

BENEFITS OF BPC-157 & TB-500



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BPC-157 10mg: <https://precisionpeptideco.com/product-category/bpc-157/>

TB-500 10mg: <https://precisionpeptideco.com/product-category/tb-500/>

BAC Water: <https://precisionpeptideco.com/product/bacteriostatic-water/>

BPC 157 and TB 500

They work synergistically together, meaning they benefit one another in their efficacy.

Common Use is for Inflammation & Sore Muscles

Additional COMBINED BENEFITS: Fast Healing & Injury Recovery, Rapid Muscle & Tissue Repair, Boosts Immune System Health, Cardiovascular Health, Gastrointestinal Health Treatment, Anti-Aging Benefits/Treatments



Protocol for Injury Recovery: **UPDATED PROTOCOL: (8.2.2025)**



BPC-157

- **Dosage:** 600 mcg/day (300 mcg 2x a day)
- **Route:** Subcutaneous (ideally near the site of injury or systemic if needed)
- **Frequency:** Once daily (AM or split AM/PM for chronic conditions)
- **Duration:** 4–6 weeks, or until substantial healing occurs

PEPTIDE CALCULATOR: <https://www.peptides.org/peptide-dosage-calculator/>

1ml syringe

BPC-157 10mg vial

2ml BAC Water

600 mcg = 12 units/day or 6 units/2x a day



TB-500

- **Dosage:** 2000–2500 mcg twice per week (systemic)
- **Route:** Subcutaneous or intramuscular (rotate sites)
- **Frequency:** Every 3–4 days
- **Duration:** 4 weeks, followed by 2000 mcg once weekly as needed for maintenance

PEPTIDE CALCULATOR: <https://www.peptides.org/peptide-dosage-calculator/>

1ml syringe

TB5-500 10mg vial

1ml BAC Water

2000–2500 mcg = 20-25 units/ 2x per week

It is important that you do your own research. The information provided in this document was attained by countless hours of research but used for my health issues and goals. Please seek medical advice from a professional regarding any questions and concerns you may have.

Custom Daily Peptide Protocol Tracker (Inspired by Dr. Seeds)

Name: _____
Start Date: _____
Protocol Duration: 6 Weeks

Peptides Used

- **BPC-157:** 500 mcg/day (SubQ)
- **TB-500:** 2.0–2.5 mg twice weekly (SubQ/IM)

Injection Schedule

Week	Day	Date	BPC-157 Dose (AM)	BPC-157 Dose (PM)	TB-500 Dose	Site Injected	Notes/ Symptoms
1	Mon				TB-500		
	Tue						
	Wed				TB-500		
	Thu						
	Fri						
	Sat				TB-500		
	Sun						

(Add this table format for Weeks 2–6)

Weekly Reflections & Progress

Week	Pain Level (0–10)	Mobility/Range of Motion	Inflammation Notes	General Well-being
1				
2				
3				
4				
5				
6				

WOLVERINE PEPTIDES - BPC157 AND TB500

NO MORE TYLENOL OR ADVIL: TREAT INFLAMMATION MORE NATURALLY WITH THE

The Wolverine protocol incorporates the use of peptides like BPC157 and TB500. Although the research on these amino acids is limited, anecdotal studies look promising.

Advocates claim these compounds facilitate rapid healing and soothe inflammation. They reportedly also offer a host of other benefits. Could peptides be the solution you're looking for?

Keep reading to uncover more about the Wolverine protocol. We delve deeper into the world of TB500 and BPC157 peptides, their advantages, and their risks.

WHAT ARE BPC157 AND TB500?

TB500 and BPC157 are **synthetic peptides that could treat various conditions**. They're made up of a specific number of amino acid chains.

BPC157 stands for Body Protection Compound. The number refers to its amino acid composition. It's derived from a protein in gastric juice. This peptide is small and consists of 15 amino acids. It occurs naturally in your body, but scientists can also synthesize it.

TB500 is a synthetic form of a healing protein. It replicates thymosin beta, which is released by the thymus gland. This peptide's functions are diverse, and it could boost immune health.

