

Measure what can't be seen

Objective risk assessment
in melanoma detection

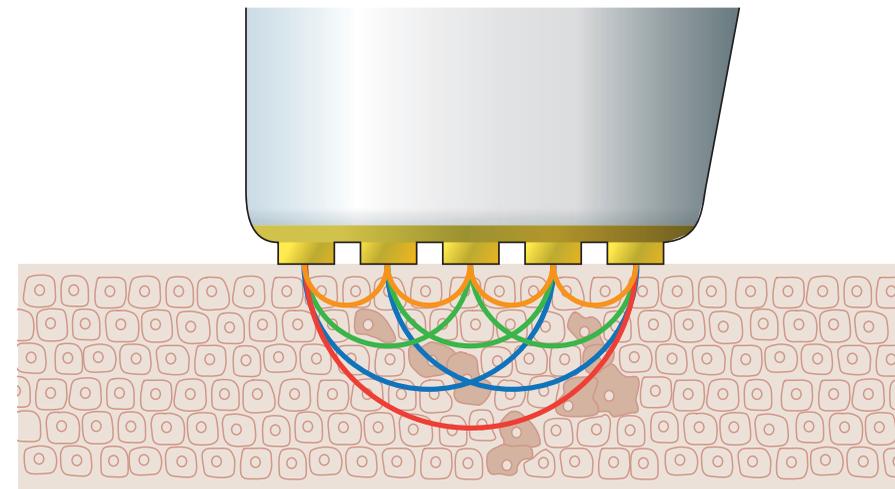


NEVISENSE™

by SCIBASE



Measure the unseen signs of melanoma



Nevisense is an objective risk assessment device for lesions where malignant melanoma is suspected. It provides additional information before making a decision on whether or not to excise.

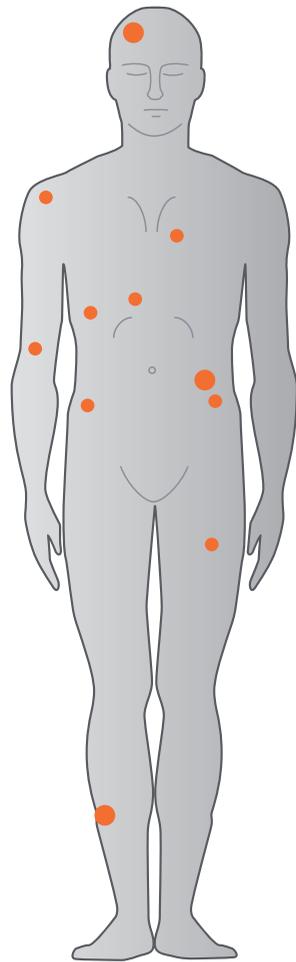
Nevisense uses a technique known as Electrical Impedance Spectroscopy (EIS). EIS uses harmless electrical signals to measure the electrical impedance of the skin at different frequencies.

Tissue affected by melanoma will have a different impedance compared to healthy tissue. A risk score is determined by analyzing the lesion and comparing it to a healthy skin reference.

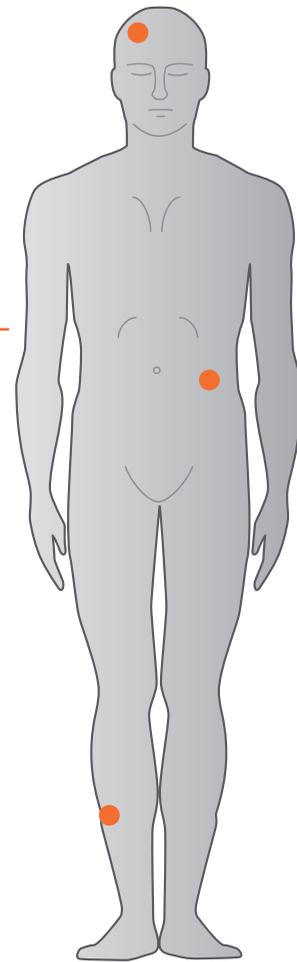
A score of 0-3 strongly indicates a benign lesion, and a score of 4-10 represents the degree of atypia in the tissue indicating the risk of melanoma.

Visual examination of lesions

Many lesions can directly be classified through a combination of patient anamnesis and visual examination, with or without dermoscopy. When it is more challenging to evaluate a lesion, the lesion is often excised due to lack of adequate information.



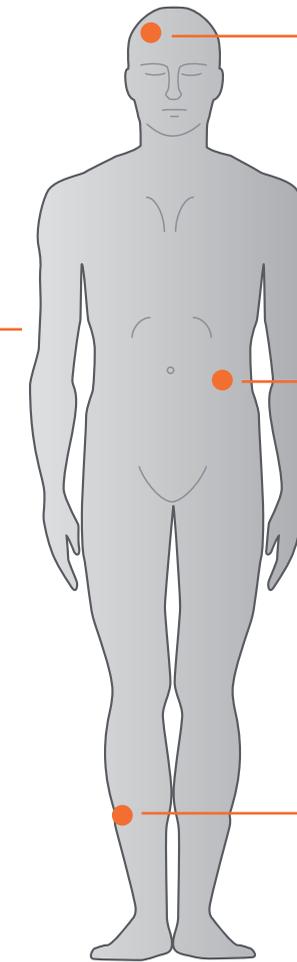
Obviously benign lesions and advanced melanomas are easily identified by visual examination.



