# Sermorelin

Before you get to the point where you need HGH therapy, you can turn to sermorelin to increase growth hormone levels. Sermorelin is a secretagogue. What that means is it helps stimulate the secretion of another hormone – in this case, somatotropin (growth hormone, GH).

Unlike HGH therapy that directly increases the level of growth hormone in the bloodstream, sermorelin slowly promotes a boost in GH production.

## Why would adults use sermorelin instead of HGH?

Although neither medication has a high incidence of risks, sermorelin carries less chance of side effects than HGH. The body will only produce enough GH for its needs. Even if you inject too much sermorelin, it will not stimulate too much somatotropin production. On the other hand, too much HGH injected into the body can increase the risk of side effects.

## What is sermorelin made of?

Sermorelin contains the same 29 amino acids as naturally produced growth hormone-releasing hormone (GHRH). The hypothalamus releases GHRH which travels to the pituitary gland via the bloodstream to stimulate growth hormone production. Sermorelin also goes to the pituitary gland to carry out the same function as a bioidentical secretagogue.

When inquiring about sermorelin before and after results, you should familiarize yourself with the benefits of HGH. Both medications provide the same results, just in a different way and speed. With HGH, you get the results pretty fast as you are directly increasing growth hormone levels right away. Sermorelin takes longer to work because it slowly boosts natural GH secretion.

# Why Do Doctors Prescribe Sermorelin?

Doctors specializing in hormone replacement prescribe sermorelin acetate to adults who are not yet dealing with the symptoms of growth hormone deficiency. Treatment with sermorelin is reserved for individuals in the preliminary stages of GH decline.

It becomes much harder for sermorelin results to make a difference once you have full-blown growth hormone deficiency. At that time, using HGH therapy is the better option.

The hormone specialist prescribes sermorelin to help stop any further GH decline and avoid symptoms of a deficiency. Sermorelin use can help prevent growth hormone deficiency from occurring, maintaining a healthier body and mind.

The prescribing of sermorelin allows for the molecule to bind to receptors on somatotrophs in the anterior pituitary gland. Somatotrophs are the cells responsible for the production and secretion of growth hormone.

# What Are the Benefits of Sermorelin?

Sermorelin benefits are ultimately the same as those for growth hormone. They just take a bit longer to achieve than when using HGH therapy. The first benefit is that you are supporting the body's own production of somatotropin, rather than directly increasing its supply with HGH. You may have also heard about using sermorelin for weight loss. Do not get any strange ideas that this is a dietary aid – it is not. You will not see a legitimate doctor advertise sermorelin as a diet. That does not mean that you will not lose weight when using sermorelin. If you are overweight due to lower growth hormone levels slowing down your metabolism, then sermorelin will gradually help increase GH so that your metabolism will improve. As a result, you will start to burn a little stored fat. However, you will not likely see any results for a few months.

## Additional benefits of sermorelin include:

- Increasing your energy levels and stamina
- Helping to promote muscle growth and bone density
- Supporting healthy brain functions for cognitive and emotional well-being
- Strengthening immunity and healing abilities
- Enhancing sexual performance, desire, and pleasure
- Stimulating cellular regeneration to protect the internal organs from shrinkage
- Improving the appearance of the skin by increasing collagen and elastin production
- Thickening and speeding hair and nail growth
- Sharpening eyesight and night vision
- Regulating temperature control
- Increasing motivation, drive, self-esteem, and productivity
- Balancing of cholesterol and blood pressure levels

Most people do not see results from sermorelin use until at least three months after beginning treatment. You may notice better sleep, energy, and mood much sooner, but other changes do not occur until later in the treatment process.

# How Do You Administer the Sermorelin Dosage?

Your sermorelin dosage is administered in the same way as with HGH – via a daily injection to the abdomen. Our hormone clinic will provide you with complete written and online video instructions for preparing and injecting sermorelin.