The BPC157 and TB500 blend attracts the attention of numerous health enthusiasts. **Some people refer to these peptides as the Wolverine protocol.** The properties of these compounds may be the next step in healing various conditions.

HOW DOES THE BPC157 WOLVERINE PROTOCOL WORK?

BPC157 has various mechanisms of action, and some overlap. This peptide occurs naturally in the gastric juice of the stomach in the human body. **It helps with intestinal tract repairs.** The digestive system gets put under intense pressure, so accelerated healing is essential.

One of the BPC157 benefits is it reportedly keeps the host of organs in this region running smoothly. It may also regenerate intestine wall cells. It could reduce the risk of ulcers and contribute to several other mechanisms of action. **The peptide may also boost gut health.**

BPC157 interacts with the nitric oxide pathway. This impacts key growth factors and blood vessels. As a result, **this peptide may encourage more energy and oxygen flow to injuries.** The compound could also stimulate angiogenic cytokines.

It has a role in boosting the anti-inflammatory gene transcription factor. **BPC157 is involved with growth hormone receptors.** It reportedly facilitates the development and spread of fibroblasts and other regenerative and systemic repair responses.

Studies on peptide therapy in the form of the Wolverine protocol are anecdotal. Researchers have conducted most of the testing on rodents. Although the evidence is limited, available research demonstrates positive results for accelerated healing.

HOW DOES THE TB500 WOLVERINE PROTOCOL WORK?

One of the functions of TB500 is to regulate actin and myosin. These key proteins are involved in cell structure and movement. The peptide binds to the actin monomers, forming polymers, and ultimately actin filaments.

This action has a catalyst effect that promotes cell proliferation and migration. **TB500 reportedly facilitates the movement of these cells to sites of injury.** It also delegates fibroblasts and other reparative cells to accelerate wound repair.

The peptide plays a critical role in angiogenesis. **It may help with the formation of new blood vessels,** which in turn aids with inflammation.

TB500 has a unique molecular structure. It doesn't bind to the extracellular matrix. This property allows it to travel extended distances in the body. This is why **TB500 benefits occur in local *and* distant injury sites.**

Advocates of the Wolverine protocol claim it assists with wound healing and inflammation in various parts of the body, including:

- Skin
- Brain
- Bones
- Heart

In its natural form, **the peptide gets released from platelets in the body.** It then helps with various immune functionalities at a cellular level.

TB500 stimulates T-cell production, which positively affects the immune system. It also increases B-cells, which create antibodies and further boost the immune response.

THE BENEFITS OF THE WOLVERINE PROTOCOL

BPC157 and TB500 each offer unique properties. **Some advantages of the compounds overlap, making the blend quite powerful.** Let's look at each peptide's functions and reported benefits.

BPC157 BENEFITS

The role of this peptide in the body is clear, but how does it help in synthetic form? We already highlighted that it could accelerate healing, but **it may also contribute to the longevity and regeneration of cells.**

Damaged cells display an increased healing rate when exposed to BPC157. Health enthusiasts, fitness buffs, and people with ailments all have an interest in it. The potential of BPC157 benefits is vast.

Advocates of the compound assert it facilitates healing at a rapid pace. **The accelerated regeneration is where the nickname "Wolverine protocol" comes from.** It hints at a Marvel comic book character who heals quickly.

The BPC157 peptide's benefits include:

- ✓ Improving gut health
- ✓ Soothing and reducing inflammation
- ✓ Easing stomach ulcers

- ✓ Accelerating wound healing
- ✓ Boosting cellular regeneration
- ✓ Helping with bone and joint repair
- ✓ Assisting with organ healing
- ✓ Promoting muscular (angiogenesis) growth
- ✓ Positively impacting neurotransmitters

TB500 BENEFITS

There are multiple reported applications of TB500 in the body. Advocates for the peptide assert it **expedites recovery and reduces inflammation swiftly**.

Some people who have arthritis find it therapeutic due to the anti-inflammatory properties. **TB500 reportedly accelerates recovery and improves mobility**. This is most evident in joints.

