



Peptides In Action

Real-World Applications in Podiatry

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Understanding BPC-157: The Vascular Healing Peptide

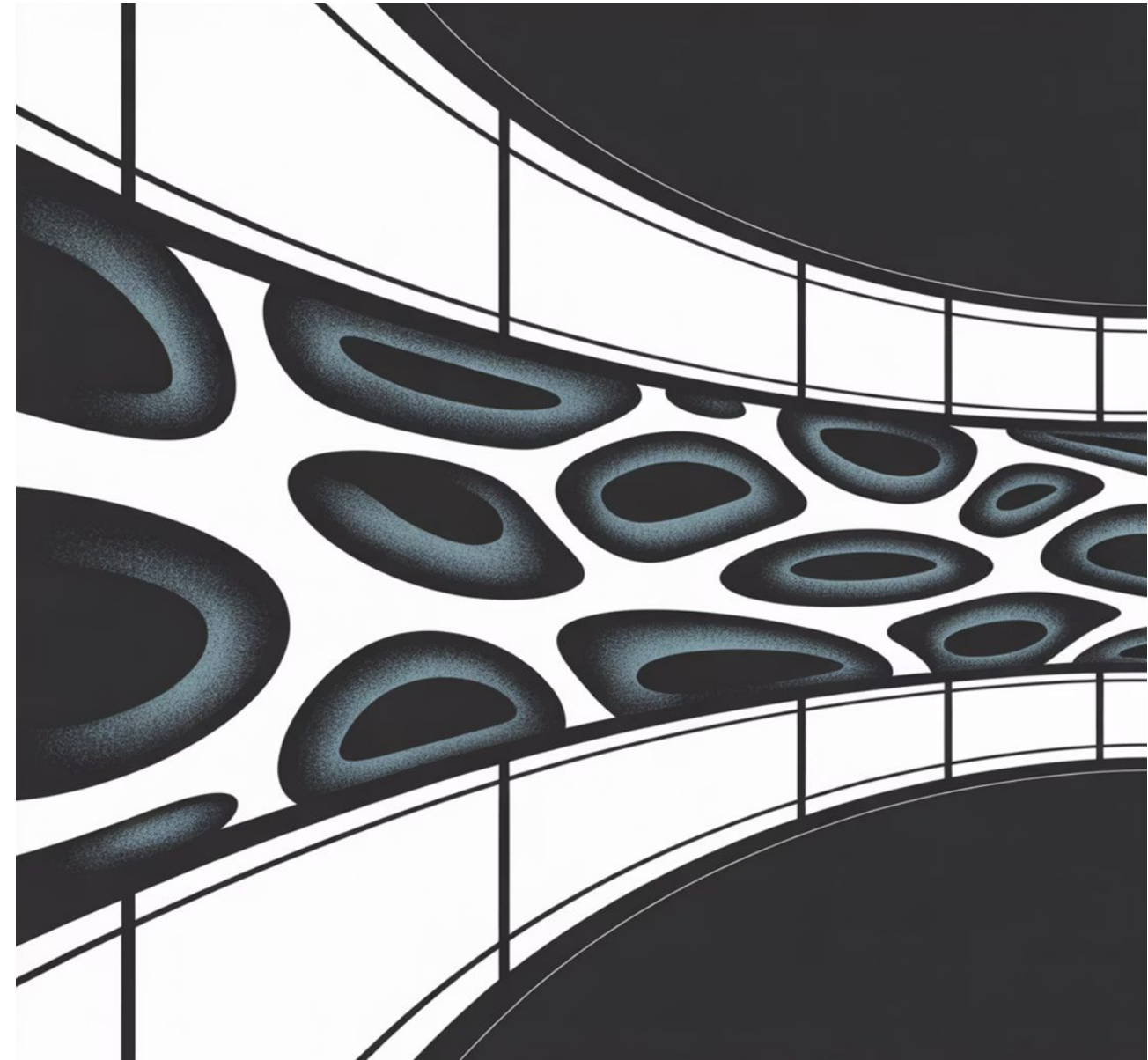
- BPC-157 (Body Protection Compound-157) is a synthetic peptide derived from a protective protein naturally present in human gastric juice.
- 15 amino-acid sequence (pentadecapeptide)
Gly-Glu-Pro-Pro-Pro-Gly-Lys-Pro-Ala-Asp-Asp-Ala-Gly-Leu-Val

