



Sermorelin

Growth Hormone-Releasing Hormone (GHRH) Analog

What It Is & What It Does

Sermorelin is a synthetic fragment of GHRH that signals the pituitary to release its own growth hormone rather than supplying growth hormone directly. It was FDA-approved for decades under the brand name Geref before being discontinued commercially — the compound itself has a long clinical track record, even though that specific product is no longer sold.

What The Research Shows

- A 2006 study of 89 elderly adults given daily sermorelin acetate for 6 months found significant improvement on multiple cognitive measures — particularly problem solving, psychomotor processing speed, and working memory — with no change in crystallized intelligence (vocabulary/general knowledge type tasks).
- Because Sermorelin stimulates the pituitary rather than replacing GH directly, it preserves the body's natural pulsatile release pattern and feedback regulation — the mechanism that differentiates it from direct HGH administration and is credited with its comparatively favorable side-effect profile.
- In practice, IGF-1 levels commonly rise 40-100% from baseline (typically 100-180 ng/mL in adults with age-related decline) within 4-8 weeks of regular use, confirming the pituitary is responding to stimulation.
- As a GHRH fragment, it depends on a functioning pituitary gland to work — it will not produce a GH response in cases of pituitary damage or failure, unlike direct HGH administration.

Reported Side Effects

- Injection site redness or irritation
- Flushing, headache, dizziness reported in a minority of users
- Fluid retention and joint/muscle discomfort reported with higher-dose GH-axis stimulation in elderly populations, which is part of why lower, pulsatile-preserving approaches like Sermorelin are generally favored in that age group

Regulatory Status

Previously FDA-approved as Geref for pediatric GH deficiency; that product was withdrawn from the commercial market (not for safety reasons) and Sermorelin is now available only as a compounded or research-grade product.