



If considering the diagnosis of bacterial sinusitis in a child younger than 4, please consult a pediatrician.

Fever and rhinorrhea in child >4 years old

90-98% of pediatric sinus infections are caused by viruses. Consider bacterial sinusitis only in the following scenarios.

**Persistent Illness**  
Nasal discharge and daytime cough for >10 days  
**with no improvement**

Observe for 3 days. Follow-up by phone or by appointment.

If no improvement

**Worsening Course**  
One week of worsening nasal discharge, daytime cough, and fever after initial improvement

**Severe Onset**  
Fever >102°F and purulent nasal discharge for >3 consecutive days

### Treatment

1<sup>st</sup> line High-dose Augmentin 45 mg/kg/dose PO BID for 10-14 days  
2<sup>nd</sup> line Cefdinir 14 mg/kg/dose PO daily for 10-14 days  
**Try to avoid using cephalosporins.** They are less effective at treating the most common organisms that cause sinusitis.  
**For PCN allergy:** Please obtain a pediatrics consult. Do not prescribe azithromycin or Septra. The most common pathogens in pediatric sinusitis have high resistance rates to these antibiotics. Avoid fluoroquinolones.

Follow-up by phone or by appointment at 3 days. If no improvement, consider broadening to next line of treatment.

Follow-up 10-14 days after starting treatment. If still symptomatic, consider ENT consult.

### Differential Diagnosis

- foreign body
- seasonal/environmental allergies
- recurrent/back-to-back viral rhinitis or nasopharyngitis
- GERD

### Sinus Development in Children



- Maxillary: present at birth, fully developed at 12 years
- Ethmoid: present at birth, fully developed at 12 years
- Frontal: present at 3 years, fully developed at 18-20 years
- Sphenoid: present at 8 years, fully developed at 12-15 years

Source: [https://www.google.com/search?biw=1536&bih=740&btm=isch&a=1&ei=TfHW3rCHRJA4hKaICA&q=sinus+development&oeq=sinus+development&gs\\_l=psy-ab.3..0i67k1j0i5j0i5i30k1j3i0i8i30k1.34240.34657.0.35299.2.2.0.0.0.200.398.0tj1.2.0...0...1c.1.64.psy-ab..0.2.395..0i30k1.0.rSFh1aHq74#imgres=DSBxCfQAKWM:&sp=1518811500752](https://www.google.com/search?biw=1536&bih=740&btm=isch&a=1&ei=TfHW3rCHRJA4hKaICA&q=sinus+development&oeq=sinus+development&gs_l=psy-ab.3..0i67k1j0i5j0i5i30k1j3i0i8i30k1.34240.34657.0.35299.2.2.0.0.0.200.398.0tj1.2.0...0...1c.1.64.psy-ab..0.2.395..0i30k1.0.rSFh1aHq74#imgres=DSBxCfQAKWM:&sp=1518811500752)

### Imaging

Do not routinely obtain imaging studies in suspected sinusitis unless there is concern for a complication like orbital or CNS involvement.

Do not treat sinusitis, in the absence of symptoms, if it is an incidental finding on an imaging study.

### Adjuvant Therapies

- Saline nasal spray
- Steam
- Oral hydration
- Tylenol and ibuprofen
- Do not routinely give decongestants and antihistamines (especially Benadryl). They have been proven ineffective in children and are unsafe under 6 years old.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.  
Approved by Clinical Guideline Committee 1/19/24.  
Click [here](#) to see the supplemental resources for this guideline.  
**If comments about this guideline, please contact**  
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