

# Medical Management For Rhinitis & Rhinosinusitis

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02/02/2020

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## CHRONIC NOSE / SINUS PATIENT:

- **Nasal Obstruction**
  - **Structural / Anatomic Obstruction**
    - Inferior turbinate hypertrophy
    - Nasal septal deviation
    - Nasal valve collapse (nasal vestibular stenosis)
    - Concha bullosa (pneumatized middle turbinate)
  - **Inflammatory Obstruction**
    - Nasal edema due to inflammation (Rhinitis)
    - Nasal polyps due to inflammation (Rhinosinusitis with polyposis)
- **Chronic Rhinitis – inflammation at nose only**
- **Chronic Sinusitis (Rhinosinusitis) – inflammation at nose AND paranasal sinuses**

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## CHRONIC NOSE / SINUS PATIENT:

- **Rare Causes of Nose / Sinus Symptoms**
  - Neoplasms of Sinonasal Cavities
  - Immunodeficiency / Autoimmune / Rheumatologic Sinonasal Disease
- = If ANY concern for these conditions just refer to ENT (Otolaryngologist)

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## CHRONIC NOSE / SINUS PATIENT:

nasal valve collapse  
(nasal vestibular stenosis)

### **Nasal Obstruction**

**Inferior Turbinate Hypertrophy**



**Chronic Rhinitis**



**Deviated Septum**



concha bullosa

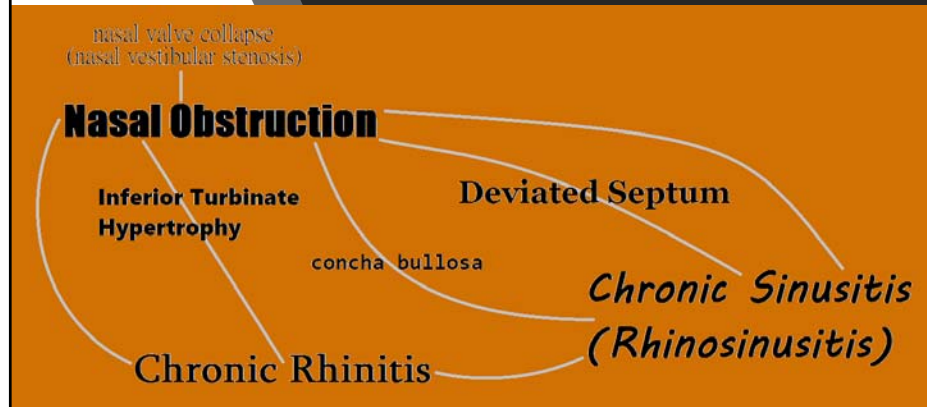


*Chronic Sinusitis  
(Rhinosinusitis)*

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## CHRONIC NOSE / SINUS PATIENT:

Multiple conditions interact with each other, cause or worsen the other nose / sinus symptoms, and complicate the treatment of the other conditions



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## CHRONIC NOSE / SINUS PATIENT

- **Good News!**
- **Same Initial Treatment For ALL These Conditions:**
  - **Nasal Corticosteroid (fluticasone)**
  - **Nasal Antihistamine (azelastine 0.1%)**
  - **Nasal Saline Irrigations (NeilMed Sinus Rinse)**

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## Chronic Rhinitis

- **Allergic Rhinitis**

- Seasonal allergic rhinitis
- Perennial allergic rhinitis
- Intermittent (<4 days per week or <4 weeks per year)
- Persistent (>4 days per week and >4 weeks per year)

- **Non-Allergic (Vasomotor) Rhinitis**

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## Chronic Rhinitis

- **Ongoing / frequently recurring symptoms (not acute viral illness)**
- **“Chronic rhinitis is inflammation of the nasal mucosa that results in symptoms of nasal discharge, congestion, and sneezing for at least 30 minutes daily for 2 or more months”**

Rauch D. Chronic Rhinitis. *Pediatrics in Review* November 2004, 25 (11) 406-407;  
DOI: <https://doi.org/10.1542/pir.25-11-406>

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## Allergic Rhinitis

- **2015 American Academy of Otolaryngology – Head and Neck Surgery Clinical Practice Guideline: Allergic Rhinitis defined Allergic Rhinitis as:**
- **“Immunoglobulin E (IgE) - mediated inflammatory response of the nasal mucous membranes after exposure to inhaled allergen”**
- **“Symptoms include rhinorrhea (anterior or post nasal drip), nasal congestion, nasal itching, and sneezing.”**

Seidman M, et al Clinical Practice Guideline: Allergic Rhinitis. *Otolaryngology-Head and Neck Surgery*. Volume: 152 issue: 1\_suppl, page(s): S1-S43 February 1, 2015  
<https://doi.org/10.1177/0194599814561600>