How It Works

BPC –157 is a signaling coordinator, orchestrating multiple repair pathways

Key Actions

1. Promote tissue healing
2. Support Angiogenesis
3. Protect the gut lining
4. Modulate inflammation
5. Neuroprotective potential



Clinical Pearl: BPC-157 is often called the "vascular healing peptide" because its primary strength is enhancing blood flow to damaged areas – critical for wound healing and post-surgical recovery in the lower extremities.

HOW ?

1. Tissue Healing



- Nitric Oxide (NO) Signaling/ Enhance mitochondria function
- Cytoskeletal & Cell Migration
- Interaction with Growth & Repair Hormones

NO Signaling

Stimulates **eNOS** (endothelial nitric oxide synthase) → ↑ **NO** → **vasodilation & increased microcirculation**

Modulates **NO–cGMP** pathway for improved **blood flow** and reduced oxidative stress

Result

Better oxygen/nutrient delivery to injured areas

Cell Migration

Influences the **FAK–paxillin** complex → regulates **actin** cytoskeleton dynamics → enhances **fibroblast migration**

Supports **extracellular matrix remodeling**

Result

Speeds closure of wounds and ligament / tendon repair

Interaction with Growth & Repair Hormones

↑ Expression of **GH receptor** and possibly **IGF-1 sensitivity** in damaged tissue

Synergistic effects with systemic repair mechanisms

Result

Boosts the efficiency of natural growth factor-driven healing

2. Angiogenesis & Blood Vessel Repair

Stimulate angiogenesis via VEGF pathway
Accelerate endothelial repair, protects mucosal and vascular lining.

↑ **VEGF (Vascular Endothelial Growth Factor)** → binds **VEGFR2** on endothelial cells → activates **PI3K/Akt** and **MAPK/ERK** → endothelial proliferation & migration → new blood vessel formation

Enhances **FAK–paxillin signaling**- improving cell adhesion and migration

Result:

