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Ultra-High Frequency Ultrasound

DUB CUTIS SKIN DIAGNOSTIC SPECIALIZED DEVICE

www.dubskinscanner.com

The DUB cutis - is a device for high-frequency ultrasound visualization, proven worldwide, allows to determine the size, depth and boundaries of pathological changes within the skin. It clearly examines the epidermis, dermis and hypodermis, as well as their structure. The DUB cutis is a complete skin examining station with a 22-28 MHz ultrasound probe, the video dermoscopy probe and the evaluation software.

High-frequency scans and special software allows for complete diagnosis of morphofunctional changes in the epidermis, dermis and hypodermis with high resolution. The uniqueness of the transducer system with a water chamber significantly improves the conduction of ultrasound waves and provides a significant increase in clarity and image quality of all skin layers.

dermatology, aesthetic medicine, oncology, plastic surgery, radiotherapy, brachytherapy, mammology, pediatrics, combustiology

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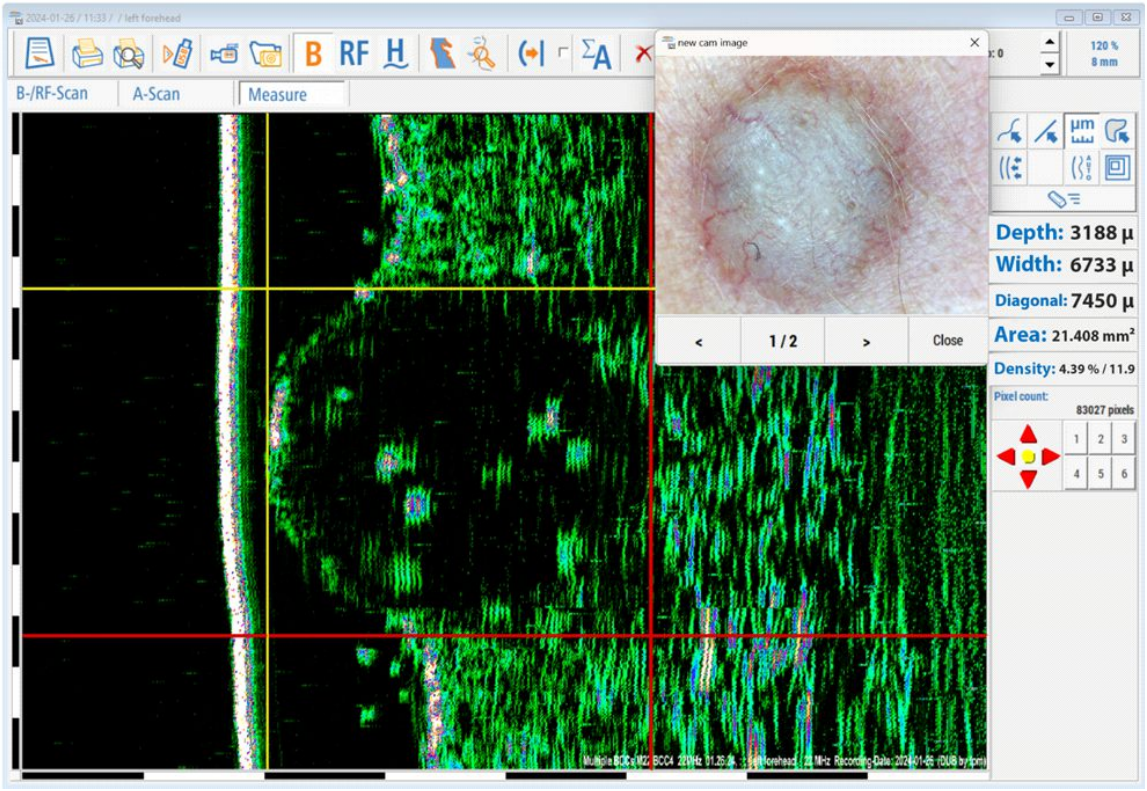
DUB cutis:

