

EVIDENCE BASED STATEMENT

DOMAIN **09**, Statement **08**

TOPIC: “Adjustable compression role indication in venous and lymphatic disease management”

SEARCH TERMS & SOURCES

adjustable compression wrap

INCLUSION CRITERIA

- Lower limb only
- Systematic Reviews, Meta-Analysis, Reviews, RCI
- Publication < 10 years, only ENG

SEARCH RESULT BEFORE - AFTER SELECTION

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AGREEMENT BETWEEN THE 2 REVIEWERS before DOMAIN WORKING GROUP DISCUSSION & FINALIZATION

(N. of papers triggering disagreement in inclusion/No of papers from the initial search)

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

EVIDENCE BASED STATEMENT

Domain 9; Statement 8

IDENTIFIED REFERENCES

1. Stather PW, Petty C, Howard AQ. Review of adjustable velcro wrap devices for venous ulceration. *Int Wound J*. 2019 Aug;16(4):903-908.
2. Balcombe L, Miller C, McGuinness W. Approaches to the application and removal of compression therapy: A literature review. *Br J Community Nurs*. 2017 Oct 1;22(Sup10):S6-S14.
3. Palacios FS, Rathbun SW. Medical Treatment for Postthrombotic Syndrome. *Semin Intervent Radiol*. 2017 Mar;34(1):61-67.
4. Williams A. A review of the evidence for adjustable compression wrap devices. *J Wound Care*. 2016 May;25(5):242-7.
5. Partsch H. Compression for the management of venous leg ulcers: which material do we have? *Phlebology*. 2014 May;29(1 suppl):140-145.
6. O'Meara S, Cullum N, Nelson EA, Dumville JC. Compression for venous leg ulcers. *Cochrane Database Syst Rev*. 2012 Nov 14;11(11):CD000265.

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TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 09, Statement 08, TOPIC: “Adjustable compression role indication in venous and lymphatic disease management”

A 2019 review analyzed 16 papers on adjustable compression wraps use for venous ulcer healing. The results demonstrated the related improvement in healing time and quality of life, with a potential significant cost-efficacy.

[Stather PW, Petty C, Howard AQ. Review of adjustable velcro wrap devices for venous ulceration. Int Wound J. 2019 Aug;16(4):903-908].

Another more recent investigation confirmed the cost-effectiveness of adjustable compression wraps compared to inelastic bandage, moreover providing a better interface pressure maintenance.

[Mosti G, Mancini S, Bruni S, et al. Adjustable compression wrap devices are cheaper and more effective than inelastic bandages for venous leg ulcer healing. A Multicentric Italian Randomized Clinical Experience. Phlebology. 2020 Mar;35(2):124-133]

Adjustable compression wraps demonstrated superiority against inelastic bandages also in chronic venous edema reduction, moreover at an interface pressure of 40 mmHg vs 60 mmHg applied by bandaging, including in the analysis the initial decongestive treatment phase.

[Mosti G, Cavezzi A, Partsch H, Urso S, Campana F. Adjustable Velcro Compression Devices are More Effective than Inelastic Bandages in Reducing Venous Edema in the Initial Treatment Phase: A Randomized Controlled Trial. Eur J Vasc Endovasc Surg. 2015 Sep;50(3):368-74]

A 2021 randomized comparative trial investigated the efficacy of conventional multilayer short-stretch bandaging, and a velcro adjustable compression wrap in lower limb lymphedema patients. The outcomes showed significant improvements in lower limb volume and subcutaneous thickness, as well as in appearance, symptoms and quality of life scores, therefore positioning the adjustable compression wrap as a valid alternative to bandaging in the active phase of lymphedema treatment.

***[Borman P, Koyuncu EG, Yaman A, Calp E, Koç F, Sargut R, Karahan S. The Comparative Efficacy of Conventional Short-Stretch Multilayer Bandages and Velcro Adjustable Compression Wraps in Active Treatment Phase of Patients with Lower Limb Lymphedema. Lymphat Res Biol. 2021 Jun;19(3):286-294]**

It should be noted further studies are needed before delivering high grade recommendations on the topic and that only a specific brand of adjustable compression brand has been involved in the above mentioned studies, for which the results can not be generalized until other products will be tested in an evidence based manner.

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STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 09, Statement 08

“A specific adjustable compression wrap demonstrated clinical and cost effectiveness superiority in ulcer healing and leg venous-lymphatic edema compared to bandaging”

SELECTED REFERENCES

1. Stather PW, Petty C, Howard AQ. Review of adjustable velcro wrap devices for venous ulceration. *Int Wound J.* 2019 Aug;16(4):903-908
2. Mosti G, Mancini S, Bruni S, et al. Adjustable compression wrap devices are cheaper and more effective than inelastic bandages for venous leg ulcer healing. *A Multicentric Italian Randomized Clinical Experience. Phlebology.* 2020 Mar;35(2):124-133
3. Mosti G, Cavezzi A, Partsch H, Urso S, Campana F. Adjustable Velcro Compression Devices are More Effective than Inelastic Bandages in Reducing Venous Edema in the Initial Treatment Phase: A Randomized Controlled Trial. *Eur J Vasc Endovasc Surg.* 2015 Sep;50(3):368-74
4. *Borman P, Koyuncu EG, Yaman A, Calp E, Koç F, Sargut R, Karahan S. The Comparative Efficacy of Conventional Short-Stretch Multilayer Bandages and Velcro Adjustable Compression Wraps in Active Treatment Phase of Patients with Lower Limb Lymphedema. *Lymphat Res Biol.* 2021 Jun;19(3):286-294

identified LITERATURE BIAS

Only one brand used in the reported scientific studies

SUGGESTED NEXT LINES OF RESEARCH

Rct involving different adjustable compression wraps