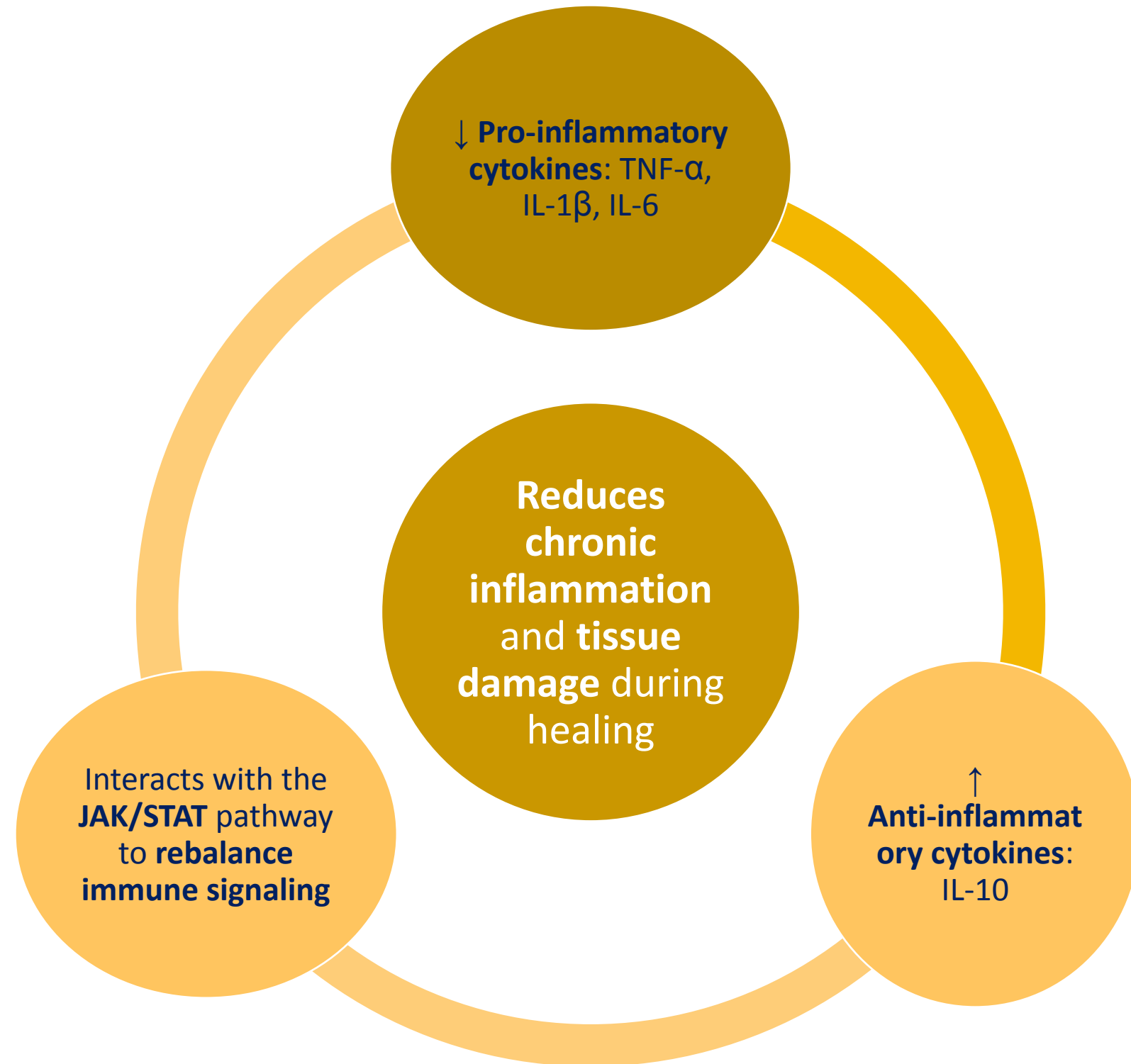
Faster wound healing and improved blood supply to damaged tissues

3. Gut Barrier Protection



4. Inflammation & Immune Modulation

- Balances Cytokine signaling



5. Neurological Repair

Modulates **BDNF** (Brain-Derived Neurotrophic Factor) and **trkB** signaling

Interacts with **dopaminergic** and **serotonergic** pathways for neuroprotection

Result

Nerve/muscle regeneration and **functional recovery** after injury

Why I Integrate BPC-157 in My Practice

Patients heal faster, report less pain and reduced edema. It has become a cornerstone of my treatment protocols.

Wound Management: DFUs, VLU's and Arterial ulcers.
Decrease fibrosis, promote angiogenesis, jump-starting stalled healing processes.

Post-Surgical Recovery: All osseous and soft tissue repair.
Reduction in edema, scarring, and recovery time. Sooner return to activity weeks.

Tendon and ligament injuries: Tendon/Ligament repair, plantar fasciitis improve faster.
Enhances collagen organization and tensile strength during the healing phase.

Patient-Driven Demand: Results driven. Alternative to surgery with faster recover

Minimal Side Effects The safety profile is favorable and well tolerated.
Not used on cancer patient.

The Advantages of Oral

BPC-157

Oral BPC-157 offers distinct benefits that make it the preferred choice for many patients and practitioners. Convenience, patient compliance, and systemic effects combine to create an accessible healing tool.



Why Oral Administration Works

BPC-157 is stable in the gastric environment— survives stomach acid and is absorbed systemically, reaching target tissues throughout the body including the lower extremities.

■ Patient Compliance

No injection anxiety and no barriers to adherence. Daily or every other day application

■ Cost-Effective

Easy administration and overall treatment costs.

■ Systemic Benefits

Oral BPC-157 addresses gut health, reduces systemic inflammation, and supports overall healing capacity—benefits that extend beyond the foot or ankle.

■ Broad Application

Oral BPC-157 is ideal for patients with any inflammatory or musculoskeletal conditions .

