



## Pitch Modification Surgery

Pitch modification surgery typically focuses on pitch change. For voice feminization, the focus of surgery is to raise speaking pitch and reduce the ability to produce a low-pitched voice. The surgeon accomplishes this by changing the length, tightness, or size of your vocal cords. There are several surgical techniques that may be used to assist in raising vocal pitch. Your surgeon will discuss all your options with you at your consultation.

Keep in mind that because surgery will only change voice pitch, you will still need to work on other vocal behaviors and communication patterns with continued voice therapy after you have undergone surgery. Your results will depend on the techniques used, as well as the effort you put into practicing your new voice.

Masculinizing hormone therapy with testosterone permanently lowers voice pitch, therefore pitch modification surgery isn't as common for individuals seeking to deepen their voice pitch.

### How do I prepare for pitch modification surgery?

Before you can be ready for pitch modification surgery, you will need to undergo vocal therapy, working with a voice therapist who specializes in feminizing vocal therapy. Your voice therapist will help you to work on:

- Pitch - how high or low your voice sounds
- Resonance - where you perceive vibrations in your body when talking
- Voice quality - the sound created when the vocal cords come together
- Inflection - how you emphasize and express yourself by changing pitch
- Speech rate and phrasing
- Nonverbal communication - gestures, facial expressions, and posture

If you have maximized all the benefits of voice therapy, but haven't met personal vocal goals, your laryngologist and voice therapist may suggest surgery as an option.

### What happens during pitch modification surgery?

- You receive general anesthesia. This is a medication that puts you to sleep so you don't feel pain during your surgery.



- Your surgeon may use a laryngoscope to access your voice box. This is a thin, lighted tube that goes into your mouth and reaches back to your larynx. But some procedures require incisions (cuts) on the outside of your throat.

Depending on the type of surgery you have, your surgeon may do the following:

- Remove several layers of tissue from the vocal folds at the front of your voice box. Then use stitches to join the vocal folds, shortening the length of your voice box.
- Stitch together cartilage from the top and bottom of your larynx.
- Destroy the outermost tissues of the vocal cords with light energy from a laser.

## **What happens after pitch modification surgery?**

Pitch modification surgery is usually an outpatient procedure. This means you probably won't have to stay overnight in the hospital or surgery center. Most people can go home the same day as their procedure.

Your voice box will need several weeks to heal after pitch modification surgery. Be prepared to initially communicate nonverbally with text messages or notes.

You will need to continue voice therapy after surgery. This helps you adapt to the changes in your voice. Your surgeon will tell you when you can gradually start using your voice again, as well as when you can resume voice therapy.

## **What are the risks of pitch modification surgery?**

- Dysphonia (difficulty speaking), such as voice breaks or tremors.
- Edema (fluid build-up in your vocal cords)
- Enlarged Adam's apple
- Hoarseness
- Not enough pitch increase (voice is still too low).
- Scarring inside your voice box or on the outside of your throat.
- Too much pitch increase (voice is unnaturally high).
- Vocal cord dysfunction or paralysis

It's important that you know potential complications and have realistic expectations about the results of pitch modification surgery. Talk to your care delivery team before the procedure so you know what to expect.