

# EVIDENCE BASED STATEMENT

DOMAIN **10**, Statement **8**

TOPIC: “**Lipedema signs, symptoms and diagnostic work-up**”

## 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

14 (before) - 11 (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

1/14

1. Forner-Cordero I, Szolnoky G, Forner-Cordero A, Kemény L. Lipedema: an overview of its clinical manifestations, diagnosis and treatment of the disproportional fatty deposition syndrome - systematic review. Clin Obes. 2012 Jun;2(3-4):86-95
2. Katzer K, Hill JL, McIver KB, Foster MT. Lipedema and the Potential Role of Estrogen in Excessive Adipose Tissue Accumulation. Int J Mol Sci. 2021 Oct 29;22(21):11720
3. Bertlich M, Jakob M, Bertlich I, et al. Lipedema in a male patient: report of a rare case - management and review of the literature. GMS Interdiscip Plast Reconstr Surg DGPW. 2021 Sep 22;10:Doc11.
4. Angst F, Benz T, Lehmann S, et al. Common and Contrasting Characteristics of the Chronic Soft-Tissue Pain Conditions Fibromyalgia and Lipedema. J Pain Res. 2021 Sep 17;14:2931-2941.
5. Lipoedema: a paradigm shift and consensus. JOURNAL OF WOUND CARE CONSENSUS DOCUMENT VOL 29, SUP. 2, NO 11, NOVEMBER 2020

# EVIDENCE BASED STATEMENT

## Domain 10; Statement 8

### IDENTIFIED REFERENCES

- 1: Kruppa P, Georgiou I, Biermann N, et al. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. Dtsch Arztebl Int. 2020 Jun 1;117(22-23):396-403.
- 2: Precone V, Barati S, Paolacci S, et al. Genetic syndromes with localized subcutaneous fat tissue accumulation. Acta Biomed. 2019 Sep 30;90(10-S):90-92.
- 3: Buso G, Depairon M, Tomson D, et al. Lipedema: A Call to Action! Obesity (Silver Spring). 2019 Oct;27(10):1567-1576.
- 4: Shavit E, Wollina U, Alavi A. Lipoedema is not lymphoedema: A review of current literature. Int Wound J. 2018 Dec;15(6):921-928.
- 5: Torre YS, Wadea R, Rosas V, Herbst KL. Lipedema: friend and foe. Horm Mol Biol Clin Investig. 2018 Mar 9;33(1):/j/hmbci.2018.33.issue-1/hmbci-2017-0076/hmbci-2017-0076.xml.
- 6: Okhovat JP, Alavi A. Lipedema: A Review of the Literature. Int J Low Extrem Wounds. 2015 Sep;14(3):262-7.

# EVIDENCE BASED STATEMENT

## Domain 10; Statement 8

### TEXT FOR INCLUSION IN THE DOCUMENT

#### DOMAIN 10, Statement 8, TOPIC: "Lipedema signs, symptoms and diagnostic work-up"

Lipedema is a chronic soft tissue disease affecting mainly, but not only, women. Its progressive nature is not yet fully confirmed by scientific evidence.

The condition is characterized by a bilateral disproportion in fat distribution, accumulating on the extremities, sparing the trunk, hands and feet.

Three clinical stages of progressive severity are identified:

- 1) thickened soft subcutis, with small palpable nodules and a smooth skin surface
- 2) thickened soft subcutis, with larger nodules and an uneven skin surface
- 3) thickened hard subcutis, with large nodules and disfiguring fat deposition

Another classification is defined by the topographical fat anomaly distribution:

- 1) buttock
- 2) thigh
- 3) entire lower limb
- 4) arm
- 5) below knee

Despite lipedema was first described in 1940, its detection and proper management remains globally suboptimal.

**[Buso G, Depairon M, Tomson D, et al. Lipedema: A Call to Action! Obesity (Silver Spring). 2019 Oct;27(10):1567-1576]**

A genetic predisposition is supposed following the reported familial clusters. It usually appears during puberty, suggesting a estrogen-mediated component.

The anomaly leads to adipocytes hyperplasia and/or hypertrophy. The inflammatory condition is also associated with a micro-angiopathy of the blood and lymphatic vessel, therefore potentially overlapping a lymphedema condition. The related endothelial inflammation and capillary damage can explain the hematoma tendency of this condition. The same inflammation is considered responsible of the neural hypersensitivity to nociceptive stimuli, typical of lipedema. The quality of life is potentially severely affected by the condition.

**[Okhovat JP, Alavi A. Lipedema: A Review of the Literature. Int J Low Extrem Wounds. 2015 Sep;14(3):262-7].**

The diagnosis is mainly clinical: bilateral, symmetrical, disproportionate fatty tissue hypertrophy, not involving hands and feet, associated with hypersensitivity to pressure pain and hematoma tendency. Stemmer sign is usually negative, but it can become positive if associated with a lymphedema condition.

**[Shavit E, Wollina U, Alavi A. Lipoedema is not lymphoedema: A review of current literature. Int Wound J. 2018 Dec;15(6):921-928].**

Hepatic and renal function should always be assessed, together with all the causes of hormonal distress potentially mimicking lipedema.

Diagnostic exams such as ultrasound, computed tomography, magnetic resonance, bioimpedance, lymphography can be of help in the differential diagnosis, but they present no pathognomonic outcome for lipedema.

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

# EVIDENCE BASED STATEMENT

## Domain 10; Statement 8

### STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 10, Statement 8

“Leg swelling leg can be caused by fat tissue alteration (lipedema). The condition affects both limbs, it spares the feet and hands and it’s associated with pain at pressure on the skin”  
”

### 4 SELECTED REFERENCES

1. Buso G, Depairon M, Tomson D, et al. Lipedema: A Call to Action! Obesity (Silver Spring). 2019 Oct;27(10):1567-1576
2. Okhovat JP, Alavi A. Lipedema: A Review of the Literature. Int J Low Extrem Wounds. 2015 Sep;14(3):262-7
3. Shavit E, Wollina U, Alavi A. Lipoedema is not lymphoedema: A review of current literature. Int Wound J. 2018 Dec;15(6):921-928
4. Kruppa P, Georgiou I, Biermann N, Prantl L, Klein-Weigel P, Ghods M. Lipedema-Pathogenesis, Diagnosis, and Treatment Options. *Dtsch Arztebl Int.* 2020;117(22-23):396-403

### identified LITERATURE BIAS

Lack of homogenous populations for lipedema pathognomonic diagnostic findings

### SUGGESTED NEXT LINES OF RESEARCH

Blind investigations on pure lipedema patients