- Non-invasive assessment of skin morphofunctional parameters, comprehensive examination of the skin surface and depth with (videodermatoscopy and HFUS)
- Determination of the pathologic focus sizes, borders and depth spreading
- Differentiation of the pathological process type: inflammatory, proliferative, sclerotic and atrophic processes in the skin
- Determination of skin diseases type, stages and severity
- Objective diagnosis of complicated cases, also for expertise examination
- Differential diagnosis of skin tumors, depth and sizes inside the skin
- Evaluation of skin aging markers (age-related atrophy, dyskeratosis, wrinkles, UV damage)
- Visualization and differentiation of fillers type and location
- Diagnosis and differentiation of complications after filler injection
- Measurement of individual skin parameters and targeting of high-energy methods (Lasers, IPL, HIFU, RF) in aesthetic medicine

- **Portable device with a special suitcase.**
  It is easy and convenient for the doctor to perform the examination anywhere and anytime.

Software:



- Visualization and measurement of morphofunctional parameters of epidermis, dermis, subcutaneous fatty tissue, superficial soft tissues
- Video dermoscopy
- Picture-in-picture display for simultaneous viewing of ultrasound image and videodermoscopy images
- Preset study protocols and custom protocol programming, report generation with the ability to add images and comments
- Import of dermoscopy images and photographs
- Image registration and archiving system: image archiving to external media via USB port, image export to JPEG, TIFF, BMP, patient archive
- Max. number of frames in a scan loop: 20
- Measurements of linear dimensions, area, curved lines length, perimeter, acoustic density

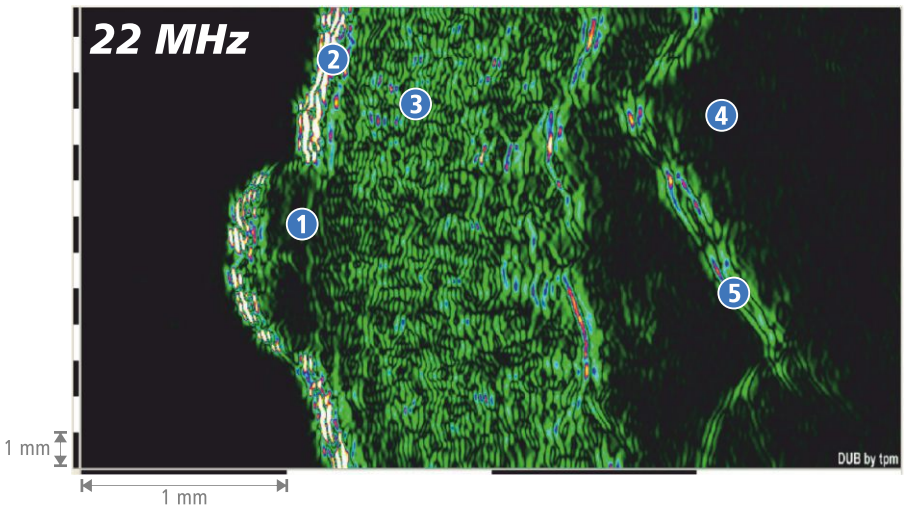
ULTRASOUND EXAMINATION AND DETERMINATION OF SKIN MORPHOFUNCTIONAL PARAMETERS WITH THE HELP OF DUB CUTIS

High-frequency ultrasound skin scanning with DUB Cutis in normal and pathology skin conditions provides information about the skin internal microstructure - epidermis, dermis and hypodermis.

With the help of high-frequency ultrasound, the doctor gets a complete picture of the skin internal state. An accessible and clear assessment of the changes occurring in the pathological focus, which is not available with conventional examination and dermoscopy, which greatly expands the possibilities for diagnosis.

