

OPTICAL COHERENCE TOMOGRAPHY

# Exceptional insight

SKINTELL | in-depth, non-invasive dermatological solution



From outside, exceptional

# insight

inside

SKINTELL from Agfa HealthCare enables you to image the morphology of your patients' skin. The examination, allowing you to measure dimensions in skin layers, is performed non-invasively: so, you get the exceptional insight of a biopsy, to 1 mm in depth – but in real-time and without discomfort for your patient.

#### Insight doesn't have to be invasive

The faster you arrive at the right diagnosis, the better. And Agfa HealthCare's SKINTELL helps you do that. In real-time, you get an exceptional view into the skin of your patient – fast and accurate, without invasive exploration and thus with more comfort for the patient. The examination goes quickly and, as it is free of radiation, it's totally safe.

#### Refine your dermatological exam

Complementing current dermatological examinations, SKINTELL combines the advantages of all of today's methods: it provides the subcutaneous view that dermatoscopy cannot offer, goes deeper than confocal microscopy, and allows you to zoom in – in 3D – to a region of interest, obtained via ultrasound. You can use a positioning tool to position the appliance precisely, so that the image is always in the centre.\*

#### SKINTELL: insight into 3 levels

How does SKINTELL differ from current examination methods? With confocal microscopy, you examine to the cellular level; ultrasound is suitable for examining the dermis. SKINTELL's unique technology gives you views into three different layers: the epidermis, the dermo-epidermal connecting layer, and a portion of the papillary dermis.

#### SKINTELL reveals what the skin conceals

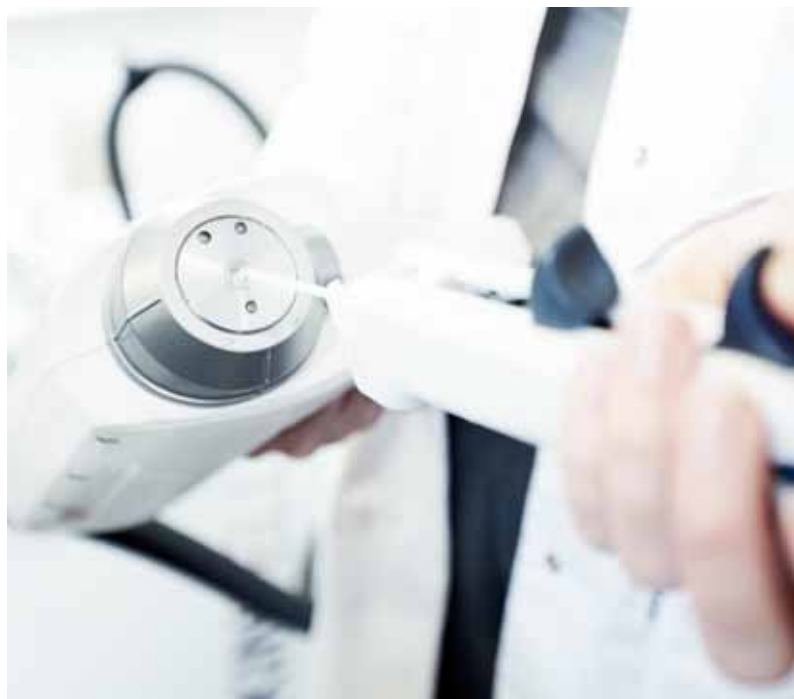
**Skin:** developed for dermatological applications, in hospitals or private practice, SKINTELL enables you to examine the skin non-invasively.

**Tell:** SKINTELL makes what is under the skin visible, in detail and in-depth.

**Intelligence:** intelligence and knowledge lie under the skin. To find out what the skin is hiding, you can rely on the patented technology from Agfa HealthCare, a world leader in imaging solutions.



Faster and totally safe: with SKINTELL, the exam is as comfortable as possible for your patients.



Now, you can see what your patient's skin is concealing without invasive examination.

# Each layer of skin imaged in detail

Agfa HealthCare's SKINTELL offers you a non-invasive method for examining the skin's morphology – providing you with information that only biopsy has been able to bring to light until now. Moreover, the appliance enables you to measure dimensions in several different skin layers.

## Deep and detailed

SKINTELL is the ideal technology, combining the detailed image of confocal microscopy and the architectural image of ultrasound. The resolution of the images approximates that obtained by histological exam.

## With SKINTELL, you can examine the skin in 3 ways

**Slice:** you obtain a perspective similar to that of traditional histology and ultrasound exams (in 2D). Thanks to the 3  $\mu\text{m}$  optical resolution, the images are highly detailed for the observation of skin cells as well as for inflammatory cells.

**En face:** in real-time, you view the skin from a bird's-eye view – in other words, parallel with the surface.

**High speed 3D:** the images do not move and can be recorded to the exact micrometer. It takes barely 1 second to make a 1 GB 3D-image.