Some points to remember when administering your daily sermorelin acetate dosage:

- Alternate shots daily between the right side and the left side
- Choose a spot approximately one inch away from the belly button
- Do not inject into the same spot more than once every seven days go a little lower or higher
- Use a new needle for each injection and dispose of it in the provided Sharps container
- Administer your sermorelin injections at night to stimulate the nighttime secretion of HGH
- Always follow the doctor's orders and do not change or alter your treatment without doctor authorization

# How Can I Get Sermorelin Acetate?

You get sermorelin for sale in the same way you would HGH therapy. Begin by contacting a qualified and knowledgeable hormone replacement therapy specialist. You want a doctor who has extensive experience balancing hormone levels to prescribe and supervise your treatment. Not only will this reduce the risk of side effects, but it will also improve your desired outcome and results.

As with HGH treatment, you will also undergo a blood test and physical examination. The hormone specialist will also require the completion of a health history questionnaire. Results from these steps will help determine if you are a sermorelin candidate.

Your sermorelin cost depends on the dosage and duration of the treatment as prescribed by the doctor. To save money, contact our clinic where you will receive your initial consultation for no charge. Rather than making you waste time in a doctor's office, we provide this service by telephone. Contact us today for your confidential consultation.

	Omnitrope	Norditropin	Genotropin	Humatrope	Sermorelin
Vial	+	-	-	+	+
Pen	-	+	+	+	-
Replaceable Cartridges	-	-	+	+	-
Refrigeration	+	+		+	+
Other devices	-	-	+	-	-
Insulin syringes	+	-	-	-	-
Pre-mixed	-	+	-	-	-
All-in-one Unit	-	+	+	+	-
Prescription	+	+	+	+	+
US-manufacturer	+	+	+	+	+

Below, you'll find a matchup of sermorelin compared head-to-head with other major pharmaceutical products that treat growth hormone disorder.

Sermorelin is known as a growth hormone releasing hormone (GHRH) or a "secretagogue," whereas the other drugs in the chart below are synthetic HGH itself (somatropin). Please see section on sermorelin vs. somatropin for more information on the difference.

Unlike some of the other products in the chart, sermorelin does not come with the option for an injection pen - only the vial and syringe. This may be a downside for patients who prefer injection pens, but learning to use the vial and syringe is possible.

Sermorelin must be refrigerated.

Sermorelin cannot be purchased over the counter. To legally access sermorelin, you need a prescription written by a licensed US provider.

# Sermorelin vs. Somatropin: What's the Difference?

Sermorelin is different in important ways from somatropin (HGH) that can inform your decision about the right therapy protocol for you.

Somatropin is synthetic HGH – it acts to substitute for natural, pituitary-produced HGH in patients who have a diagnosed deficiency. Sermorelin, on the other hand, is a growth hormone releasing hormone (GHRH). This means that, instead of acting as real HGH like somatropin, sermorelin triggers pituitary to produce and release higher amounts of HGH.

Because sermorelin's effectiveness depends on the body's ability to produce its own HGH, the medication is not effective in every case. In instances where the body cannot manufacture endogenous HGH, sermorelin will fail.

However, sermorelin does offer some benefits over somatropin that are worth considering. First, sermorelin prompts your body to produce its own HGH instead of relying on substitute hormones. Second, when sermorelin is combined with growth hormone-releasing peptides (GHRPs), sermorelin has the potential to be highly effective (and much cheaper than somatropin by volume).

Sermorelin's major benefit may be that, because it catalyzes natural HGH production, the sermorelin-triggered release of HGH occurs chronologically in line with the body's circadian rhythm. The majority of HGH release occurs during the night, at critical stages of sleep. This is why getting adequate amounts of shut-eye is necessary to maintain HGH levels.

Sermorelin can help regulate the optimally-timed release of HGH for many patients, resulting in impressive benefits.

Unfortunately, several underlying health issues can prevent the pituitary gland's regular release of HGH into the bloodstream, which often cause the symptoms of GHD. For these individuals, sermorelin may not be effective.

Your doctor can help determine whether sermorelin or somatropin is right for you.

