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Allergic Rhinitis

What is allergic rhinitis?

Allergic rhinitis, commonly known as hay fever, is an allergic reaction that occurs when the immune system reacts to airborne contaminants such pet dander, dust mites, mold spores, and pollen. Upon exposure to certain allergens, a person suffering from allergic rhinitis, their immune system produces an immune response that leads to inflammation in the nasal passages. This inflammation causes common symptoms like sneezing, itching, nasal congestion, and a runny nose.



What causes allergic rhinitis?

Allergic rhinitis is triggered by allergens—substances that cause an allergic reaction. These include:

- **Pollen**: Released by trees, grasses, and weeds, pollen is a primary cause of seasonal allergic rhinitis.
- **Dust mites**: Microscopic organisms that live in household dust and thrive in warm, humid environments.
- **Pet dander**: Proteins found in the skin flakes, saliva, and urine of animals.
- **Mold**: Spores produced by fungi that are common in damp environments like bathrooms, basements, and kitchens.
- Cockroach droppings: In some urban areas, cockroach allergens contribute to allergic rhinitis.

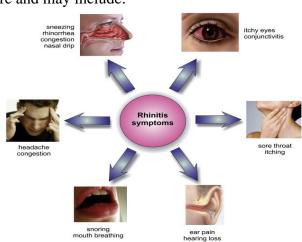
When a person with allergic rhinitis comes into contact with these allergens, their immune system overreacts and produces antibodies called immunoglobulin E (IgE). These antibodies bind to certain cells (mast cells), triggering the release of histamine and other chemicals that cause the inflammation and symptoms associated with allergic rhinitis.



What are the symptoms of allergic rhinitis?

The symptoms of allergic rhinitis can range from mild to severe and may include:

- **Sneezing**: Often sudden and repetitive, sneezing is a hallmark of allergic rhinitis.
- **Runny or stuffy nose**: Nasal congestion or a clear, watery discharge are common.
- **Itchy nose, eyes, or throat**: Itchiness is a key symptom caused by the release of histamine.
- Watery eyes: Allergic rhinitis often causes the eyes to water due to irritation.



- **Post-nasal drip**: Mucus produced by the nose can drip down the back of the throat, causing coughing or a sore throat.
- **Fatigue**: Chronic symptoms can lead to sleep disturbances and tiredness during the day.

What types of allergic rhinitis are there?

There are two primary types of allergic rhinitis:

- 1. **Seasonal Allergic Rhinitis** (Hay Fever):
 - When it occurs: Typically during specific seasons such as spring (tree pollen), summer (grass pollen), or fall (weed pollen).
 - o **Common triggers**: Pollen from trees, grasses, and weeds.
 - o **Symptoms**: Seasonal allergic rhinitis is often associated with frequent sneezing, a runny nose, and itchy eyes.
- 2. Perennial Allergic Rhinitis:
 - o When it occurs: This form of allergic rhinitis occurs year-round.
 - o **Common triggers**: Dust mites, mold, pet dander, cockroach allergens, and other indoor allergens.
 - o **Symptoms**: Perennial allergic rhinitis can cause symptoms like congestion and post-nasal drip, which may persist or worsen in response to exposure to indoor allergens.

How is allergic rhinitis diagnosed?

Diagnosis of allergic rhinitis is usually based on a combination of:

- **Medical history**: The doctor will ask about the patient's symptoms, their duration, and possible triggers. Family history of allergies is also taken into consideration.
- **Physical examination**: A physical exam will check for common signs of allergic rhinitis such as nasal congestion, watery eyes, and pale or swollen nasal tissues.
- Allergy testing:
 - Skin test: A small amount of potential allergens is applied to the skin, and the skin is pricked to check for a reaction. A raised, red bump indicates an allergy.
 - o **Blood test**: This test measures the level of IgE antibodies to specific allergens in the blood.



What are the treatment options for allergic rhinitis?

Treatment for allergic rhinitis typically includes a combination of lifestyle changes, medications, and sometimes allergy immunotherapy.

1. Avoiding Triggers

The first and most effective step is to reduce exposure to allergens:

- Stay indoors during peak pollen times (early morning or late afternoon).
- Keep windows closed during high pollen seasons and use air conditioning with a HEPA filter.
- Use dust-mite-proof bedding, and regularly wash bedding in hot water.
- Keep pets out of bedrooms and off furniture.
- Clean your home regularly to reduce dust and mold.

