

Barbed Reposition Pharyngoplasty (BRP)

A Patient Guide to Your Procedure

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Understanding Obstructive Sleep Apnea

What is Sleep Apnea?

Obstructive sleep apnea (OSA) occurs when the muscles in your throat relax during sleep, causing the airway to narrow or close. This leads to repeated pauses in breathing, disrupted sleep, and reduced oxygen levels.

Common symptoms include:

- Loud snoring
- Witnessed breathing pauses during sleep
- Daytime sleepiness and fatigue
- Morning headaches
- Difficulty concentrating

Why Consider Surgery?

Surgery may be recommended when:

- CPAP therapy is not tolerated or preferred
- An oral appliance has not resolved symptoms
- Hypoglossal nerve stimulation (Inspire) alone has not fully resolved your sleep apnea
 - A sleep endoscopy (DISE) shows collapse at the level of the palate

1 billion people worldwide are
affected by OSA

What is BRP (Barbed Reposition Pharyngoplasty)?

BRP is a surgical procedure designed to open and stabilize your airway at the level of the soft palate (the back of the roof of your mouth). Unlike older techniques that remove tissue, BRP rearranges and reinforces your existing throat muscles using specialized self-anchoring sutures.



Tissue Repositioning

Rather than cutting away tissue, your surgeon moves the throat muscles (called the palatopharyngeus) outward to the sides. This widens and supports the airway so it is less likely to collapse.

Rearrange, don't remove



Barbed Sutures

Specialized self-anchoring sutures hold the repositioned muscles in place. These sutures keep their strength for several weeks while your tissues heal into their new position, then gradually dissolve.

Long-lasting support



Minimally Disruptive

The entire procedure is done through the mouth with no cuts on the outside of your neck or face. It preserves the natural shape of your palate while opening the airway.

No external cuts

How the Procedure is Performed

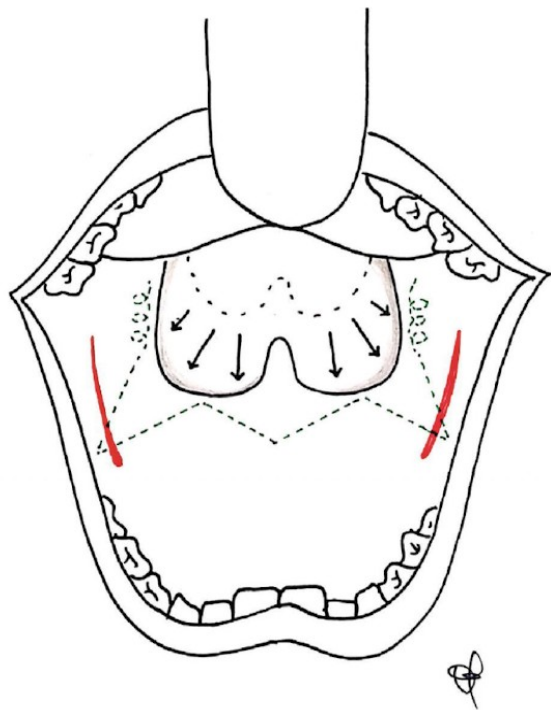


Diagram showing the direction of muscle repositioning.

Dashed lines = suture path | Red lines = anchor points | Arrows = direction of tissue movement

What Your Surgeon Will Do

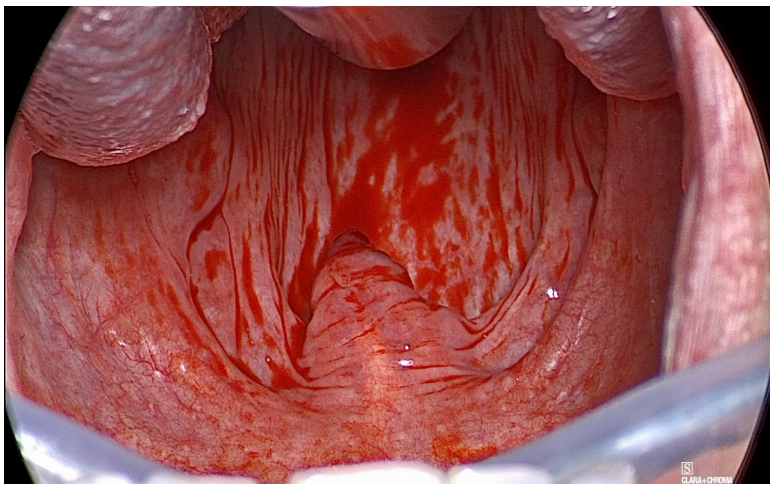
BRP is done entirely through the mouth while you are asleep under general anesthesia. The procedure typically takes 30–60 minutes.

- 1 Your surgeon identifies key landmarks on your soft palate and the surrounding throat muscles
- 2 The palatopharyngeus muscle (the main muscle on each side of your throat) is partially released from its lower attachment so it can be moved
- 3 Using a self-anchoring barbed suture, the muscle is repositioned outward and secured to a strong anchor point near the jaw (the pterygomandibular raphe)
- 4 Multiple passes of suture are placed through the muscle to distribute tension evenly, then the same is repeated on the other side
- 5 The result is a wider, more stable airway that is less likely to collapse during sleep

