





UNDERSTANDING LIPEDEMA PAIN—AND HELPING OTHERS UNDERSTAND IT TOO

WHY DOES PRESSURE HURT?

By Laine Kristin Miller, PTA, LMT, CLT

The pain of Lipedema is real

"Why does that hurt so much?"
For someone living with lipedema, this can be a difficult question to answer.

A grandchild climbs onto your lap and you instinctively shift them away from your thighs.

The cat jumps onto your legs and you nearly jump yourself.

You sit on the edge of a hard chair and immediately look for somewhere else to sit.
Someone affectionately squeezes your arm.
A nurse inflates a blood pressure cuff and you wince.
To another person, these may seem like ordinary amounts of pressure. To someone with painful lipedema tissue, they can hurt—a lot.

The pain is real.

And emerging research is beginning to help us understand why.

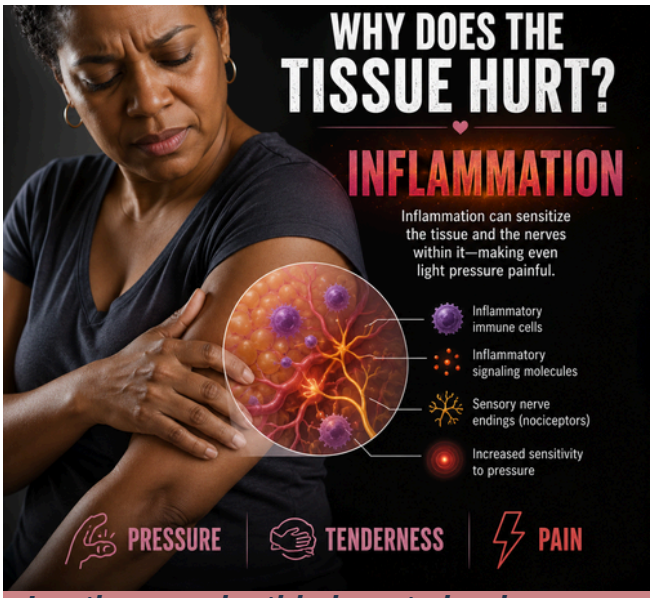
Lipedema Is More Than an Accumulation of Fat

Lipedema has historically been described largely by what we can see: disproportionate enlargement of the legs and sometimes the arms.

But affected tissue is biologically more complicated than simply having "more fat." Research describes changes involving the adipose tissue, extracellular matrix, microvasculature, connective tissue, interstitial environment and sensory nervous system.

Pain and tenderness to pressure are among the characteristic symptoms reported by many people with lipedema.

The 2025 Lipedema World Alliance consensus specifically describes physical sensitivity to pressure and/or stretch, usually experienced as pain, and notes that this increased sensitivity tends to occur in the areas affected by lipedema.



In other words, this is not simply:
"My legs are sore."
It may be more accurately described as:
"My tissue processes mechanical pressure differently."

When Normal Pressure Becomes Painful

There is a useful term for pain caused by something that normally should not hurt: allodynia.
Mechanical allodynia refers to pain triggered by normally non-painful mechanical stimulation, such as touch or pressure.

Researchers studying women with lipedema have found measurable differences in response to mechanical stimulation. One study demonstrated increased mechanical sensitivity in lipedema tissue and found changes involving neuronal structures and pain-related neuropeptides within the skin.

More recent reviews have also reported altered pressure-pain thresholds in affected tissue, supporting what patients have described for years: pressure that seems perfectly reasonable to another person can be painful to someone with lipedema.

But Why Does It Hurt?

We don't yet have one definitive answer.
Lipedema pain is probably multifactorial, meaning several changes within the tissue may contribute simultaneously.

1. The sensory nerves may become more responsive to pressure

Our tissues contain sensory nerve endings that detect mechanical forces.

Research into lipedema suggests alterations in sensory processing within affected tissue, including evidence of mechanical hypersensitivity and possible changes involving nociceptive—or pain-detecting—nerve pathways.

Think of the nervous system as having a threshold.
In unaffected tissue, a certain amount of pressure may register simply as:
"Something is touching me."