2. Medications

Several types of medications can relieve the symptoms of allergic rhinitis:

- **Antihistamines**: These medications block histamine, the chemical that causes allergy symptoms. They are available overthe-counter in pill, liquid, or nasal spray form.
- **Nasal corticosteroids**: These prescription or over-the-counter sprays reduce inflammation in the nasal passages, providing long-lasting relief.
- **Decongestants**: Available as nasal sprays or oral tablets, decongestants reduce nasal congestion but should not be used for extended periods (more than 3 days) due to potential side effects
 - such as (rhinitis medicamentosa) which is a type of nasal congestion that occurs when you overuse nasal decongestant.
- **Leukotriene receptor antagonists**: These oral medications can reduce inflammation and are often used for individuals with both allergic rhinitis and asthma.
- **Cromolyn sodium**: This nasal spray prevents the release of histamine and is particularly effective when used before exposure to allergens.

3. Allergy Immunotherapy

- **Allergy shots**: These injections gradually desensitize the immune system to specific allergens over time. This treatment can last for several years and provides long-term relief even after the therapy ends.
- **Sublingual immunotherapy**: This involves placing a tablet with allergens under the tongue. It can be used for certain allergens, including pollen and dust mites.

Are there natural remedies for allergic rhinitis?

Some natural treatments may offer relief for mild symptoms, although they should not replace prescribed medications:

- Nasal saline irrigation: Using a saline rinse or neti pot to clear nasal passages can help remove mucus and allergens.
- **Butterbur**: A herbal remedy belongs to the Asteraceae family, which is native to Europe, Asia, and parts of North America .The part of butterbur (Petasites hybridus) that is typically used in the treatment of allergic rhinitis is the root (or rhizome) of the plant. that has shown promise in





reducing symptoms of allergic rhinitis. However, it should be taken under medical supervision due to potential side effects.

- **Quercetin**: A plant flavonoid that may reduce histamine release and inflammation, potentially helping with symptoms of allergic rhinitis.
- **Honey**: Local raw honey is sometimes suggested as a remedy for pollen allergies. The theory is that consuming small amounts of local pollen may help build immunity, but scientific evidence supporting this is limited.



Can allergic rhinitis be prevented?

While it may not always be preventable, certain strategies can reduce the risk of developing allergic rhinitis, especially in children:

- 1. **Minimizing allergen exposure**: Reducing exposure to common allergens like dust, pet dander, and pollen can help prevent the onset of symptoms.
- 2. **Breastfeeding**: Some studies suggest that breastfeeding infants may help protect against the development of allergies later in life.
- 3. **Allergen immunotherapy**: Early treatment with allergy shots or sublingual tablets may prevent the development of allergic rhinitis in individuals who are at risk.

References

- 1. American Academy of Allergy, Asthma, and Immunology (AAAAI). "Allergic Rhinitis." www.aaaai.org
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- 3. Li, Q., & Zhang, W. (2021). "Management of allergic rhinitis: a review." *American Journal of Rhinology & Allergy*, 35(3), 333-338.
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Egypt's Drug Authority

Egypt's Drug Authority Withdraws Popular Supplement from Pharmacies The Egyptian Drug Authority (EDA) periodically issues warning notices through its official website to citizens and pharmacists regarding the withdrawal and suspension of the circulation of "counterfeit or non-compliant drugs.



1.EDA Withdraws Popular Supplement from Pharmacies

In its latest warning notice, numbered 48 for the year 2024, the authority called for the withdrawal of a well-known medical product used as a dietary supplement, **Neurimax soft gelatin capsule** (batch number: 221531A), manufactured by **Kemipharm Company**.

The EDA clarified in its recent notice that the reason for the warning is due to the batch's failure to meet quality standards, as identified by the authority's laboratory tests.

The authority has requested the immediate withdrawal and stopping the trading and acquisition of the **Neurimax** supplement with the mentioned batch number. It also emphasized the importance of contacting the EDA if there are any doubts about the pharmaceutical or cosmetic product, either through its hotline at **15301** or by visiting the authority's official website.

What is Neurimax?

Neurimax capsules are a dietary supplement that contains various vitamins and nutrients essential for the body's health.

