Evolution 2.0 Image Quality Enhancements

The IQ release for Evolution 2.0 focuses on General Imaging and WHC

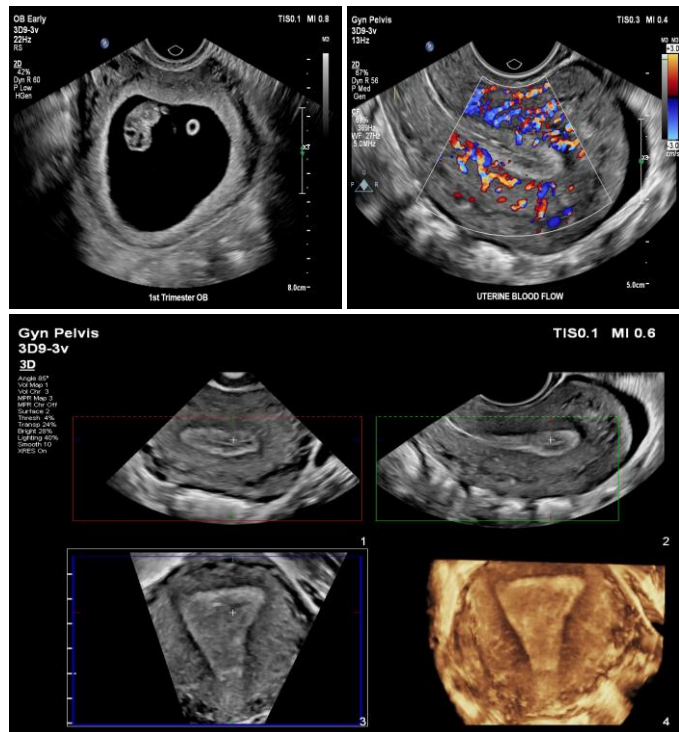### New Breast Imaging TSP's (L12-5, L18-5)

NEW

NEW Advanced Breast TSP's on L12-5 and L18-5 transducers

- Robust imaging default performance
- Increased detail resolution
- Better border delineation on normal and abnormal tissue
- Improved penetration and resolution after 3cm's
- Uniform gray presentation in fatty as well as dense breast tissue
- White levels are more controlled
- Improved color sensitivity and 2D Opt inheritance
- Evolution 1.0 Breast TSP remains available
- Harmonics is recommended for targeted scanning, not surveys

Enhancements to 3D9-3v GYN and OB Image Quality

- **On the 3D9-3v transducer,** image quality has been substantially improved on all GYN and OB TSP's

  - **Improved 2D resolution:** Image quality enhancements in 2D and 3D/4D MPRs, grayscale contrast, resolution, and harmonics

  - **Color/CPA**: 2D IQ behind Color/CPA is improved. Directional CPA defaults to "ON" in OB TSP. Improved Color/CPA sensitivity

  - **2D Opt Inheritance**: 3D9-3v behavior is consistent with Evolution 1.0

  - **AutoSCAN**: Defaults to "ON" in OB TSP

  - **Gray Maps:** Re-organized so that the user increases the map number, the gray increases and contrast is reduced

  - **Color 3D Volume view:** Defaults from Top view to Front view in GYN TSP

- **Note: Please re-evaluate and update custom TSP's based on these improvements**

Tips: Scanning with 3D9-3v TSP

- **OB Early:** Turn off XRES to increase gray levels for better visualization of the amnion.

- **OB Gen:** This TSP is optimized ≥30 weeks fetal imaging and for the cervix

- **GYN:** To reduce user steps, 3D ROI defaults to "OFF". Users still can create a quicksave TSP with 3D ROI "ON", if desired. **FYI: The main screen provides no indication the user is in 3D standby however the 3D Tab will be displayed on the touchscreen**

Tips: Scanning with C9-2 OB Gen

C9-2 OB Gen imaging also has new adjustments to address the high-resolution appearance of certain SonoCT settings:

- **When imaging soft tissue (kidney):** SonoCT HRes or SonoCT Res | DRS=R1, X1

- **When trying to enhance edges (spine):** SonoCT HRES or SonoCT Res| XRES "OFF", R1, X1

