



# DONOR SKIN

*Various indications for  
applying donor skin*



ETB-BISLIFE  
MULTI TISSUE CENTER





## DONOR SKIN FOR BURNS

Donor skin can be used on second and third degree burns.

### **Second degree burns**

Donor skin acts as a “biological” bandage when treating second degree burns. The donor skin ensures that pain is reduced considerably and acts as a temporary replacement for the patients own damaged skin. The donor skin forms a scab allowing the rapid re-growth of the patients own skin underneath. This scab dries out and falls away. The treatment considerably reduces the chances of hypertrophic scarring

### **Third degree burns**

Another application is the double covering in cases of third degree burns (“sandwich grafting”). After the removal of necrotic skin, the wound is transplanted by the patients own (autologous) meshed skin. The donor skin is then placed over this as protection, thus allowing the autologous skin graft to grow undisturbed. Donor skin may also be used to help improve the wound bed in third degree burns, acting as pretreatment for a later autologous skin transplant.

## OTHER APPLICATIONS FOR DONOR SKIN

Donor skin is also well suited for the treatment of difficult, problematical and chronic wounds. The ultimate effect of donor skin is providing good conditions in the wound bed in preparation for a transplant of the autologous skin.

The biological environment and the initiation of vessel growth by the donor skin makes it possible for the wounds to heal, which would otherwise not be possible due to the poor condition of the wound. By periodically changing the donor skin, a general debridement (cleaning) of the wound can take place and the wound bed will be infiltrated with new fine blood vessels (“granulation tissue”) which is required for the conditions needed for survival of an autologous skin graft.



## INDICATIONS FOR THE USE OF DONOR SKIN

### Wounds with poor conditions

- + Chronic wounds/decubitis
- + Diabetic wounds with poor circulation
- + Wounds involving avascular structures such as exposed bones and/or tendons
- + Wounds that are slow to heal in patients with systemic diseases and/or neurological abnormalities or after exposure to radiation

### Acute wounds that need to be temporarily covered

- + Large scale operation wounds

Donor skin is suitable for use as a temporary cover for large scale operation wounds (extensive excisions), offering temporary protection against infection, desiccation and reducing bleeding. In a subsequent operation, this donor skin can be replaced by transplants of the patients own skin and there is a very good chance the graft will take.

- + Oncology

In treatment of malignant skin tumors it is often highly advisable to first extensively excise the tumor and not initially close the wound with an autologous skin transplant. The operation wound can be closed temporarily, after excision, with the donor skin while awaiting the pathology report concerning severity of the tumor. Only after the results of the investigation are known the necessary re-excision may take place or the wound can be closed with an autologous skin graft. In practice, patients experiences with this procedure are very positive when there is any doubt about the extent of the tumor (tendrill-like growing tumors) and it has proven to be a very good alternative.

## FORMATS

Donor skin can be supplied in various formats and variants. Depending on the dimensions of the patients wound, donor skin is available from 50 cm<sup>2</sup> to 300 cm<sup>2</sup> (rounded off to 5 cm<sup>2</sup>). Donor skin is available in plain or meshed.

Covering of wounds with donor skin is straightforward, fixation is simple and can take place without anesthesia.

For more information, please contact ETB-BISLIFE.

## REFERENCES AND RESEARCH

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## ETB-BISLIFE

ETB-BISLIFE (before Euro Skin Bank) processes and preserves human donor skin which is used for treating patients with burns and other chronic or complex wounds.

In addition ETB-BISLIFE also supports research into the treatment of burns and other chronic or complex wounds and develops new products based on donor skin. For these reasons, ETB-BISLIFE invests in various research projects.

When treating severe burns, donor skin is of great importance. This was the motivating force to start a centralized Skin Bank in the Netherlands by the Dutch Burns Foundation in 1976. Due to the international nature of this discipline, the name was changed in 1991 to the Euro Skin Bank. Since 2009, the Euro Skin Bank has been a division of the Euro Tissue Bank. In 2018 the Euro Tissue Bank merged with BISLIFE to ETB-BISLIFE being a multi tissue center.



ETB-BISLIFE  
MULTI TISSUE CENTER

P.O. Box 309 | 2300 AH | Leiden | The Netherlands  
Tel. +31 (0)71 408 39 88 | Fax. +31 (0)251 224 408  
[infoskin@etb-bislife.org](mailto:infoskin@etb-bislife.org) | [www.etb-bislife.org](http://www.etb-bislife.org)