

# SKINFIBROMETER

UNIQUE INDENTATION INSTRUMENT  
FOR TISSUE INDURATION MEASUREMENTS

## PRODUCT BENEFITS

- † Fully portable indentation instrument
- † Measures induration of skin and upper subcutis
- † Fast and sensitive measurement
- † Does not alter skin structure
- † Battery operated
- † Wireless data collection with DMC in software



## APPLICATION AREAS

- † Biomechanical properties of tissues
- † Assessment of skin and subcutaneous induration
- † Edematous conditions
- † Skin research studies and clinical trials
- † Medical applications
- † Personal care industries

## SKIN AND SUBCUTANEOUS INDURATION

Measuring tissue induration has been challenging with conventional devices that alter the measured tissue structure. To eliminate this and to introduce a quick and practical induration measurement, Delfin has developed the new portable SkinFibroMeter.

The SkinFibroMeter utilizes an indenter that is briefly pressed on the skin. The skin and especially the subcutaneous tissue resist the change in shape to external force of the indenter. The skin response under a short-term load indicates tissue induration properties.

## SKINFIBROMETER INSTRUMENTATION AND MEASUREMENT PRINCIPLE

The SkinFibroMeter consists of a 1 mm length indenter, a reference plate and related built-in force sensors. The device is briefly pressed against the skin and the contact

pressure is registered. The indenter imposes a constant deformation when the reference plate is in full contact with the skin. The skin and the underlying upper subcutis resist the deformation and the induration value in Newtons (N) is determined.

The measurement principle is based on the analysis of the biomechanical response of the skin and subcutaneous tissue to external force. The response is mathematically modeled using 3D computational FE (Finite Element) analysis. The SkinFibroMeter may be used either as a stand-alone device or measurement data may be collected wirelessly to the DMC software.

The DMC software allows users to set up individual projects, store and view measurement data and plot the results or export them to other programs for editing.



## INDURATION MEASUREMENT



*SkinFibroMeter measures force (N) against indurated subcutis*

DELFIN INSTRUMENTS ARE USED  
WORLDWIDE IN OVER 40 COUNTRIES  
ON 6 CONTINENTS



*Manufactured and Marketed by*



### HEAD OFFICE

Delfin Technologies Ltd  
P.O. Box 1199  
70211 Kuopio, FINLAND  
tel. +358 50 911 1199  
info@delfintech.com