<table>
<thead>
<tr>
<th>Benefit</th>
<th>Observation</th>
<th>Medical Treatment</th>
<th>Oxygen</th>
<th>Soft Tissue Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45% may resolve</td>
<td>About 90% respond</td>
<td>About 50% respond</td>
<td>50-60% respond</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improve nasal breathing</td>
<td>Can treat central apneas too</td>
<td>Can be long-term solution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Covered by most insurance</td>
<td>Temporary solution</td>
<td>Covered by most insurance</td>
</tr>
<tr>
<td></td>
<td>Continued symptoms</td>
<td>Nasal Spray</td>
<td>Skin irritation / dry nose</td>
<td>Limited activity for 2 weeks</td>
</tr>
<tr>
<td>Side Effect</td>
<td>OSA may worsen over time</td>
<td>1% nosebleeds</td>
<td>Not tolerated well in</td>
<td>Pain up to 2 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Singulair</td>
<td>toddlers</td>
<td>Risk of bleeding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% do not respond</td>
<td>Harder to travel with</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt; 1% mood issues</td>
<td>than medication</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Duration unclear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-Up</td>
<td>3-6 months or with change in</td>
<td>3-6 month clinic visits</td>
<td>3-6 months clinic visits</td>
<td>2 clinic visits if resolved</td>
</tr>
<tr>
<td></td>
<td>symptoms</td>
<td>Recommend repeat sleep study</td>
<td>Recommend oxygen sleep</td>
<td>Recommend repeat sleep study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluate need to continue medication</td>
<td>study off oxygen in 3-12</td>
<td>Repeat sleep study</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>months</td>
<td></td>
</tr>
</tbody>
</table>
Introduction to OSA
Obstructive sleep apnea (OSA) causes breathing difficulties while sleeping. Diagnosing children with OSA is more difficult than in adults. A narrowing of the throat and/or nasal passages during sleep causes the child to start and stop breathing during sleep. This is referred to as apnea.

Description of OSA
Muscles used to breathe become more relaxed during sleep than they are during the day. In some children, they become so relaxed that it interferes with breathing.

Symptoms of a Child with OSA
- Odd positions during sleep
- Loud and continuous snoring
- Stopping breathing during the night
- Having school or behavior problems
- Sweating heavily during sleep

Factors that increase Risk of OSA
- Enlarged tonsils and adenoids
- Abnormality in face or jaw
- Down Syndrome and other congenital abnormalities
- Overweight and/or obesity
# MODERATE/SEVERE

## POSITIVE PRESSURE
- 95% effective if used
- Effective immediately

## SOFT TISSUE SURGERY
- 50-60% respond
- Can be long-term solution
- Covered by most insurance

## BONY SURGERY
- 90% responders for 2 jaw surgery
- Can be long-term solution
- Covered by most insurance

### SIDE EFFECT
- Skin irritation
- 40-50% able to tolerate
- Long-term bony changes

- Pain up to 2 weeks
- Risk of bleeding
- Limited data

- Limited activity for 4 weeks
- Pain up to 4 weeks
- Jaw often wired
- Changes facial appearance

### FOLLOW-UP
- 3-6 month clinic visits
- Long-term use
- Monthly downloads
- Sleep studies every 1-2 years

- 2 visits after surgery
- 1 sleep study if successful

- 4 visits after surgery
- 1 sleep study if successful

---

Upper Airway Center
513.636.3730
cincinnatichildrens.org/upper-airway
Introduction to OSA
Obstructive sleep apnea (OSA) causes breathing difficulties while sleeping. Diagnosing children with OSA is more difficult than in adults. A narrowing of the throat and/or nasal passages during sleep causes the child to start and stop breathing during sleep. This is referred to as apnea.

Description of OSA
Muscles used to breathe become more relaxed during sleep than they are during the day. In some children, they become so relaxed that it interferes with breathing.

Symptoms of a Child with OSA
- Odd positions during sleep
- Loud and continuous snoring
- Stopping breathing during the night
- Having school or behavior problems
- Sweating heavily during sleep

Factors that Increase Risk of OSA
- Enlarged tonsils and adenoids
- Abnormality in face or jaw
- Down Syndrome and other congenital abnormalities
- Overweight and/or obesity