Case Study #1: Dramatic Wound Healing in One Week

70 yr-old male presented with a recurrent Diabetic foot ulcer that had been slow to heal using standard wound-care. One week of starting BPC-157, the wound showed remarkable improvement in granulation tissue, reduction in wound size, and healthy epithelialization at the margins.



Initial Presentation

Wound bed with hemorrhagic callus and underlying full thickness wound, inflammation, delayed healing despite standard wound care protocols for several weeks.

After One Week

Visible reduction in wound dimensions, healthy epithelization filling the wound bed.

Clinical Takeaway

The accelerated angiogenesis, tissue healing and anti-inflammatory effects of BPC-157

Case Study #2: Two Weeks of Progressive

Healing

72-year-old male with a long-standing history of a diabetic foot ulcer. After months of standard wound-care, BPC-157 was integrated as an adjunct to offload, diet, controlled BG levels and wound-care.



Week 1 Progress

Wound contraction visible, inflammation subsiding, early signs of re-epithelialization at wound margins. Patient reported reduced pain and improved mobility.

Week 2 Outcome

Closure with minimal scarring, return of normal skin texture. Patient able to resume regular footwear without discomfort.

📌 Patient Communication Tip: Set realistic expectations by explaining that healing is progressive. Show patients that even small improvements in the first week signal that the body's repair mechanisms are engaging effectively.

Case Study #3: Reduced Post-Operative Edema and Pain

1-week and 2-week post-op after a 1st MPJ implant. Reduced post-surgical swelling and pain. Walking in sandals at 4 weeks compared to patient who did not take BPC-157. BPC-157 can improve the post-operative experience by accelerating functional recovery.



Immediate Post-Op

Period
Patient started oral BPC-157 1-week pre-op and continued through the recovery period. Edema was noticeably less at 1-2 weeks out.

Clinical Insight

The anti-inflammatory and vascular protective effects of BPC-157 appear to modulate the inflammatory cascade following surgical trauma, leading to a smoother, more comfortable recovery trajectory.



Case Study #4: One-Week Transformation

65 year-old male with DFU, Mild PAD and venous insufficiency. 1 week post BPC -

Before Treatment

Fibro-granular base with traditional wound-care. Diffuse peri-wound erythema and edema.

After One Week

Reduction in inflammation, improved granulation tissue, visible neovascularization, and decrease edema and peri-wound area.

Key Success Factors

Early intervention, consistent daily dosing, patient compliance, and integration with appropriate local wound care protocols.