This allows you to easily record the slice with associated en face images and examine them in reverse order.

## SKINTELL in detail

- Usage: imaging human skin (without open wounds)
- Technology: infrared (1300 nm)
- Depth: to 1 mm
- Surface: 1.8 x 1.5 mm
- Optical resolution: to 3  $\mu\text{m}$
- Size of skin cells: 10-20  $\mu\text{m}$



Software: simple, user-friendly and intuitive user interface with database for archiving patient information and calling up images quickly (possibility to compile reports)

Cart: easy to move around in private practice or hospital use (can be brought to the patient)



Probe: you can examine the skin (and suspicious spots) with this hand-held tool



Foot switch: captures images while you continue to operate the appliance optimally



Gel: optimal operation with the use of a minimal dose of gel



Dispenser: for applying the gel to the probe quickly and easily

# For a comfortable way of working

You perform a complete exam from a single location. You examine the skin with the probe, view the result in real-time on the PC screen, and consult the patient's digital archive on the spot. In just 5 minutes, you have vital information for your diagnosis.

## Cosmetics and pharmaceuticals

Dermatologists and their patients are not the only ones who can benefit from SKINTELL. The appliance provides answers in cosmetic and pharmaceutical applications as well. Beauty and care institutes obtain a better image of their clients for:

- anti-aging treatments
- measurement of wrinkles

## A diagnosis in 4 steps:

- 1. Locate the area of skin to be examined:** you can use a positioning tool to study the spot with utmost precision.
- 2. Scan with SKINTELL:** the probe lets you work with great dexterity.
- 3. Make a virtual biopsy:** you obtain insight into the various skin layers without invasive examinations.
- 4. Make your diagnosis:** because the exam is performed in real-time, you can make your diagnosis immediately at your PC.



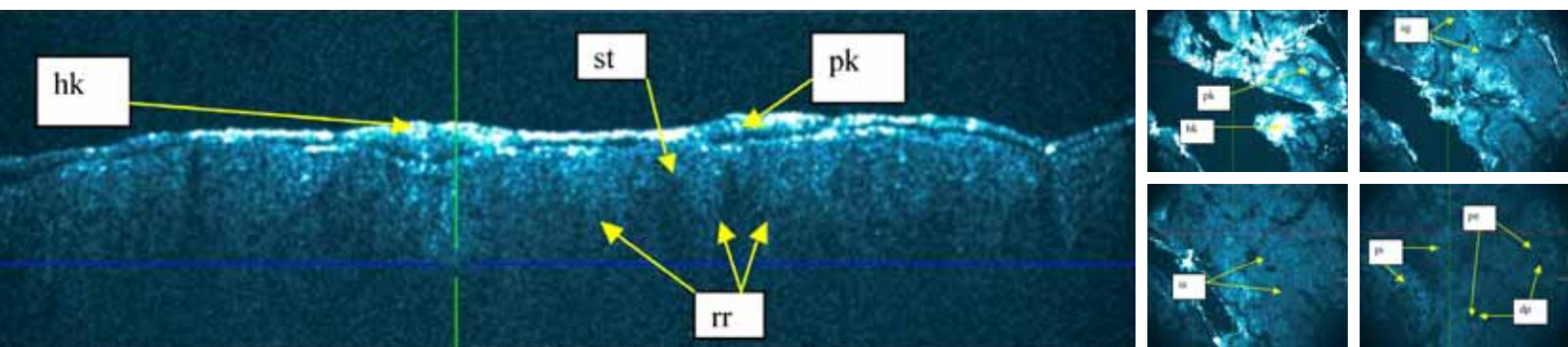


SKINTELL is focused entirely on comfort, for both you and your patients.

Now, you can see what your patient's skin is concealing without invasive examination.

