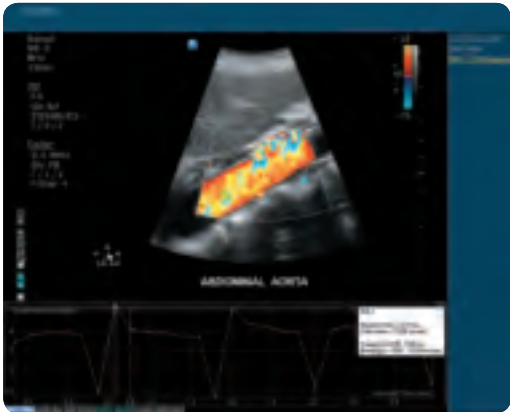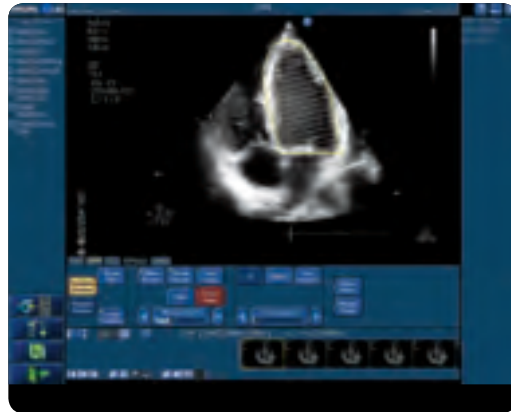
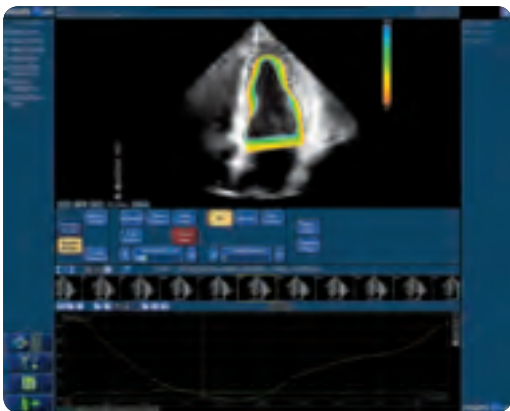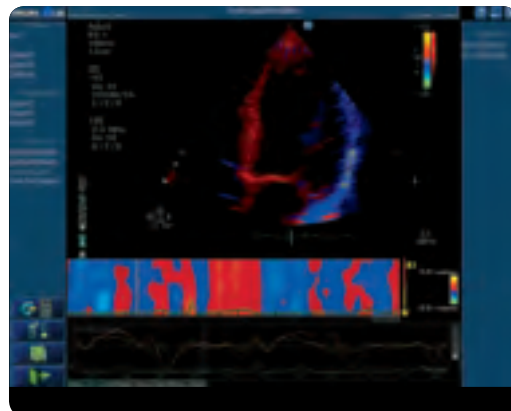Carotid automated Intima Media Thickness
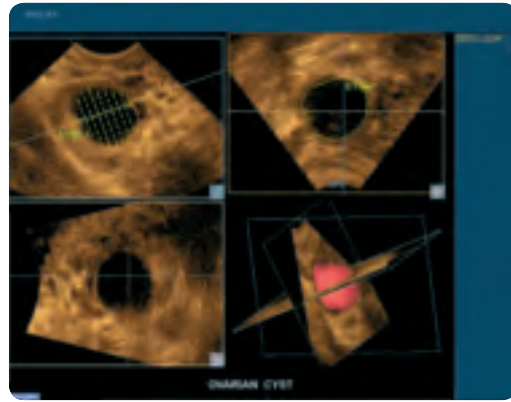
Automated stacked contours

Region of interest quanification

Apical four-chamber semi-automated border detection for Ejection Fraction

Apical four-chamber view with Color Kinesis

Apical four-chamber view TDI with Strain M-mode

DICOM networking option

The HD11 XE system allows you to adapt to most DICOM management systems. Includes DICOM Print and Store, Modality Worklist, Performed Procedure Step and Structured Reporting.

• DICOM Structured Reporting supports both conventional free-text reports and structured information, for improved precision, clarity, and value of clinical documentation.

Remote service network

Remote service capability offers flexibility for your service options and consistent uptime for your lab.

Reliability you can

The HD11 XE is a system you can depend on—every day, patient after patient. And it's built on an upgradeable platform to protect your investment.

A family of transducers for any application, any patient

The HD11 XE offers a comprehensive selection of volume sector, linear-array, curved linear array, TEE and Doppler pencil transducers. And with transducer frequencies ranging from 1 to 15 MHz, you can meet a complete range of applications.

- Improved volume transducers offer:
  - advanced lightweight design for improved user comfort
  - smaller footprint for easy imaging access in tight spaces
- The HD11 XE supports over 20 transducers, including many from the Explora line.
- Broadband digital transducers and beamformer capture and preserve the entire bandwidth of ultrasound signals to retain the quantity and quality of vital tissue signatures.
- Explora transducers deliver maximum acoustic efficiency for greater penetration and resolution, and have extremely lightweight and flexible superflex cables that dramatically ease wrist strain.
- Select transducers are compatible across platforms, including the iU22 and EnVisor systems.
- Thinner flatter C6-3 transducer for improved inter-costal access while offering exceptional image quality.

V6-2

V8-4

The V6-2 and V8-4 volume transducers' new lightweight, smaller design improves user comfort and eases image access in tight spaces. The C6-3 smaller curved array transducer improves intercostal access.

C6-3

depend on

Our portfolio of services is as innovative, flexible and comprehensive as your Philips system. From consulting in preparation, installation and networking, to providing clinical and biomedical engineering training, education and e-learning, to sourcing financial options, we have the expertise to assist you in finding the best solution for your specific needs.

Protecting your investment with award-winning Customer Services

Philips Customer Service agreements deliver the flexibility and choice you need to provide patient care based on the latest advances in system technology, successfully manage your financial performance, promote uptime, lower the cost of ownership, and increase your productivity. Philips delivers the full spectrum of services quickly through dedicated, highly trained clinical and technical specialists focused on providing unparalleled customer service. Year after year, customers rank Philips Medical Systems Ultrasound #1 in overall service performance in the annual IMV ServiceTrak* Ultrasound all systems survey.

Bringing expertise and vision to your ultrasound education

Philips offers a wide array of clinical and technical education, online resources and training courses to meet the increasingly complex needs of healthcare professionals and staff members. Whatever your need, there is a medical education course or resource available that is specifically tailored to fulfill the learning requirements of you and your organization.

Innovative financial solutions

Philips Medical Capital delivers flexible financial solutions to place state-of-the-art Philips Medical products in healthcare facilities around the world. Our financial experts understand your unique financial needs and provide flexible solutions that optimize asset utilization, reduce costs, and increase financial flexibility.

Partnering to provide security solutions

Philips is committed to addressing your privacy and security concerns. Your partner in prevention, response and compliance, Philips Product Security provides online security resources, answers to security-related questions, and access to dedicated security professionals who can assist with your IT department's compliance efforts and risk assessments.

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