

Fibrosis 101: What It Is, How It Develops, and What You Can Do Today

Understanding one of the most overlooked aspects of lymphedema—and how to stay ahead of it.

Introduction

When most people think about lymphedema, they focus on swelling. But beneath the surface, another process can quietly develop: **fibrosis**. It's one of the most misunderstood and under-discussed aspects of lymphedema, yet it plays a powerful role in long-term outcomes.

This article breaks down what fibrosis is, why it happens, how to recognize it early, and—most importantly—what steps you can take right now to help manage it.

What Is Fibrosis?

Fibrosis refers to the **thickening**, **hardening**, **or "toughening" of tissues** caused by an excess buildup of collagen and other fibers. In lymphedema, this process occurs when protein-rich lymph fluid accumulates in tissues for prolonged periods.

Think of lymph fluid like a sticky liquid. When it lingers, it creates the perfect environment for inflammation. Over time, the body responds by laying down fibrous tissue—almost like scar tissue. This makes the skin and underlying layers feel **firm**, **dimpled**, **woody**, **or less elastic**.

Fibrosis is common in chronic or untreated lymphedema, but it is **not inevitable**. With early attention and consistent care, it can often be minimized or even softened.

How Does Fibrosis Develop?

Fibrosis doesn't appear overnight—it develops gradually through a series of changes beneath the skin:

1. Protein-Rich Fluid Builds Up

In lymphedema, the lymphatic system struggles to clear fluid effectively. This fluid is rich in proteins that attract inflammation.

2. Inflammation Increases

Chronic fluid buildup activates inflammatory cells. The longer the swelling persists, the more the body tries to "repair" the area.

3. Collagen Deposits Form

The body lays down fibrous tissue—mostly collagen—as a response to ongoing inflammation. This is part of the body's natural repair mechanism, but it becomes problematic when it continues unchecked.

4. Tissues Become Firm or Hardened

With repeated cycles of inflammation and repair, tissues can become thickened, less mobile, and more resistant to standard techniques like simple elevation.

5. Circulation and Lymph Flow Become Even More Restricted

Fibrosis makes swelling harder to reduce, creating a cycle:

Swelling \rightarrow Fibrosis \rightarrow More swelling \rightarrow More fibrosis.

This is why early intervention and ongoing management are key.

How to Recognize Fibrosis Early

Fibrosis often starts subtly. Early signs include:

- A small area that feels firm, rubbery, or less "squishy" than nearby tissue
- Skin that dimples or feels "peau d'orange" (orange peel texture)
- A feeling of heaviness or tightness that doesn't fully go away
- Clothing or rings leaving deeper indentations
- Tissue that doesn't soften as much after elevation

Catching these changes early gives you the best chance to slow progression and improve comfort.

What You Can Do Today

Fibrosis may sound intimidating, but the good news is that **many effective tools and habits can help soften it, prevent it, or manage it**. These strategies work best when done consistently and under the guidance of a Certified Lymphedema Therapist (CLT).

1. Prioritize Manual Lymph Drainage (MLD)

MLD helps move fluid before it becomes stagnant and triggers inflammation.

A therapist can also use **targeted fibrosis techniques** to break up harder areas.

At home: Gentle self-MLD, done daily, keeps fluid moving and reduces buildup.

2. Use Compression Consistently

Compression garments—daytime sleeves, stockings, or nighttime garments—apply the pressure needed to prevent fluid from sitting in the tissues.

For fibrosis specifically:

- Flat-knit garments often work better on firm or irregular shapes.
- Foam pads, swell spots, or chip bags can provide targeted pressure to soften dense areas.

3. Move Every Day (Even in Small Ways)

Movement activates the muscle pump, which is one of the strongest drivers of lymph flow.

Try:

- Light strength training
- Stretching that improves tissue mobility
- Short walking sessions
- Deep breathing techniques

Even **5–10 minutes** spread throughout the day helps interrupt stagnation.

4. Keep the Skin Healthy and Hydrated

Fibrotic tissue can make skin more fragile. Moisturizers, proper hygiene, and daily skin checks reduce infection risk—important because infections can rapidly worsen fibrosis.

5. Reduce Inflammation Through Lifestyle Choices

Inflammation fuels fibrosis. Support your body with:

- Anti-inflammatory foods (berries, greens, omega-3s)
- Adequate hydration
- Stress reduction practices
- Sufficient sleep

You don't need perfection—small, consistent improvements matter most.

6. Work With a Specialist Regularly

If you notice any areas getting firmer or more difficult to manage, schedule a session with your CLT. Early targeted treatment makes a big difference.

The Bottom Line

Fibrosis is one of the clearest signs that the tissues need more consistent attention—but it's **not a point of no return**. With the right combination of daily habits, compression, movement, and professional treatment, many people experience significant softening and improved comfort.

Understanding fibrosis gives you the power to act early, make informed decisions, and protect your long-term lymphatic health.



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