BRING THIS TO YOUR DOCTOR · GREY PEPTIDES

Hemorphin (Hemorphins)

Also called: Hemorphin-7; LVV-hemorphin-7; VV-hemorphin-7; Valorphin; Haemorphin

What it is

Hemorphins are opioid peptides released from the hemoglobin beta-chain — hemorphin-7 is YPWTQRF, LVV-hemorphin-7 is LVVYPWTQRF (PMID 3743640). They are 'atypical' opioids: they bind opioid receptors and also act on the renin-angiotensin blood-pressure system, inhibiting ACE and positively modulating the angiotensin II type-1 receptor (PMID 33379211). Studied for analgesia and as biomarkers (LVV-hemorphin-7 rises in sepsis), they are endogenous research peptides, not approved medicines, and have never been given to people as a treatment.

Approval status

Research Chemical. Not drugs: Drugs@FDA and the openFDA label endpoint hold no record, and FDA GSRS and ChEMBL hold no drug record for hemorphin peptides (hemorphin-7, LVV-hemorphin-7, valorphin) (searched November 7, 2026). They are endogenous hemoglobin-derived peptides studied as opioid and anti-hypertensive leads and as biomarkers; development has not reached an approved human treatment and the human literature is observational biomarker work.

Dosing, as printed in the page's Recommended Dosing box

No established human dose

Hemorphins are peptides the body makes when hemoglobin is broken down; none has been given to people as a treatment. The work is in cells and animals (often with synthetic analogs) at experimental amounts that do not carry over to people, and the human studies only measure natural hemorphin levels.

Educational information, not medical advice. None is a recommendation for you. An unapproved compound has no established safe or effective human dose, and products sold for "research use only" are not made or tested for people. Talk to a doctor before acting on anything on this site, including before you start, stop or change any medicine or dose.

Key human evidence

The 1 human study carded on the page (6 study cards in all):

• **LVV-hemorphin-7 is associated with sepsis and shock (human ICU cohort)** (Human, 2024). In a prospective cohort of critically ill ICU patients, blood LVV-hemorphin-7 differed between septic and non-septic patients and was a significant predictor of both sepsis and shock, alongside the lysosomal enzymes cathepsin D and G that help generate it from cell-free hemoglobin — an observational biomarker association, not a trial of giving hemorphin. **PMID 39767696**

Interactions

A PubMed search for interaction studies of this compound with any drug (November 7, 2026, 8 records) found none in people. That is not evidence that it is safe to combine with anything.

Side effects and cautions

Reported side effects	Contraindications and cautions
• No human adverse-event data exist: no published study has administered a hemorphin to people as a treatment • They act on opioid receptors AND the renin-angiotensin (blood-pressure) system, so effects on pain AND blood pressure would both be expected considerations — a mechanistic inference, not human data • Raised hemorphin levels mark hemoglobin breakdown and have been associated with sepsis and shock (PMID 39767696) — a biomarker signal, not a drug safety profile • Material sold online as 'hemorphin', 'LVV-hemorphin-7' or 'valorphin' is an unregulated research chemical	• Not medicines: no FDA application or label, and no approval anywhere • No human dosing, interaction, pregnancy or long-term safety data exist for administered hemorphins • They are endogenous research peptides, not treatments • Their dual opioid and blood-pressure actions warrant caution about cardiovascular effects in any use

Five questions to ask

1. Hemorphin (Hemorphins) is listed here as "Research Chemical". What does the evidence on this sheet mean for someone in my situation, and is there an approved treatment I should consider instead?
2. Here are the medicines and supplements I take. Do any of them interact with Hemorphin (Hemorphins)? This sheet records none published, which does not mean none exist.
3. Which side effects should make me stop and call you, for example no human adverse-event data exist: no published study has administered a hemorphin to people as a treatment?
4. Do any of the cautions on this sheet apply to me, such as: Not medicines: no FDA application or label, and no approval anywhere?
5. What should we check before I start and while I am on it (blood tests, blood pressure, weight), and how often?

Grey Peptides is a vendor-neutral encyclopedia: it sells nothing and names no seller. This sheet is educational, not medical advice, and is not a prescription.