Indications for Use of Neurimax:

- 1. Acute and chronic nerve inflammation
- 2. Painful neuropathy (rheumatic, neurological, and muscular pain)
- 3. Improving the metabolism of fats, carbohydrates, and proteins
- 4. Diabetic neuropathy
- 5. As an adjunctive treatment for heart disease and diabetes
- 6. Prevention of arteriosclerosis
- 7. Boosting the immune system
- 8. Protecting nerve cells
- 9. In some cases of anemia
- 10. Fatigue resulting from stress, exhaustion, and overwork
- 11. Vitamin B deficiency

Croom from

2. EDA Withdraws Popular Acne Treatment Cream from Pharmacies

The Egyptian Drug Authority (EDA) has issued its latest warning notice, numbered 49 for the year 2024, urging the withdrawal of a well-known acne treatment cream, **SCARO PLUS CREAM 50GM** (batch numbers: 2211082 – 2307036/CJJ), manufactured by **MACRO PHARMACEUTICALS**.

- The EDA explained in its recent notice that the reason for the warning is the presence of counterfeit packaging of the mentioned product.
- The EDA has called on all pharmacists and citizens to contact the authority if they suspect the authenticity of any pharmaceutical or cosmetic product, either by calling the hotline 15301 or by visiting the official website.



What is ScaroCream?

Scaro Cream is a moisturizing cream designed to improve the appearance of scars and blemishes. It contains natural ingredients that nourish the skin and is used to treat the effects of wounds burns, and acne.

Indications for Use of Scaro Cream:

- Treatment of acne scars and blemishes.
- Reduces the effects of burns.
- Moisturizes the skin.
- Helps in healing the effects of wounds.
- An effective remedy for closed wounds.
- Improves skin texture and ton



Real Enquiries

At the "Drug Information Center" we respond to enquiries from the professional health team as well as from others. Here's one of the enquiries received at the center

Inquiry: A dietary supplement for joint care states that it shouldn't be used in patients with phenylketonuria. Does that mean it's contraindicated in patients with hepatic or renal dysfunction?

Summary of the answer:

Phenylketonuria (PKU), has nothing to do with hepatic or renal dysfunction. So, if the product is only contraindicated in phenylketonuria it's OK to be used in patients with hepatic or renal dysfunction.

PKU is a rare inherited disorder that causes an amino acid called phenylalanine to build up in your body.

PKU is caused by a defect in the gene that helps create the enzyme needed to break down phenylalanine.

Without the enzyme necessary to process phenylalanine, a dangerous buildup can develop when a person with PKU eats foods that are high in protein.

This can eventually lead to serious health problems.

For the rest of their lives, people with PKU - babies, children and adults need to follow a diet that limits phenylalanine, which is found mostly in foods that contain protein.

Sources

- 1) www.mayoclinic.org/diseases-conditions/phenylketonuria/basics/definition/con-20026275
- 2) ghr.nlm.nih.gov/condition/phenylketonuria

Test Your Knowledge

1 .Which of the following types of tissues frequently stores drugs?

A. Fatty tissue
C. Protein tissue
D. A and B

E. A and C

2. Which of the following drugs undergoes marked hydrolysis in the GI tract?

A. Aspirin B. Penicillin G

C. Acetaminophen D. Hydrocortisone

E. Chlortetracycline

3. Lidocaine HCI is NOT administered orally because it is

A. ineffective by this route B. too acidic

C. too toxic by this route D. a cause of arrhythmias

E. unstable

4. The two major properties of drugs that are usually modified by complexation are

A. odor and taste B. taste and solubility

C. chemical structure and solubility

D. chemical structure and stability

E. stability and solubility

Ask the expert

Does ginger tea reduce the severity and frequency of nausea in individuals with chronic motion sickness?

Ginger contains bioactive compounds like gingerol and shogaol, which influence the gastrointestinal system and central nervous system to alleviate nausea.

Evidence:

- 1.Clinical Studies: A meta-analysis of studies on ginger for nausea concluded that ginger significantly reduces symptoms of nausea compared to placebo, particularly in conditions like motion sickness, pregnancy-induced nausea, and chemotherapy-induced nausea.
- 2.Mechanism of Action: Ginger compounds are believed to block serotonin receptors in the gut and inhibit signals in the central vomiting center of the brain, thus reducing nausea and its recurrence.

Answers:

1. (B) 2. (B) 3. (A) 4. (E)