

DermaLab Subcutaneous Probe



Subcutaneous Probe

The DermaLab Subcutaneous Probe provides non-invasive and reliable visualization of subcutaneous tissue by using ultra-high-frequency ultrasound (10 MHz). Its software enables accurate measurements of the skin's subcutaneous fat layer.

Technology

Ultrasonic skin imaging is based on the detection of the acoustic response from the tissue. When the emitted acoustic pulse hits the different structures of the skin, part of the pulse will be reflected, and part of the pulse will be transmitted further into the skin. The reflected signal is detected by an ultrasound transducer.

The cross-sectional image visualized on the screen represents the reflected signals from the tissue. The intensity of the received signal refers to a color scale, where the dark colors represent areas with low density and the bright colors represent areas with high density.

The special developed software algorithms calculate and display thickness of the subcutaneous tissue.

Benefits

- Easy assessment of subcutaneous fat thickness (subcutaneous adipose tissue)
- High measurement accuracy and reliability
- Easy to operate

Specifications

- Principle: Rotating single element transducer
- Frequency: 10 MHz focused ultrasound
- Resolutions: 120 μm x 920 μm (axial x lateral)
- Penetration: 40 mm
- Scan: Length: 45 mm / Footprint: 27 mm
- Gain range: Adjustable +/- 10 dB
- Read-out: Display of actual and stored measurements for subcutaneous fat level

APPLICATION

The third and deepest layer of the skin, the subcutaneous tissue, consists of fat and connective tissue. The thickness of the subcutaneous layer varies widely depending on anatomical site and an individual's overall body fat composition.

Measuring the subcutaneous tissue is a helpful tool in cosmetic applications, including cryolipolysis and other body-shaping treatments aimed at reducing subcutaneous fat.

Examples of fields of application with the Subcutaneous Probe:

- Cosmetic and aesthetic research, evaluating body-shaping treatments

Note: The probe is not a medical device and is not intended for medical purposes such as diagnosis or monitoring of skin disease.

The Subcutaneous Probe

Is one of 11 parameters available for the customizable skin analysis tools: The DermaLab Combo and the DermaLab Mini. This probe is also available as a single parameter.

To learn more about our solutions, visit cortex.dk



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