

Wounds digest

In this section, we present brief synopses of a range of recently published articles that may be of interest to healthcare professionals working in the wound care setting. The aim of this round-up is to provide an overview, rather than a detailed summary and critique, of the research papers selected. Full references are provided should you wish to look at any of the papers in more detail.

1 Compression for preventing recurrence of venous ulcers

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓	✓	✓
Novelty factor	✓	✓			

- The authors updated the Cochrane review on compression therapy for preventing recurrence of venous ulcers.
- They included eight studies (1,995 participants) that evaluated different classes of compression (UK class 2 or 3 and European (EU) class 1, 2, or 3).
- The authors noted that there were no studies that compared different lengths of compression (e.g. below-knee versus above-knee), and no studies measured duration of reulceration episodes, ulceration on the contralateral leg, proportion of follow-up without ulcers, comfort or adverse effects.
- It was concluded that compression with EU class 3 compression stockings may reduce reulceration compared with no compression over 6 months. Use of EU class 1 compared with EU class 2 compression stockings may result in little or no difference in reulceration and non-adherence over 12 months. UK class 3 compression hosiery may reduce reulceration compared with UK class 2 compression hosiery; however, it should be noted that higher compression may lead to lower adherence.
- More research is needed to investigate acceptable modes of long-term compression therapy for people at risk of recurrent venous ulceration. Future studies should consider interventions to improve adherence with compression treatment, as higher compression may result in lower rates of reulceration.

de Moraes Silva MA, Nelson A, Bell-Syer SE et al (2024) Compression for preventing recurrence of venous ulcers. *Cochrane Database Syst Rev* 3(3): CD002303

2 Impact of great saphenous vein ablation on healing and recurrence of venous leg ulcers in patients with post-thrombotic syndrome: a retrospective comparative study

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓			
Novelty factor	✓	✓	✓		

- The optimal treatment approach for patients with active venous leg ulcers (VLUs) and post-thrombotic syndrome associated with great saphenous vein (GSV) reflux remains unclear.
- The authors compared the outcomes of patients with

post-thrombotic VLU with an intact GSV versus those with a stripped or ablated GSV.

- They retrospectively analysed data from 48 patients with active VLUs and documented post-thrombotic syndrome. The patients were divided into two groups – Group A had an intact GSV and Group B a stripped or ablated GSV. Time to complete healing, proportion of ulcers achieving complete healing and ulcer recurrence during the follow-up period were compared.
- Group A had significantly more completely healed ulcers compared with group B, and also exhibited a significantly shorter time to complete ulcer healing, with a greater probability of ulcer healing.
- Long-term follow-up data were available for 45 of the 48 patients. The proportion of ulcers that failed to heal or recurred during the follow-up period was significantly lower in group A compared with group B.
- The findings suggest that removal of the GSV through stripping or ablation in patients with post-thrombotic deep venous systems affecting the femoropopliteal segment may result in delayed ulcer healing and increased ulcer recurrence. Patients with an intact GSV had better outcomes, even when the refluxing GSV was left untreated.

Bishara RA, Gaweesh A, Taha W, et al (2024) Impact of great saphenous vein ablation on healing and recurrence of venous leg ulcers in patients with post-thrombotic syndrome: a retrospective comparative study. *J Vasc Surg Venous Lymphat Disord* [online ahead of print]

3 Comparison of the therapeutic efficacy of magneto-LED therapy and magnetostimulation applied as the adjuvant treatment of venous leg ulcers – preliminary study

Readability	✓	✓	✓		
Relevance to daily practice	✓	✓			
Novelty factor	✓	✓	✓	✓	

- The authors aimed to compare the therapeutic efficacy magneto-LED therapy and magnetostimulation, applied as adjuvant therapy in the treatment of venous leg ulcers.
- They recruited 81 patients, 37 men (45.6%) and 44 women (54.3%), age range 45–90 years, with venous leg ulcers. The subjects were assigned to two study groups: magneto-LED therapy or magnetostimulation. In both groups, a total of 40 daily procedures were performed. Wound healing and pain intensity were measured.
- After completion of treatment, both groups of patients experienced a significant reduction in the surface area of their ulcers and a reduction in pain intensity. However,

the percentage change of ulcer area in the magneto-LED therapy group was statistically significantly greater than the magnetostimulation group.