In pressure-sensitive lipedema tissue, that threshold may be lower.
The same mechanical stimulus may instead register as:

"That hurts."

2. The tissue surrounding those nerves may be different

The extracellular matrix, or ECM, is the structural environment surrounding our cells.

In lipedema, alterations in connective tissue and extracellular matrix organization have been identified. As tissue becomes remodeled or increasingly fibrotic, its mechanical properties may change.

One emerging hypothesis is particularly interesting: a stiffer extracellular matrix could transmit mechanical force differently through the tissue, potentially increasing stimulation of pain-sensitive nerve fibers when pressure is applied.

This remains an area of active research, but it provides a possible explanation for why squeezing or compressing lipedema tissue can be disproportionately uncomfortable.

3. The interstitial environment may matter

The space between our cells is not empty.
It contains fluid, proteins, signaling molecules, connective tissue, blood vessels, lymphatic vessels and sensory nerves.

Research increasingly describes vascular permeability, interstitial fluid accumulation, tissue remodeling and altered fluid handling in lipedema. These changes may increase pressure within an already sensitive tissue environment.

Now apply external pressure on top of that.

- A chair edge.
- A child's knee.
- A blood pressure cuff.
- A pet's paw.

The pressure is transmitted into tissue that may already be mechanically and neurologically sensitive.



4. Microvascular changes may contribute

Easy bruising is another well-recognized characteristic of lipedema.

Research describes microvascular abnormalities, increased capillary fragility and altered vascular permeability in affected tissue. These changes may contribute to fluid accumulation and changes in the local tissue environment.

This helps explain why someone with lipedema may say:

“It hurts when you press there—and sometimes I don't even remember what caused the bruise.”

5. Inflammation and neuroinflammation are being investigated

Inflammatory and immune changes have also been identified in lipedema tissue, although their precise relationship to pain is still being worked out.

Researchers are investigating communication between immune cells, vascular structures and sensory nerves, including neuropeptides involved in pain signaling.

This is an evolving area of lipedema research, and we should be careful not to claim that inflammation alone causes lipedema pain. The current evidence points toward a much more complicated interaction among tissue structure, vascular changes, fluid dynamics and sensory nerves.

This Is Why Everyday Things Can Hurt

Sometimes the easiest way to explain lipedema pain is not with anatomy—but with everyday life.

“I love having my grandchildren on my lap—but their knees hurt my thighs.”

A small child isn't doing anything wrong.
But a knee or elbow concentrates body weight into a relatively small area.

That localized pressure against sensitive lipedema tissue can be extremely uncomfortable.
You can love holding your grandchild while still needing to reposition them beside you, place a pillow across your lap or change how their weight is distributed.

“My cat jumping onto my lap hurts.”
A cat may weigh only 10 or 12 pounds.
But four little paws concentrate that weight into four very small areas.

When the cat jumps, the force is even greater for an instant.

Someone without lipedema may barely notice it.
Someone with painful thigh lipedema may feel those paws immediately.

“Certain chairs hurt.”

A hard chair edge pressing against the back or side of the thighs can become uncomfortable very quickly.

Deep seats may also place pressure behind the knees or along sensitive areas of the thighs.

Deep seats may also place pressure behind the knees or along sensitive areas of the thighs.

“The blood pressure cuff really hurts my arm.”

A blood pressure cuff works by applying enough circumferential pressure to temporarily compress the artery.

That is necessary for the measurement—but it can be extremely uncomfortable when the upper arm contains pressure-sensitive lipedema tissue.
Arm size and shape may also make proper cuff selection important.

Someone wincing during a blood pressure measurement isn't necessarily anxious about having their blood pressure taken.

The cuff itself may hurt.

“Please don't squeeze my arm.”
An affectionate squeeze may seem gentle.
But the person receiving it may experience something very different.

The same can happen with massage that is too aggressive, tight armrests, someone leaning against your thigh, a dog stepping across your legs, tight clothing or even carrying something that presses firmly against the body.



How Do I Explain This to My Family

You don't need to give your family a lecture about extracellular matrix remodeling and nociceptive nerve fibers.

