

PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: Sermorelin

Form: Injection

Drug Class: Synthetic GHRH analog that contains 28 amino acids

Mechanism of Action^{1,2}: Sermorelin is a synthetic version of a hormone called growth hormone-releasing hormone (GHRH) that is naturally produced in the hypothalamus. When compounded, it is intended to:

- Mimic endogenous GHRH (1-29), stimulating the anterior pituitary to release growth hormone
 - Stimulate IGF-1 production via GH induction
 - Promote muscle growth, fat loss, cellular repair, and anti-aging effects
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Indications Commonly Prescribed For:

- Treatment of pediatric growth hormone deficiency (GHD)
 - Adult GH deficiency, age-related GH decline, body composition optimization, recovery enhancement, and adjunctive therapy in GH-releasing peptide (GHRP) protocols
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Before Use: Let your healthcare providers know if you have had any allergic reactions to injections in the past. Let your healthcare provider know if you are pregnant or breast feeding. Let your healthcare provider know of all supplements you are currently taking. Let your provider know if you are taking other medications containing benzyl alcohol.

Contraindications:

- Known hypersensitivity to Sermorelin or any of its components
 - Active malignancy
 - Evidence of intracranial tumors/lesions
 - Severe hepatic or renal impairment
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Cautions: Let your healthcare provider know of any changes of vision while on this compounded preparation. Take care when injecting the compounded preparations in only specified areas from your health care provider. Check the vial before use for any cloudiness or discoloration before use. Rotate your injection site with each injection to avoid skin problems like thinning, thickening, or lumps.

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Warnings and Precautions:

- Benign Intracranial Hypertension (BIH): Use with caution; monitor for symptoms such as headache, visual disturbances, or nausea.
- Tumor Activity: Contraindicated in individuals with active malignancy; discontinue therapy if evidence of tumor progression occurs.
- Hypothyroidism: May blunt the response to Sermorelin; evaluate and correct thyroid function before initiating therapy.
- Critical Illness: Not recommended for use in critically ill patients due to potential complications.
- Use caution in patients with diabetic retinopathy, obesity, or elevated plasma fatty acids.
- Glucose effects: GH-axis stimulation can worsen insulin resistance in susceptible patients; monitor glucose and A1c in metabolic-risk patients.
- Cardiovascular risk: Observe caution due to theoretical fluid retention effects.
- Benzyl alcohol is a preservative used in Sermorelin. Metabolic acidosis can develop when large amounts of benzyl alcohol build up in your body.

Adverse Reactions: If you experience any side effects or adverse reactions, including those not listed, please contact your healthcare provider. Seek emergency care if symptoms are severe.

Common:

- Nausea, vomiting
- Injection site reaction
- Headache, dizziness
- Flushing
- Hyperactivity
- Difficulty swallowing
- Fatigue
- Change in taste
- Pale skin
- Tingling/burning sensation

Serious, but Rare:

- Allergic Reactions (hives, rashes)
- Difficulty breathing
- Swelling of the face, mouth, lips, or tongue
- Blurred or tunnel vision
- Vision loss
- Irregular heartbeat
- Slurred Speech, confusion
- Loss of coordination
- Muscle stiffness
- Edema

Interactions:

- Corticosteroids: May inhibit GH secretion and counteract sermorelin's effects.
- Drugs Affecting Pituitary Function: Medications that alter pituitary hormone release may interfere with sermorelin efficacy.
- Hypothyroid Medications: Untreated hypothyroidism can reduce sermorelin effectiveness; monitor thyroid function.
- Glucose-lowering agents (insulin/orals): Glycemic needs may change; monitor and adjust. May increase the response to sermorelin.
- Somatostatin analogs: Can reduce sermorelin effectiveness.

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Use in Specific Populations:

- Pediatrics: Historically used for pediatric GHD; dosing should be individualized.
 - Geriatrics: May be considered for age-related GH decline; monitor for adverse effects.
 - Pregnancy & Lactation: Not recommended due to insufficient safety data.
 - Hepatic/Renal Impairment: Use with caution; limited data available
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Storage:

- Refrigerate at 2°C to 8°C (36°F to 46°F)
 - Can be stored at room temperature (up to 30°C or 86°F) for up to 48hrs
 - Do not freeze
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How to Use: This medication is a subcutaneous injection and is delivered in a premixed liquid form. Wash your hands with soap and water before giving the injection. Wipe the rubber stopper of the vial with an alcohol swab. Take a syringe and pull the plunger down to the necessary prescribe amount. This is achieved when the plunger reaches the line for the amount prescribed. Push the needle through the rubber stopper of the vial. Push the plunger down to put air into the vial. Invert the vial and then slowly pull the plunger down passed the prescribed dose. If there are bubbles in the syringe, tap the syringe to allow the air bubbles to rise to the top. Slowly push the plunger up until the tip reaches the line for the prescribed dose and removes the bubble of air. Pull the syringe out of the vials rubber stopper. Inject at predetermined injection site as instructed by healthcare practitioner. Discard any remainder from punctured vial after 28 days.

Monitoring Parameters:

- IGF-1 Levels: Assess to gauge GH activity and adjust dosing.
 - Thyroid Function Tests: Monitor TSH and free T4 levels periodically.
 - Glucose Tolerance: Evaluate fasting glucose and HbA1c as GH can affect glucose metabolism.
 - Lipid Profile: Monitor cholesterol and triglyceride levels.
 - Adverse Effects: Regularly assess for side effects and overall treatment efficacy
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Citations:

1. Walker RF. Sermorelin: A better approach to management of adult-onset growth hormone insufficiency? *Clin Interv Aging*. 2006;1(4):307-8.
 2. Prakash A, Goa KL. Sermorelin: a review of its use in the diagnosis and treatment of children with idiopathic growth hormone deficiency. *BioDrugs*. 1999;12(2):139-157. doi:10.2165/00063030-199912020-00007.
 3. Kelijman M, Frohman LA. Enhanced growth hormone (GH) responsiveness to GH-releasing hormone after dietary manipulation in obese and nonobese subjects. *J Clin Endocrinol Metab*. 1988;66(3):489-494. doi:10.1210/jcem-66-3-489
 4. Safety information referenced for Sermorelin:
Sermorelin acetate drug information: description, dosage, side effects [Internet]. RxList. Updated 2025. Available from: <https://www.rxlist.com/sermorelin-acetate-drug.htm#description>. Accessed February 18, 2026.
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