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## Chronic Sinusitis (Rhinosinusitis)

- **American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) clinical practice guidelines on adult sinusitis define chronic rhinosinusitis as**
- **≥ 12 weeks of ≥ 2 of the following symptoms:**
  - anterior and/or posterior mucopurulent drainage
  - nasal obstruction
  - facial pain, pressure, or fullness
  - decreased sense of smell
- **Evidence of inflammation documented by**
  - radiographic documentation of paranasal sinus inflammation
  - swelling or purulent mucus observed in middle meatus or ethmoid region
  - observation of polyps in middle meatus or nasal cavity
- **With or without acute exacerbations**

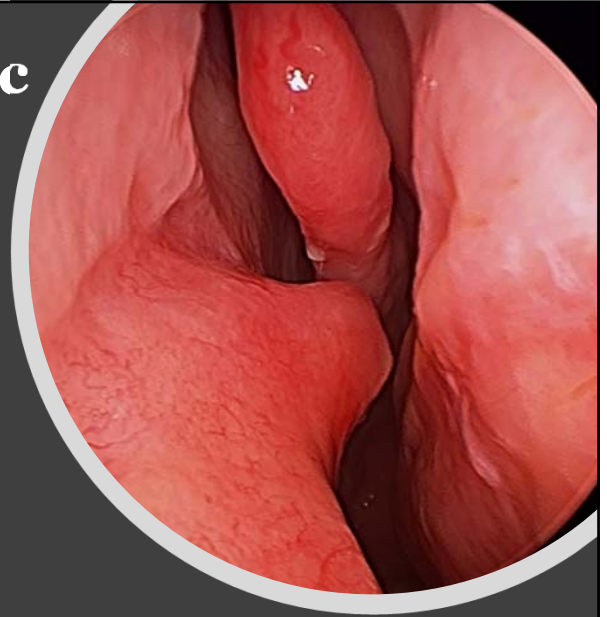
Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical practice guideline (update): adult sinusitis. *Otolaryngology Head Neck Surg.* 2015 Apr;152(2 Suppl):S1-S39

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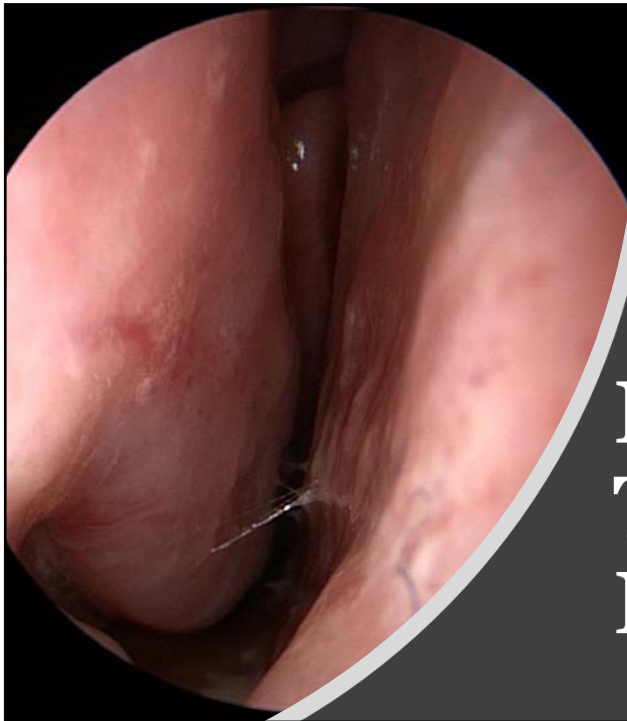


**Structural / Anatomic  
Obstruction**

# Nasal Septal Deviation



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**Structural /  
Anatomic  
Obstruction:**

# Inferior Turbinate Hypertrophy

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# CHRONIC NOSE / SINUS PATIENT

- **Good News!**
- **Same Initial Treatment For ALL These Conditions:**
  - **Nasal Corticosteroid (fluticasone)**
  - **Nasal Antihistamine (azelastine 0.1%)**
  - **Nasal Saline Irrigations (NeilMed Sinus Rinse)**

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**Nasal Corticosteroid**

- Budesonide (Rhinocort, Rhinocort Aqua)
- Beclomethasone (Qnasl, Beconase, Vancenase)
- Budesonide (Rhinocort, Rhinocort Aqua)
- Ciclesonide (Omnaris, Zetonna)
- Flunisolide (Nasalide, Nasarel)
- Fluticasone (Flonase)
- Fluticasone furoate (Veramyst)
- Mometasone (Nasonex)
- Triamcinolone (Nasacort)

