10. Choosing the ideal dressing

There are two different categories of dressings:

1) Primary – This is in contact with the wound.
2) Secondary – This is not in contact with the wound but it covers the primary dressing.

When choosing a secondary dressing ensure its compatibility with the primary wound contact layer.

There are many hundreds of wound products available, all having slightly different properties. The ideal wound management choice is dependant on the type, depth and colour of the wound in conjunction with the stage of healing and what the main objective of treatment is: e.g. debridement or protection. Dressing choice should always be based on individual wound assessment.

There is no 'one' ideal dressing, but a dressing is considered to be, one that provides the optimum environment for healing and addresses the following:

- **Maintain high humidity**
  Epidermal cells require a moist (not wet) surface to permit them to migrate across the wound surface. A dry wound forces the cells to burrow deeper until they meet a moist level, delaying healing. This is based on the initial work of George Winter (1962). Studies have shown that the moist environment enhances natural autolytic processes by breaking down necrotic tissue.

- **Removes excess wound exudate**
  Exudate, micro organisms, toxins and dead cells are removed to relieve maceration, tissue oedema and to reduce pain and swelling. The dressing choice will allow control of the exudate, either by absorbing it into the dressing or by passing it onto a hydrophylic absorbent secondary.

- **Permit thermal insulation**
  A constant temperature of 37º C is essential to maintain biological processes (mitosis and enzymatic activity).

- **Impermeability**
  A dressing should prevent bacteria gaining access to the wound surface. A soaked or leaking dressing provides a pathway for bacteria in either direction. Some dressings are waterproof allowing showering whilst in position.

- **Gaseous exchange**
  At different phases of wound healing both hypoxia and normal amounts of oxygen are required. A more rapid restoration of the microcirculation occurs in an anaerobic environment. High levels of oxygen are necessary for the development of fibroblasts and collagen.

- **Non fibre shedding / non toxic**
  Fibres shed into the wound can cause irritation and can become a focal point for infection. Granulating tissue can grow into the open mesh, attaching the dressing to the wound. Local irritation or sensitivity can occur with some

products.

- **Non adhesive, comfortable and conforming**
  The dressing must be non adhesive to the wound bed and protect the wound and surrounding skin from further trauma. (Dealey 2004). Patient concordance is best achieved with a comfortable, conforming, flexible dressing causing minimal pain when changed and does not take excessive time to redress.

- **Care of ischaemic wounds**
  The toes and sometimes the foot can be affected by so called “dry gangrene” in chronic arterial insufficiency. The tissues are black, shrivelled and dry. Whilst it is traditionally called gangrene there is in fact no infective process. The tissues are undergoing spontaneous breakdown and drying. It is a form of mummification. It is important that such areas, unlike other wounds, are kept dry. Introducing moisture carries the risk of infection. Ideally the area should be left exposed to the air. A non adherent dressing to separate toes is useful. If a dressing is required it should be light, dry and allowing the circulation of air.