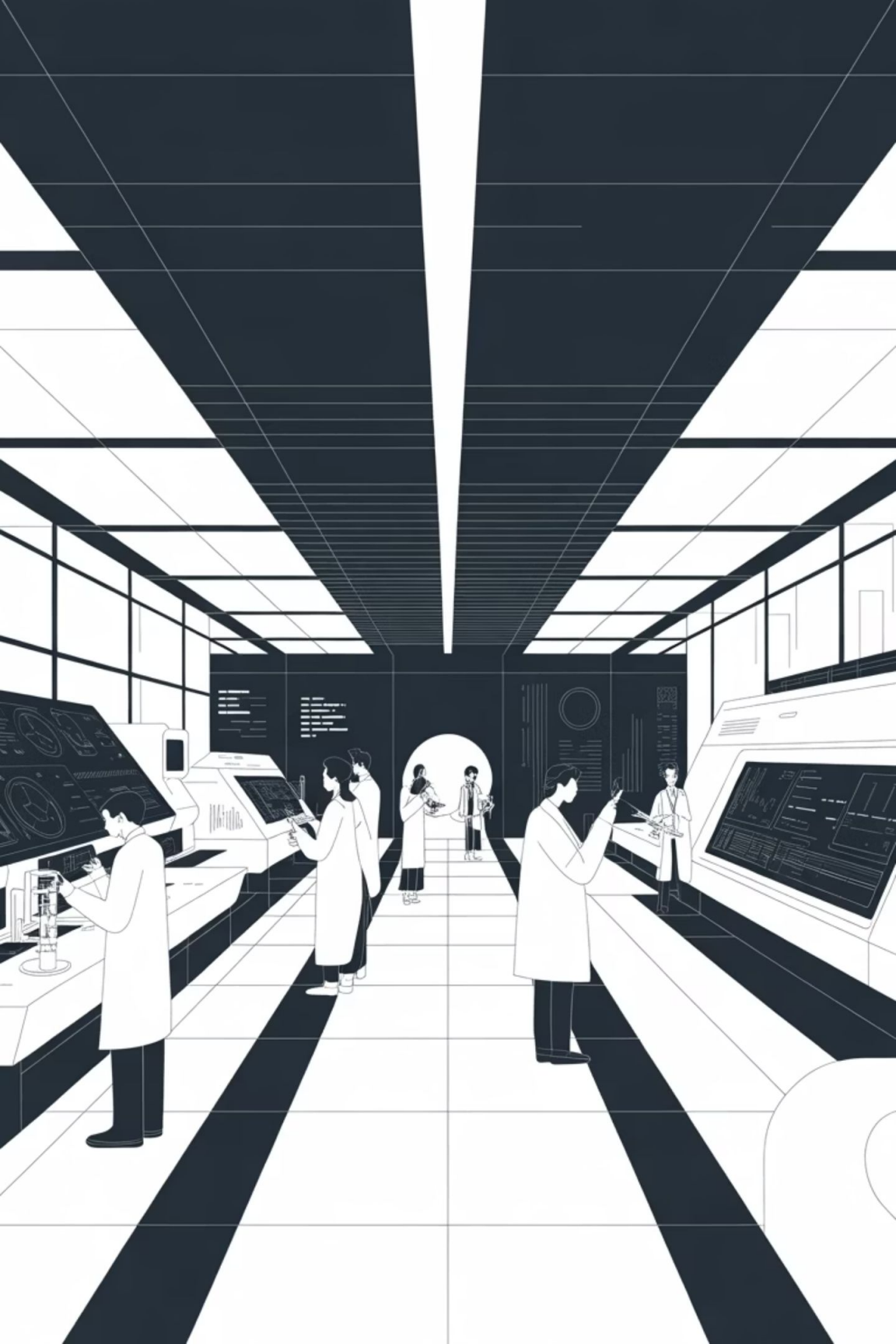
Practice Pearl: Document before-and-after photos systematically. Visual evidence builds patient confidence, supports insurance conversations, and creates powerful case studies for educating colleagues and patients.

