Ordering of tasks in a practice session

1. Stretch warm up body
2. Breathing exercise
3. Vocal exercise.
4. Sing songs
5. Cool down.

Process for learning a song (order of tasks)

1. Read the words
2. Analyze the rhythm
3. Speak words in rhythm
4. Melodies-intervals-pitches
5. Combine rhythm and melody
6. Words, and rhythm and melody
7. Accompaniment
8. Interpretation
9. memory

Five steps of the vocal process

1. Volition *(Jloti7.:ator* > jHilld-bo~)' *comzectiom}* The brain and neurological system send commands to and receive messages from the body, resulting in muscular responses that control various aspects of the vocal process.
2. Respiration *(Actuator> Breatl; energy).* The body parts associated with breathing (trachea, lungs, bronchi, diaphragm, ribs, and abdominal and back muscles) act in coordination to control the inhalation and emission of air, the fuel for vocal tone.
3. Phonation *(Vibrator> Crelltioll* ~ffimdame11ttll *tone).* The larynx, or voice box, consists of membranes, muscles, ligaments, and cartilages that coordinate in managing airflow and adducting (closing) the vocal folds to create a fundamental "buzz-tone."
4. Resonation *(Resonator> Enhancement* ~f*tone).* The combined resonance cavities, principally the throat, mouth, and nose, act as acoustical secondary vibrators for enhancing tl1e fundamental buzz-tone of the vocal folds. On a larger scale, the experience of singing in a shower (secondary \'ibrator) illustrates the effectiveness of a resonant chamber for voice enhancement.
5. Articulation *("-l71iClllmor* > *Shaping of tone imo recogllizable speech sounds).* The organs of speech (tongue, jaw, cheeks, teeth, lips, hard and soft palates, and dental ridges) coordinate in producing all the sounds normally associated with human verbal communication. As the only natural instrument equipped with an articulator, the human \'oice has the capacity to produce a seemingly infinite nriety of sounds.

Theories of vocal registration

One-RegisterTheory

Proponents of this idealistic theory argue that when the voice is functioning correctly, there is a seamless vocal quality throughout the vocal range. They may also argue that it is nonproductive to discuss registers with singers because it tends to confuse them-the less said, the better.

Two-Registers Theory

Chest register, modal, or heavy mechanism is typically the speaking and ~ yelling voice

Head register, loft, or light mechanism is the higher and softer-voiced mechanism we use when speaking in a soft-spoken, "heady," animated conversational voice.

Three-Registers Theory

The three-registers theory incorporates the chest and head registers plus an additional one called the **mixed or middle register** (the middle range of the voice).

Auxiliary registers

False sotto and whistle or flute.

The two part brain

The left *hemisphere* processes information by sorting and ordering individual components and is dominant in analytical/rational functions, such as speaking, reading, timing and rhythm, logical thinking, conscious mind processes, and controlling the right side of the body. The right hemisphere perceives stimuli holistically, contextually, and intuitively and is dominant in controlling visual-spatial relationships, pitch discrimination, imagination, creativity, expressiveness, and the left side of the body. Although the brain is composed of two equally important hemispheres, most tasks require collaboration between the two. This is especially the case with dynamic singing, which requires coordinated use of complicated intellectual, verbal, muscular, and vocal skills.

Passaggio

Series of pitches in the middle voice wherein several tones can be sung by varying register principles

Learning modes

- **Visual mode.** The visual learner receives input through the eyes and the inner windmv of the mind's eye. Experiences are processed through sight and visual images, such as visual details, colors, visions, maps, lines, lists, 'views, perspectives, drawings, doodlings, writings, graphical images, diagrams, charts, mmles, television, photographs, and wardrobe. Visual output involves transferring ideas to visible form, as in writings, paintings, or film.

- **Auditory mode.** The auditory learner receives input through the ears, and experience is processed through sounds and words, by means of conversations, innuendo, vocal tones and inflections, music, spoken meanings, poems, stories, debates, speeches, noise, radios, audio recorders, and lectures. Auditory output involves using sounds and words to express consciousness. As might be expected, singers tend to be well developed in this mode.

