

# EVIDENCE BASED STATEMENT

DOMAIN **09**, Statement **05**

TOPIC: “Compression indications and specifics through the CEAP C1-C6 spectrum”

## SEARCH TERMS & SOURCES

(graduated compression) AND (venous)

### INCLUSION CRITERIA

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

## SEARCH RESULT BEFORE - AFTER SELECTION

64 - 4

### PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. De Maeseneer MG, Kakkos SK, Aherne T, et al. Editor's Choice - European Society for Vascular Surgery (ESVS) 2022 Clinical Practice Guidelines on the Management of Chronic Venous Disease of the Lower Limbs. *Eur J Vasc Endovasc Surg.* 2022 Feb;63(2):184-267.
2. Health Quality Ontario . Compression Stockings for the Prevention of Venous Leg Ulcer Recurrence: A Health Technology Assessment. *Ont Health Technol Assess Ser.* 2019;19(2):1-86. Published 2019 Feb 19.
3. Giancesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWInTer international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. *Phlebology.* 2019 Sep;34(1 Suppl):4-66.
4. Mościcka P, Szewczyk MT, Cwajda-Białasik J, Jawień A. The role of compression therapy in the treatment of venous leg ulcers. *Adv Clin Exp Med.* 2019 Jun;28(6):847-852.
5. Rabe E, Partsch H, Hafner J, et al. Indications for medical compression stockings in venous and lymphatic disorders: An evidence-based consensus statement. *Phlebology.* 2018 Apr;33(3):163-184
6. Ohayon R, Rose R, Ebert K, et al. Incidence of incorrectly sized graduated compression stockings and lower leg skin irregularities in postoperative orthopedic patients. *Medsurg Nurs.* 2013 Nov-Dec;22(6):370-4.
7. Kostas TI, Ioannou CV, Drygiannakis I, et al. Chronic venous disease progression and modification of predisposing factors. *J Vasc Surg.* 2010 Apr;51(4):900-7.

# EVIDENCE BASED STATEMENT

## Domain 9; Statement 5

### IDENTIFIED REFERENCES

(max best 20, from the most recent down)

1. Knight Nee Shingler SL, Robertson L, Stewart M. Graduated compression stockings for the initial treatment of varicose veins in people without venous ulceration. Cochrane Database Syst Rev. 2021 Jul 16;7(7):CD008819.
2. da Silva LF, Porto MSR, de Sousa AB, Avena KM. Graduated compression stockings as a prophylactic measure in venous thromboembolism and edema of lower limbs triggered by air travel: a systematic review of clinical trials. J Vasc Bras. 2021 May 10;20:e20200164.
3. de Carvalho MR, de Andrade IS, de Abreu AM, et al. All about compression: A literature review. J Vasc Nurs. 2016 Jun;34(2):47-53
4. Lim CS, Davies AH. Graduated compression stockings. CMAJ. 2014 Jul 8;186(10):E391-8.

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## Domain 9; Statement 5

### TEXT FOR INCLUSION IN THE DOCUMENT

(300 words, not counting the references)

DOMAIN 01, Statement 01, TOPIC: “Compression indications and specifics through the CEAP C1-C6 spectrum”

Graduated compression stockings use has been suggested in all CEAP clinical classes with different grades of recommendation in the different guidelines.

**\*[Gianesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. *Phlebology*. 2019 Sep;34(1 Suppl):4-66].**

A recent Cochrane reported insufficient high-certainty evidence to determine if compression stockings are effective as the sole initial treatment of chronic venous disease and if there is superiority of any product.

**[Knight Nee Shingler SL, Robertson L, Stewart M. Graduated compression stockings for the initial treatment of varicose veins in people without venous ulceration. *Cochrane Database Syst Rev*. 2021 Jul 16;7(7):CD00881].**

Compression stockings are effective in venous ulcer healing and recurrence reduction, as well as in decreasing lipodermatosclerosis induration **[Health Quality Ontario . *Compression Stockings for the Prevention of Venous Leg Ulcer Recurrence: A Health Technology Assessment*. *Ont Health Technol Assess Ser*. 2019;19(2):1-86. Published 2019 Feb 19].**

A pressure dose increase is usually recommended for the most advanced disease stages, yet solid evidence on this practice is still missing.

**[De Maeseneer MG, Kakkos SK, Aherne T, et al. Editor's Choice - European Society for Vascular Surgery (ESVS) 2022 Clinical Practice Guidelines on the Management of Chronic Venous Disease of the Lower Limbs. *Eur J Vasc Endovasc Surg*. 2022 Feb;63(2):184-267].**

The role of compression in preventing venous disease evolution is still debatable, with only limited data in its support.

**[Kostas TI, Ioannou CV, Drygiannakis I, et al. Chronic venous disease progression and modification of predisposing factors. *J Vasc Surg*. 2010 Apr;51(4):900-7].**

Considering a significant number of graduated compression stocking inappropriate fitting have been reported, proper education of healthcare professionals and public is of paramount importance.

# EVIDENCE BASED STATEMENT

## Domain 9; Statement 5

### STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 09, Statement 05

“Specific certified compression stockings demonstrated to be beneficial in all the stages of leg venous disease, in venous ulcer recurrence reduction, in lymphatic disorders, in thrombo-embolism and post-thrombotic prevention and management.”

### SELECTED REFERENCES

1. \*Gianesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. *Phlebology*. 2019 Sep;34(1 Suppl):4-66
2. Knight Nee Shingler SL, Robertson L, Stewart M. Graduated compression stockings for the initial treatment of varicose veins in people without venous ulceration. *Cochrane Database Syst Rev*. 2021 Jul 16;7(7):CD00881
3. Health Quality Ontario . Compression Stockings for the Prevention of Venous Leg Ulcer Recurrence: A Health Technology Assessment. *Ont Health Technol Assess Ser*. 2019;19(2):1-86.
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5. Kostas TI, Ioannou CV, Drygiannakis I, et al. Chronic venous disease progression and modification of predisposing factors. *J Vasc Surg*. 2010 Apr;51(4):900-7

### identified LITERATURE BIAS

Lack of interface pressure measurement

### SUGGESTED NEXT LINES OF RESEARCH

Compression best dose & type in the different venous-lymphatic disease stages  
Impact on health-related quality of life and cost-effectiveness