

nutrition and wound healing



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Chronic wounds are a common problem both in the community and acute care settings. Usually referred to as pressure sores or leg ulcers, they describe an area of localised skin and underlying tissue damage. They can occur anywhere on the body, but typically affect areas which are under pressure when we lie or sit, such as backs of heels, sacrum (bottom of the spine), buttocks or elbows. They can also occur in areas where circulation may be poor, such as the lower legs and feet.

The severity of wounds can vary from superficial lesions affecting mainly the upper epidermis, to deep tissue destruction involving muscle, tendon or bone. Typically chronic wounds are referred to as being either Stage I to IV as outlined by the European Pressure Ulcer Advisory Panel (EPUAP):

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| Stage I | Intact skin with non-blanchable redness of a localized area usually over a bony prominence. |
| Stage II | Partial thickness loss of dermis presenting as a shallow open ulcer with a red/pink wound bed. |

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| Stage III | Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present. |
| Stage IV | Full thickness tissue loss with exposed bone, tendon or muscle. Slough or may be present on some parts of the wound bed. |

Some individuals are at higher risk of developing chronic wounds. These risk factors include:

- being elderly,
- burns,
- poor circulation,
- immunosuppression,
- undergoing chemotherapy/radiotherapy,
- physical disability
- bedbound
- malnutrition

Prevention and management of pressure ulcers is multifactorial. Guidelines exist for patients both at risk of developing and with existing wounds. Recommendations include adequate screening to identify risk, appropriate methods of pressure relief, correct usage of dressings and external therapies and if necessary, surgical intervention.¹

Pressure sores and leg ulcers are a major problem and have consequences not only for the patient, including pain and discomfort, but also put an extra strain on resources. Management of chronic wounds is time consuming for healthcare staff and ultimately accelerates patient care costs due to the intensive treatment and prolonged hospitalisation required.

NUTRITION AND PRESSURE SORES

It is widely reported that malnutrition is positively correlated with pressure ulcer incidence and severity. Individuals who are not adequately nourished are at higher risk of developing pressure sores and also experience poor healing of existing wounds. This can be due to low body weight (bony prominences exert more pressure on the skin and tissue), immobility due to reduced muscle function and lack of essential nutrients to help maintain tissue integrity.

There are a variety of nutrients which are beneficial for wound healing, including protein, arginine, zinc, Vitamins A, C and E and antioxidants. Clinical research exists to suggest these nutrients can help by improving blood flow to the affected area, reducing inflammation of the wound, assisting in the synthesis of new tissue, preventing bacterial growth and enhancing immune function.

EPUAP² states that healthcare professionals involved in wound management must provide "... adequate dietary intake to prevent malnutrition to the extent that this is compatible with the individual's wishes or condition".

Healthcare settings may achieve this recommendation by screening for malnutrition and developing care plans to help improve the nutritional status of their patients. This may include provision of nourishing meals and snacks, recording nutritional intake, identifying weight loss and seeking expert dietetic advice.

“...there is a consensus that nutrition is an important factor in both the prevention and treatment of pressure ulcers.”
NICE 2005¹

CUBITAN — THE WOUND CARE SIP FEED

Some patients are unable to meet their nutritional requirements by diet alone. In this instance, oral nutrition supplements may be appropriate to help achieve an adequate intake. Cubitan is the only supplement designed specifically for the dietary management of wounds, containing a specific nutrient profile and is suitable for patients with diabetes or those who are overweight. Below is a summary of some of the questions we frequently receive about Cubitan:

Q. What is Cubitan?

A. Cubitan is a high energy, high protein, ready to drink nutritional supplement that has been formulated to help heal chronic wounds. Cubitan provides all the specific nutrients necessary to stimulate wound healing such as energy, protein, anti-oxidants and micronutrients.

Q. Why should patients use Cubitan?

A Cubitan is designed specifically for patients with chronic wounds such as pressure ulcers or leg ulcers. Research has shown that these ulcers are often associated with low levels of some essential nutrients. Cubitan's specialised formulation has been shown to reduce wound area by 29% in just 3 weeks, faster and more effectively than standard high protein feeds³.

Q. How does Cubitan differ from other nutritional supplements?

A. Cubitan is the only product to contain the levels of arginine sufficient to meet the increased requirements for wound healing. Cubitan is the only Food for Special Medical Purposes (FSMP) indicated for the dietary management of chronic wounds and is the only product considered as a wound care feed under EU FSMP⁴ legislation.

Q. How many packs of Cubitan should a patient consume per day?

A. For patients with a pressure ulcer, the recommended number of packs per day depends on the severity and stage of the wound to be treated. Patients with a Stage I pressure ulcer should take 1 pack of Cubitan per day; patients with a Stage II or III pressure ulcer should consume 2 packs and patients with a stage IV pressure ulcer require 3 packs per day for optimum wound healing. For all other patients, no more than 3 packs of Cubitan per day are recommended.

Q. Is Cubitan suitable for patients with Diabetes?

A. Yes, Cubitan can be used for patients with diabetes. We recommend a maximum of 2 bottles per day, sipped slowly over 20 minutes.

Q. Can Cubitan be used for overweight patients?

A. Yes, Cubitan can be used for overweight patients. When a patient is being treated for a wound the types of dietary changes necessary to treat obesity are usually not a top priority. It is prudent to heal the wound first, and then address the patient's weight.

If you would like samples of Cubitan to give to patients you feel would benefit from this product, please call Freephone 1800 923 404 or contact your local Nutricia representative. For nutritional advice on Cubitan and other products, please call our Dietetic advice line on 1800 412 414.

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References

- 1 Pressure ulcers: The management of pressure ulcers in primary and secondary care, National Institute of Clinical Excellence, 2005.
- 2 Nutritional Guidelines for Pressure Ulcer Prevention and Treatment. European Pressure Ulcer Advisory Panel, 2003.
- 3 Soriano et al. The effectiveness of nutritional supplementation in the healing of pressure ulcers. *Journal of Wound Care* 2004, Vol. 13 (8) pp 319-23.
- 4 European Commission Directive 1999/21/EC on Dietary Foods for Special Medical Purposes (FSMP).