

Eat well, drink well and keep the skin well

Key nutrition and hydration messages to prevent pressure ulcers and promote wound healing

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Nutrition and hydration play a key role in keeping the skin healthy – so think EAT – evidence, assessment, take action – when assessing an individual’s risk of developing a pressure ulcer (and the healing of existing pressure ulcers or wounds).

Evidence

- Many nutritional risk factors have been identified in the development of pressure ulcers [references 1-8].
- Risk factors include low body mass index (BMI), malnutrition, nutritional deficiencies,¹ unintentional weight loss, an impaired ability to eat independently and obesity.²
- Obesity is an independent risk factor for developing a pressure ulcer, and the risk is further increased if the individual is obese and has malnutrition [8].
- International guidance recommends using a nutritional screening tool to assess an individual’s risk of malnutrition, and also assessing their weight history, weight loss and ability to eat independently [9].
- The National Institute of Health and Care Excellence recognises nutrition deficiencies as a risk for developing pressure ulcers and supports the use of oral nutritional supplements for patients with identified nutritional deficiencies [10].
- Early identification and treatment of individuals who are malnourished or at risk of it are vital in preventing pressure ulcer development and promoting wound healing.

¹ Nutritional deficiencies relate to inadequate energy (calories), protein, fluid/water and vitamins and minerals.

² This will include individuals who need help with meals; for example, unable to cut up their own food, need prompting and encouragement with eating along with those people who need to be fed. Individuals with swallowing difficulties (dysphagia) who require a texture modified diet should also be considered.

Assessment and screening

- Nutrition assessment and screening should be carried out on admission and then weekly for all hospital inpatients
- In community settings people should be screened on first contact, eg on admission to a care home or during initial registration at general practice surgeries, and then when there is clinical concern.
- Nutrition assessment and screening should be an integral part of pressure ulcer risk assessment and screening.
- Screening for malnutrition and the risk of malnutrition should be carried out by any member of the healthcare team who has had training to:
 - determine malnutrition risk using a validated nutritional screening tool, such as Malnutrition Universal Screening Tool (MUST)
 - assess for signs and symptoms of dehydration and monitor fluid balance if concerned
 - assess for ability to eat independently
 - use your clinical/professional judgement to assess whether the individual is likely to be at risk of nutritional inadequacy because of their condition or any of the following factors: they follow a restricted or modified texture diet/fluids, they have ascites or oedema (which means body weight is difficult to measure accurately), or they are obese (BMI over 30).

Take action!

- Don't just screen – take action.
- Begin an individualised care plan involving the service user where possible:
 - provide food, fluid and assistance to best meet each individual's needs
 - offer simple advice (including written) about a balanced diet and healthy fluid intake to promote adequate nutrition and hydration ³
 - monitor and evaluate the care plan regularly, and revise your intervention as required
- Refer to a dietitian according to local care pathways⁴ or if no improvement is observed.
- Keep going – reassess and review.

³ See [Top tips](#)

⁴ Care pathways should be developed for those who are malnourished or at high risk of malnutrition and those with existing pressure ulcers category 2 or above.

References

1. Horn SD, Bender SA, Ferguson ML, Smout RJ, Bergstrom N, Taler G, Cook AS, Sharkey SS, Voss AC (2004) The National Pressure Ulcer Long-term Care Study: pressure ulcer development in longterm care residents. *Journal of the American Geriatrics Society* 52: 359-367
2. Gilmore SA, Robinson G, Posthauer ME, Raymond J (1995) Clinical indicators associated with unintentional weight loss and pressure ulcers in elderly residents of nursing facilities. *Journal of the American Dietetic Association* 95: 984-992
3. Ek AC, Unosson M, Larsson J, von Schenck H, Bjurulf P (1991) The development and healing of pressure sores related to the nutritional state. *Clinical Nutrition* 10: 245-50
4. Kerstetter JE, Holthausen BA, Fitz PA (1992) Malnutrition in the institutionalized older adult. *Journal of the American Dietetic Association* 92: 1109-16
5. Shahin ES, Meijers JM, Schols JM, Tannen A, Halfens RJ, Dassen T (2010) The relationship between malnutrition parameters and pressure ulcers in hospitals and nursing homes. *Nutrition* 9:886-9
6. Banks MD, Bauer JD, Graves N, Ash S (2010) Malnutrition and pressure ulcer risk in adults in Australian health care facilities. *Nutrition* 26: 896-01
7. Banks MD, Graves N, Bauer JD, Ash S (2010) The cost arising from pressure ulcers attributable to malnutrition. *Clinical Nutrition* 29:180-6
8. Ness SJ, Hickling DF, Bell JJ, Collins PF (2017) The pressures of obesity: the relationship between obesity, malnutrition and pressure injuries in hospital inpatients. *Clinical Nutrition* 19 pii: S0261-5614
9. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance (2014) In: Haesler E (ed) *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Osborne Park, Western Australia: Cambridge Media Available at: www.epuap.org/epuap-guidelines/
10. National Institute for Health and Care Excellence (2014) *Pressure ulcers: prevention and management* Available at: www.nice.org.uk/Guidance/CG179

This work is part of our [Stop the Pressure programme](#) and relates specifically to the nutritional element of the SSKIN bundle.

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