• **Kinesthetic mode.** The kinesthetic learner receives input through hands, skin, and muscles. Experiences are collected in smell, movements, actions, touch, feelings, textures, av,-areness of physical space, temperature, pressure, use of energy, and internal images of feeling and movement. Kinesthetic output involves activity using the hands and . body-running, walking, dancing, playing, working, and so forth.

• **Analytical mode.** In addition to the three principal learuing/expressive modes, some psychologists refer to a fourth mode, analytical, which is associated ,yith reason, logic, analysis, ideas, and abstract thought. People who are deep thinkers will use these rational tools both in receiving input and for expressing output.

Exercises to smooth through registers

1. SLIDING PITCHES
2. ASCENDING/DESCENDING SCALES
3. YODELING EXERCISE
4. CRESCEI\IDO/DECRESCENDO

Rules for developing the characteristics of a self directed person

• Set challenging yet realistic goals, based on inner decisions rather than external sources, and plan a course of action to accomplish them effectively.

• Seek a judicious balance between your level of expertise and the opportunities any activity offers for self-expansion and improvement.

• Concentrate fully on the activity and you will lose self-consciousness (associated with stage fright) in the process of gaining an increased ability to sustain intense long-term involvement in rewarding activities

Actuator, vibrator, resonator

Overtones

upper harmonics that, in conjunction with the fundamental make up a complex musical tone.

Basic energy building blocks

1. **Fitness and Exercise**
2. **Diet and Nutrition**
3. **Rest, Relaxation, and Recreation**

Timbre Voice disorders

(1) *Temporomandibular* dysfunction (TMD), which can create a variety of painful symptoms throughout the facial, neck, and shoulder areas; (:2) *gastroesopbageal reflux dis01'der* (GERD), the backup of stomach acids into the upper ainvays and (3) *bornw1I111 conditions,* such as menstruation, menopause, etc.; (4) *wcaillodules,* which may be the combined result of misuse, abuse, chronic gastric reflux, or other causes; and (5) a variety of severe disorders that directly affect the vocal folds, such as contact ulcers, polyps, cysts and blood vessel hemorrhaging

Frequency
Number of vibrations or cycles per second that determine pitch; the faster the vibrations per second, the higher the pitch.

Amplitude
Magnitude or range of movement of vibrating object.

the International Phonetic Alphabet (**IPA**) is an alphabetic system of phonetic notation based primarily on the Latin alphabet. It was devised by the International Phonetic Association as a standardized representation of the sounds of oral language.[1] The IPA is used by lexicographers, foreign language students and teachers, linguists, speech-language pathologists, singers, actors, constructed language creators, and translators.

Muscular antagonism: agonist vs. antagonist

Agonists and antagonists are known to be key players in human body and in pharmacology. Agonist and antagonist act in opposite directions. When agonist produces an action, antagonist opposes the action.

Factors affecting vocal resonance

1. Larynx
2. Tongue
3. Pharynx
4. Jaw
5. Lips and mouth

Establishing efficient body alignment nine steps

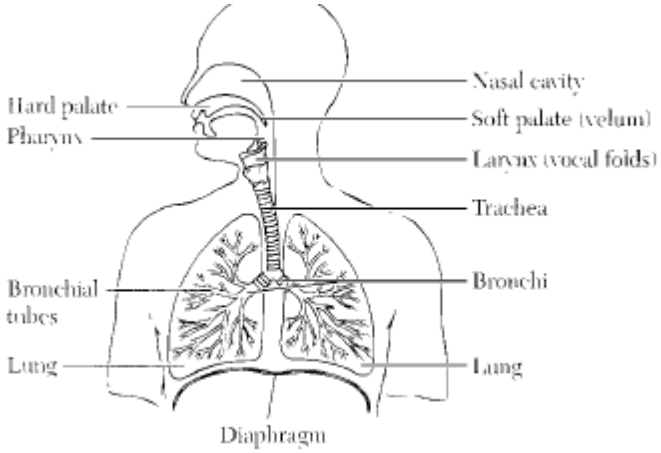
1. Start with the "Rag-Doll Stretch" (Ex. 2-6) to create a spinal stretch from the bottom to the top of the body. Beginning at the feet, slowly straighten up from the bottom upward: first to the knees, second to the buttocks and waist. then vertebra by vertebra upward to the top of the neck and head.
2. Assume the stance of an athlete ready for action: vital and balanced with feet planted firmly on the floor. You should feel anchored to the floor, yet buoyant.
3. Place feet 6 to 12 inches apart with one foot slightly in front of the other for total balance.
4. Keep the knees flexible and unlocked, and tuck the posterior slightly to avoid a swayback and to balance the pelvic area.
5. The abdominal area remains relaxed on inhalation and the lower abdominal area remains firm (but not tight) on exhalation.