# In practice

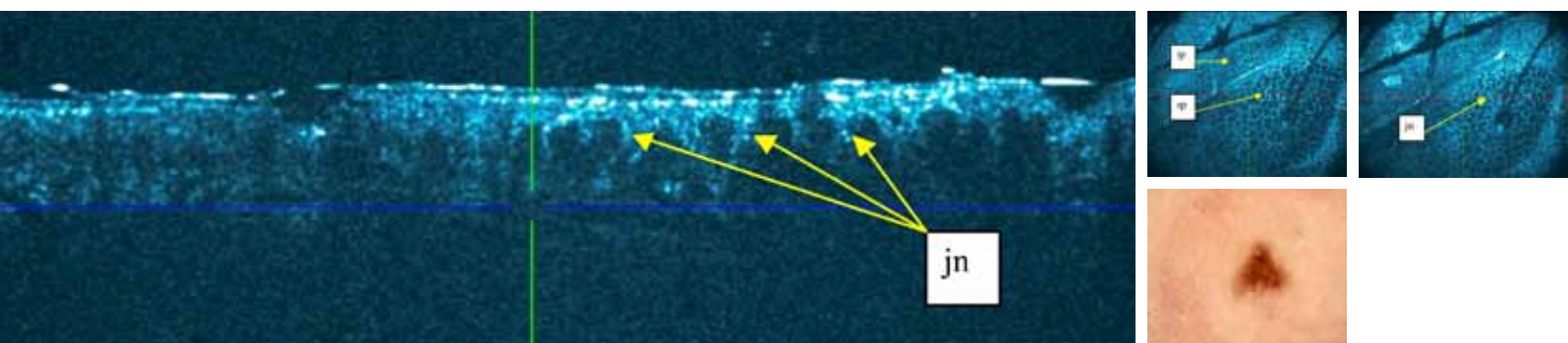
## Plaque psoriasis



Hyperkeratosis (hk) is pronounced. The back-scattering from the thickened horny layer becomes higher than from cellular layers. The strong entrance signal is composed of several parallel layers due to regional parakeratosis (pk). Parakeratosis is observed as a poorly back-scattering region that corresponds to poorly differentiated cells at the background of mature highly back-scattering keratinocytes. The epidermal thickness is increased due to acanthosis. The epidermis is thick as a result of the more regular elongation and broadening of the rete ridges (rr). Between these enlarged rete ridges, the dermal papillae (dp) are swollen by oedema (pe). The dermis over these club-like papillae is very thin suprapapillary thinning (st). Less defined DEJ due to psoriasiform papillomatosis. The back-scattering in papillary dermis is lower than in healthy skin suggesting significant oedema (de). Dilated blood vessels (db) are visible surrounded by pronounced perivascular inflammatory infiltrate (pi).

sg = stratum granulosum, ss = stratum spinosum

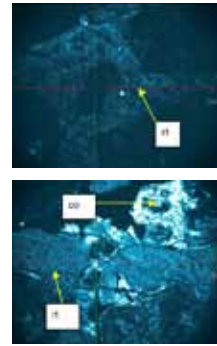
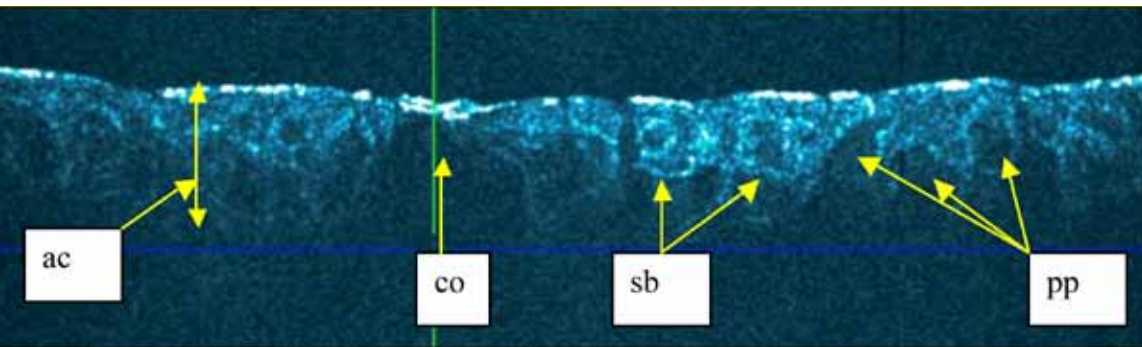
## Benign melanocytic nevus



At the dermo-epidermal junction.  
Ringed papillae (rp). Edged papillary contours (ep). Junctional nests of melanocytic cells (jn).

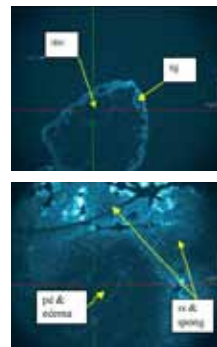
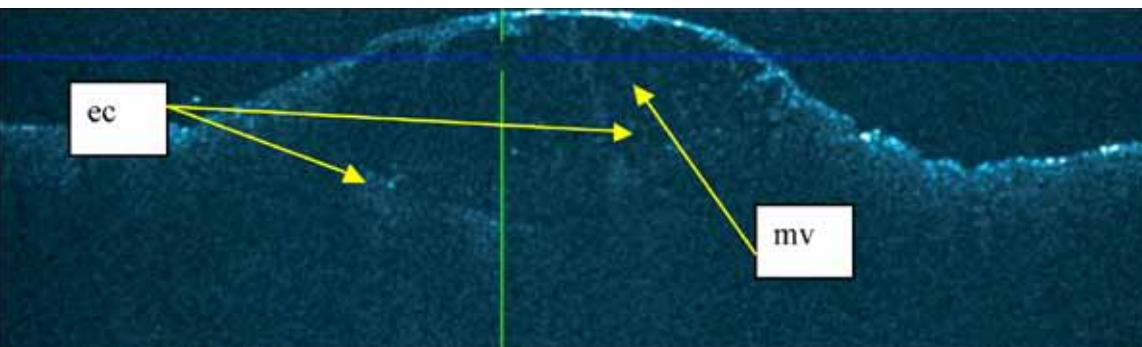


