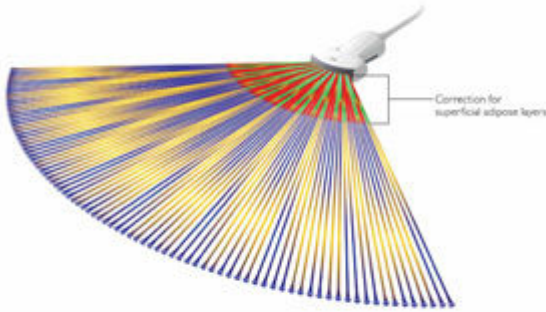


Tissue Aberration Correction

Improving image quality



Obesity has been reported as a significant cause of failed examinations in ultrasound due to inadequate diagnostic information. The speed of high frequency sound changes as it passes through different types of tissue such as adipose tissue (fat layers).

Traditionally, ultrasound manufacturers use an assumed rate of 1540 meters per second. Our research at Philips has found that sound travels slower through adipose tissue at a rate of 1450 meters per second.

Our new breakthrough tissue aberration correction technology:

Corrects for speed of sound changes through adipose tissue (1450 vs. 1540 m/s)

- › Reduces the effects of acoustic beam distortion
- › Sharpens spatial resolution
- › Improves tissue uniformity throughout the depth of view on obese patients

Philips key innovation is to develop a non-adaptive beamforming algorithm, therefore more robust to patient-to-patient variability and less user-dependent. Based on clinical observations, there isn't a need for fine tuning of the assumed adipose layer thickness. This in turn greatly simplifies the user experience.