Anecdotal evidence suggests **TB500 may also be effective in treating blood clots**. It's said to heal soft tissue damage rapidly. Your ligaments and tendons stand to benefit most from the peptide.

Other reported TB500 benefits include:

- ✓ Treating certain chronic problems and autoimmune conditions. Studies suggest it could help with Lyme disease and brain injuries.
- ✓ Helping with muscle function and recovery. Anecdotal research suggests the peptide assists with muscle spasms, too.
- ✓ Aiding with cardiovascular conditions. TB500 purportedly promotes cardiac cell survival after injury.
- ✓ Promoting new blood vessels and neuron formation via its angiogenesis properties.

When TB500 and BPC157 combine, the impact on the body is even more pronounced. They complement each other in the recovery process. When blended, their roles in wound healing and tissue creation improve. Together, they promote angiogenesis and cytoprotection. TB500 influences the recovery of tissue, bones, and ligaments. BPC157 offers a higher level of anti-inflammatory properties. The latter's neuroprotective and cardioprotective qualities are also more evident.

POTENTIAL SIDE EFFECTS AND RISKS OF BPC157 AND TB500

Medication sometimes causes side effects. Peptides like BPC157 and TB500 are no different. While the advantages outweigh the risks, it's best to be aware of them.

The most commonly reported side effect of BPC157 is pain and inflammation. These occur at the site of the injection. Other common reactions are:

- ✓ Cold or hot flashes
- ✓ Changes in appetite
- ✓ Dizziness or drowsiness
- ✓ Headaches
- ✓ Fatigue

Consult a medical practitioner if the side effects exceed a week. There's a consensus that peptides are harmful to fetuses, so avoid using them during pregnancy. BPC157 doesn't interact well with many peptides. Consult a professional before trying different combinations.

TB500 has mild side effects that include:

- ✓ Flushed face
- ✓ Headaches
- ✓ Dizziness
- ✓ Drowsiness
- ✓ Lethargy
- ✓ Flu-like symptoms

TB500 may have a negative impact on individuals with certain autoimmune diseases. Conditions with possible contraindications include psoriasis, rheumatoid arthritis, and Hashimoto's disease (chronic lymphocytic thyroiditis).

BPC157 DELIVERY

BPC157 acts systemically. To administer a subcutaneous injection, **pinch an area of skin and inject the needle.** It might be easier if you angle it. Be sure to clean the area with an alcohol swab first.

The same hygiene rules apply to intramuscular injections. This technique is slightly more challenging. You need to insert the needle through the skin and into the muscle. Ensure you do this as close to the site as possible.

Once you inject the peptide, massage the area with your hands for about a minute. Some advocates believe this facilitates absorption.

Oral application is straightforward. Once you spray it in your mouth, hold it there for approximately two minutes. The peptide is also available as a nasal spray.

When it comes to dosage, it's best to consult an expert. **Subcutaneous injections typically amount to around 200 micrograms (mcg).** Application occurs over a cycle of 25 days.

TB500 DELIVERY

With TB500, **intramuscular and subcutaneous injections are the most popular.** There are also capsules and nasal sprays for easier application.

While there are no clear guidelines for human consumption, experimental quantities range from **2–5 mg administered twice a week. The duration of these trials is less than eight weeks.**

RECONSTITUTING BPC157 AND TB500

BPC157 and TB500 come in powder form and need reconstituting for injections. Combine each peptide with bacteriostatic water in the correct ratios.

Use a syringe when inserting the bacteriostatic water. Aim the liquid at the sides of the bottle rather than directly at the powder. Be fragile with the fluid and keep it away from UV rays.

At room temperature, it should remain stable for approximately ten weeks. It typically lasts up to six months in the fridge. **Freezer storage keeps it stable for roughly two years.**

IS THE WOLVERINE PROTOCOL LEGAL?

BPC157 and TB500 aren't approved for human use by the Food and Drug Administration (FDA). **These amino acid chains are only legally available for research.** As such, online sellers currently retail it for this purpose only.

The peptides have active bans by several anti-doping agencies. Athletes who test positive for the Wolverine protocol may face disciplinary action.