6. The chest remains comfortably high, but *not* pushed out and upward in the manner of a soldier at attention (see Fig. 4-1).
7. The shoulders hang loosely and relaxed with arms dangling loosely at the sides of the body.
8. The neck is held in an erect position, but not rigidly.
9. The head is balanced on top of the spinal column so that it can roll easily in any direction. A good analogy of this flexible balance is a bowl turned upside down and balanced on the tip of a short stick.

Vocal resonators

Throat, nasals , mouth, nose, pretty much any open space after the larynx

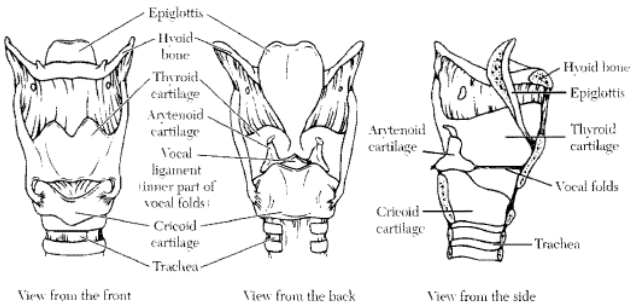
Anatomy and physiology of the respiratory



Maximizing vocal resonance

For maximum resonation, the vocal resonators must be optimally enlarged, primarily by intrinsic and extrinsic muscular adjustments in the vocal tract that control the positioning of specific vocal organs (larynx, velum, tongue, and jaw).

Mechanism



Four phase process of normal breathing

1. Inspiration
2. Suspension.
3. Expiration
4. Recovery.

Diphthong
Combination of variation sounds on one syllable, for example "sigh," "night," and "say."

Methods of breathing

1. High torso breathing
2. middle torso breathing
3. Low torso breathing
4. Middlellow torso breathing

Vibrancy/vibrato
Natural pitch variant of six to seven neurological. Physically produced pulses per second that occur when the voice is well-coordinated and balanced.

Breath coordination and management
Efficient handling of the breath cycle in producing vocal tone.

Consonants
Speech sound created when articulating organs obstruct breath flow

Phonation:
Vibration of the vocal folds to produce sound.

Vowels
Speech sound produced when breath is not stopped(see consonants); for example "ee," "ay," "ah," "oh,""oo"

Vowel modification
vowel adjustments made according to pitch levels throughout a singers full vocal range; allows for tone equalization.

Adduction:
Drawing together of the vocal folds or closing of the glottis in the act of phonation.

Sternum
Breast bone in the center of the chest to which the ribs attach.

Epigastriium
Triangular portion of the high abdominal area at the base of the sternum and directly below the ribs.

Vocal folds
The **vocal folds**, also known commonly as **vocal cords**, are composed of twin infoldings of mucous membrane stretched horizontally across the larynx. They vibrate, modulating the flow of air being expelled from the lungs during phonation.

Recitative
Sung music that closely follows the inflections, tempi, and phrasings of speech and is used to convey dramatic action prior to an aria or a composition for vocal ensemble,

Resonance
Spontaneous reinforcement and amplification of tonal vibrations (energy) occnrring whenel'er a ca,·ity is tuned to the namral fundamental frequency (pitch),
Head airways

Soft palate
Muscular membrane (velum) in the roof of the mouth behind the hard palete.

Chiaroscuro
"Bright-dark" tonal characteristics of a dynamically coordinated and balanced mice.

Larynx
An organ of the respiratory tract situated in the throat and neck above the trachea (windpipe); composed of cartilage and muscles and containing a pair of voeal folds that vibrate to produce voice.

