

Voice Feminization

LASER Trans-Gender Voice Surgery

Minimally-Invasive Voice Reassignment Surgery

Sound and voice and speech are three very different things. Sound is anything that creates vibration in air (simplistic definition), and has a number of characteristic properties such as pitch (frequency). Sound in the human body is produced by air from our lungs passing through our vocal folds. We shape that sound with our throat, sinuses, and mouth into voice. We turn voice into words and sentences, and this is speech. The “sound” produced by a female voicebox (larynx) differs from that of males in many properties, the most important is pitch or frequency. The average female voice is about an octave higher ... “middle C” on the piano for a female versus the “C” below “middle C” for a male. Changing the pitch of the sound is only one step to “sounding” like a female voice, but it is one of the most important.

The goal of feminization voice surgery is to be *perceived* as having a female sounding voice. To achieve this goal you must understand what voice surgery can and can not do for you. In addition to the pitch of the sound, a female’s voice is perceived as being a little bit softer and breathier. Successful trans-gender voice reassignment surgery should impact these qualities as well as effectively raising the pitch into the female range. More information is below.

Finally, a female *speaks* differently than a male. The inflections, rhythm and intonations of speech (= *prosody*) is very, very different in a female and must be LEARNED by a male. Female speech prosody is never improved by surgery or hormones alone. Without learning female speech prosody from a good speech therapist or an experienced vocal coach, voice surgery alone will result in male speech prosody in the female voice range that is *perceived* as belonging mostly to a male. To be perceived as a female after successful voice surgery, female speech prosody **MUST** be mastered. Surgery alone, even very successful voice feminization surgery, is usually not enough to be perceived as having a female voice.

THE SURGERY:

Vocal folds vibrate almost like the strings on a piano. The thicker, longer strings vibrate at a slower frequency resulting in a heavier, lower sound (hit the low notes on a piano to see). The thinner, shorter strings vibrate faster and result in a lighter, higher sound (hit the high notes on a piano to see). *Almost* all feminization voice surgery aims to either make the vocal folds (“strings”) thinner by stretching them, or shorter. Some voice surgery, especially those done with a laser, tries to thin the vocal folds to make the vocal folds lighter and less bulky. This can be helpful in giving the voice a slightly softer and more pleasing breathy quality.

Our practice uses two methods to feminize the voice. The first is a minimally-invasive procedure to stretch the vocal folds through a small incision in the neck. This method does NOT result in scarring the way surgery to make the vocal folds shorter may. We combine the minimally-invasive procedure with an endoscopic (= through-the-mouth) LASER procedure to thin the vocal folds. This method is more conservative than others advertised elsewhere, however, the results are much more natural sounding and associated with less complications. See the “before” and “after” examples below.

If voice feminization surgery is performed somewhere other than our center and is not successful, permanent, irreversible scarring may occur. It is extremely important that the surgery is performed by an experienced voice-surgeon who understands the different techniques. Most persons only get one good chance at the voice reassignment surgery before scarring results in a terribly raspy voice that may be too low and unpleasant. See an example below of what scarred vocal folds look and sound like.

CRITERIA:

Ideally, the patient has already undergone the gender reassignment surgery. While this is not strictly required, it is preferable and tends to enhance the post-operative voice. A full voice evaluation at our center is necessary prior to any scheduled surgery ... this is for the safety of the patient as well as part of the surgery planning process.

Some major insurance plans will cover the cost of the initial evaluation. NO insurance plans will cover the cost of surgery. Unfortunately, there are no “charity care” cases accepted. The cost for an uncomplicated voice feminization procedure, for both the LASER component AND the minimally-invasive vocal fold stretching via a small incision is approximately \$4,500, and includes all post-operative office visits. Certain factors, such as whether insurance covers the initial consultation or not, may affect the final cost. ALL costs are calculated and disclosed in advance at the time of the initial consultation. The surgery takes about 2 hours and is under general anesthesia. It is typically performed as an outpatient (= you go home the same day).

Speech therapy / vocal coaching are an integral component of the feminization process, both pre and post-operatively. The speech therapy is generally NOT covered by most insurance plans and becomes the responsibility of the patient. The speech training can be completed in most major urban centers across the United States. Our patients can be provided a listing of available therapists upon request on or after their initial consultation.

Patients whom have been operated elsewhere may have had a poor result because of the scarring of their vocal folds (see the example below). It is very, very difficult to try and fix the voice which may be higher-pitched, but very raspy and harsh. The costs involved in trying to repair the voice depend on what needs to be done. Frequently, more than one corrective surgery is required. The costs can only be determined after the initial consultation and a “plan of action” has been proposed.

POST-OP INSTRUCTIONS:

After the surgery it usually takes 4-6 weeks for the vocal folds and voicebox to heal. You are required to rest your voice for 7 days after the surgery to allow things to heal. No talking or whispering *at all*. You may eat your normal diet. You may take Motrin or Advil for any discomfort. During that first week you must keep your incision clean and dry ... no taking showers. Also, you will be given antibiotics after the surgery to take for 5 days.

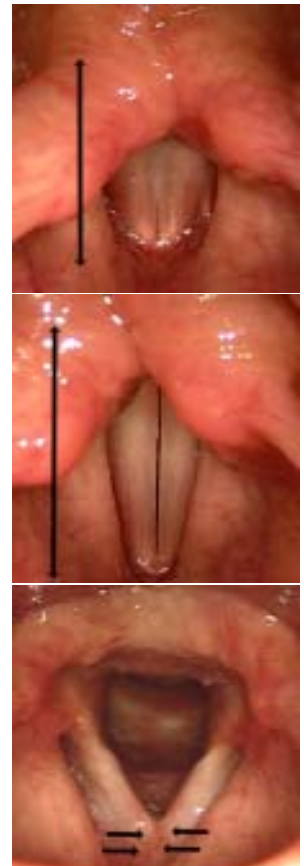
After the first week you may start using your voice normally. Do NOT whisper! Be patient, the voice does not heal for another 4-6 weeks ... it may be raspy during this time. 4 weeks after surgery you should start or resume working with your speech therapist or vocal coach. Remember, until mastering female speech prosody, your voice may still be perceived as male.

EXAMPLES:

“Before.” Pre-operative view of vocal folds. The vocal folds are thicker, shorter and heavier. The pitch is in the normal male range of “C” below “middle C” on the piano.

“After.” Post-operative view of vocal folds. The vocal folds are thinner, less bulky and lighter. The pitch is now in the normal female range of “middle C” on the piano.

“After.” Post-operative example of someone operated *ELSEWHERE*. The vocal folds are irreversibly scarred in the front indicated by the arrows.



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