Try something simpler:

“The tissue in my legs and arms is unusually sensitive to pressure. Something that feels like normal pressure to you can actually trigger pain for me.

If I move your hand, reposition the baby, move the cat or ask for a different chair, I'm not rejecting you. I'm just taking pressure off painful tissue.”

For a child or grandchild:

“Grandma loves having you close. My legs just hurt when something presses on them, so let's sit next to each other or put this pillow on my lap.”

That distinction matters.

You are not asking people to stop touching you.
You are teaching them how to touch you without hurting you.

How Do I Explain It to a Healthcare Provider?

“I have lipedema, and the affected tissue is very sensitive to pressure. Pressure-induced pain is a recognized feature of the condition. Please tell me before applying significant pressure, and if something is painful, I may need you to adjust your technique.”

For blood pressure measurement:

“My upper arms are affected by lipedema and blood pressure cuffs can be extremely painful. Could we please make sure the cuff is appropriately sized and avoid unnecessary repeat measurements?”

This isn't asking for special treatment.

It is giving your healthcare provider clinically relevant information about how your body responds to mechanical pressure.



At the end of this article there is a pdf that you can print out for your providers and family. Education is the key!

Pain Does Not Have to Be Visible to Be Real

One of the hardest aspects of living with lipedema can be explaining symptoms that other people cannot see.
Someone sees a child sitting on your lap.
You feel the child's knee pressing deeply into your thigh.

Someone sees a cat standing on your legs.
You feel four concentrated points of pressure.
Someone sees a routine blood pressure cuff.
You feel intense compression around sensitive tissue.

The stimulus is the same. The sensory experience is not.

Research is increasingly validating what people with lipedema have been saying for years: affected tissue can demonstrate genuine pressure sensitivity and altered pain responses.

We still have much to learn about exactly why.
But we do not need every molecular answer before we listen.

If someone with lipedema tells you:
“That pressure hurts me,”
believe them.

Sometimes the simplest accommodation—a pillow, a softer chair, repositioning a child, moving a pet, changing where pressure is applied or taking extra care during a medical procedure—can make an enormous difference.

And sometimes being understood is an important part of living better with a condition that too often goes unseen.

References

Herbst KL, et al. Standard of care for lipedema in the United States. Phlebology. 2021;36(10):779–796.

Lipedema World Alliance. Delphi Consensus-Based Position Paper on the Definition and Management of Lipedema: Results from the 2023 Lipedema World Congress in Potsdam. Published 2025.

Chakraborty A, et al. Indications of Peripheral Pain, Dermal Hypersensitivity, and Neurogenic Inflammation in Patients with Lipedema. International Journal of Molecular Sciences. 2022;23(18):10313.

Vazirnia A, et al. Lipedema Diagnosis, Clinical Manifestations, and Therapeutics: A Systematic Review. International Journal of Dermatology. 2026.

Lipedema: Progress, Challenges, and the Road Ahead. 2025.

Lipedema: Pathophysiological Insights and Therapeutic Strategies—An Update for Dermatologists. 2026.

Vascular Changes and Their Implications in Lipedema. 2026.

Educational Disclaimer

This article is intended for education and to support communication among people living with lipedema, their families, caregivers and healthcare professionals. It is not intended to diagnose the cause of new or worsening pain. New, severe, localized or unexplained pain should be evaluated by an appropriate healthcare professional.



Feel free to copy the PDF at the end of this article and share it as a practical resource with your healthcare provider or family. It can help explain how lipedema-related pain may differ from ordinary soreness, pressure sensitivity, and bruising, and support clearer conversations about your symptoms and care.

WHY DOES A BLOOD PRESSURE CUFF HURT MY ARM?

Lipedema and Blood Pressure Measurement - A Patient & Healthcare Team Handout

For many people, a blood pressure cuff is only mildly uncomfortable. For someone with lipedema affecting the arms, cuff inflation may be significantly painful.
Pain and pressure sensitivity are recognized features of lipedema, and arm enlargement may also make proper cuff selection and positioning more difficult.