Before and After BRP

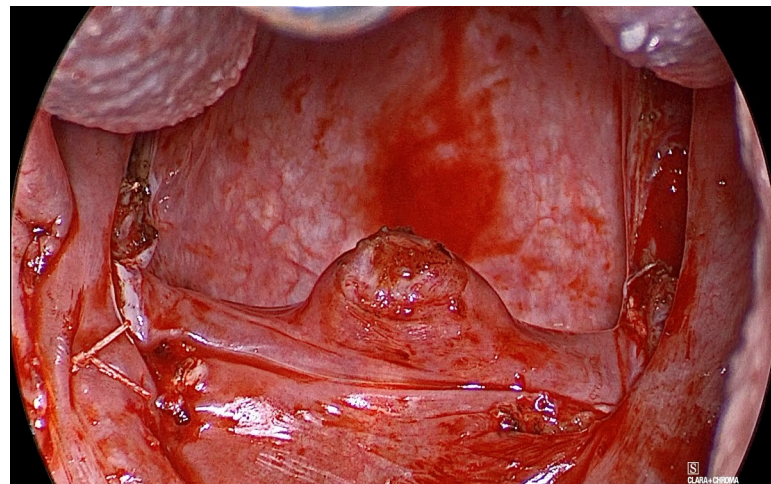
These endoscopic images show the airway at the level of the palate before and immediately after the procedure.

Before BRP



Narrow airway: the muscles and soft palate
fall inward and block airflow during sleep

After BRP



Wider, more open airway: muscles have been
repositioned to the sides with barbed sutures

Success Rates and Outcomes

BRP has been studied in over 1,000 patients worldwide and demonstrates strong, consistent results.

40–60%

Average reduction in
breathing pauses per hour

Significant

Decrease in snoring
reported by most patients

1,000+

Patients studied
in published research

How BRP Compares to Other Palate Procedures

- **Better results** than older palate surgeries (UPPP and expansion sphincter pharyngoplasty)
- **Tissue preservation:** rearranges muscles instead of removing tissue, leading to less pain
- **Sleep endoscopy guidance:** a camera test done while you are sedated helps your surgeon confirm BRP is the right procedure for you

Based on published systematic reviews and prospective multicenter studies. Individual results may vary.

Potential Risks and Complications

All surgical procedures carry some risk. Below are complications reported in the medical literature for BRP. Most are temporary and resolve during recovery.

Common (Usually Temporary)

- **Difficulty swallowing:** about half of patients notice this early on; it improves to ~9% long-term as swelling goes down
- **Foreign body sensation:** ~20% feel something in the throat; this typically goes away as the sutures dissolve over several months
- **Suture awareness:** ~18% may feel or notice suture material under the surface; this usually resolves on its own or with a simple in-office procedure
- **Throat pain:** moderate to severe pain is expected for 10–14 days, managed with medication

Less Common

- **Temporary voice change:** ~8% notice a nasal quality to their voice; this usually resolves
- **Nasal regurgitation:** ~2% may notice liquids briefly come through the nose when swallowing; this typically resolves
- **Reoperation:** about 2% of patients may need a follow-up procedure
- **Bleeding or infection:** uncommon, as with any throat surgery

Your surgeon will discuss these risks with you personally and answer any questions before the procedure.

What to Expect: Your Recovery Timeline

1

Days 1-3

Most discomfort

Pain is at its worst during this time. Take your medications on schedule. Stick to soft, cool foods and stay well hydrated. Rest with your head elevated on extra pillows.

2

Days 4-14

Gradual improvement

Pain and swelling improve steadily each day. Continue eating soft foods. Light walking is encouraged. Avoid straining, heavy lifting, or vigorous exercise.

3

Weeks 3-4

Nearing normal

Most patients return to their normal activities and diet. Some tightness or pulling with yawning, sneezing, or coughing is normal and fades with time.

4

6-8 Weeks

Follow-up assessment

A follow-up sleep study may be scheduled to measure how well the procedure improved your sleep apnea.

Diet, Activity, and Oral Care After Surgery

Soft Diet for 2 Weeks

Recommended foods:

- Soups and broths
- Yogurt and pudding
- Mashed potatoes and scrambled eggs
- Smoothies and protein shakes

Avoid:

- Spicy, acidic, or crunchy foods
- Very hot foods or beverages
- Alcohol and smoking

Stay hydrated with water or non-acidic beverages throughout the day.

Activity Restrictions

- No heavy lifting or vigorous exercise for 2 weeks
- Light walking is encouraged as tolerated
- Speak gently; avoid vocal strain
- Sleep with your head elevated on an extra pillow

Oral Hygiene

- Warm salt water rinses after meals and before bed (1 tsp salt in 8 oz water)
- Avoid mouthwashes containing alcohol
- Use a humidifier at night to keep air moist and soothe your throat

Managing Your Pain After Surgery

Alternate acetaminophen (Tylenol) and ibuprofen (Advil/Motrin) every 3 hours for the best pain control.

Example Medication Schedule

6:00 AM Acetaminophen 1000 mg

9:00 AM Ibuprofen 600 mg

12:00 PM Acetaminophen 1000 mg

3:00 PM Ibuprofen 600 mg

6:00 PM Acetaminophen 1000 mg

9:00 PM Ibuprofen 600 mg

Additional Pain Relief

- A limited narcotic prescription may be provided for severe pain; use sparingly
- Anti-nausea medication available if needed
- Throat lozenges or sprays can help with dryness

Recovery Tip

Pain is typically worst in the first 3 days and steadily improves. Most patients feel significantly better by day 10–14. Staying ahead of pain with the alternating schedule is key.

When to Contact Your Surgeon

Contact your surgeon immediately if you experience any of the following:



Fever of 100.4°F (38°C) or higher

May indicate infection requiring prompt treatment



Inability to drink fluids

Dark urine, rapid heartbeat, or dizziness when standing suggest dehydration



Significant bleeding from the throat

A small amount of blood-tinged saliva is normal, but active bleeding is not



Persistent or worsening pain

Pain that is not controlled by your medications or is getting worse



Signs of infection

Increased redness, swelling, or foul-smelling discharge from the throat