# **Sermorelin Instructions**

Humatrope HGH comes in 6, 12, and 24 mg HumatroPen injector devices as well as 5 mg vials. In this review, we provide generalized Humatrope instructions for use by adults diagnosed with growth hormone deficiency (GHD).

Whether you select the pen or vial option, you will receive the same, high-quality recombinant HGH medication – only the delivery method is different.

Humatrope by Eli Lilly is one of the leading brands of human growth hormones. Our hormone doctors regularly prescribe Humatrope to our clients.

# What is the difference between Humatrope pens and vials?

The primary difference is convenience, as you will see in the Humatrope instructions below. Humatrope vials come with vials of diluent that you utilize with mixing syringes. The HumatroPen injector cartridges come with prefilled diluent syringes that are ready for use to mix the medication. Many adults like the simplicity of the injector pens.

\*Humatrope instructions differ slightly depending on whether you are using HumatroPen injectors or vials – both contain the same high-quality HGH medication.

# Description

Humatrope is the brand name for Eli Lilly's recombinant human growth hormone medication, which contains somatropin – the biologically identical version of somatotropin (growth hormone). Due to the bioidentical structure of Humatrope, the body readily accepts and puts it to work, binding it to growth hormone receptors.

Vials of Humatrope are the most affordable way to receive this brand of HGH. HumatroPen injectors are more expensive as they are pen systems that utilize convenient, replaceable cartridges.

As you will see by reading the Humatrope instructions listed below, the medication is easy to use. Humatrope can help men and women in the following ways:

- Improving metabolism, weight loss, and energy
- Enhancing sexual desire and performance
- Stimulating cellular regeneration which benefits the muscles, skin, organs, and bones
- Supporting sharp brain functions, memory, and focus
- Improving emotional health while reducing stress and depression
- Strengthening immunity and speeding healing

\*By following the prescribed Humatrope instructions, men and women can improve the status of their health, appearance, and brain functions.

# Instructions

The Humatrope instructions below are essential to read and understand before proceeding with your first injection. Please contact HGH Doctor hormone clinic with any questions.

Humatrope HGH is safe to use when prescribed by a hormone specialist to treat adult GHD. Do not use Humatrope if it has not been prescribed for you. Never use another person's HGH medication or give yours to someone else. Do not increase or decrease your dosage as that can lead to unwanted side effects or reduce the results. Dispose of all unused or expired medications as directed by the city in which you live.

Always check the expiration date of your HGH medication before each use and do not use it if it is expired. Also, check the appearance of the medicine. Do not use Humatrope if it appears cloudy, discolored, or contains any crystals or particles.

Here are the Humatrope instructions and information you need to know before starting treatment for GHD:

## Indications

Humatrope is indicated for use by adults diagnosed with growth hormone deficiency, as a result of adult-onset or continuing effects of childhood-onset. Blood analysis and physical examination are required for diagnosing GHD. Symptoms of GHD in adults include, but are not limited to, the following:

- Weight gain
- Fatigue
- Sleep disturbances
- Muscle loss
- Impaired memory and mental functions
- Increased stress and anxiety
- Depression
- Bone loss (height shrinkage, joint pains)

- Premature physical aging (wrinkles, sagging skin, thinning hair)
- Sexual decline
- Long-lasting or frequent illness
- Slow recovery/healing

### Contraindications

- Serious complications resulting from open-heart or abdominal surgery, multiple system accidental trauma, or life-threatening breathing problems
- Active malignancy (cancer) must receive oncologist clearance to begin treatment
- Allergies to ingredients in Humatrope, including somatropin, metacresol, glycerin
- Diabetic retinal disease
- Pregnant or nursing

### Dosage

The doctor will determine your dosage following blood analysis and physical examination using the level of deficiency, body composition, age, gender, and health.

### Storage

Humatrope requires continual refrigeration, both before and after mixing. Do not store in the freezer or at room temperature. Keep Humatrope HGH and all medications away from children and pets.

Humatrope vials are good for use within 14 days. HumatroPen cartridges are good for use for up to 28 days.