Looking Ahead

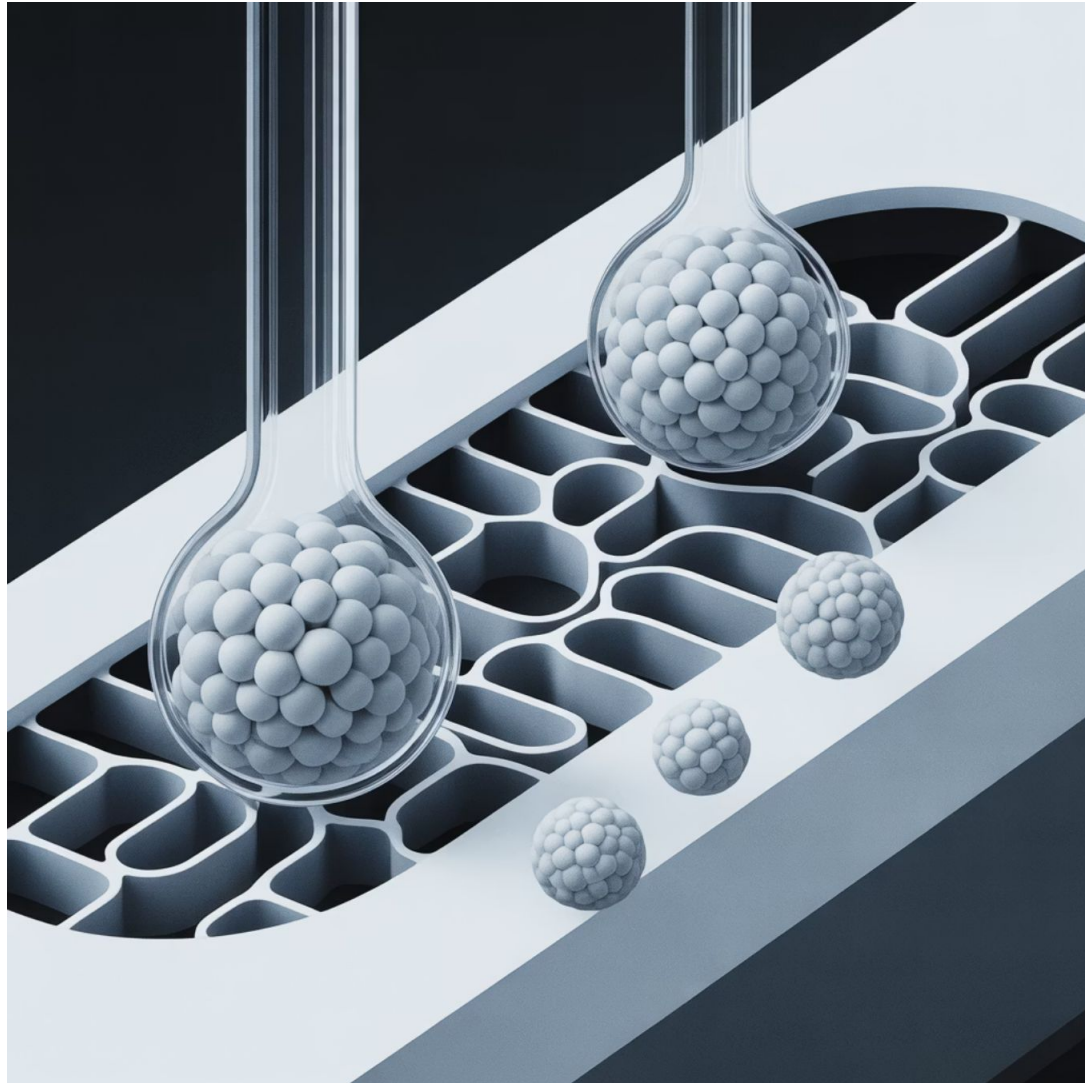
BPC-157 has been transformative in my practice.

The peptide landscape offers powerful opportunities to enhance recovery, support tissue health, and elevate patient outcomes.

Integrating additional peptides can further expand regenerative care.



Why Podiatrists Are Uniquely Positioned to Lead in Peptide Medicine



- **Regenerative Medicine Is Expanding – and Podiatry Fits Naturally In**
Chronic injuries, tendon pathology, wound healing, and recovery – these are reparative by nature, aligning with peptide science.
- **Clinical Gaps Create Opportunity**
Patients with persistent inflammation or delayed recovery are seeking modern solutions that traditional approaches cannot fully address.
- **Podiatrists as Innovators**
The mix of biomechanics, tissue biology, and procedural care creates a perfect foundation to pioneer new, restorative therapies.
- **Timing Is Everything**
Peptide medicine is at the early adoption curve – podiatrists who explore it now can define its clinical standards and patient communication models.

Becoming Thought Leaders in Regenerative Medicine

Early Adoption = Leadership

- **Be the Voice of Evidence and Ethics**

By engaging early – responsibly and scientifically – clinically relevant peptide use.