WOLVERINE PROTOCOL VERDICT

The combination of BPC157 and TB500 displays promising results. Although research is limited, the available studies look positive. Despite legal roadblocks, many people advocate for the Wolverine protocol.

NOTE:

Different resources have different Protocols. You will need to find the right one for your body. I will primarily be combining BCP-157 & TB500 with GHK-cu for Anti-Aging, Skincare Benefits (among other things).

More Information:

Description: *(William Seeds, MD)*

BPC 157 is a penta-decapeptide composed of 15 amino acids. It is a partial sequence of the body protection compound (BPC) that was discovered in and isolated from human gastric juice. It has been shown to accelerate wound healing of muscle, tendon, and ligaments. Additionally, BPC 157 has shown to protect organs and aids in the prevention of gastric ulcers. BPC-157 acts systemically in the digestive tract to combat leaky gut, IBS, gastro-intestinal cramps, and Crohn's disease. It demonstrates its effects on the gut-brain-axis. This peptide has been known to exhibit analgesic and anti-inflammatory characteristics and counteracts negative effects of corticosteroids on muscle tissue. It positively modulates serotonergic and dopaminergic systems and offers neuroprotective characteristics including neurogenesis. It has been used with patients suffering from traumatic brain injuries (TBI). Research has shown its ability to help skin burns heal at a faster rate by increasing blood flow to damaged tissues. BPC-157 significantly accelerates reticulin and collagen formation as well as angiogenesis together with stimulation of macrophages and fibroblasts infiltration representing a potential therapeutic tool in wound healing management. BPC 157 shows great potential healing for a vast array of cell repair.

Properties:

- ❖ Pentadecapeptide (15-amino acid chain)
- ❖ MW = 1419
- ❖ Sequence: Gly-Glu-Pro-Pro-Pro-Gly-Lys-Pro-Ala-Asp-Asp-Ala-Gly-Leu-Val 3
- ❖ Focuses on the gut-brain axis
- ❖ Human BPC is found in gastric juices (made in the lining of the stomach)

BENEFITS:

Improved Healing BPC-157's primary benefit is, by and large, its ability to accelerate the healing of many different wounds.

1. Tendons:

BPC-157 was discovered to dramatically speed up the healing of tendons through the outgrowth of tendon explants and the spreading of tendon fibroblasts. BPC-157 is also capable of healing detached or disjoined Achilles tendons.

2. Muscles:

If you're suffering from discomfort due to muscle sprains, tears, and damage, you may find BPC-157 to be VERY useful. One study found BPC-157 to be effective in healing quadriceps muscles that have been torn and crushed. Muscle tears have also been observed to recover much faster with BPC-157 administration, even when the healing process is impaired by the systemic use of corticosteroids.

3. Bones:

One promising study done in rabbits found that BPC-157 led to significant improvements in the healing of bone wounds and fractures. Another study conducted in rats found BPC-157 to be instrumental in the healing of spinal cord injuries and, consequently, restoration of function in rats.

4. Ligaments:

BPC-157 can lead to superior healing of damaged ligaments and tendon-to-bone healing. A rat study conducted in 2010 found that BPC-157 led to the healing of acute ligament injuries within rats. In their own

words, rats injected with BPC-157 “exhibited consistent functional, biomechanical, macroscopic, and histological healing improvements.”

5. Skin Burns:

BPC-157 can heal skin burns much faster by increasing blood flow to damaged tissues. One study conducted in hyperglycemic rats (i.e., too much blood sugar due to lack of insulin production) found BPC-157 to exert an accelerated healing process on surgery-induced skin wounds.

6. Enhanced Brain Function:

BPC-157 is neuroprotective, allowing for the regeneration of vital brain nerves while protecting neurons from damage. It can even reverse damage induced by a traumatic brain injury. Combined with BPC-157’s ability to heal musculoskeletal damage potentially, this makes it a phenomenal “wonder drug” for restoring both physical and nervous function following an injury.

