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# Neuropeptide W (NPW)

**Also called:** NPW; Neuropeptide-W; NPW23; NPW30; NPW-23; NPW-30

## What it is

Neuropeptide W (NPW) is an endogenous ~23- or 30-amino-acid brain and gut peptide (NPW23, NPW30) and, with neuropeptide B, a natural ligand of the receptors NPBWR1 (GPR7) and NPBWR2 (GPR8). It suppresses food intake and acts as an energy-burning catabolic signal (PMID 28376284), its receptors sit in the stress-handling extended amygdala (PMID 18204824), and it tunes neuroendocrine hormone release and modulates pain and inflammation (PMIDs 35583189, 34564825). It is a research peptide, not an approved medicine, and has never been given to people as a treatment.

## Approval status

**Research Chemical.** Not a drug: Drugs@FDA and the openFDA label endpoint hold no record, and FDA GSRS and ChEMBL hold no substance record for neuropeptide W (searched November 6, 2026). It is an endogenous human peptide; there is no therapeutic development of NPW itself, and no registered interventional trial of giving it to people. It is studied as a signalling peptide, and its receptors (NPBWR1 / NPBWR2) as potential drug targets, which remain preclinical.

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

**No established human dose**

Neuropeptide W is an endogenous human peptide that has never been given to people as a treatment. The human evidence is anatomy and physiology; the functional studies are in animals and cells, where NPW is infused into the brain or given to rodents at experimental amounts that do not carry over to people.

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

No human study is carded on the page; its 6 study cards are reviews, animal or cell work. The first 2:

• **The NPB/NPW system in energy, pain and emotion** (Review, 2008). A review of the neuropeptide B (NPB) and neuropeptide W (NPW) system, the endogenous ligands of the receptors GPR7 (NPBWR1) and GPR8 (NPBWR2). It sets out the system's roles in feeding behaviour, energy homeostasis, neuroendocrine function and inflammatory pain, and notes that the strong, discrete expression of the receptors in the extended amygdala points to a role in stress, emotion, anxiety and fear — a hypothesis awaiting functional confirmation. **PMID 18204824**

• **Neuropeptide W in energy homeostasis** (Review, 2017). A focused review of neuropeptide W as the endogenous ligand of GPR7 and GPR8. It summarises where NPW and its receptors are found in the central nervous system and the periphery, and the evidence that NPW regulates food intake and energy homeostasis — infused centrally it suppresses feeding and body weight while raising heat production, behaving as an endogenous catabolic signal. **PMID 28376284**

## Interactions

A PubMed search for interaction studies of this compound with any drug (November 6, 2026, 2 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 neuropeptide W to people<br>• In animals, central NPW suppresses appetite and body weight and raises body temperature (PMID 28376284) — effects of a catabolic signal, not a safety profile<br>• NPW influences the stress axis and neuroendocrine hormone release (PMIDs 18204824, 35583189), so systemic effects would be expected if it were administered<br>• Material sold online as 'neuropeptide W' or 'NPW' is an unregulated research chemical of unverified content | • Not a medicine: no FDA application or label, and no approval anywhere<br>• No human dosing, interaction, pregnancy or long-term safety data exist for administered NPW<br>• It is a laboratory research peptide, not a treatment<br>• Its roles in feeding and stress are physiology, not a basis for self-administration |

## Five questions to ask

1. Neuropeptide W (NPW) 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 Neuropeptide W (NPW)? 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 neuropeptide w to people?
4. Do any of the cautions on this sheet apply to me, such as: Not a medicine: 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.