

## COMPOUNDED AMLEXANOX: NOVEL USES FOR AN OLD DRUG

Discovering new uses for older drugs is not all that unusual. Sildenafil (Viagra) was originally used to treat angina but is now used for erectile dysfunction. Minoxidil (Rogaine), a drug that promotes hair growth, was developed as a blood pressure medication.

Amlexanox is another old drug that is getting renewed attention and new uses. Its anti-inflammatory, anti-allergic and immune-balancing properties have made compounded amlexanox a promising treatment for a wide range of conditions, including chronic diseases that have not responded to other treatments.

Amlexanox's uses range from metabolic disease and mast cell stabilization to immunomodulation and correction of gene expression.

### What Is Compounded Amlexanox?

Previously branded as Aphasol<sup>®</sup> oral paste, amlexanox was originally used topically to treat recurrent aphthous ulcers (canker sores) in the mouth. In other countries, such as Japan, amlexanox is being used to successfully treat asthma, allergic rhinitis and conjunctivitis. It has also been found to be clinically effective for atopic conditions such as eczema. Most importantly, amlexanox plays a strong role in balancing the immune system and improving difficult-to-treat inflammatory conditions.

Although amlexanox is no longer available in the U.S. as a commercial product, it is available as a compounded product. Physicians Preference Pharmacy formulates this novel and versatile drug into oral capsules, which are taken once a day to treat a range of health challenges.

## HOW TO ORDER

You may place refills:

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Enroll in our **Autofill Program** to **save 15%** on your entire order!

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🕒 [An inside look at our new compounding labs](#)

*Physicians Preference Pharmacy standards are more stringent than those of the United States Pharmacopeia (USP). In addition to onsite weight testing, we send multiple samples per week to an outside laboratory for potency testing. Physicians Preference Pharmacy ranks first in Houston for the number of samples sent for potency testing and in the top 8% of pharmacies nationwide.*

*Physicians Preference Pharmacy is a Houston-based, PCAB-accredited compounding pharmacy serving physicians and patients since 2001. We are licensed to work with doctors and ship to patients in 48 states (excludes NV, AL).*



# Benefits/Uses of **Amlexanox**



## **Obesity, diabetes and metabolic disorders:**

Stimulates fat burning, reduces insulin resistance, stimulates the mitochondria and decreases inflammation.



## **Asthma and allergies:**

Inhibits histamine release from mast cells and reduces allergic responses, decreases inflammation and promotes relaxation and opening of the airways.



## **Psoriasis and other autoimmune diseases:**

Reduces inflammation, modulates macrophages and balances Th1 and Th2 cells, which are involved in autoimmunity.



## **Erectile dysfunction:**

Promotes maintenance of erections due to PDE-5 inhibition (the target of Viagra and related drugs).



## **Cardiovascular disease:**

Reduces blood pressure, improves circulation and lowers cholesterol.



## **Non-alcoholic fatty liver disease (NAFLD) and liver cirrhosis:**

Activates AMPK and reduces inflammation.



## **Long-haul syndrome:**

Reduces brain fog, improves oxygen delivery to the lungs, reduces histamine release and associated inflammation.



## **Neurodegeneration:**

Decreases inflammation and oxidative stress in the brain.



## **Genetic diseases:**

May correct gene expression in cystic fibrosis and Duchenne muscular dystrophy (progressive muscle degeneration).



## **Longevity:**

Reduces inflammation, promotes autophagy (normal cellular cleanup) via the mTOR pathway, an important regulator of metabolism.



## **Mast cell stabilizer:**

Reduces release of histamine and inflammatory mediators in mast cells, neutrophils and monocytes.



## **Could You Benefit From Amlexanox?**

If you are dealing with a chronic inflammatory condition, an autoimmune disease, allergies, mast cell activation syndrome, a metabolic disorder

(obesity, diabetes, etc.) or another stubborn chronic disease, talk to your doctor about amlexanox. It is safe, well tolerated and no side effects have been reported.

For more information on amlexanox or to speak with a pharmacist about this versatile compounded medication, please contact Physicians Preference Pharmacy at **281-828-9088**.

## **REFERENCES**

- <sup>1</sup>National Center for Biotechnology Information (2023). PubChem Compound Summary for CID 2161, Amlexanox. <https://pubchem.ncbi.nlm.nih.gov/compound/Amlexanox>.
- <sup>2</sup>Khandwala A, Van Inwegen RG, Alfano MC. 5% amlexanox oral paste, a new treatment for recurrent minor aphthous ulcers: I. Clinical demonstration of acceleration of healing and resolution of pain. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 1997; February;83(2):222–30. DOI: 10.1016/s1079-2104(97)90009-3 10.1016/S1079-2104(97)90009-3
- <sup>3</sup>Mucke HAM. Drug Repurposing Patent Applications April-June 2020. *Assay Drug Dev Technol*. 2020;18(8):385-390. DOI: 10.1089/adt.2020.1019
- <sup>4</sup>Amlexanox - A Repurposed Anti-Inflammatory. <https://rumble.com/v3orj0g-amlexanox-a-repurposed-anti-inflammatory.html>
- <sup>5</sup>Makino H, Saijo T, Ashida Y, Kuriki H, Maki Y. Mechanism of action of an antiallergic agent, amlexanox (AA-673), in inhibiting histamine release from mast cells. Acceleration of cAMP generation and inhibition of phosphodiesterase. *Int Arch Allergy Appl Immunol*. 1987;82(1):66–71. DOI: 10.1159/000234292
- <sup>6</sup>Shishibori T, Oyama Y, Matsushita O, et al. Three distinct anti-allergic drugs, amlexanox, cromolyn and tranilast, bind to S100A12 and S100A13 of the S100 protein family. *Biochem J*. 1999;338 ( Pt 3)(Pt 3):583-589.