# Neuromedin N (NN)

**Also called:** Neuromedin N; Neuromedin-N; NN peptide; KIPYIL

## What it is

Neuromedin N (NN) is an endogenous neurotensin-like hexapeptide (Lys-Ile-Pro-Tyr-Ile-Leu, KIPYIL) cut, with neurotensin, from the pro-neurotensin/neuromedin N precursor (NTS gene). Its sequence mirrors neurotensin's C-terminus, so it binds and activates neurotensin receptors (PMID 3023108) but less potently; it produces opioid-independent analgesia (PMID 20501239) and stimulates the exocrine pancreas and gut blood flow while lowering blood pressure (PMID 3299129), and is rapidly inactivated by aminopeptidase. 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 neuromedin N (searched November 6, 2026). It is an endogenous human peptide; there is no therapeutic development of neuromedin N itself, and no registered interventional trial of giving it to people. The interest is in metabolically stable neurotensin-receptor ligands, which remain preclinical.

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

**No established human dose**

Neuromedin N is an endogenous human peptide that has never been given to people as a treatment. The work is in animals and cells, where neuromedin N is injected into the brain or given to animals 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:

• **Processing of the pro-neurotensin/neuromedin N precursor** (Review, 2006). A review of how the pro-neurotensin/neuromedin N precursor is cut. Neurotensin and the six-amino-acid neuromedin N sit in the C-terminal region, separated by three Lys-Arg sites that prohormone convertases (PC1, PC2, PC5-A) cleave differently in brain, gut and adrenal — generating neurotensin, neuromedin N and larger active forms. Because all of these are biologically active, tissue-specific processing generates biological diversity. **PMID 16904237**

• **Inactivation of neurotensin and neuromedin N** (Review, 2006). A review of how the two related peptides are switched off. Neurotensin is degraded mainly by three zinc metallo-endopeptidases, whereas neuromedin N is inactivated chiefly by the zinc exopeptidase aminopeptidase M. Knowing these inactivation routes, the authors note, opens the way to designing metabolically stable analogs of neurotensin and neuromedin N with potential therapeutic value. **PMID 16904239**

## Interactions

A PubMed search for interaction studies of this compound with any drug (November 6, 2026, 7 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 neuromedin N to people<br>• In animals, neuromedin N lowers arterial pressure and changes gut blood flow and pancreatic secretion (PMID 3299129), so cardiovascular and digestive effects would be expected if administered<br>• It is rapidly degraded by peptidases, giving a short action unless those enzymes are blocked (PMID 20501239) — a pharmacological property, not a safety profile<br>• Material sold online as 'neuromedin N' 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 neuromedin N<br>• It is a laboratory research peptide, not a treatment<br>• Its neurotensin-receptor actions are physiology, not a basis for self-administration |

## Five questions to ask

1. Neuromedin N (NN) 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 Neuromedin N (NN)? 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 neuromedin n 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?

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