

Modern Wound Care

Knowledge of the process of wound healing as well as the opportunities for influencing that process – especially with chronic wounds – have expanded significantly in recent years. The individual conditions of different

wound types and stages of wound healing are increasingly taken into account through, amongst other things, the specific selection of suitable dressings that are appropriate for the indications and the healing phase.

The physiological process of wound healing is a dynamic process that follows a complex pattern. There are three distinct, but overlapping phases, each one leading smoothly to the next and to a certain extent being dependent on one another.

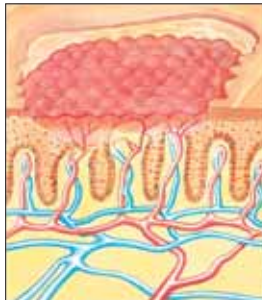
Exudation



Exudation phase

The exudation or cleansing phase commences immediately after the injury is sustained. In clinical terms, this presents as a local inflammation and leads on to pronounced exudation. During this phase the body forms blood clots, cleanses the wound and undertakes measures to ward off infection; damaged tissue and germs are removed (phagocytosis).

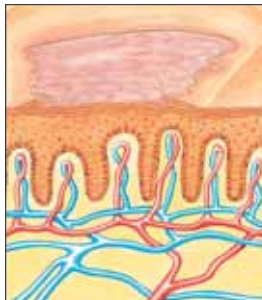
Granulation



Granulation phase

In the granulation or proliferation phase, new cells are generated and the granulation tissue is formed (a kind of temporary tissue for filling in the injury). Fibroblasts enter the wound in increased numbers, collagen synthesis begins, and capillaries move into the centre of the wound. While all these changes are taking place, exudation is reduced. The clinical presentation is now of

Epithelialisation



Epithelialisation phase

In the epithelialisation or regeneration phase, the differentiation of tissue and epithelialisation is developed further. The wound edges move in toward one another and the wound is gradually covered with epithelial tissue growing in from the edge. As the wound contracts and scar tissue is formed, the process of healing is concluded.

In the **exudation phase**, the ideal dressing will support the body's own cleansing mechanisms and will provide **clean conditions in the wound**. Any coats and necrotic tissue that may develop will be softened up and can be carried away. Any surplus exudate, the detritus contained in it, germs and waste products from metabolism will be absorbed. Protection

against infections from outside is ensured and **the wound is kept moist**. The **dressing will be changed** at intervals dictated by the condition of the wound and the degree of exudation. When dis-

charge is on the heavy side it may be necessary to change the dressing several times a day. If necessary, necrotic tissue and purulent coats will be removed.

reddish tissue with a good blood supply.

In the **granulation phase**, the ideal dressing will provide a **balanced, moist wound environment**. It will guard against drying out and mechanical influences while at the same time taking up any surplus discharge and offering protection against infection. The new granulation tissue reacts very

sensitively and must be protected from adverse influences also when the dressing is being changed. By maintaining a moist wound environment, the dressing can be changed without any trauma.

Dressings are changed according to the condition of the wound. Experience indicates that the dressing may be left on the wound for several days.

In the **epithelialisation phase**, the ideal dressing will ensure that the wound area is kept moist and will promote further epithelialisation, offering protection against adverse influences and en-

suring that the wound remains undisturbed. Depending on the condition of the wound, the dressing may be left on the wound for **up to 7 days** as physiological discharge continues to abate.