# MOTS-C (40mg) INJECTABLE PEPTIDE

MOTS-C is a critical **mitochondrial-derived peptide (MDP)** involved in regulating **cellular metabolism**, stress response, and **longevity**. MOTS-C supports metabolic flexibility, promotes glucose metabolism, and maintains mitochondrial function, making it beneficial for metabolic health, stress resistance, and overall well-being. Its levels decline with age, and supplementation aims to restore its natural functions, potentially improving both **age-related conditions** and general health. MOTS-C can be used preventatively to support **longevity** and enhance quality of life, making it suitable for those seeking to maintain optimal health and vitality.

# HOW IT WORKS / MECHANISM OF ACTION

**MOTS-C** is a 16-amino acid peptide encoded by the mitochondrial genome, derived from the 12S rRNA gene. It activates the **AMPK pathway**, a key regulator of mitochondrial function, energy metabolism, and cellular stress responses. It responds to metabolic stress, such as glucose restriction or oxidative stress, by translocating to the nucleus and regulating gene expression related to stress resistance. This process enhances glucose uptake, fatty acid oxidation, and metabolic flexibility, supporting energy homeostasis. MOTS-C's regulation of stress-response transcription factors also helps reduce inflammation and maintain mitochondrial integrity, contributing to improved **cellular health** and **longevity**.

## BENEFITS

- Enhanced Metabolic Function: MOTS-C helps your body use glucose more effectively, improving insulin sensitivity and overall metabolic health. It supports better blood sugar regulation and reduces insulin resistance, making it useful for managing metabolic disorders and improving long-term health.
- Improved Physical Performance: Studies have demonstrated MOTS-C's ability to improve endurance and muscle function. It increases running distance and power output, highlighting its role in supporting mitochondrial efficiency and muscle performance. It helps maintain muscle mass and performance, especially during aging or periods of metabolic stress.
- Fat Reduction: MOTS-C supports fat burning without affecting muscle mass. It prevents weight gain by increasing fat metabolism and maintaining a lean body, making it great for weight management.
- Reduced Inflammation: Helps decrease inflammation and oxidative stress throughout the body, promoting better overall health and supporting the body's anti-inflammatory processes.
- Bone Health: MOTS-C can help prevent bone loss by promoting bone growth, making it beneficial for conditions like osteoporosis, especially in postmenopausal women.
- Longevity Benefits: MOTS-C's ability to maintain mitochondrial health, improve metabolic flexibility, and reduce systemic inflammation makes it valuable for longevity. It can support healthier aging, enhance physical endurance, and promote a better quality of life.

#### CONTRAINDICATIONS

- Active Cancer: Those with active cancer should avoid MOTS-c unless otherwise recommended by a healthcare provider.
- Pregnant or Breastfeeding Women: The safety of these peptides during pregnancy or breastfeeding has not been established, and therefore should be avoided by these populations.

## HELPS WITH

- Mitochondrial Health
- Metabolic Health
- Insulin Sensitivity
- Glucose Regulation
- Fat Loss
- Weight Management
- Energy Boost
- Anti-Aging
- Longevity

- Muscle Endurance
- Physical Performance
- Inflammation Reduction
- Bone Health
- Osteoporosis Prevention
- Type 2 Diabetes Support
- Cardiovascular Health
- Stress Resilience

# EXPECTED EFFECTS & TIMELINE OF BENEFITS

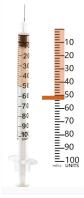
- **1-2 Weeks**: Users may experience improvements in energy levels and reduced fatigue as mitochondrial function and metabolism begin to improve.
- 4-6 Weeks: Noticeable improvements in physical performance, endurance, and stamina. Studies show increased running distance and time, demonstrating improved muscle and mitochondrial efficiency. Users may also notice reduced inflammation and better overall physical and mental well-being.
- Long-Term: Prolonged use of MOTS-C can enhance mitochondrial health, promote bone density, and improve overall physical performance. It supports sustained energy levels, improved muscle function, and enhanced quality of life, making it beneficial for preventative care and longevity.

# EXTENSION╬HE∆LTH

# DOSING INSTRUCTIONS

#### DOSING:

 $5 \text{ mg} = \frac{50 \text{ units}}{50 \text{ per injection}}$ 



INJECTIONS PER WEEK:

#### VIAL DETAILS:

2 injections weekly.

\$750

40mg/4mL

Lasts 4 weeks.

## RECOMMENDED CYCLES:

3 months on (+), 1 month off (-). 3 cycles per year.

#### INJECTION SITE:

MOTS-C should be injected subcutaneously, into fatty areas like the stomach, thigh, or upper arm. Rotate injection sites to avoid irritation.

#### TIME OF DAY:

Morning injections are recommended, as it may give you a boost of energy and to take advantage of its energizing effects throughout the day. You can also take it prior to exercise.

#### WEEKLY PROTOCOL

SUN	MON	TUES	WEDS	THURS	FRI	SAT	
			50 units			50 units	

2 injections weekly.

#### MONTHLY PROTOCOL

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
MOTS-C	+	+	+	-	+	+	+	-	+	+	+	-
	CYCLE 1				CYCLE 2			CYCLE 3				

3 months on (+), 1 month off (-).

3 cycles per year.

#### POTENTIAL SIDE EFFECTS

- Injection Site Reactions: Some users may experience redness, itching, or mild pain at the injection site, which is usually temporary.
- Mild Gastrointestinal Discomfort: Nausea or stomach discomfort can occur, especially at higher doses.
- Flushing and Fatigue: Temporary fatigue or flushing may occur due to increased metabolic activity from AMPK activation.
- Headache: Some users report headaches, likely due to changes in mitochondrial activity.

#### Please contact us if you experience any of the following:

- Fever of 100.4°F (38°C) or higher
- · Blistering at the injection site
- Muscle aches, nausea, dizziness, or headache
- · Skin rash, severe itching, vomiting, or hives

If you have any questions, please message your healthcare provider through the patient portal or contact us at **646-596-7386.** 

#### TIPS TO REDUCE SIDE EFFECTS

- 1. Start with a Lower Dose: Begin with a lower dose to minimize gastrointestinal side effects and gradually increase as tolerated.
- 2. Rotate Injection Sites: Changing the injection site can prevent localized irritation and discomfort.
- 3. **Stay Hydrated**: Adequate hydration can help alleviate symptoms like flushing and headaches.
- 4. **Take with Food**: Taking MOTS-C with food may reduce gastrointestinal discomfort.
- 5. **Consult a Healthcare Provider**: Regular monitoring by a healthcare professional is recommended, especially when using MOTS-C with other therapies.