- The authors concluded that magneto-LED therapy and magnetostimulation caused significant reduction of surface area of the treated venous leg ulcers and pain intensity. Magneto-LED therapy was more efficient.

Pasek J, Szajkowski S, Ciešlar G. Comparison of the therapeutic efficacy of magneto-LED therapy and magnetostimulation applied as the adjuvant treatment of venous leg ulcers - preliminary study. *Electromagn Biol Med* [online ahead of print]

4 Effects of cluster nursing interventions on the prevention of pressure ulcers in intensive care units patients: A meta-analysis

Readability	✓	✓	✓		
Relevance to daily practice	✓	✓	✓	✓	
Novelty factor	✓	✓			

- The authors performed a meta-analysis to evaluate the impact of cluster nursing interventions on the prevention of pressure ulcers in intensive care unit (ICU) patients.
- Their search identified 17 randomised controlled trials involving 1,463 ICU patients. The analysis showed that compared with conventional nursing, cluster nursing interventions significantly reduced the incidence of pressure ulcers and also significantly improved the levels of anxiety and depression in ICU patients.
- The authors concluded that their results indicate that the application of cluster nursing interventions in ICU patients can effectively reduce the incidence of pressure ulcers, as well as improve patients' anxiety and depression levels, thereby enhancing their quality of life

Zhang AG, Li L, Li YL et al (2024) Effects of cluster nursing interventions on the prevention of pressure ulcers in intensive care units patients: A meta-analysis. *Int Wound J* 21(3): e14776

5 The effectiveness of motivational interviewing on adherence to wearing orthopaedic shoes in people with diabetes at low-to-high risk of foot ulcerations

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓		
Novelty factor	✓	✓	✓	✓	

- This study aimed to evaluate if motivational interviewing (MI) by MI-trained podiatrists improved adherence to wearing orthopaedic shoes in comparison to usual care.
- People with diabetes with loss of protective sensation and/or peripheral artery disease, and an orthopaedic shoes prescription were allocated to receive one MI-consultation by a podiatrist (n=53) or usual care only (n=68). Adherence was measured as the percentage of steps taken while wearing orthopaedic shoes, determined using an insole temperature microsensor and wrist-worn activity tracker for one week at 3 and 6 months.
- At 3 months, the proportion of participants ≥80% adherent to wearing their orthopaedic shoes was higher in the control group than in the MI-intervention group; at 6 months, there was no significant difference. Average

adherence was higher in the control group than the intervention group at both 3 months and 6 months.

- The authors concluded that a podiatrist-led MI-consultation did not result in higher adherence to wearing orthopaedic shoes.

Jongbloed-Westra M, Exterkate SH, van Netten JJ et al (2023) The effectiveness of motivational interviewing on adherence to wearing orthopaedic shoes in people with diabetes at low-to-high risk of foot ulceration: a multicenter cluster-randomized controlled trial. *Diabetes Res Clin Pract* 204:110903

6 Adherence to limiting weight-bearing activity in patients with diabetic foot ulcers

Readability	✓	✓	✓	✓	
Relevance to daily practice	✓	✓	✓	✓	
Novelty factor	✓	✓	✓		

- Patients with diabetic foot ulcers are advised to limit weight-bearing activity in order for their ulcers to heal, but they often ignore this. This study explored patients' experiences of receiving advice and factors influencing adherence.
- The authors conducted semi-structured interviews with 14 patients with diabetic foot ulcers, followed by a thematic analysis of the responses.
- Patients described the advice they were given as directive, nagging and generic; there was also conflict between healthcare professionals, where the foot team advised a limit on weight-bearing activity, but another team suggested they exercise more. Patients were more receptive to advice when it was given with rapport, empathy and an explanation for the need to avoid weight-bearing activity.
- The authors found the patients had a range of barriers to limiting weight-bearing activity, including enjoyment of exercise, demands of daily living, sickness or disability, depression, neuropathy and pain. Facilitators included health benefits, fear of negative consequences, positive feedback, practical support and cold weather.
- The authors propose a more person-centred approach in which advice is tailored to individuals' specific needs and includes discussion around patient priorities and constraints.

Hancox JE, Hilton C, Gray K et al (2023) Adherence to limiting weight-bearing activity in patients with diabetic foot ulcers: a qualitative study. *Int Wound J* 20(10): 3945-54.