

# MOTS-c Peptide

## What is MOTS-c?

MOTS-c (Mitochondrial Open Reading Frame of the 12S rRNA type-c) is a **mitochondrial-derived peptide (MDP)** that plays a key role in energy regulation. It is activated in response to stress, exercise, and aging, helping the body maintain metabolic balance and reduce inflammation.

With aging, the body's natural MOTS-c levels decline, which may contribute to insulin resistance, metabolic disorders, and weight gain. Research suggests MOTS-c promotes healthy metabolism and enhances physical performance.

---

## Potential Benefits of MOTS-c

### 1. Weight Reduction and Metabolic Health

- Helps reduce obesity and insulin resistance in high-fat diets.
- Increases energy expenditure and promotes fat breakdown.
- Improves glucose regulation, reducing blood sugar and preventing insulin spikes.

### 2. Regulation of Blood Sugar and Insulin Sensitivity

- Enhances glucose clearance and insulin sensitivity.
- Improves skeletal muscle insulin response, especially in older adults.
- Prevents hyperinsulinemia caused by high-fat diets.

### 3. Menopause-Related Changes

- Helps reduce postmenopausal weight gain and improves insulin sensitivity.
- Promotes lipid metabolism and lowers blood lipids.
- Activates brown fat, which boosts metabolism by increasing fat burning.

### 4. Physical Performance and Exercise

- Improves endurance, stamina, and running speed by enhancing skeletal muscle function.
- Acts as an exercise mimetic, mimicking the beneficial effects of physical activity.
- Helps shift energy preference toward fat burning, even reversing carbohydrate utilization patterns.

### 5. Other Benefits

- Decreases inflammation and promotes metabolic homeostasis.
- Improves bone density and supports fatty acid metabolism in the liver.

---

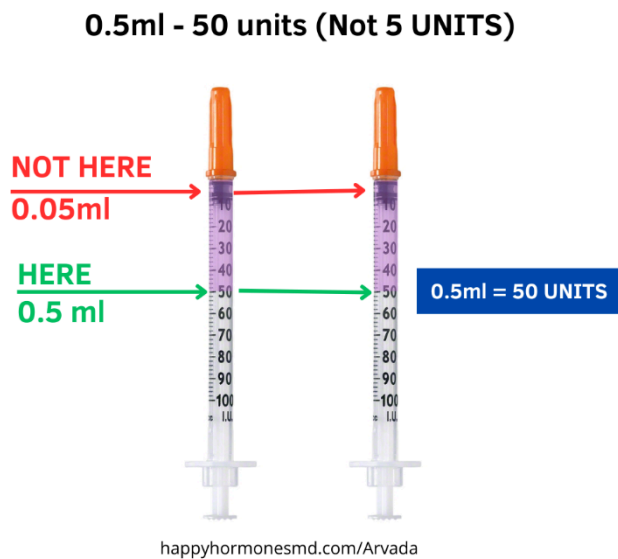
### Potential Side Effects

- Injection site irritation may occur.
- No other known side effects have been reported.

---

### Dosage Guidelines

- **Dosage:** Inject 0.5mg (0.5ml or 50 units) subcutaneously (SQ) twice a week for 4-6 weeks.
- **Cycle Frequency:** Treatment can be repeated **2-3 times per year** as needed.
- **Note:** MOTS-c is not effective as an oral supplement and must be administered through injections.



---

### Cost

MOTS-c is currently only available as a research peptide. Please see document titled “Research Peptide Information” in the Education Folder under Records in the patient portal.

**MOTS-c 10mg Vial (10mg/ml):** \$128.50 (Includes shipping and bacteriostatic water)

- One vial is needed per week of treatment.

- Vials can be ordered all at once or in smaller quantities as needed.

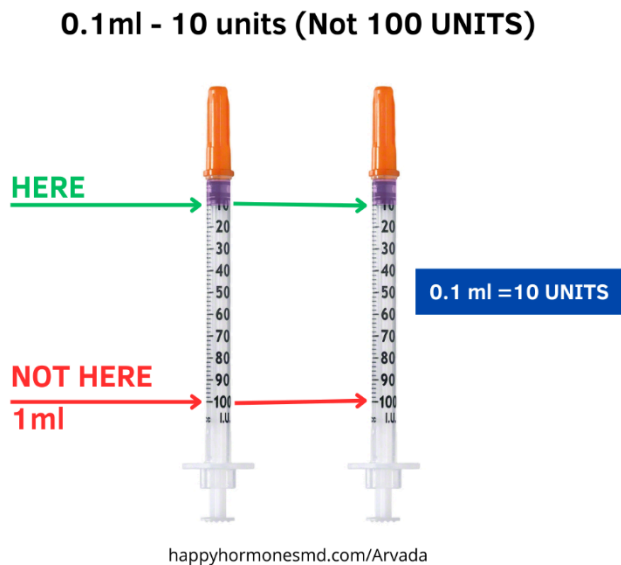
---

## Reconstitution Instructions

### IMPORTANT:

- Follow the instructions below regarding the amount of bacteriostatic water to use when reconstituting the peptide. **DO NOT** follow the instructions that come with the peptide.
- **Do NOT** throw away the vial of bacteriostatic water!!! It is a multiuse vial and can be used for your next order!

Inject **1ml** of bacteriostatic water into the vial of powder (1ml = 100 units).



- See the **document** titled “*Reconstituting Medications in Powder Form*” in the Education Folder in the patient portal.
- See the following **Instructional videos** in the Education Folder in the patient portal:
  - “*Reconstituting Powdered Medications*”
  - “*Injection Video – Introduction*”
  - “*Injection Video – Drawing Up the Medication*”
  - “*Injection Video – Administering the Medication*”

---

### Storage and Stability

- Vials are shipped as **lyophilized powder**, requiring no refrigeration during shipping.
- In Lyophilized Form:
  - Stable for up to 3 years in the freezer and 2 years in the refrigerator.
  - Protect from light.
- Once Reconstituted:
  - Stable for 6 weeks.
  - Must be refrigerated and kept away from light.
  - Avoid placing vials in the refrigerator door to prevent degradation from frequent temperature changes.

---

### Important Disclosures

- These statements have not been evaluated by the US Food and Drug Administration (FDA).
- Not intended to diagnose, treat, cure, or prevent any disease.
- Compounded drugs and research peptides are not FDA-approved but are produced under strict quality control measures.

---

### Quality Assurance

- All peptides are subjected to third-party testing with publicly available Certificates of Analysis (COA).
  - Testing includes:
    - RP-HPLC (Reversed-Phase High-Performance Liquid Chromatography)
    - Mass Spectrometry (MS)
    - Sterility Testing
    - Additional tests meeting or exceeding U.S. Pharmacopeia (USP) and USP-National Formulary (NF) regulations.
  - The manufacturer ensures quality, safety, and efficacy, complying with regulatory standards.
-