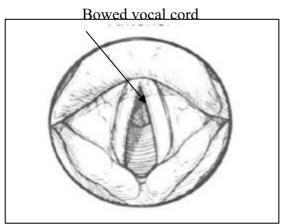
Presbyphonia (aging voice)



The voice box (larynx) is located at the top of the airway to the lungs (windpipe, trachea). The vocal cords produce sound by making airtight contact with each other. With aging, the muscles of the voice box waste, causing the vocal cords not to make as air-tight a closure and making the voice weaker and husky. This is common with 20-30% of people over the age of 65 reporting some voice change. Other muscles may be used during speaking to try to compensate for the lack of air-tight closure which actually worsen the voice (muscle

tension). You may even lose your voice entirely for a short while. Other factors such as irritants (eg smoking), acid reflux, habitual overuse or misuse of the voice, allergies and sinus infections may further weaken the voice.

DIAGNOSIS (HOW TO TELL WHAT IS WRONG)

Dr Iseli will check your voice box with a flexible telescope to rule out a rare or serious cause for your hoarse voice (eg tumor, vocal cord palsy). If the vocal cords appear abnormal, a biopsy under anesthetic may be necessary.

TREATMENT

Increased proper use of the voice may improve the muscle tone of the larynx and prevent further wasting. Using your voice will not make the voice worse provided you are not using incorrect compensatory mechanisms. Particularly, improvement has been shown with sustained use of the high pitch and trying to produce a "loud voice". Improved volume can be achieved with improved airflow (using the diaphragm to drive volume rather than straining) and using oral resonance (eg project using a wide mouth and clear enunciation).

A speech therapist can teach you the correct exercises to achieve this and also check that you are not using compensatory mechanisms. These exercises should be practiced at home. Patients not wanting to see a speech therapist should sing whenever possible. For those interested in internet or library research, the "Lee Silverman Voice Therapy" (originally developed for Parkinson's patients) has been shown to be effective.

GENERAL VOICE CARE

- Avoidance of upper respiratory infections during cold and flu season may help. Using good hygienic practices such as hand washing, and avoiding people with respiratory illnesses and crowded close quarters, may also help.
- Quitting smoking and avoiding passive smoke is essential
- Avoid habits that traumatize the voice box (yelling or screaming, throat clearing, glottal fry- think Bob Hawke "aaaahhhh..."). If your voice is becoming hoarse, give it some rest.
- Drink plenty of water and use a humidifier when using your voice frequently
- Rest your voice (speak/ sing only when paid to do so; avoid speaking over loud background noise). If possible use a microphone.
- Warm up your voice before singing with lip trills (motor boat sounds) and gentle gliding scales using different vowel sounds.



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WHEN SURGERY MAY BE INDICATED

- All patients considering surgery should see a speech therapist first to help improve how you use your voice
- Patients with a large gap between their vocal cords may consider having surgery to strengthen their voice

THYROPLASTY

Under local or general anesthetic a 4cm incision is made over your thyroid cartilage (adam's apple) and a piece of Teflon placed under the vocal cord on each side to move the vocal cord into a better position where an air-tight seal can be achieved. The voice may be used the next day as normal. Sutures are dissolving and you can shower the day after surgery. Most patients are observed in hospital overnight. Risks of surgery include: infection (the prosthesis may rarely need to be removed), scar, bleeding, difficulty breathing (rarely a temporary tracheostomy might be required) and worsening of the voice.

INJECTION LARYNGOPLASTY

Under local or general anesthetic, via a telescope placed in the mouth, material is injected under the vocal cord on each side to move the vocal cord into a better position where an air-tight seal can be achieved. The voice may be used the next day as normal. There are no external scars. Most patients are observed in hospital overnight. Risks of surgery include: damage to the teeth, perforation of the throat, infection (the prosthesis may rarely need to be removed), scar, bleeding, difficulty breathing (rarely a temporary tracheostomy might be required) or worsening of the voice.

PREPARING FOR SURGERY

- Stop smoking (ideally 2 weeks before) will help your recovery
- Don't eat or drink anything after midnight before the surgery (you may have a light breakfast before 6am if your surgery is in the afternoon)
- Arrange someone to drive you home
- Plan to take 10 days off work
- Avoid aspirin, ibuprofen for 2 weeks before surgery (they may increase bleeding risk)

HOME CARE INSTRUCTIONS

- You should take paracetamol (Panadol®, panadeine), regularly for pain and *inflammation* (soreness). If you require stronger pain relief take the prescription medications your doctor has given you. If the pain killers contain paracetamol (eg panadeine forte) take them in place of paracetamol.
- You may feel worn out and tired for a while. Get the proper amount of rest.
- Frequent coughing and clearing the throat should be avoided
- Don't smoke!
- Avoid vigorous exercise immediately after the operation.
- If you are taking painkillers, do not operate machinery, drive or make important decisions until your caregiver says it is OK.
- Take all antibiotics as directed for the length of time directed.

SEE DR ISELI AGAIN IF:

- There is difficulty breathing or swallowing.
- You develop a temperature greater than 38° C may indicate the presence of a bacterial infection, which may require an antibiotic.
- There is bleeding from the throat.



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