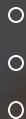




Fluticasone/Salmeterol (Advair)

Overview of Advair for Asthma and COPD Treatment



What is Advair?

Advair is a prescription medication used to control and treat the symptoms asthma and chronic obstructive pulmonary disease (COPD).

- Fluticasone propionate (a corticosteroid that reduces inflammation in the airways)
- Salmeterol (a long-acting beta2-agonist (LABA) that helps open the airways by relaxing muscles around them)

Advair is not a rescue inhaler and should not be used for sudden asthma attacks.



Available Forms of Advair

Advair Diskus –(DPI) Is used to deliver medication into the lungs.

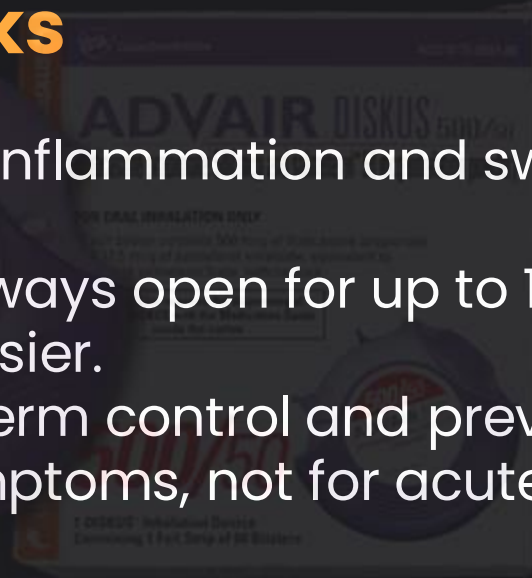
Advair HFA – (MDI) stands for Hydrofluoroalkane with is type of propellant Metered dose inhaler used in form to deliver medication to the lungs.

Both forms are available in different strengths, and the doctor will prescribe the appropriate dosage based on the patient's condition.



How Advair Works

- Fluticasone reduces inflammation and swelling in the airways.
- Salmeterol keeps airways open for up to 12 hours, making breathing easier.
- It is meant for long-term control and prevention of asthma or COPD symptoms, not for acute attacks.



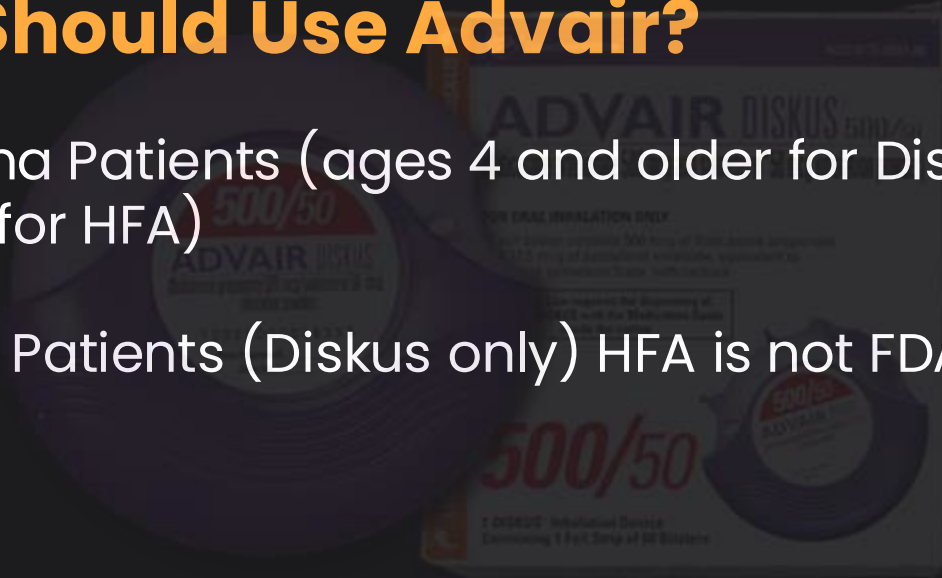
Mechanism of Action

Fluticasone – Reducing Airway Inflammation. How does it happen? Well, it binds to glucocorticoid receptors also known as NR3C1 is a receptor to which other glucocorticoid bind to glucocorticoid hormones, which activate the receptor to suppress pro inflammatory genes and promote anti-inflammatory responses and decreases inflammation and swelling in the airway.

Salmeterol– Relaxes smooth muscles in the airways. It works by selectively binding to beta-2 receptors on bronchial smooth muscle, stimulating adenylyl cyclase a membrane bound enzyme to increase cyclic AMP (cAMP) a crucial second messenger molecule that plays a vital role in transmitting signals within the cells, which activates protein kinase A, reduces intracellular calcium, and causes prolonged bronchodilation up to 12 hours.

Who Should Use Advair?