- **Bridge Research to Real-World Practice**

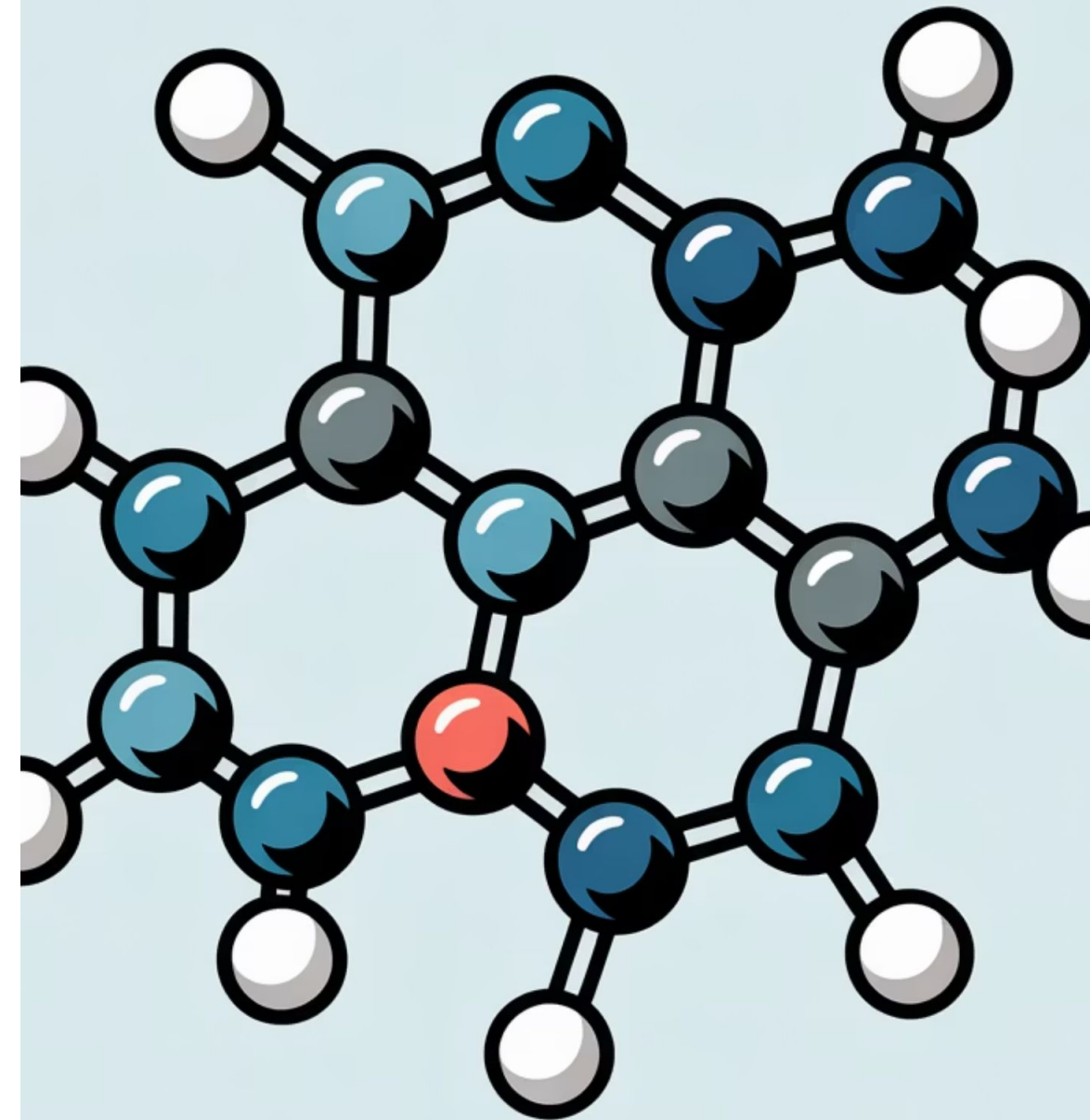
Translating peptide research into practical musculoskeletal and recovery protocols.

- **Peer Education & Collaboration**

Hosting educational sessions, case reviews, and interdisciplinary discussions reinforces credibility.

- **Brand Differentiation**

Patients are given options with innovation, advanced outcomes.



The Path Forward

Expanding Reach, Redefining What's Possible

→ Start With Learning & Integration

Study clinical evidence and identifying peptides that align with your patient base – inflammation, recovery, circulation, or repair. - Get Certified !

