

Nutrition and Wound Healing



This summary has been developed for health professionals caring for clients with impaired skin integrity or those at risk of loss of skin integrity. Assessment and management of skin integrity should be undertaken by health professionals with expertise in the area.

For this summary, all recommendations have had their levels of evidence classified using the National Health and Medical Research Council levels of evidence, as follows:

Level I	Evidence from a systematic review or meta-analysis of at least two level II studies
Level II	Evidence from a well designed randomised controlled trial (for interventions), or a prospective cohort study (for prognostic studies)
Level III	Evidence from non-randomised studies with some control or comparison group (pseudo-randomised controlled trial; non-randomised experimental trial, cohort study, case-control study, time series studies with a control group; historical control study, retrospective cohort study)
Level IV	Evidence from studies with no control or comparison group

An additional rating of Expert Opinion (EO) has been added, for guideline recommendations which are consensus statements provided by a National or International Panel of experts in the area.

This is a summary of guidelines from the following sources, which should be accessed for further details as required:

1. Australian Wound Management Association, *Standards for wound management*. 2nd ed 2010, Osborne Park, WA: Cambridge Media. www.awma.com.au/publications/2011_standards_for_wound_management_v2.pdf
2. Trans Tasman Dietetic Wound Care Group, *Evidence based practice guidelines for the dietetic management of adults with pressure injuries*. Review 1: 2011. http://daa.asn.au/wp-content/uploads/2011/09/Trans-Tasman_Dietetic-Wound-Care-Group-Pressure-Injury-Guidelines-2011.pdf
3. Dorner B, Posthauer M, Thomas D, National Pressure Ulcer Advisory Panel, *The role of nutrition in pressure ulcer prevention and treatment: National Pressure Ulcer Advisory Panel White Paper* 2009. www.ncbi.nlm.nih.gov/pubmed/19521288
4. Australian Wound Management Association, *Pan Pacific Clinical Practice Guideline for the Prevention and Management of Pressure Injury* 2012, Osborne Park, WA: Cambridge Media www.awma.com.au/publications/2012_AWMA_Pan_Pacific_Guidelines.pdf
5. Wilkinson E: *Oral zinc for arterial and venous leg ulcers*. Cochrane Database of Systematic Reviews 2012. Issue 8, CD001273.



Assessment

1. Nutritional screening and assessment should be conducted in people with or at risk of developing a wound in all health care settings,^{1,2} (EO)
using a validated tool, such as the Mini Nutritional Assessment (MNA)² (III)
2. Nutritional assessment is a continual monitoring and review process which lasts as long as the wound healing process, with each condition change and/or delayed healing^{2,3} (EO)
3. Document nutritional status of people with, or at risk of, developing a wound¹ (EO)

Management

4. Address nutritional deficits to optimise the wound healing potential of the individual¹ (EO)
5. Nutritional interventions should be implemented to assist healing of pressure injuries² (III)
Start with modification of current dietary intake, and progress to the use of oral nutritional supplements when adequate intake of nutrients is not provided from dietary sources² (III)
6. Consider the following oral nutritional supplements for wound healing
 - A high protein supplement in people with a pressure injury⁴ (II)
 - Arginine containing supplements in people with a stage 2 or greater pressure injuries and without infection or sepsis^{2,4} (II)
 - Multivitamin supplements in people with a pressure injury who are identified as having nutritional deficits⁴ (II)
7. Oral zinc supplements do not improve healing of arterial and venous leg ulcers⁵ (II)

Prevention

8. Maintain optimal nutritional status with adequate calories, protein, carbohydrates, fat and vitamins and minerals^{2,3} (II)
9. A high protein oral nutritional supplement together with a regular diet may help prevent development of pressure injuries in people at a high risk of pressure injury⁴ (II)
10. Refer people with nutritional risks or deficits to a dietician² (EO)