

Semax

Patient Education Guide — What It Does, Why a Physician Would Prescribe It, and What the Evidence Says

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Important Disclaimer

This information is not medical advice and is provided only to help begin your research. All clinical and dosing decisions must be made with a licensed, experienced physician and a licensed, experienced compounding pharmacist, supported by published clinical studies. This material was compiled using Artificial Intelligence, statements from videos and websites by apparent qualified professionals, and available published research. Anyone starting a medication they have never taken before should take an extremely conservative approach. We are not affiliated with any of the doctors whose videos are referenced below.

Semax International Compounded

Also known as: N-Acetyl Semax (stabilized variant)

Category: Cognitive & Neurological Support — Nootropic Peptide

How it works. Semax is a synthetic heptapeptide derived from a fragment of adrenocorticotrophic hormone (ACTH 4-10), modified with a Pro-Gly-Pro tail for stability and brain penetration. Critically, it acts on the nervous system without triggering corticosteroid release—it kept the neuroactive portion of ACTH and dropped the hormonal one. Its best-characterized mechanism is upregulation of brain-derived neurotrophic factor (BDNF), a protein central to neuronal growth, survival, and plasticity, along with modulation of dopaminergic and serotonergic signaling. It is typically administered intranasally, which delivers it to the central nervous system quickly and conveniently.

Why a physician might discuss it—and where the limits are. Semax was developed in Russia in the 1980s and is registered there for clinical use in conditions involving cognitive impairment and circulatory compromise, including the recovery period after ischemic stroke. In wellness contexts it is discussed for focus, mental stamina under stress, and cognitive support—without stimulant effects. The honest framing: the bulk of the human evidence is Russian clinical research, and rigorous Western replication is limited. It is not FDA-approved, and online intranasal products are overwhelmingly grey-market. As with Selank, it should never be used to sidestep proper evaluation of cognitive complaints, and psychiatric instability, pregnancy, and complex medication regimens are reasons to decline and refer.

What patients typically describe. Users commonly report improved focus and mental clarity within the first hour of intranasal administration, with effects lasting several hours; some describe cumulative benefits with cycled use. Nasal irritation and occasional headache are the most reported side effects. It is frequently discussed alongside Selank—Semax framed as the focus peptide, Selank as the calm peptide—which is exactly how the two appear together in our blended formulation.

Published Evidence: Russian randomized trials in acute ischemic stroke reported improved neurological recovery with intranasal Semax added to standard care. Mechanistic studies document rapid BDNF and NGF upregulation in the hippocampus and frontal cortex after intranasal administration in animal models, along with modulation of the melanocortin and monoamine systems. Western replication remains limited—an honest gap every patient conversation should acknowledge.

Key Study: Ashmarin IP, et al. "Semax, an analogue of ACTH(4-10): 20 years of study." *Zh Vyssh Nerv Deiat.* 1997; and Gusev EI, et al., trials of Semax in acute ischemic stroke, *Zh Nevrol Psikhiatr.*

Recommended Videos (educational, independent sources)

► **Bioavailable** — Semax Explained: A Biochemical Perspective on The Cognition Peptide

<https://www.youtube.com/watch?v=2ZTmRWx12i4>

► **Quinn Stillson, MD** — Semax: Everything You Need to Know — Benefits, Risks & Who Should Use It

https://www.youtube.com/watch?v=RqGey_otfjo

► **Dr. Adam Sewell, MD** — Semax: The Ultimate Guide to Cognitive Enhancement and Neuroprotection

<https://www.youtube.com/watch?v=SLYwV0DRRK0>

