

# **Glutathione (L-Glutathione)**

#### What is Glutathione?

Glutathione is a powerful antioxidant made from three amino acids: **cysteine**, **glycine**, and **glutamic acid**. It plays a critical role in:

- **Detoxifying the body** by removing harmful substances.
- Boosting immune function and supporting healthy metabolism.
- Repairing tissues and maintaining cell health.
- Slowing down aging by reducing oxidative stress.
- Protecting brain function by crossing the blood-brain barrier to remove toxins.

Glutathione also helps the liver process alcohol and reduces the effects of free radicals that damage cells, DNA, and proteins.

# **Symptoms of Glutathione Deficiency**

# Mild Deficiency

- Fatigue and poor sleep
- Brain fog and difficulty concentrating
- Frequent infections and a weakened immune system

# **Severe Deficiency**

- Anemia
- Enlarged spleen
- Seizures or difficulty coordinating movements
- Metabolic acidosis (buildup of acid in the body causing nausea and vomiting)

#### Who Can Benefit from Glutathione?

- People with oxidative stress-related illnesses (e.g., Alzheimer's, Parkinson's).
- Individuals with liver diseases or those undergoing chemotherapy.
- Those with male infertility (may benefit from injections).

• Patients with hyperpigmentation, aging skin, or individuals seeking complexion improvements.

## **Potential Benefits of Glutathione**

- Immune Support: Strengthens the immune system and improves metabolism.
- Oxidative Stress Reduction: Reduces the harmful effects of free radicals and protects against diseases like cancer, diabetes, Alzheimer's, and Parkinson's.
- Anti-Aging and Skin Health:
  - o Brightens the skin and reduces hyperpigmentation and dark spots.
  - Fades wrinkles, giving a youthful, glowing appearance.
  - o Reduces skin discoloration and blotchiness with high doses.
- Liver Health: Supports detoxification and helps reduce abdominal fat.
- Cognitive Function: Improves memory and may help in conditions like Parkinson's disease.

#### **Potential Side Effects**

- Asthma: May worsen asthma symptoms—consult your doctor if you have asthma.
- Pregnancy or Breastfeeding: Insufficient data for safe use; avoid unless advised by your healthcare provider.
- **Drug Interactions**: Always inform your provider about any medications, supplements, or herbal products you are taking.

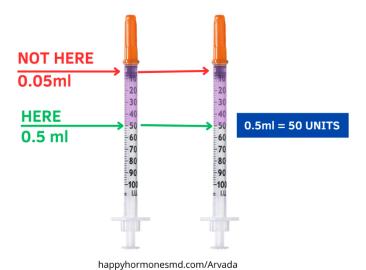
## **Important Notes**

- Long term use of Glutathione has been linked to lower **zinc** levels, so supplementation of zinc is recommended.
- If you experience any unusual side effects, stop use and contact your healthcare provider immediately.
- Vitamin C enhances the antioxidant properties of glutathione, so supplementation is recommended.

#### **Dosage Guidelines**

**Recommended Dose**: 100mg (0.5ml or 50 units) administered subcutaneously (SQ) or intramuscularly (IM) daily 5 days a week.

# 0.5ml - 50 units (Not 5 UNITS)



Duration: A 30ml vial will last approximately 10 weeks at the recommended dosage.

## Cost

**Strive Pharmacy** – Ships directly to the following states: AZ, CA, CO, DC, DE, FL, GA, HI, IA, ID, IL, KS, MA, MD, ME, MO, MS, MT, NE, ND, NH, NM, NV, NY, OH, OK, OR, PA, RI, SD, TN, TX, UT, WA, WY

• 200 mg/ml - 30 ml vial: \$120 (Includes shipping)

Strive Pharmacy – All Other States

- 200 mg/ml 30 ml vial: \$162 (Includes shipping)
  - o The pharmacy ships to me, and I will then ship it to you.

# **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.