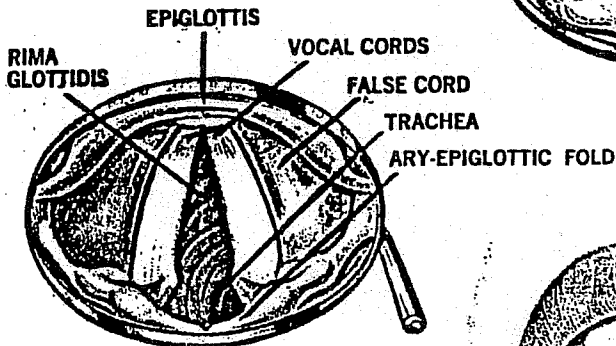


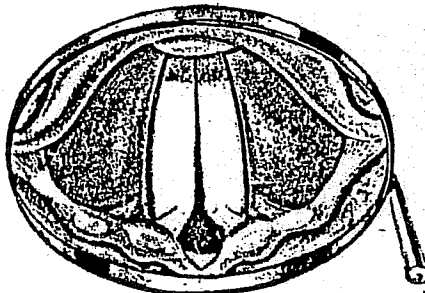
SINGING A HIGH NOTE. Vocal cords are stretched, producing an increase in tension and a decrease in breadth and thickness. Cords vibrate with increased frequency.



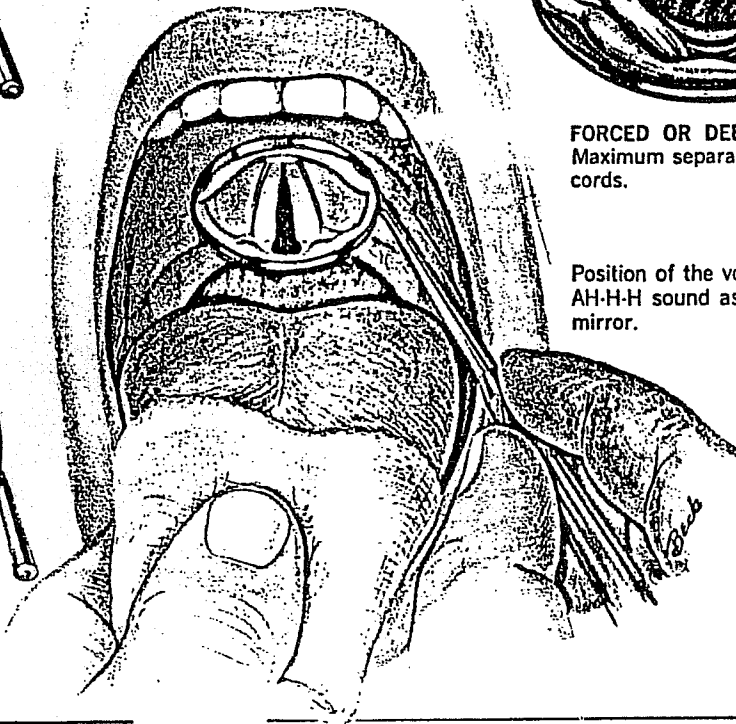
NORMAL BREATHING. Expiratory blast of air is insufficient to cause vibration of the relaxed, separated vocal cords.



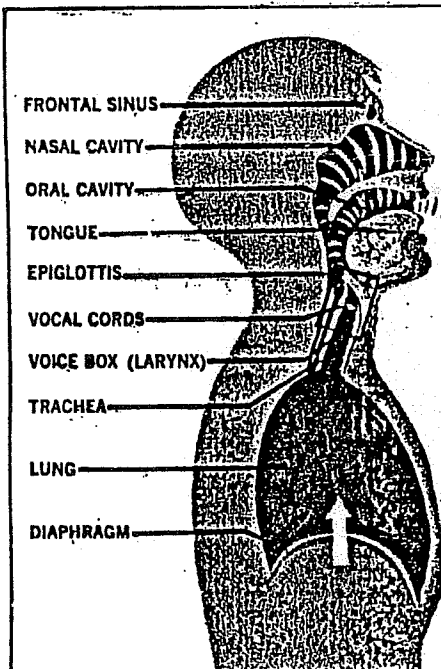
FORCED OR DEEP BREATHING. Maximum separation of the vocal cords.



WHISPERING—speech without voice. Cords are tensed with only the posterior muscles relaxed to permit a small triangular opening.



Position of the vocal cords creating an AH-H-H sound as seen in the doctor's mirror.



ANATOMY OF VOICE

6. Tongue, cheeks, palate, lips, and teeth form the sound waves into words and tones.
5. Column of air is broken by vibrations of the vocal cords into soundwaves of varying frequency.
4. Exhaled air causes vocal cords to vibrate.
3. Lungs release air to the trachea.
2. Ribs and intercostal muscles become fixed.
1. Abdominal pressure pushes diaphragm upward against the lungs.



Voice quality is determined by the resonating spaces which include the mouth, nose, the associated sinus spaces (shown in blue), the pharynx, and chest.