

### **CONTENTS**

What is Chronic Rhinosinusitis?4
Common Symptoms4
Types of Chronic Rhinosinusitis5
Causes5
What are nasal polyps?5
Tests and Diagnosis6
Treatments8
Preparing for your doctor's visit12

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# What is Chronic Rhinosinusitis (CRS)?

Chronic rhinosinusitis is an inflammation of the inner lining of the nose and paranasal sinuses that lasts for **more than 12 weeks**, causing 2 or more symptoms affecting your nose or sinuses which may have a significant impact on your ability to carry out your daily activities.

# There are 2 types of Chronic Rhinosinusitis

1. Chronic rhinosinusitis without nasal polyps (CRSsNP)

This type does **not** involve the growth of polyps in the nasal passages.

2. Chronic rhinosinusitis with nasal polyps (CRSwNP or Nasal Polyp Syndrome):

In this type, **nasal polyps** may develop in the nasal passages.

# **Common Symptoms**



**Stuffy, blocked nose** (congestion) which may make it hard to breathe through your nose



Reduced or complete loss of smell (hyposmia or anosmia)



**Mucus** that drips down the back of your throat (post-nasal drip)



Runny nose (thick mucus)



Facial pain / headache

### Some patients may also experience:

ear or teeth pain bad breath sore throat irritability depression lack of energy

### **Causes**

Although not fully understood, chronic rhinosinusitis is typically caused by a combination of different factors. It occurs due to a malfunctioning interaction between individual patient characteristics (including genes) and environmental factors.

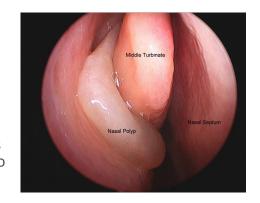
### Possible causes or triggers include:

- Respiratory infections
- Immune system disorders
- Allergic reactions
- Breathing in small particles like cigarette smoke or pollutants
- Genetics

# What are Nasal Polyps?

Nasal polyps are **soft, painless and non-cancerous** growths that develop in the sinuses of patients with chronic rhinosinusitis and eventually also in the nose due to an inflammation of the mucosa.

It is still unclear why some patients develop nasal polyps and others do not.





# **EUFOREA** How is Chronic Rhinosinusitis Diagnosed?

Your healthcare provider can make chronic rhinosinusinsitiis diagnosis based on the presence of the key symptoms, a discussion of your medical history, and the results of diagnostic tests including:

### MEDICAL HISTORY

At your first appointment with your healthcare provider, he or she will ask about your symptoms, including how long you have experienced symptoms and how severe your symptoms are. Your doctor will also ask you about any previous treatments you may have tried and any medical conditions you have.

### ANTERIOR RHINOSCOPY

During an anterior rhinoscopy, your doctor will use a tool called a nasal speculum to gently open the entrance to the nose to view the nasal cavity and check for any abnormalities such as swelling, inflammation, nasal polyps or signs of infection.

This procedure takes only a few minutes and does not require anesthesia. While this procedure is generally well-tolerated, it is important to communicate any discomfort to the healthcare provider performing the procedure so they can make adjustments to ensure your comfort.



### NASAL ENDOSCOPY

During a nasal endoscopy, a specialist will insert a thin tube with a camera (called an endoscope) into your your nose. This allows your healthcare provider to look closely at the structures inside your nose and determine whether mucus, inflammation or growths such as nasal polyps are present.



Before the procedure, a topical nasal decongestant or local anesthetic may be applied to open the nasal passage, but this is usually not needed. This procedure lasts only a few minutes.

### CT SCAN

CT scans provide detailed images of the nasal passages and sinuses. This allows healthcare providers to examine the structures of the nose and sinuses and determine if inflammation, nasal polyps, or other growth are present.



### OTHER TESTS

Skin Prick Test: to test for allergies

Smell test: to find out your degree of smell loss

**Blood test:** to find out your degree of inflammation in the blood

Lung Function Test: in case of suspicion of asthma



# TREATMENT BY GENERAL PRACTITIONER AND/OR EAR NOSE & THROAT SPECIALIST

### **SALINE RINSES**

Nasal saline rinses can help to rinse away mucus, allergens, and irritants from the nasal passages.