Lesions that are more challenging to evaluate are typically removed.

Add Nevisense for improved clinical decisions

Adding Nevisense helps physicians decide how to manage these challenging lesions. By providing a risk score, complementing the visual examination, Nevisense allows a more informed decision to be made.



Leave more benign lesions

A potential 34% reduction in unnecessary excisions leads to reduced costs, time and patient anxiety.

Follow suspicious lesions

With Nevisense View physicians can accurately monitor and assess suspicious lesions over time using a digital dermoscopy function.

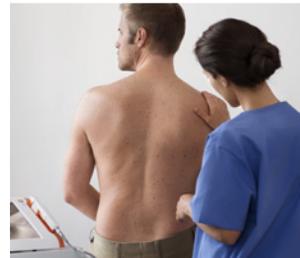
Confirm necessary excisions

Nevisense can identify malignant melanoma with 97% sensitivity.

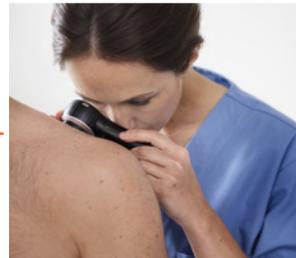
Use Nevisense to obtain more information and decide on the best course of action.

A step-by-step approach to improve patient care

Most often, truly benign lesions and advanced melanomas can be confidently identified. For more challenging cases, such as borderline and non-typical lesions, additional information may be required. Nevisense provides additional objective information that can guide the physician in making a decision whether or not to excise. The Nevisense EIS procedure is a complement to visual examination.



Visual Inspection



Dermoscopy

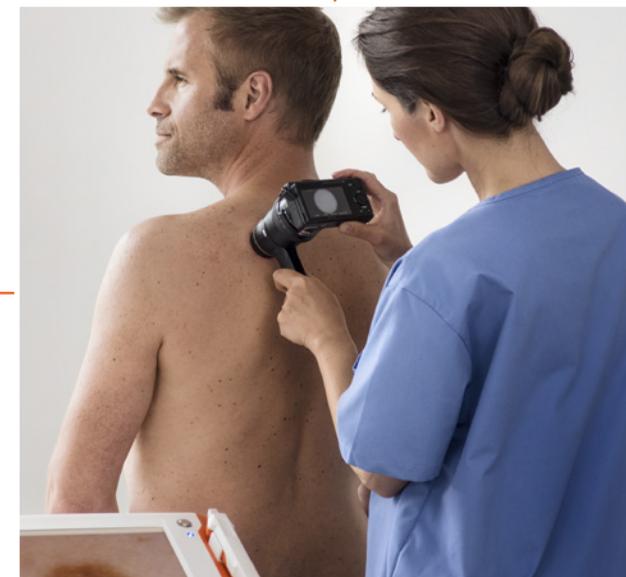
Need more information after visual examination?

97% sensitivity for malignant melanoma 34% fewer unnecessary excisions



NEVISENSE – RISK ASSESSMENT FOR MELANOMA

The EIS evaluation is used for risk assessment, together with patient history and visual examination. Nevisense provides an objective analysis indicating the probability of malignancy based on extensive clinical study data. The physician combines the visual evaluation with the added EIS analysis to make a clinical decision.



NEVISENSE VIEW – RISK ASSESSMENT AND DIGITAL DERMOSCOPY

Nevisense View is designed to support physicians in the diagnostic process by providing full documentation of lesions. It combines EIS with clinical and dermoscopic images in one solution.

Clinical and dermoscopic images are transferred from a camera and stored together with the EIS score. Lesions may be followed up over time using both EIS and images. Split-screen functionality allows for easy comparison of images.

Safe and easy procedure

HOW TO MEASURE

Nevisense is safe and easy to use. To evaluate the lesion's degree of atypia, measurements are performed on a reference area close to the lesion as well as on the lesion. The procedure is quick, and the results are displayed within seconds.



Reference measurement

Perform a reference measurement close to the lesion.

