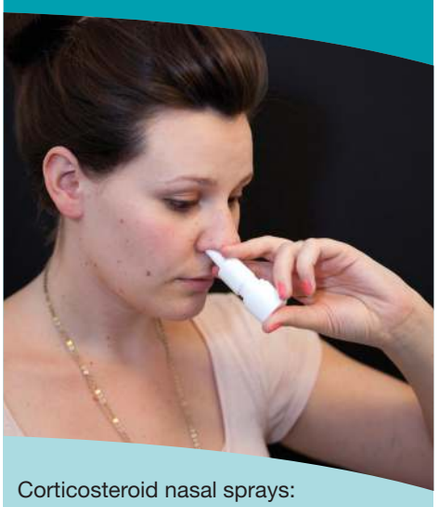
Intranasal corticosteroid spray technique for people with allergic rhinitis

Key messages for patients



Corticosteroid nasal sprays:

- **are effective medicines for managing allergic rhinitis.** People with allergic rhinitis often put up with symptoms that a non-allergic person would not tolerate, and don't realise they can feel better if symptoms are properly controlled.
- **have a good safety profile and can be used every day long term.** Patients need to understand that these medicines are not anabolic steroids and that each dose is very small – much less than for asthma preventers.
- **are intended for everyday use.** Patients need to understand that, for best results, these medications are taken regularly and long term, just like preventers for asthma.

For people who experience allergic rhinitis symptoms only part of the year, and can predict when symptoms will occur, e.g. in Spring, it is possible to use a corticosteroid nasal spray for a few weeks, then stop.

This information paper provides an overview of current evidence for optimal technique when administering intranasal corticosteroid sprays, which are used in the long-term management of allergic rhinitis.

Watch demonstrations
www.nationalasthma.org.au

Intranasal corticosteroids:

- **are first-choice treatment for patients with allergic rhinitis.**[1, 2]

  They are more effective than oral antihistamines in controlling rhinitis symptoms, particularly nasal congestion.[2, 3]
- **have a good long-term safety profile.**

  Nosebleed (usually minor and self-limiting) is the most commonly reported adverse effect.[4] They do not have a clinically significant effect on the hypothalamic–pituitary–adrenal axis or cause mucosal atrophy when used continuously.[1, 5]

Correct technique for inhaling intranasal corticosteroid sprays

The aim is to deliver the dose throughout the lining of the nasal cavity, including the lateral wall, but in practice less than half the dose reaches the ciliated lining of the nasal cavity. Most is lost to the anterior part of the nose and nasopharynx.[6, 7]

Current evidence suggests that the best spray technique involves:[2, 4, 6, 8]

- tilting the head forward
- directing the nozzle slightly away from the midline to avoid contact with the septum.

Although evidence is limited, avoiding the septum might reduce the risk of nosebleed, and may also result in a higher concentration on the areas likely to be most inflamed, because the concentration of ciliated cells is higher in the lateral nasal wall.[6] Using the opposite hand to spray each nostril is sometimes recommended,[2, 6, 8] given that nosebleed appears to be more common on the same side as the hand used to spray.[4]

There is conflicting evidence on whether breathing in while spraying improves distribution of spray or not.[6] Vigorously inhaling whilst spraying has no significant effect.[7]

Where saline irrigation is used as an adjunctive treatment,[9] it should be used before spraying.

Common errors to avoid

- Forgetting to prime the spray device
- Skipping doses
- Wrong head position (should be tilted forward, not back)
- Pushing nozzle too hard or far into the nose
- Blowing nose hard after spraying (the medicine is lost)
- Sniffing hard after spraying (the medicine is deposited in the throat instead of the nose)
- Using saline sprays or irrigations *after* using corticosteroid spray instead of before

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Intranasal corticosteroid spray technique

How to use the spray

Follow the manufacturer's directions for the specific product.

1. Prime the spray device according to the manufacturer's instructions (the first time and after a period of non-use, as instructed)
2. Shake the bottle before each use.
3. Blow nose before spraying (if blocked by mucus) or use saline irrigation.
4. Tilt head slightly forward and gently put nozzle into nostril. Avoid pushing it in hard to avoid damaging the septum.
5. Aim the spray away from the septum (e.g. tilt spray bottle away from midline using the opposite hand). At the same time, aim nozzle inwards towards nasal cavity, not just directly upwards into tip of nose (e.g. hold the nozzle parallel to roof of mouth)
6. Avoid sniffing hard during or after spraying. Sniffing could force the spray into the back of the throat instead of inside the nose where it needs to work.
7. Wipe the tip of the spray device with a dry handkerchief or tissue, and put the cap back on.

Intranasal corticosteroid sprays

Beclomethasone dipropionate (*Beconase*)

Budesonide (*Budamax*, *Rhinocort*)

Fluticasone furoate (*Avamys*)

Mometasone furoate (*Nasonex*)

Triamcinolone acetonide (*Telnase*)

More information

Evidence-based publications from National Asthma Council Australia:

Allergic rhinitis and the patient with asthma: a guide for health professionals

Allergic rhinitis and your asthma: what you should know

Inhaler technique in adults with asthma or COPD. Information paper for health professionals.

Available at www.nationalasthma.org.au

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