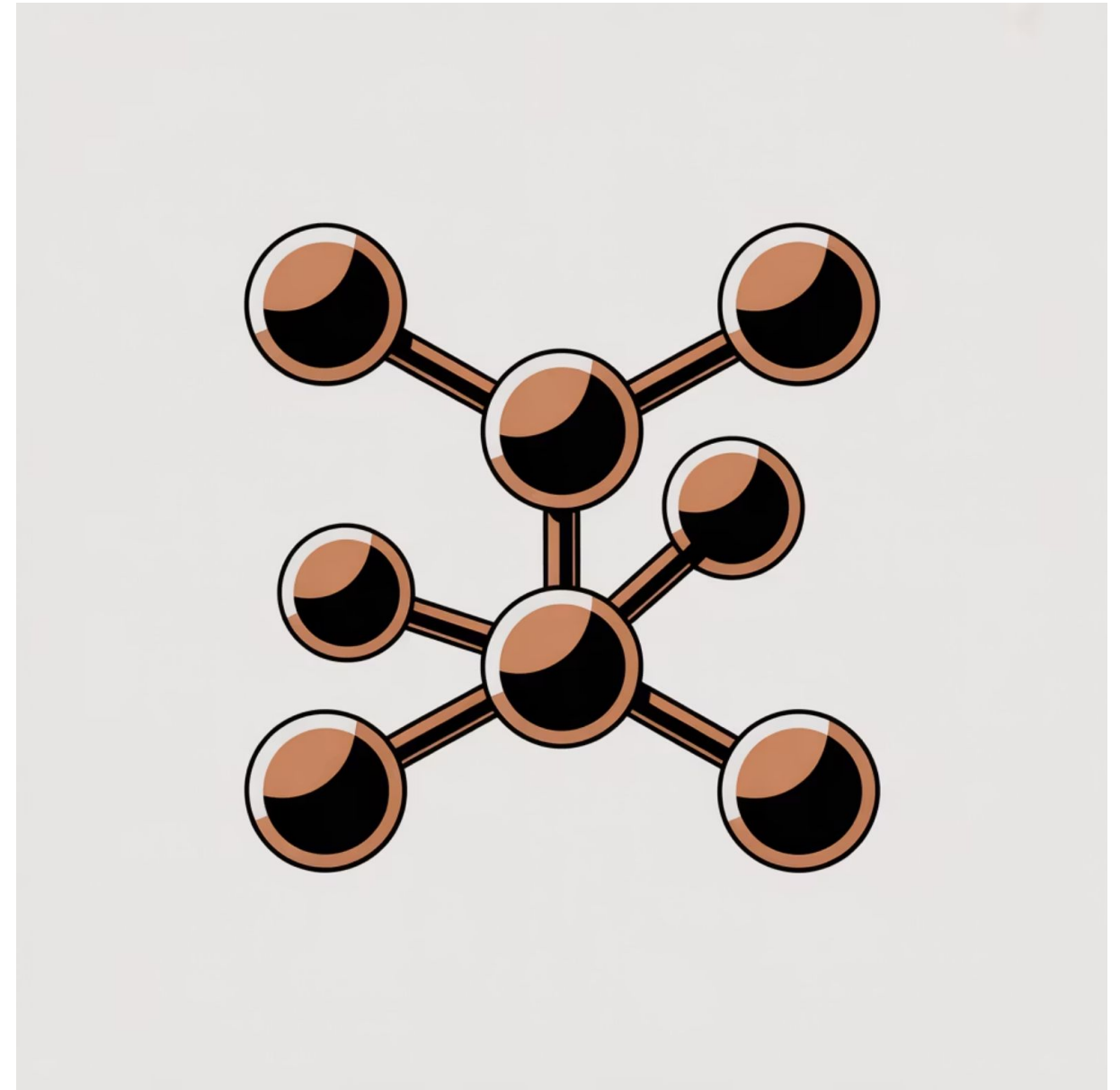
→ Collaborate, Don't Compete

Partner with trusted regenerative companies and scientific educators to stay compliant.

→ Build a Regenerative Identity

Incorporating peptides positions podiatrists at the forefront of musculoskeletal innovation – bridging traditional medicine and wellness.

→ Lead the Conversation, Not Follow It



Lifestyle + Peptides: The Winning Formula

The Foundation

- Lifestyle = Base
Build with nutrition, movement, sleep, & stress management.

The Boost

- Peptides = Accelerators
Supercharge repair

Pearl

- Peptides Magnify, Not Replace, Lifestyle
Together: Stronger outcomes.

Questions



**Thank
you**

References

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