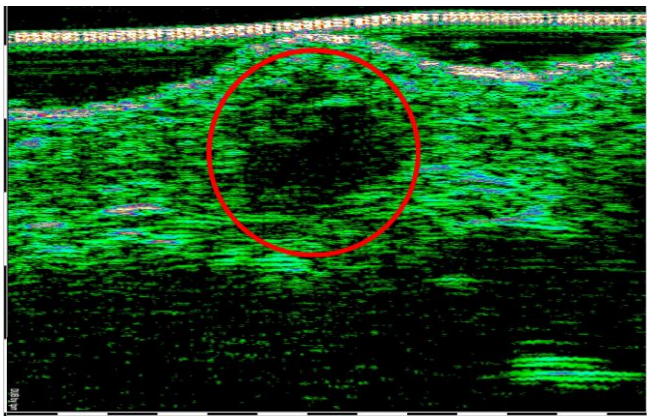
High-frequency skin scans are comparable to a histological image and its description. It is easy interpreted and understandable for dermatologists, aesthetic doctors, oncologists, plastic surgeons and other specialists involved in the diagnosis and treatment of skin lesions. Those who know the skin structure in normal state and pathology, its morphological characteristic changes. Clear and convenient visualization of scans is familiar for dermatologists, as it corresponds to histological descriptions of various skin diseases.

1. Naevus
2. Epidermis
3. Dermis
4. Subcutaneous Fat
5. Subcutaneous Tissue

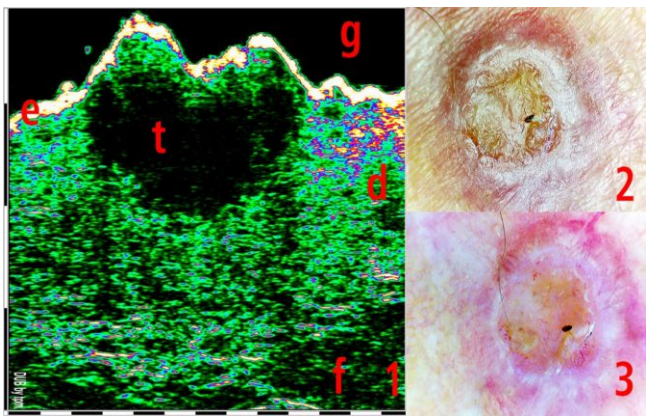


Fields of application:

- Study of the normal skin structure, scalp and nails
- Study of aging echographic signs
- Targeted evaluation of primary and secondary rash elements of skin diseases in order to clarify the diagnosis and the disease clinical form
- Obtaining a visual picture of the skin internal state for differential disease diagnostics, as different pathological changes are characterized by ultrasound signs
- Evaluation of stages, clinical forms and dynamics of the disease development
- Determination of the pharmacotherapy effects, external therapy and physiotherapeutic methods of skin treatment in dermatology, oncology, aesthetic medicine and plastic surgery
- Rapid and accurate assessment of the structure, borders, shape, depth and location of neoplasm invasion in the epidermis, thickness of the dermis and subcutaneous tissue
- Identification of the skin neoplasms clinical form and stage
- Selecting the optimal site for targeted biopsy
- Determining the volume of the tumor and surrounding tissue to be removed
- Investigation of tumor metastases in the skin and subcutaneous tissue



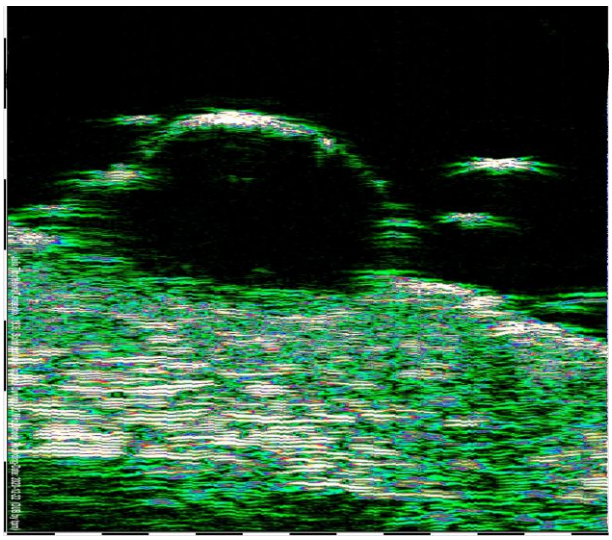
Granuloma in the dermis after hyaluronic acid injection