7. Protective of Organs:

BPC-157 has been shown to have a wide variety of protective effects on the organs. Specifically, human trials found BPC-157 to demonstrate this protective effect in the prevention of gastric ulcers while also healing stomach ulcers.

8. Reduced Inflammation:

One of BPC-157’s remarkable properties is its ability to upregulate anti-inflammatory factors while also reducing the production of reactive oxygen species. In rats, BPC-157 has been shown to reduce gastrointestinal lesions in rats which were induced by non-steroidal anti-inflammatory agents. BPC-157 may also have potential for lowering inflammation in people with periodontal (tooth) disease.

9. Increased Blood Flow:

As stated before, BPC-157’s main mechanism of action is the promotion of angiogenesis. In turn, this promotes the formation of new blood vessels while also releasing more nitric oxide. This function is especially useful in wounded and damaged areas of the body receiving insufficient blood flow. This makes BPC-157 a potential candidate for healing burn wounds at a much faster rate.

10. Reverses Damage Induced by NSAIDs:

BPC-157 has been termed by some researchers as an antidote to nonsteroidal anti-inflammatory drugs (NSAIDs). This is due to BPC-157’s ability to counter and prevent the damaging and adverse impacts of NSAIDs such as advil (aspirin) or ibuprofen. Briefly, NSAIDs taken in excessively high doses can often lead to organ damage and symptoms such as vomiting, blurred vision and nausea.

11. Combat Various Diseases:

BPC-157 is a cytoprotective compound, meaning it can protect cells from foreign and/or harmful agents. This is especially observed in the digestive tract (thus making it cytoprotective), as BPC-157 can combat leaky gut via healing the brain-gut axis, inflammatory bowel disease, stomach ulcers and Crohn’s disease.

12. Protect Your Cardiovascular System:

As it turns out, BPC-157 is also cardioprotective! Not only can it normalize your blood pressure regardless of whether it’s too high or low, but it can also protect blood vessels from oxidative stress. Other cardioprotective effects include protecting cells against damage induced by toxins, and prevention of death due to higher levels of potassium in the body.

Clinical Pearls:

❖ Many clinicians that have experience with peptides would agree that, if they were trapped on an island and could only have one peptide- it would be BPC 157. Clinically we have seen overall improvement in many areas: orthopedic related issues, accelerated recovery times from exercise, pain, neurogenic pain, chronic pain, skin, post-surgical wounds/ bruising, cognition, vaginal tissue, GERD, stomach ulcers, IBS and more. Many believe this is because of its effect on the gut-brain axis. It continues to surprise us. BPC 157 like most peptides is pleiotropic which means it affects more than one phenotype. You end up correcting multiple cellular functions improving the overall human system.

Dosage:

- ❖ Half-life approximately 4 hours
- ❖ General use: SubQ injection 400-600mcg/day
- ❖ Injury specific, split dosing into 200-300 mcg SubQ BID, injected specifically around injury site

Possible Side effects:

- ❖ Injection site erythema
- ❖ Injection site pruritus
- ❖ Peripheral edema
- ❖ Changes in blood pressure
- ❖ Changes in heart rhythm
- ❖ Dizziness
- ❖ Fatigue
- ❖ Hot flashes
- ❖ Nausea and vomiting
- ❖ Can affect mood if taking with SSRI
- ❖ Discontinue if causes depression or anxiety symptoms

TB-500, or Thymosin Beta 4, is a peptide consisting of 43 amino acids, notable for its high solubility in water and lightweight molecular structure. It's researched for its potential in promoting wound healing, angiogenesis, and possibly influencing hair growth and metastatic potential of tumor cells. Its anti-inflammatory properties and potential neurological and cardiac healing effects are also areas of significant research interest.

Research highlights include:

- Potential acceleration of wound healing and angiogenesis.
- Possible mitigation of inflammation and support in neurological healing.
- Research suggesting potential benefits in heart function and dermal healing.
- These studies highlight TB-500's potential in various therapeutic areas, strictly within a research context and not intended for human or animal consumption.

Other Resources:

<https://www.sciencedirect.com/science/article/abs/pii/S0928425797894806>