Trachea
Commonly referred to as the windpipe; a cartilaginous tube through which air passes to and from the lungs.

Bronchi
Bifurcation of the trachea into two branches leading to the lungs.

Lungs
the lung is the essential respiration organ in many air-breathing animals, including most tetrapods, a few fish and a few snails. In mammals and the more complex life forms, the two lungs are located near the backbone on either side of the heart. Their principal function is to transport oxygen from the atmosphere into the bloodstream, and to release carbon dioxide from the bloodstream into the atmosphere. This exchange of gases is accomplished in the mosaic of specialized cells that form millions of tiny, exceptionally thin-walled air sacs called alveoli.

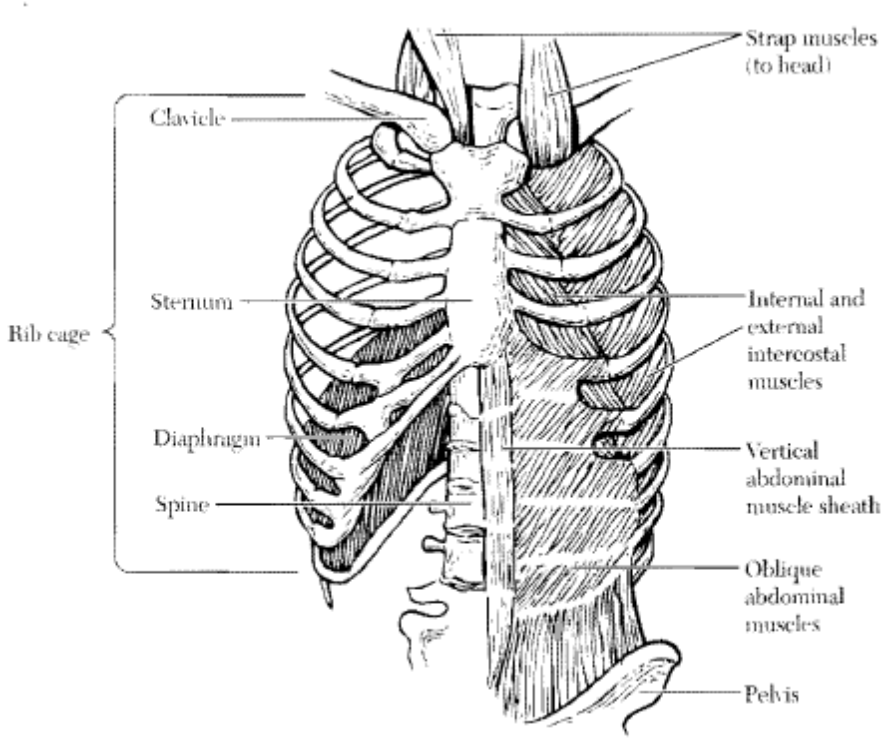
External intercostals muscles

They extend from the tubercles of the ribs behind, to the cartilages of the ribs in front, where they end in thin membranes, the anterior intercostal membranes, which are continued forward to the sternum. These muscles work in unison when inspiration (inhalation) occurs. The intercostal muscles relax while external muscles contract causing the expansion of the chest cavity and an influx of air into the lungs.

Internal intercostals muscles

The **Intercostales interni** (**Internal intercostals**) are eleven in number on either side. They commence anteriorly at the sternum, in the interspaces between the cartilages of the true ribs, and at the anterior extremities of the cartilages of the false ribs, and extend backward as far as the angles of the ribs, whence they are continued to the vertebral column by thin aponeuroses, the posterior intercostal membranes.

Each arises from the ridge on the inner surface of a rib, as well as from the corresponding costal cartilage, and is inserted into the inferior border of the rib above. The internal intercostals are innervated by the intercostal nerve.[1]



Diaphragm:

Large dome-shaped partition comprising muscle tendon and sinews; facilitates breathing and separates the abdomen (stomach) from the thorax (chest). Only contracts in one direction.

Thorax
(chest cavity): That portion of the torso situated between the neck and the abdomen which houses the breathing organs within the framework of the ribs, costal cartilages, and the sternum.

Viscera
(abdominal cavity): Soft internal organs of the body, notably those of the trunk; for example, the intestines.