### Use

### Preparation of the Humatrope vials is as follows:

- Remove and discard plastic caps from the Humatrope and diluent vials and wipe both tops with an alcohol swab
- Attach a needle to a new syringe, remove the needle cover, and pull back the syringe plunger to fill the syringe with air equal to the diluent amount you will withdraw
- Insert the syringe needle into the diluent vial, push down the plunger to empty the air into the vial, and then invert the vial, so the fluid covers the needle
- Slowly pull back the plunger filling the syringe with the prescribed amount of diluent remove any air bubbles before removing the needle from the vial ensuring the correct amount of diluent is in the syringe
- While holding the vial upright, remove the needle and insert it into the Humatrope vial, aiming the tip to the side of the wall
- Slowly push in the plunger to let the diluent flow down the side of the vial until empty
- Remove the needle, replace the cover, and discard the unit in the Sharps container
- Gently swirl the Humatrope vial to mix the solution do not shake
- Write the date of mixing on the vial label it is good for 14 days

#### Preparation of the HumatroPen systems is as follows:

- Ensure that your cartridge strength match your HumatroPen device
- Refer to the illustrated instructions that come with your particular device

- You will use the accompanying diluent syringe to reconstitute the HGH powder in the provided cartridge
- Upon transferring the diluent into the cartridge, gently move the cartridge up and down 10 times do not shake the solution let it rest for 3 minutes to continue mixing
- Attach the cartridge to the pen following the provided illustrated instructions
- Remove the paper tab from a new needle and push it straight unto the cartridge until secure
- Remove the outer and inner needle caps, discarding the inner cap and setting aside the outer cap for later use
- Remove excess air from a new cartridge (priming it for use) as directed in the instructions only necessary the first time a new cartridge is used
- Dial the correct dosage by turning the knob to the prescribed dose number the knob will turn back if you go past the dosage

### Proceeding with your injection:

- Clean the area on your abdomen (one inch away from the belly button) with a sterile alcohol wipe and let air dry (alternate sides each day)
- Pinch an area of skin around the sterilized site and insert the needle completely at a 90-degree angle
- Push in the syringe plunger or injector button slowly and hold for 5 seconds to allow all the medication to enter the body then remove and recover the needle
- Discard the complete needle and syringe used with the vial or detach and discard the pen needle in the Sharps container
- Return Humatrope to the refrigerator for storage

# **Drug Interactions**

Tell your doctor about ALL medications, including over-the-counter preparations and supplements before starting HGH therapy. The following medications require monitoring while using Humatrope HGH:

- Seizure medications (anticonvulsants)
- Cyclosporin (immunosuppressive)
- Estrogen
- Glucocorticoids
- Gonadotrophin
- Insulin (diabetes medications)
- Thyroid hormones

## Warnings

Tell your doctor if you have any of the following conditions:

- Diabetes
- Sleep apnea
- Thyroid disease or abnormal thyroid function
- Pregnant, breastfeeding, or trying to become pregnant
- Prior history of cancer or tumors
- Kidney disease
- On glucocorticoid medication

### Contact your doctor immediately if you experience any of the following:

- Allergic reactions to Humatrope such as difficulty breathing, swelling of the face, lips, eyes, or throat, hives, rash
- Nausea or vomiting
- Headache
- Wheezing
- Pale skin

#### Accidental injection of too much Humatrope

Report any side effects from Humatrope to your doctor, including edema, carpal tunnel syndrome, muscle, joint, or nerve pain, or high blood sugar. These side effects are rare, and the doctor may lower the dosage of HGH until they disappear. Do not change the dosage yourself.

Some people experience injection site pain, itching, swelling, irritation, or redness. These reactions are normal and clear up on their own. Alert the doctor if these issues are ongoing or worsen.

If you have any questions about these Humatrope instructions, please contact HGH Doctor hormone clinic.

For further information, please contact our hormone clinic for a free consultation at <u>our web site</u>. Or by phone: +1 786-634-1199. Our address: 1150 NW 14th St #1317, Miami, FL 33136.