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**Non-Drowsy**  
Original Prescription Strength  
**Budesonide Nasal Spray**  
32mcg Per Spray  
(Glucocorticoid) Nasal Allergy Symptom Reliever  
24HR Relief of:

- Nasal congestion
- Runny nose
- Itchy nose
- Sneezing

24 HOUR  
Scent Free / Alcohol Free  
↑ STORE ↑

**Nasacort**  
ALLERGY 24HR  
triamcinolone acetate nasal spray 55 mcg per spray  
allergy symptom reliever  
(glucocorticoid)  
NON-DROWSY  
SCENT-FREE  
ALCOHOL-FREE  
0.57 FL. OZ. (16.8 mL)

**Flonase**  
ALLERGY RELIEF  
Fluticasone Propionate (Glucocorticoid) 50 mcg Per Spray  
Allergy Symptom Reliever Nasal Spray  
24 Hour Relief of:  
• Itchy, Watery Eyes  
• Nasal Congestion  
• Runny Nose  
• Itchy Nose  
• Sneezing

**Nasal Corticosteroid**  
**Good Place To Start:**  
**Fluticasone propionate (Flonase) 1 spray to each nostril once per day.**

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**Nasal Antihistamine  
H1 Receptor Antagonist**

- Azelastine 0.1 % (137 mcg) nasal spray (Astepro<sup>®</sup>, Astelin<sup>®</sup>)
- Azelastine 0.15 % (205.5 mcg) nasal spray (Astepro<sup>®</sup>, Astelin<sup>®</sup>)
- Olopatadine 0.6% nasal spray (Patanase<sup>®</sup>)

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## Nasal Antihistamine (azelastine)

- **Dosing & Indications Confusing & Overly Detailed from FDA:**
  - branding (Astepro<sup>®</sup>, Astelin<sup>®</sup>)
  - 2 Strengths (0.1% vs. 0.15%)
- **Make It Simple = For Adult with Chronic or Recurrent Rhinitis Symptoms:**
  - **0.1% azelastine 2 sprays per nostril twice daily**

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## Nasal Antihistamine (azelastine)

- **Azelastine 0.1 % (137 mcg) nasal spray (Astepro<sup>®</sup>, Astelin<sup>®</sup>)**
  - **Seasonal Allergic Rhinitis**
    - 2-5 years old: 1 spray per nostril twice daily
    - 6-11 years old: 1 spray per nostril twice daily
    - ≥ 12 years old: 1-2 spray(s) per nostril twice a day
  - **Perennial Allergic Rhinitis**
    - 0.5-11 years old: 0.1%, 1 spray per nostril twice daily.
    - 6-11 years old: 0.1% 1 spray per nostril twice daily.
  - **Vasomotor Rhinitis**
    - ≥ 12 years old: 2 sprays per nostril twice a day by intranasal route

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## Nasal Antihistamine (azelastine)

- **Azelastine 0.15 % (205.5 mcg) nasal spray (Astepro<sup>®</sup>, Astelin<sup>®</sup>)**
  - **Seasonal Allergic Rhinitis**
    - 6-11 years old: 1 spray per nostril twice daily
    - ≥ 12 years old: 1-2 spray(s) per nostril twice a day  
OR 0.15%, 2 spray(s) per nostril once a day
  - **Perennial Allergic Rhinitis**
    - 6-11 years old: 1 spray per nostril twice daily.
    - ≥ 12 years old: 2 spray(s) per nostril twice daily.

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## Nasal Antihistamine (azelastine)

- **Between the different brands and concentrations azelastine is indicated for:**
  - **Seasonal Allergic Rhinitis**
  - **Perennial Allergic Rhinitis**
  - **Vasomotor (Nonallergic) Rhinitis**
- **Make It Simple = For Adult with Chronic or Recurrent Rhinitis Symptoms:**
  - **0.1% azelastine 2 sprays per nostril twice daily**

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## Nasal Antihistamine (Olopatadine)

- **Olopatadine 0.6% nasal spray (Patanase®)**
  - **Seasonal Allergic Rhinitis**
    - **6-11 years old: 1 spray per nostril twice daily**
    - **≥ 12 years old: 2 spray(s) per nostril twice daily**

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**Nasal Saline Irrigations (NeilMed Sinus Rinse)**

**Irrigate both sides of nose at least twice daily (1/2 the bottle used on each side)**

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## Instructions: Nasal Corticosteroid, Nasal Antihistamine, & Nasal Saline Irrigations

