

# EVIDENCE BASED STATEMENT

DOMAIN **10**, Statement **9**  
TOPIC: “**Lipedema treatment**”

## SEARCH TERMS & SOURCES

(lipedema[MeSH Terms]) AND ((signs[MeSH Terms]) OR (symptoms[MeSH Terms]))

## INCLUSION CRITERIA

- Lower limb only
- Reviews
- Publication < 10 years, only ENG

## SEARCH RESULT BEFORE - AFTER SELECTION

13 (before) - 5 (after selection)

## 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

2/13

1. Keith L, Seo CA, Rowsemit C, et al. Ketogenic diet as a potential intervention for lipedema. Med Hypotheses. 2021 Jan;146:110435
2. Kruppa P, Georgiou I, Biermann N, et al. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. Dtsch Arztebl Int. 2020 Jun 01;117(22-23):396-403
3. Dudek JE, Białaszek W, Ostaszewski P, Smidt T. Depression and appearance-related distress in functioning with lipedema. Psychol Health Med. 2018 Aug;23(7):846-853.
4. Alwardat N, Di Renzo L, Alwardat M, et al. The effect of lipedema on health-related quality of life and psychological status: a narrative review of the literature. Eat Weight Disord. 2020 Aug;25(4):851-856.
5. Dadras M, Mallinger PJ, Corterier CC, et al. Liposuction in the Treatment of Lipedema: A Longitudinal Study. Arch Plast Surg. 2017 Jul;44(4):324-331.

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## Domain 10; Statement 9

### IDENTIFIED REFERENCES

- 1: Schmidt J, Kruppa P, Georgiou I, Ghods M. Management of large volume liposuction in lipedema patients with von Willebrand disease: A systematic review and treatment algorithm. Clin Hemorheol Microcirc. 2021;78(3):311-324.
- 2: Esmer M, Schingale FJ, Unal D, et al. Physiotherapy and rehabilitation applications in lipedema management: A literature review. Lymphology. 2020;53(2):88-95.
- 3: Aksoy H, Karadag AS, Wollina U. Cause and management of lipedema-associated pain. Dermatol Ther. 2021 Jan;34(1):e14364.
- 4: Buso G, Depairon M, Tomson D, Raffoul W, Vettor R, Mazzolai L. Lipedema: A Call to Action! Obesity (Silver Spring). 2019 Oct;27(10):1567-1576.
- 5: Pouwels S, Huisman S, Smelt HJM, Said M, Smulders JF. Lipoedema in patients after bariatric surgery: report of two cases and review of literature. Clin Obes. 2018 Apr;8(2):147-150.

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### TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 10, Statement 9, TOPIC: "**Lipedema treatment**"

Lipedema is a chronic condition requiring life-style adaptation. Diet and exercise are part of the conservative management of the disease. Nevertheless, no specific nutritional regimen or physical exercise protocol have been already validated scientifically.

Considering obesity is often associated with lipedema, weight control is indicated among the first treatment measures.

Preliminary evidence suggest ketogenic diet can help in lipolysis, therefore in lipedema management.

**[Keith L, Seo CA, Rowsemit C, Pfeffer M, Wahi M, Staggs M, Dudek J, Gower B, Carmody M. Ketogenic diet as a potential intervention for lipedema. Med Hypotheses. 2021 Jan;146:110435].**

Exercises activating the leg muscle pump and consequently facilitating the lymphatic drainage might be of help in reducing the inflammatory lipedema state, nevertheless properly designed standardized physical activities have not been reported yet in the literature. The aquatic environment could represent an advantage for this kind of patients, considering the graduated compression effect associated with the immersion.

The same graduated compression can be applied to facilitate fluids drainage and inflammation control. In case of significant limb shape asymmetry, a flat knit must be taken into consideration.

**\*[Kruppa P, Georgiou I, Biermann N, Prantl L, Klein-Weigel P, Ghods M. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. Dtsch Arztebl Int. 2020 Jun 01;117(22-23):396-403]**

The impact of lipedema on health-related quality of life and on the psychological status must not be underestimated: data show a significant deterioration in these patients and further studies are encouraged to identify validated and adapted measures related to the topic.

**[Alwardat N, Di Renzo L, Alwardat M, et al. The effect of lipedema on health-related quality of life and psychological status: a narrative review of the literature. Eat Weight Disord. 2020 Aug;25(4):851-856]**

In case of failure of the conservative treatment, liposuction can be taken into consideration, after careful evaluation of the specialist.

Pain, cramps, itching, edema and bruising demonstrated to potentially improve after liposuction, but large randomized comparative trial with mid-long term follow up are needed before giving high grade recommendation and clear indication to the procedure.

**[Dadras M, Mallinger PJ, Corterier CC, et al. Liposuction in the Treatment of Lipedema: A Longitudinal Study. Arch Plast Surg. 2017 Jul;44(4):324-331].**

Up to our knowledge, no specific drugs or topicals demonstrated an evidence-based benefit in the management of lipedema.

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### STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 10, Statement 9

**“Lipedema conservative management is similar to lymphedema one and require highly specialized health-professionals. Specifically dedicated liposuction techniques can be taken into consideration if conservative measurement alone failed and must be performed by expert professionals.”**

### 4 SELECTED REFERENCES

1. Keith L, Seo CA, Rowsemitt C, Pfeffer M, et al. Ketogenic diet as a potential intervention for lipedema. Med Hypotheses. 2021 Jan;146:110435.
2. Kruppa P, Georgiou I, Biermann N, et al. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. Dtsch Arztebl Int. 2020 Jun 01;117(22-23):396-403.
3. Alwardat N, Di Renzo L, Alwardat M, et al. The effect of lipedema on health-related quality of life and psychological status: a narrative review of the literature. Eat Weight Disord. 2020 Aug;25(4):851-856.
4. Dadras M, Mallinger PJ, Corterier CC, et al. Liposuction in the Treatment of Lipedema: A Longitudinal Study. Arch Plast Surg. 2017 Jul;44(4):324-331

### identified LITERATURE BIAS

lack of homogeneity in lipedema stages inclusion in the study populations

### SUGGESTED NEXT LINES OF RESEARCH

randomized comparative trials on lipedema treatment options