- ☐ Asthma Patients (ages 4 and older for Diskus, 12 and older for HFA)
- ☐ COPD Patients (Diskus only) HFA is not FDA app



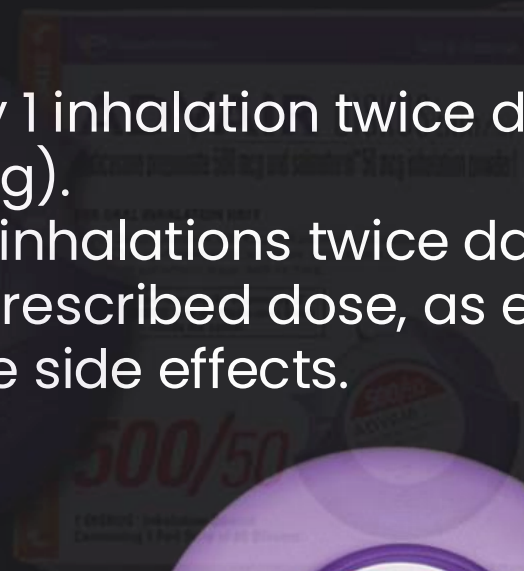
Who Should NOT Use Advair?

- People with severe milk protein allergies (Diskus contains lactose)
- Those with uncontrolled high blood pressure or heart conditions
- People with acute asthma attacks (use a rescue inhaler like albuterol instead)



Dosage

- Advair Diskus: Usually 1 inhalation twice daily (morning and evening).
- Advair HFA: Usually 2 inhalations twice daily.
- **DO NOT** exceed the prescribed dose, as excessive use can cause severe side effects.



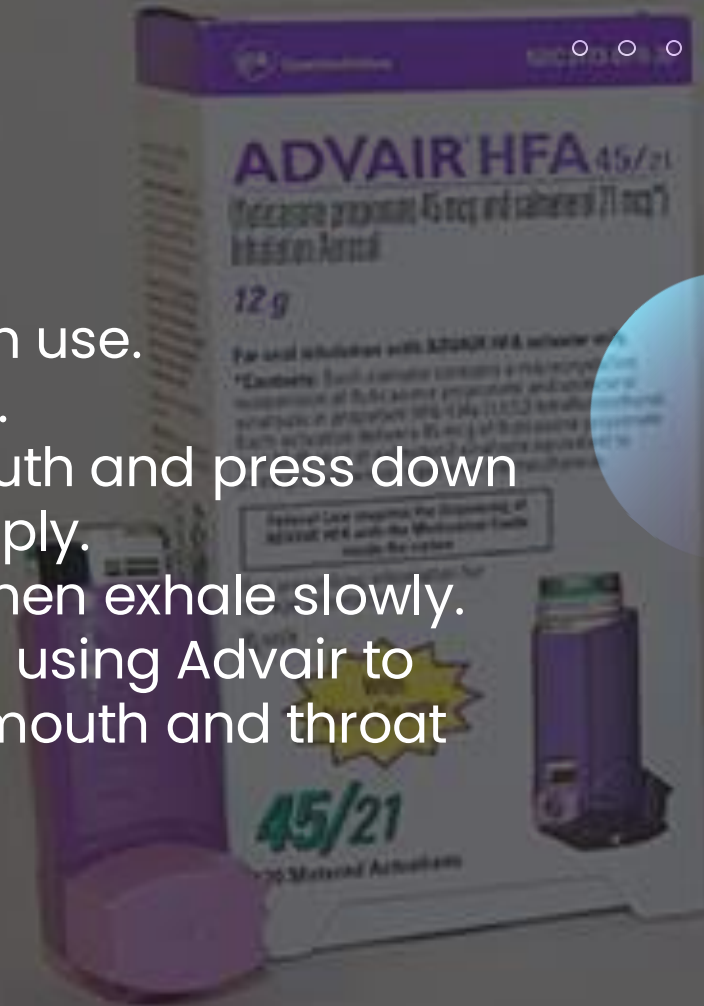
How to Use Advair Diskus

- Open the Diskus by sliding the thumb grip.
- Load dose by sliding the lever until it clicks.
- Exhale fully away from the inhaler.
- Place the mouthpiece in your mouth and inhale deeply through your mouth.
- Hold your breath for 10 seconds, then exhale slowly.
- Rinse your mouth with water to prevent oral thrush (yeast infection in the mouth).



How to Use Advair HFA

- Shake the inhaler well before each use.
- Exhale fully away from the inhaler.
- Place the mouthpiece in your mouth and press down on the canister while inhaling deeply.
- Hold your breath for 10 seconds, then exhale slowly.
- Rinse your mouth with water after using Advair to prevent a fungal infection of the mouth and throat called oral thrush.



