

Capillary return test

The **capillary return test** is a diagnostic aid for distinguishing the uncertain depth of burn damage to the skin.

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Qualified determination of the depth of the disability is important information from the point of view of surgical procedures and is indicative of the expected length of morbidity and possibly mortality. According to the more recent international classification, which takes into account the surgical approach, the division into superficial and deep involvement is simplified.

- By **superficial** we mean partial damage to the skin, where hair follicles, sweat and sebaceous glands are preserved, from which spontaneous epithelization can then occur. (So they are I and IIa degree burns).
- **Deep** damage means loss of skin almost or in its entire thickness, possibly with loss of subcutaneous fat layer, muscle and sometimes bone. For larger lesions, deep lesions are treated with necroctomy and skin transplantation, smaller ones can be closed with excision and direct suture.

A diagnostic aid for distinguishing uncertain depth of involvement is the so-called **capillary return test**:

- superficial red areas that turn pale under the pressure of a fingertip (in a sterile glove) and after it is removed, bleed again within 1-2 seconds, have a preserved functional capillary bed and are therefore superficial.
- red areas without a positive capillary return test have microcirculation closed by microthrombosis, which means the dysfunction of the capillary bed in the papillary layer of the coria, and the affected area will undergo necrosis in the subsequent period. It is therefore classified as a deep burn.

Tactile Sensation Test

Another diagnostic aid is the so-called **tactile sensation test**. With the tip of a sterile needle or tweezers, we lightly touch the examined area and if the patient perceives the touch as sharp, sensation is preserved and the area is superficial. If he perceives the touch as dull, or as if through a layer of insensitive material, the free nerve endings are damaged. Loss of sensitivity means profound disability. This test can only be used on patients who are communicating.

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Source

- KÖNIGOVÁ, Radana – BLÁHA, Joseph, et al. *Comprehensive treatment of burn trauma*. 1. edition. Prague : Karolinum, 2010. ISBN 978-80-246-1670-4.