PHILIPS

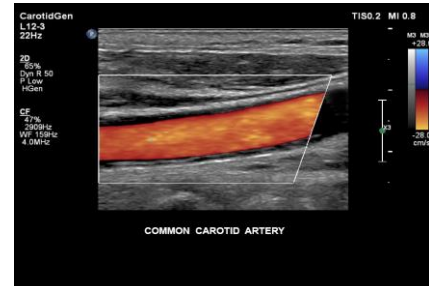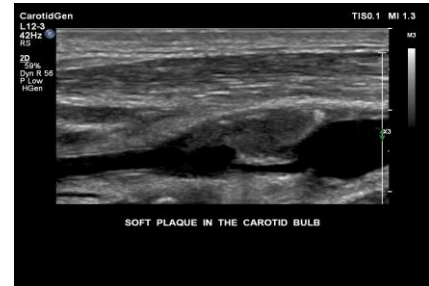# Evolution 2.0 Image Quality Enhancements

The IQ release for Evolution 2.0 focuses on General Imaging and WHC

Vascular Imaging Improvements on the L12-3

- Vascular imaging is significantly improved on the L12-3
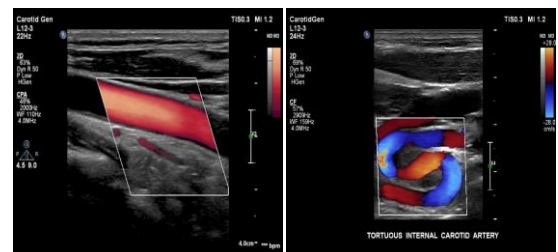
  NEW
  - **NEW Carotid Gen TSP (L12-3)**
    - Improved vessel penetration for a wider range of body habitus. Improved plaque visualization
    - **Grayscale:** Comparable penetration to iU22/iE33
    - **Color:** Improved Color penetration in Flow Opt Low; more sensitive Freq Opt settings
    - **CPA/DCPA:** Default scale lowered, sensitivity increased, DCPA turned OFF, image is brighter

  - **Improved Vasc Arterial** and **Vasc Venous TSP'**
    - Increased color penetration with excellent lumen filling, even in calf veins
    - **Grayscale:** Improved default performance AutoSCAN defaults to "ON"
    - **Color:** Default scale lowered, sensitivity increased. Vasc Arterial steering angle now defaults to left "-8"
    - **CPA/DCPA:** Default scale lowered, sensitivity increased, DCPA turned OFF, image is brighter

  - **Note: Please re-evaluate and update custom TSP's based on these improvements**

SOFT PLAQUE IN THE CAROTID BULB

COMMON CAROTID ARTERY

- **Evolution 1.0 Vasc Carotid TSP** remains available
  - **Grayscale:** 2D gain increased for brighter tissue
  - **Color, CPA/DCP:** Same settings as NEW Carotid Gen

Tips: Scanning with NEW Carotid Gen L12-3 TSP

- **Carotid Gen 2D HGEN RS:** Improved vessel penetration for a wider range of body habitus. Improved plaque visualization
- **Carotid Gen HPEN:** Deep "diving" vessels in especially difficult patients.
- **Vasc Carotid HGEN:** Cleaner lumen in easy-to-scan patients
- **AutoSCAN** is defaulted 'OFF' for Carotid imaging
- **NOTE: AutoSCAN is defaulted "ON" for Vasc Venous and Vasc Arterial**

TORTUOUS INTERNAL CAROTID ARTERY

Contrast-Enhanced Ultrasound Improvements

Low MI contrast imaging (C5-1) is enhanced in this release.

NEW
- **New General TSP** provides more distinct contrast bubbles, especially in the arterial phase. New CEUS gray maps added
  - Evolution 1.0 "Abd Gen" TSP remains available and is best for late-phase contrast imaging and subtle tissue differentiation
- General CPEN M2: Increased penetration
- General CGEN M2: Clearer wash in/wash out. Good for vascular phase
- General CRES M1: Good for last phase fill of parenchyma and small lesions (Similar appearance to Abd Gen TSP)

TIP: Prior to injection, ensure the 2D gain is pointed to the reference 2D image