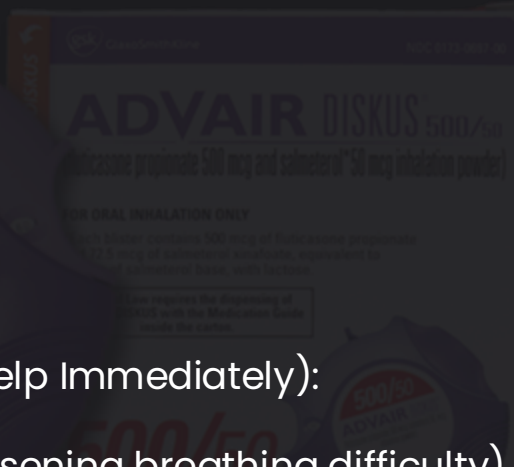
Possible Side Effects of Advair

Common Side Effects:

- Hoarseness or throat irritation
- Headache
- Nausea
- Muscle or bone pain
- Increased risk of oral thrush

Serious Side Effects (Seek Medical Help Immediately):

- Paradoxical bronchospasm (worsening breathing difficulty)
- Adrenal suppression (long-term use can lower natural cortisol levels)
- Heart-related issues (irregular heartbeat, chest pain, or increased blood pressure)
- Osteoporosis (corticosteroids can weaken bones over time)
- Pneumonia risk (especially in COPD patients)



Drug Interactions

Advair can interact with other medications, including:

- Beta-blockers (e.g., metoprolol) – can reduce Advair's effectiveness
- Antifungals & HIV medications (e.g., ketoconazole, ritonavir) – may increase steroid effects
- Diuretics – can raise the risk of low potassium levels

Make sure you always inform your doctor of all the medications you are taking.



Special Considerations

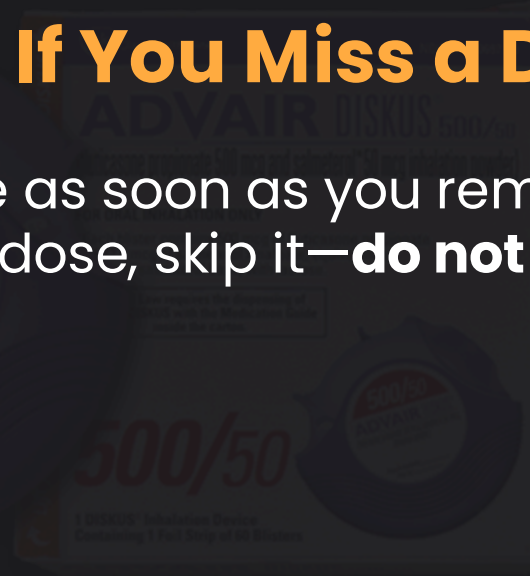
- Children & Elderly: Children should be monitored for growth suppression; elderly patients are at a higher risk for heart effects.
- Long-term Use: Requires monitoring for adrenal insufficiency, osteoporosis, and pneumonia risk in COPD patients.





What Happens If You Miss a Dose?

Take the missed dose as soon as you remember, but if it's close to your next dose, skip it—**do not double dose.**



What If You Overdose on Advair?

Overdose symptoms may include:

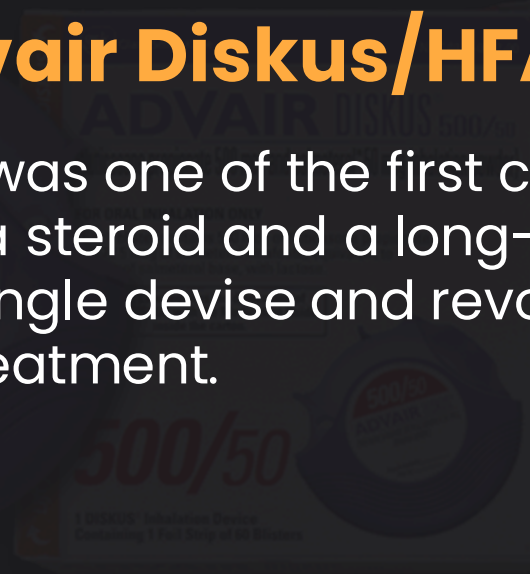
- Severe chest pain
- Fast or irregular heartbeat
- Tremors
- Severe dizziness or fainting

Seek immediate medical attention if you suspect an overdose.



Fact About Advair Diskus/HFA

Did you know Advair was one of the first combination inhalers to combine a steroid and a long-acting bronchodilator in a single device and revolutionize asthma and COPD treatment.



Case Study

A three-year study conducted in New England and published in the New England Journal of Medicine compared the effects of combination therapy (salmeterol and fluticasone propionate) to placebo on 6,112 COPD patients. The combination therapy group showed a 17.5% reduction in the risk of death from any cause compared to the placebo group, although this finding did not reach statistical significance. Furthermore, the combination therapy group experienced fewer exacerbations and improved lung function throughout the study period.

References

- GlaxoSmithKline (GSK) Official Product Page
- Drugs.com – Fluticasone/Salmeterol Information
- New England Journal of Medicine – COPD Study on Combination Therapy
- Lexicomp Drug Database
- National Heart, Lung, and Blood Institute