## Seborrheic keratosis



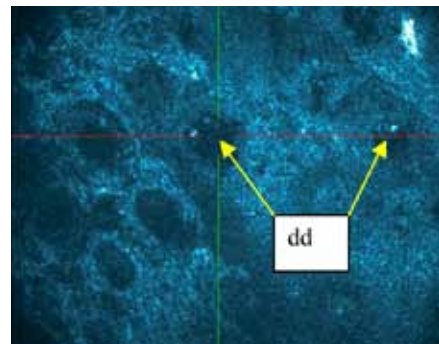
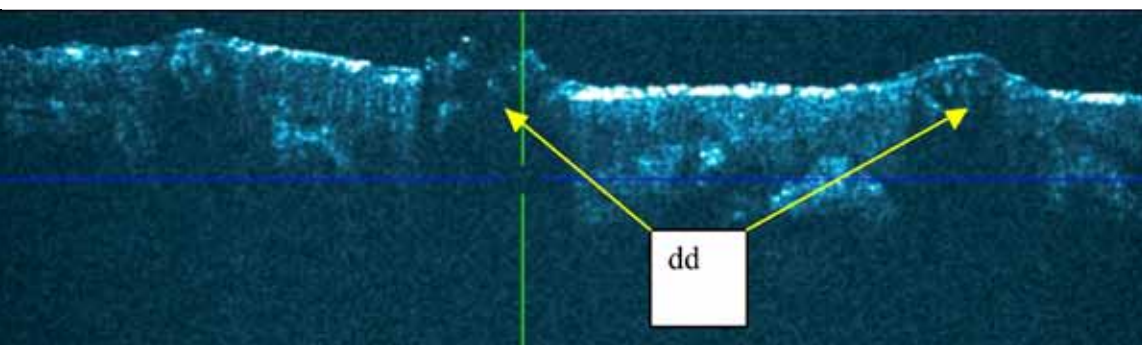
Benign squamoid or basaloid proliferation.  
There is hyperkeratosis, acanthosis (ac) and papillomatosis (pp).  
The basal layer is hyperpigmented (sb).  
Polycyclic papillary contours (reticulation, rt). Enlarged interpapillary spaces with edged papillae.  
Pseudofollicular (comedone-like) openings (co).

## Acute spongiotic dermatitis



Intra-epidermal microvesicles (mv). Intercellular oedema (spongiosis) in stratum spinosum (ss & spong). Inflammatory oedema in papillary dermis (pd). Exocytosis (ec). Stratum granulosum (sg). Perivascular inflammation (pi) with cellular infiltrate (ci).

## Demodex and rosacea



Demodex (dd) infestation in the follicles of a patient suffering from rosacea.

# Judge the advantages yourself

Naturally, you are intent on having your patients experience as little discomfort as possible during an exam. Especially when you yourself can work quickly and precisely. What advantages matter most to you? You be the judge.

## You work with great accuracy

SKINTELL provides you with an accurate instrument in making your diagnosis. The in-depth and detailed imaging, in each of the 3 modes – slice, en face, and high speed 3D – guarantees exceptional insight.

## You work quickly

With SKINTELL, you have an extremely user-friendly technology in your hands. It provides you with real-time information, plus – thanks to the database and the archiving feature – you also see the patient's history. So your workflow runs more quickly and easily.

## You work with constant attention to your patients

The highly accessible, user-friendly SKINTELL technology offers two important advantages for the patient: first of all, the non-invasive examination is painless; and in addition, you can inform the patient more quickly thanks to the real-time images. Two advantages that can convince people to have an exam sooner.



Now, you can see what your patient's skin is concealing without invasive examination.

## Why AGFA?

Agfa HealthCare is a global leader in the fast growing market of integrated IT and imaging systems, offering healthcare facilities a seamless flow of information and a 360° view of patient care. The company has a unique, holistic approach, enabling it to provide in-depth clinical know-how and fully integrated hospital-wide solutions. These specialized solutions integrate IT and imaging systems for Radiology, Cardiology, Mammography and Orthopaedics.

With SKINTELL, Agfa HealthCare has developed a new product for Optical Coherence Tomography. Thanks to in-depth, non-invasive dermatological examination, SKINTELL displays the skin's morphology in real-time.

**[www.agfa.com/healthcare](http://www.agfa.com/healthcare)**

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