

Expert opinion about the HEINE® iC 1 Dermatoscope

Mobile phone case and attaching the iC1:

The mobile phone case can be attached effortlessly and without any difficulty. Without the iC 1, all buttons can be easily reached and operated. Even after repeated attaching and detaching of the mobile phone case, there are no visible signs of changes in the material, which is an indication for the good processing and the durability of the product.

At first, the iC 1 stands out by its low weight compared to its size. The holders on the mobile phone case easily fit into the openings of the iC 1 housing and lock into place with a hearable click after applying light pressure. Now there is no clearance between the iC 1 and the mobile phone case. By pressing a button on the case, the iC 1 can also be easily detached; without pressing the button it can only be detached with excessive force (unwanted detaching is unlikely).

On the opposite site of the slide control (ON/OFF switch of the light source) there is a round push button on the top and the bottom with the same function (to toggle between polarised and non-polarised view). This design allows the device to be operated with the right hand and the left hand. Within the HEINE iC 1 App the release button can be moved on the screen to different positions in order to further facilitate the operation.

Altogether, the adapted dermatoscope lies securely in your hand, no matter whether you use it with the right or the left hand, or with both hands. One of the reasons for this is surely the low weight and the robust, mechanical mounting mechanism between mobile phone case and iC 1.

Functions:

As already mentioned, it is possible to choose between two different illumination modes. Once the device is switched on, you are automatically in the polarised mode. By pushing one of the round buttons on the side of the device once, you can change to the non-polarised mode. In order to minimise the light beams reflected from the skin, a contact fluid has to be applied between the glass plate and the skin surface. In both modes, the skin visible on the screen is displayed sharply from edge to edge, without any shadows. Due to the high resolution of the integrated camera, every documented skin change can be digitally magnified and viewed in detail at a later point in time. Altogether, all dermatoscopic features of flat skin changes are displayed well and in realistic colours. In addition, a white balance setting can be done with the HEINE iC 1 App.

Due to the fixed glass plate and thus the pressure applied by the examiner to the skin change, vessels might be squeezed unwittingly and might therefore not be seen by the examiner. Additional accessories would be helpful here, such as a polarisation filter without glass plate for seeing vessels. An attachment without glass plate and without polarisation filter for taking a detailed image of a clinical picture is already available. Additionally, manual focussing would be desirable for raised skin changes.

HEINE iC1 App:

It may take several seconds to start the App until all picture data has been loaded. The user interface is very well structured and self-explaining. Adding new patients and selecting already administered patients is quite easy and so is allocating the documented skin change to the respective body region. Subsequently, the photos can be forwarded via e-mail if required, to get a second opinion for example. This is the great strength of the device: digital recording and immediate mapping or documentation of all skin changes. Unfortunately, a direct comparison in the course of documented skin changes is not possible at present. This is where I see the main limitation of this otherwise robust, digital dermatoscope which can be used for a wide range of applications. Due to its size and low weight it fits easily in any pocket, and in combination with a high quality mobile phone it utilises the advantages of modern telemedicine.

*Univ. Prof. Dr. Harald Kittler
Dr. Christoph Sinz
Vienna, Austria*



Dr. Christoph Sinz