Why can it hurt?

Lipedema is a disorder of loose connective tissue characterized by disproportionate changes in subcutaneous adipose tissue. It commonly affects the legs, but the arms may also be involved. Pain, tenderness and sensitivity to pressure are common clinical features.

- **Pressure-sensitive tissue.** Lipedema-affected tissue may hurt with squeezing, palpation, tight clothing or other external pressure. A cuff must apply substantial circumferential pressure to temporarily compress the artery.
- **Connective-tissue changes.** Lipedema involves more than an increase in fat volume. Alterations in loose connective tissue and the extracellular matrix may contribute to tissue sensitivity.
- **Swelling and tissue congestion.** Heaviness, swelling and extracellular fluid changes are frequently reported. Compression of already uncomfortable tissue can intensify the sensation of pressure.
- **Nodular or fibrotic changes.** With progression, tissue may become more nodular or fibrotic, which can make circumferential compression uncomfortable.
- **Easy bruising / capillary fragility.** Easy bruising is frequently reported in lipedema, and capillary fragility has been documented in research.

Important: The exact biological mechanisms responsible for lipedema pain are still being studied. Not every episode of arm pain should automatically beattributed to lipedema.

Can arm lipedema affect the blood pressure reading?

Potentially. The U.S. Standard of Care for Lipedema notes that enlargement of an arm or leg may affect blood-pressure measurement and may cause pain. Correct cuff size is important for everyone: a cuff that is too small can overestimate blood pressure, while inappropriate sizing or positioning can reduce measurement accuracy.

For a patient with a disproportionately large, conical or otherwise difficult-to-fit upper arm, the standard cuff routinely available in an examination room may not be appropriate.



INFORMATION FOR MY HEALTHCARE TEAM

A practical approach when upper-arm blood pressure measurement is painful

Significant cuff pain should not automatically be interpreted as anxiety or low pain tolerance. Pressure sensitivity and pain are recognized features of lipedema. Blood pressure still needs to be measured when clinically indicated - the technique may simply need to be individualized.

Suggestions when obtaining blood pressure

- Measure or assess upper-arm circumference and select the appropriate cuff size rather than automatically using a standard adult cuff.
- Place the cuff directly on the skin and support the arm at heart level using standard blood-pressure technique.
- Avoid unnecessary repeated inflations once an adequate measurement has been obtained.
- If one arm is substantially more painful and there is no medical reason that requires use of that arm, consider whether the opposite arm is appropriate.
- If an appropriately sized upper-arm cuff cannot be comfortably or correctly positioned, consider an alternative validated measurement approach and documen the site/device used.

Could the forearm or wrist be used?

Avalidated upper-arm device with an appropriately sized cuff remains the preferred method for routine blood-pressure measurement. However, the U.S. lipedema Standard of Care specifically discusses forearm or wrist measurement as possible alternatives when upper-arm measurement is problematic.

Wrist measurements require particularly careful positioning at heart level and may be less reliable than properly performed upper-arm measurements. The healthcare professional should determine the most appropriate method for the individual patient and clinical situation.

The goal: accurate measurement with the least unnecessary discomfort

Having lipedema does not mean blood pressure should simply be skipped. A small accommodation - recognizing pressure sensitivity, choosing the correct cuff, minimizing unnecessary repeated compression and considering an alternative site when appropriate - can make a routine medical procedure considerably more tolerable while still obtaining the clinical information needed.

Selected References

Herbst KL, et al. Standard ofcare for lipedema in the United States. ***Phlebology.*** 2021;36(10):779-796.
Bertsch T, et al. Lipedema World Alliance Delphi consensus-based position paper on the definition and management of lipedema. 2025.
Szolnoky G, et al. Measurement of capillary fragility: a useful tool to differentiate lipedema from obesity? ***Lymphology.*** 2018.
Muntner P, et al. Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association. ***Hypertension.*** 2019.

Educational note: This handout supports communication between patients and healthcare professionals. It does not replace individualized medical assessment. Blood-pressure technique or measurement location should be modified by a qualified healthcare professional when clinically appropriate.