

Dr Naveen Somia - Specialist Plastic Surgeon

Lipoedema - Diagnosis and Prognosis

A genetic disease of abnormal fat storage influenced by:

- Puberty
- Pregnancy
- Menopause
- Ageing

Life events Lifestyle events

- Weight gain
- Inactivity/sedentary lifestyle
- Stress

Initial symptoms

- Usually appears at puberty or soon after in response to the estrogen hormone
- Appears in thighs/legs and arms later
- Coincides with growth spurt and lifestyle changes
- Often confused with obesity and misdiagnosed with inappropriate and ineffective advice ie extreme diets creating a vicious cycle and eating disorders

Diagnosis - Dutch Criterior

- Family history
- Typical pattern at onset
- Typical distribution
- No response to diet/exercise
- Jeans that fit thigh but not waist
- Boots don't fit

Distribution of lipoedema fat

- Thighs
- Legs
- Arms
- Upper buttock
- Ankle cuff

Progression

Increasing amounts of lipoedema fat deposition is seen in:

- Puberty
- Pregnancy
- Perimenopause
- Menopause
- Ageing
- Weight gain and immobility

Natural Outcome

- Stage 1
- Progression to Stage 2,3 and 4
- Knee replacement
- Total and permanent disability

Genetics

Research to isolate the gene causing abnormal fat storage is underway. Both sides of the family can have the gene including males. It can skip a generation and siblings.

Slow down progression - Control not cure

You cannot control life events but you can manage lifestyle events such as:

- Weight gain
- Inactivity, sedentary lifestyle
- Stress

Management of Lipoedema

- Improve Lymphatic Function
- Reduce levels of leptin
- Conservative treatments
- Remove Lipoedema fat Liposuction

Improve lymphatic function passively:

- Compression Class 2 flat knit garments (decongestive therapy)
- Manual lymphatic drainage Therapist
- LX9/bio-compression pant pump
- Vibration plate

+ Muscle based activity such as:

- Walking
- Walking waist deep water
- Yoga / Pilates

Combat weight gain/obesity

Increase lymphatic function to control fat deposition. Lymphatic dysfunction results in fat deposition no matter where the dysfunction or the cause.

Like the heart pumps for blood, muscle contraction pumps lymphatics. After age 30 there is 10% muscle mass loss every 10 years. At at 60 you will be lifting a very heavy leg with a weak muscle. Ongoing muscle activity improve lymphatics, and to combat weight gain.

Walking in water - 4 in 1 benefit

Walking in water has a compression and resistance effect, softens the fat and mimics a manual lymphatic drainage massage.

Combat inactivity or a sedentary lifestyle

Reduce leptin levels. Leptin is produced by both normal fat cells and lipoedema fat cells. Leptin acts on the lymphatic system and slows it down, A sluggish lymphatic system produces more fat and a vicious cycle is set up.

Reduce leptin

- Diet and nutrition consult
- Exercise and muscle health
- Correct hormone imbalance (metabolic health consult)
- Medical or surgical weight loss

Diet/Nutrition consult

A diet/nutrition consult will help you to understand food intolerances that cause inflammation, avoid restrictive diets that result in nutritional deficiences, understand gut health and the impact of processed foods, gluten, dairy, sugar and meat on lipoedema. All of these are useful as a long term management strategy.

Metabolic health consult

Metabolic health affects weight gain and obesity. A metabolic health consultation will help you understand how metabolic health impacts your health, how dyslipidaemia/insulin resistance impacts metabolic health, with weight management and as you go through menopause.

Remove diseased lipoedema fat

As of today, there is no proven method available that can drastically reduce or remove lipoedema. Liposuction is the only option to debulk fat, reduce congestion and assist the lympatics to move with less resistance and pain.

Water assisted liposuction

Protects the lymphatic system. Fat is removed from areas pre-marked as a priority for you. Generally 4-8 litres is extracted per surgery. You will require more than 1 procedure to treat all areas.

Lipoedema fat can grow back and additional procedures may be required in the future. To maximise the results of your surgery lifelong adherence to conservative treatments is best. Surgery is performed under a 4 hours general anaesthetic and an overnight stay. Pain killers and antibiotics will be prescribed after surgery.

Stress

Easier said than done, try to reduce stress. This involves taking time for self-care, talking to others about your condition and where needed GP support.



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Lipoedema - Considerations for Liposuction

You	u must be comfortable with thes	e fact	s before proceeding with surgery	
	Liposuction cannot cure lipoedema		What to expect after surgery	
	The production of lipoedema fat does not stop and builds up over time. There is no cure and Liposuction is aimed at controlling the progress of the disease.		Removal of fat, reduction of the circumference of thighs/legs/arms. Residual pockets of fat, lumpiness and asymmetry. It is not possible to achieve perfect symmetry or proportions, tight skin or smooth contours.	
	Aesthetic outcomes are not possible			
	Aesthetic outcomes after liposuction are		Post operative pain + nerve pain	
	dependent on the skin retracting and tightening. This is unlikely in lipoedema patients. The main aim of liposuction is to remove the diseased fat and reduce the disease burden of imflammatory LIPOEDEMA		Occasionally nerves get hyperactive. If it does, it can be treated with special medications and a pain specialist referral.	
	fat.		Swelling	
	Lipoedema Affects Skin		You will have residual swelling for 4 - 12 months and ankle swelling can persist.	
	Lipoedema skin does not have the tension and elasticity of normal skin. It has abnormal collagen, lymphatics and blood vessels. After surgery the skin will be loose and usually shrinks after 3-months. Skin excision is not		Wearing medical grade custom compression for 12 weeks post operatively as a minimum is essential to control swelling and assist lymphatic function.	
	performed at the same time. It can be considered at a late and referrals provided as necessary.		Scars	
			Take 12-18 months to heal. This includes skin scars and fat scars that you can feel as tight or	
	Surface Irregularity		firm	
	Because the skin is "floppy" it doesn't shrink		What will happen if you do not treat	
	wrap the leg like normal skin, exposing the underlying fat contour issues.		Progression to Stage 4, and total permanent disability	
	Asymmetry		You will need more than 1 procedure	
	Martin City		Since the fat production and deposition is	

Most legs are asymmetrical. Sisters are not twins. This is likely to be more noticeable when the fat is removed. Not all fat can be removed equally on both sides.

Since the fat production and deposition is ongoing you will need liposuction as required. Depending on the amount of fat you will need debulking first. Additional procedures are at your expense.



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Lipoedema - Summary

Slow down progression - Control not cure

Reduce Lept	in	Improve Lymphatic Function		
Reduce normal fat	Reduce lipoedema fat	PASSIVE	ACTIVE	SURGICAL
Diet & Nutrition Exercise & Muscle health Metabolic health consult Medical weight loss Surgical weight loss	Liposuction	Compression Class 2 flat knit Decongestive therapy Manual lymphatic drainage by therapist LX9 or biocompression pants pump at home	Walking in waist deep water Pilates Yoga	Liposuction: Debulks fat Reduces congestion Allows lymphatics to move with less resistance