This can provide relief from congestion and promote healing of swollen/inflamed nasal tissue. Nasal rinses can be used alone **or** with other treatments. **Nasal rinses can be prepared at home with tap water and salt (9 gram salt/liter).** 





### Pros:

- Cheap
- Easily prepared at home
- Can be applied with bottle or syringe
- Few side effects
- Improve effectiveness of nasal corticosteroids and/ or antihistamines



### Cons:

May be uncomfortable at first

# WHAT CAN YOU DO AT HOME?

- Avoid allergens, viruses and irritants (including cigarette smoke) when possible (wear a mask)
- Rinse your nose every day
- · Use your medication as prescribed
- Do not use nose drops/nasal spray with decongestants

### **CORTICOSTEROIDS**

Corticosteroids are medicines that reduce inflammation in the body.

# NASAL CORTICOSTEROIDS (Nasal spray or drops)



### **Pros:**

- Good symptom control
- Few side effects
- · Can be used long-term



### Cons

- Irritation
- May cause nasal dryness/
- nosebleeds

# ORAL CORTICOSTEROIDS (Pill taken by mouth)



### Pros:

- Rapid and major effect on CRS symptoms and severity
- Effective on CRS and comorbidities
- Cheap



#### Cons

- Short-term treatment and short-lasting benefits
- Adverse events if longterm/repeated use and/or contra-indicated in some medical conditions

Scan the below QR code or click the below yellow icon to learn more about how to correctly use your treatments!





### **SINUS SURGERY**



### Pros:

- Good outcomes
- Benefits on upper and lower airways
- Better delivery of postoperative intranasal therapy



### Cons:

- Delicate surgery under general (or local) anaesthesia
- Polyps may grow back
- · Long-term medical care
- and post-operative followup needed in most patients

### **BIOLOGICS**

(ONLY FOR PATIENTS WITH NASAL POLYP SYNDROME/CRSwNP)



### Pros:

- Benefits on upper and lower airways
- Considered a safe treatment option with limited adverse events
- Long-term treatment with good outcomes
- Different options available



### Cons:

- Expensive
- Not available in all countries



# **ANTIBIOTICS**



### Pros:

• Anti-inflammatory effects



### Cons

- Creates antimicrobial resistance
- Can have side effects



(ONLY FOR CRS WITHOUT NASAL POLYPS)



### Pros:

- Effective to reduce green/ yellow crusts
- Cheap



### Cons:

- Not always easy to get
- Sweet taste

10

# PREPARING FOR YOUR DOCTOR'S APPOINTMENT

When you experience symptoms of chronic rhinosinusitis, **it is important to make an appointment with your healthcare provider** to receive a correct diagnosis, treatment plan and/or referral to a specialist for further evaluation.

**Here are several tips to help you prepare for your appointment** so that you can:

- take an active role in your healthcare
- enhance communication
- maximize the time spent with your doctor
- avoid forgetting information
- communicate and clarify concerns about your health
- minimize stress
- learn more about how to better manage your condition

# **BEFORE** your appointment

- √ Gather your medical history:
- Gather information about your medical history, especially any previous diagnoses, treatments, and/or surgeries.
- List any medications you are currently taking, including over-the-counter drugs and supplements.
- **✓** Document your symptoms:
- Make a list of your symptoms, including how long you have been experiencing them and how severe the symptoms are.
  Also list your lungs and allergy symptoms (cough, wheeze, shortness of breath)
- ✓ Prepare a list of questions or concerns (To learn more, click the yellow icon or scan the QR Code!)

# **THE DAY OF your appointment**

- ✓ Arrive Early:
- Arrive at the appointment a bit early to complete any necessary paperwork and allow enough time for the consultation.
- ✓ Bring Relevant Documents:
- If you have had previous diagnostic tests, imaging results, or reports, please bring copies of these documents to the appointment.

# **DURING** your appointment

- √ Ask questions
- ✓ Ask to record your consultation on your mobile phone
- √ Be honest about medication use
- ✓ **Discuss lifestyle factors that impact your health.** This includes diet, smoking/vaping, alcohol consumption and recreational drug use.

## **AFTER** your appointment

- **✓** Fill your prescriptions
- √ Follow your doctor's recommended treatment plan
- √ Schedule follow-up appointments

# **Vision**

EUFOREA is an international non-profit organization forming an alliance of all stakeholders dedicated to reducing the prevalence and burden of chronic respiratory diseases through the implementation of optimal patient care via education, research and advocacy.

## Mission

Based on its medical scientific core competency, EUFOREA offers a platform to introduce innovation and education in healthcare leading to optimal patient care.

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