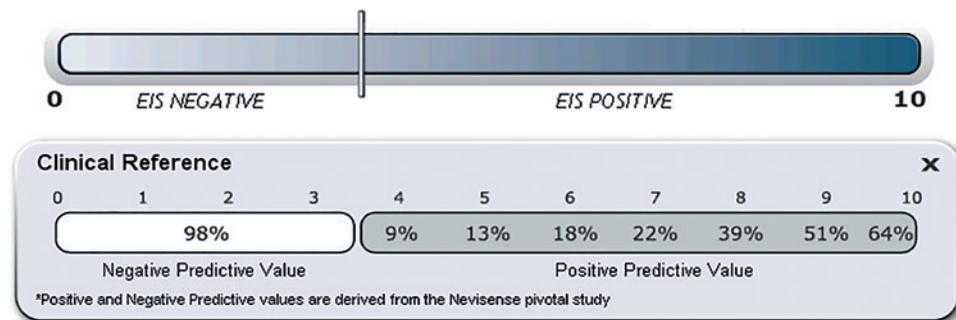


Lesion measurement

Repeat the measurement procedure on the lesion to be examined.

Reading the EIS score

The EIS score reflects the lesion's degree of atypia and indicates the risk of malignancy.



The science behind EIS

The electrical properties of skin tissues vary under different medical conditions. Normal and non-typical tissue differ, for example, when it comes to cell size, shape, orientation, compactness and structure of cell membranes. All of these differences influence the ability of the cell to conduct and store electricity.

By applying a harmless electrical signal through a skin lesion, EIS can analyze these types of changes to identify a condition such as malignant melanoma.

To cover the lesion in both width and depth, the measurement is performed at 35 frequencies and at four depth settings over the lesion in a total of 10 permutations.

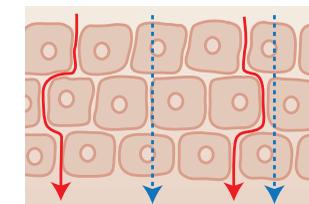
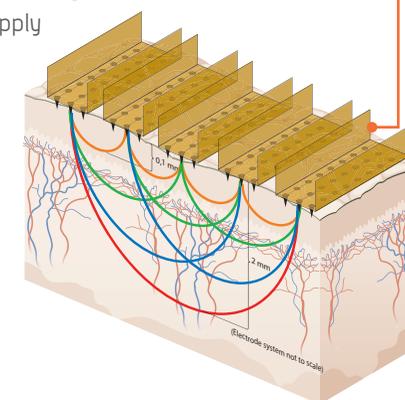
The frequencies used by Nevisense (1 kHz – 2.5 MHz) relate to clinically relevant properties, such as composition of intra- and extracellular environments, cell shape and size, and cell membrane composition, all of which are similar to those used by histopathologists to diagnose skin cancer.

Nevisense's advanced algorithm is used to classify the lesion based on measurement data from both the lesion and a reference. The output, shown as a score, reflects the degree of atypia identified and the risk that a lesion is melanoma. Both the classifier and method of analysis have been developed in several iterations with data from multiple clinical studies.

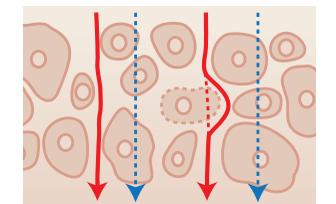


Detecting structural changes

EIS measurements apply electrical signals of various frequencies to detect changes in both the intra- and extracellular environments.



Normal tissue



Abnormal tissue

- Low frequencies**
Primarily reflect the extracellular environment.
- - - High frequencies**
Reflect both the intra- and extracellular environments.

World's largest study in melanoma detection

Published 2014*

22 sites in Europe and US
1,951 patients
2,416 lesions
265 melanomas

34%
REDUCTION IN
UNNECESSARY
EXCISION OF
BENIGN LESIONS

97%
SENSITIVITY
FOR MALIGNANT
MELANOMA



Conclusion:
"Nevisense is an accurate and safe device to support clinicians in the detection of cutaneous melanoma."

* Clinical performance of the Nevisense system in cutaneous melanoma detection: an international, multicentre, prospective and blinded clinical trial on efficacy and safety. Malvehy J, Hauschild A, Curiel-Lewandrowski C, et al. British Journal of Dermatology. Volume 171, Issue 5, November 2014, Pages 1099-1107

Nevisense product range

NEVISENSE

The lightweight, portable Nevisense can be conveniently placed anywhere in the clinic. The EIS measurement procedure is fast and simple, integrating easily into the physician's current workflow.



NEVISENSE VIEW

Nevisense View enables connection with digital dermoscopes and cameras using Wifi or USB. It integrates clinical dermoscopic images with patient information and EIS measurements, resulting in a single report.

NEVIFILE

Nevifile is a software solution for workstations where patient data from Nevisense can be stored and reviewed. From the patient archive reports can be created that combine body-mapped lesions, dermoscopy images and the EIS scores. This provides a full overview for easy documentation, workflow and decision support.



Are you getting all the
clinical information
you need?

To learn more,
visit scibase.com

About Scibase

Founded in 1998, SciBase is a Swedish medical technology company that has developed a unique clinical support tool for accurate detection of malignant melanoma. Following 20 years of academic research at Karolinska Institutet Stockholm, the ability of the Nevisense point-of-care device to accurately detect melanoma is proven in the world's largest prospective study of its kind.

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