### **Nasal Corticosteroid Spray:**

- 1) Nasal Corticosteroid Spray: 1 spray to each nostril, 1 time per day. They must be used consistently for 4 - 6 weeks for benefit to be seen.
- 2) Nasal steroid sprays include:
  - a. Budesonide inhaled (Rhinocort, Rhinocort Aqua)
  - b. Beclomethasone (Qnasl, Beconase, Vancenase)
  - c. Budesonide (Rhinocort, Rhinocort Aqua)
  - d. Ciclesonide (Omnaris, Zetonna)
  - e. Flunisolide (Nasalide, Nasarel)
  - f. Fluticasone (Flonase)
  - g. Fluticasone furoate (Veramyst)
  - h. Mometasone (Nasonex)
  - i. Triamcinolone (Nasacort)
- 3) There is no definitive evidence that a given nasal corticosteroid spray is better than another, so use whichever is the least expensive for you. Typically, fluticasone is the least expensive with most insurance plans so typically that is the prescription that is issued. If the electronic medical record system indicates that another nasal corticosteroid spray is less expensive with your insurance plan, then the least expensive one is usually prescribed. Please note, however, that the electronic medical record system is NOT always right about which medication is least expensive with your given insurance plan. If you find out that a different nasal corticosteroid spray is less expensive under your insurance plan, just let us know and we will be happy to change the prescription for you.
- 4) When applying nasal corticosteroid spray angle the tip superiorly (upwards) and laterally (towards your cheek). If you apply the steroid spray medially (towards the middle) it will mostly get on your nasal septum rather than into your sinuses. Application of the steroid spray to the septum can increase chance of nose bleeds.
- 5) Use of nasal corticosteroid sprays can cause nose bleeds. If nose bleeds occur, stop use and contact you otolaryngologist/sins surgeon's office.

### **Nasal Antihistamine Spray:**

- 1) Nasal Antihistamine Spray: 1 spray to each nostril, 2 times per day. Instead of scheduled use, you may use nasal antihistamine as needed up to 2 times per day. Consistent use is not required to see benefit with nasal antihistamine spray.
- 2) Nasal antihistamine sprays include:
  - a. azelastine (Astelin)
  - b. olopatadine (Patanase)
- 3) Typically, the nasal antihistamine spray that the electronic medical record indicates is least expensive with your insurance plan will be prescribed. If you find that a different nasal antihistamine is less expensive with your insurance plan, just let us know and we will change your prescription.



# UT Health East Texas ENT Center

## Instructions: Nasal Corticosteroid, Nasal Antihistamine, & Nasal Saline Irrigations

### **Nasal Saline Sinus Irrigations:**

- 1) Nasal Saline Irrigations: Use NeilMed Sinus Rinse Bottle to irrigate your nose on both sides at least 1 time per day (typically in the morning). Mix one NeilMed Sinus Rinse Packet with Distilled Water (as per manufacturer directions) in the NeilMed Sinus Rinse Bottle. Then use this mixture to irrigate each side of your nose. May use nasal saline irrigation more often if desired.
- 2) Do NOT use straight tap water in irrigation bottle as there have been rare instances of deadly parasitic infections with the amoeba *Naegleria fowleri* related to tap water use for nasal saline irrigations. If you choose not to use distilled water, you must boil your tap water for at least 30 minutes and then allow it to cool to room temperature before use. Distilled water is the preferred option as tap water can contain contaminants such as chlorine and chloramine that might cause irritation of the sinonasal mucosa (tissues inside the nose).
- 3) Lean over the sink when using the nasal steroid irrigations so that the fluid runs up one side of your nose and out the other. Do NOT stand upright when using or the irrigations will just run down your throat and cause you to cough on the liquid. Irrigate one side of your nose until the fluid runs out the other side of your nose. Then switch sides and repeat. Use about ½ of the bottle of irrigation at each side of your nose so that 1 bottle of irrigation is used each time you irrigate your nose and sinuses.
- 4) Sample NeilMed Sinus Rinse irrigation bottles are available here in clinic and the NeilMed Sinus Rinse refill packets are available over the counter at most pharmacies (Walgreens & CVS) or stores like Kroger, Target, and Wal-Mart. Amazon.com also sells the refill packets.
- 5) An electronic prescription will be sent to your pharmacy for the NeilMed Sinus Rinse Refill Packets. Some insurance companies (but not many) will cover this over the counter treatment with a doctor's prescription. However, the vast majority of insurance companies will NOT pay for nasal saline irrigations as they are available over the counter.
- 6) Coupons for a mail in rebate on NeilMed Sinus Rinse Refill Packets are available in clinic.
- 7) Make sure to use the nasal saline irrigation at least 30 minutes BEFORE you place the nasal steroid. If you place the nasal steroid spray first, the nasal saline will just wash it away.
- 8) Consistent use is needed to see benefit from nasal saline irrigations. It could take 4-6 weeks to see full benefit of nasal saline irrigation use.