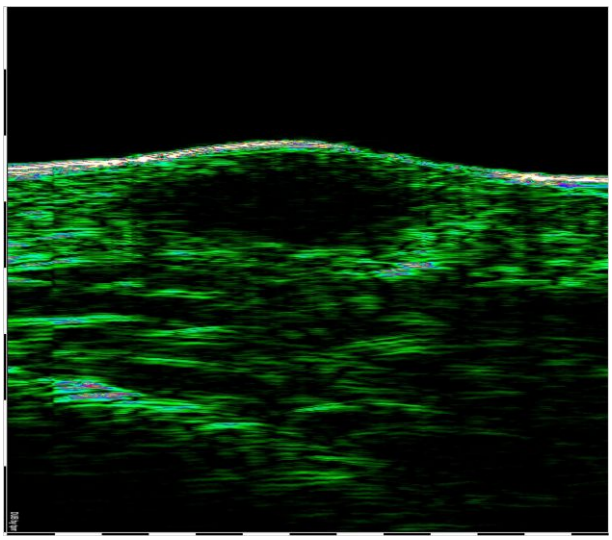
Basel cell carcinoma

Fields of application:

- Monitoring the completeness of skin tumor removal to prevent relapse
- Evaluation of long time results after tumor removal
- Monitoring of reparative processes after treatment, necessary for early detection of recurrences
- Adequate treatment method selection, taking into account morphologic changes (including non-pigmented tumors)
- Selection of location, intensity and exposure duration high-energy methods (HIFU, lasers, radiation therapy, radiotherapy, FTD, brachytherapy, electrosurgery, cryotherapy)
- Detection of foreign bodies in the skin
- Preliminary assessment of skin condition and anatomical features before injecting fillers
- Identification of previously injected fillers
- Control of filler location, possible migration and identification of complications
- Precise determination of the target tissue depth (papillary dermis, reticular dermis, hypodermis, SMAS)
- Assessment of the effectiveness and results of therapeutic, surgical, physiotherapeutic methods of treatment, aesthetic procedures



Duhring's dermatitis subepidermal bulla



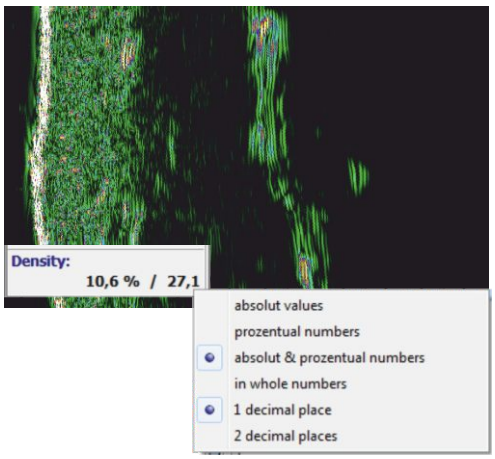
Lymphangioma front tibial area

Conclusion

The method of high-frequency ultrasound skin visualization has a number of advantages, such as:
reliability, high accuracy of measurements, non-invasiveness, painlessness and a safe possibility of repetitive examinations

DUB cutis:

A cost-effective device ideal for practicing doctors. The DUB®cutis fulfills all requirements for German health insurance.



Key features

- Max. axial resolution: 57 µm at 28 MHz
- Max. digitizing depth: 8 mm
- Scan width: 12.8 mm linear (33 µm step width)
- Medical CE and FDA 510K
- Connection: USB 2.0 or USB 3.0
- DUB SkinScanner software for Windows operating systems
- Viewing modes: B-Scan, A-Scan, Sum-A, ScanLoop (20)
- 2 color scales
- Measurement: length, area, density, width, depth
- Automatic skin thickness
- Automatic skin density
- Personalizable: e.g. clinic or doctor's name

Digital Dermatoscope

Technical Specifications - Main Unit

Dimensions	125 x 185 x 74 mm
Weight	0.8 kg
Power supply	90 - 264 V AC
Sampling rate	100 MHz
Lateral step width	33 µm
PC connection	USB 2.0/3.0 High Speed

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ISO13485 certified

www.dubskinscanner.com

MEDICAL APPROVED

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