

THE VOICE

(Collated by Michelle Wilkinson www.movingnaturally.co.uk)

Humans make sounds from birth onwards to enable individual expression to the external world. Sounds develop into talking and singing. People can voice their words by shouting or whisper their intent.

The creation and power of voice is formed by the breath. Andrea Olsen states 'voice is breath made audible' (2002: 116).

When a person breathes, air passes through the nose into the nasal cavity.

The nasal cavity leads into the pharynx a fibromuscular tube which has three distinct sections.

The first section of the pharynx is the nasopharynx where air starts to flow down into the body. It meets the second section oropharynx division which is at the back of the mouth. Here air can travel in and out through the lips. The third section is the laryngopharynx where it joins the larynx.

The larynx is regarded as the gatekeeper of the passage of air.

It is made from cartilage pieces including thyroid cartilage.

It has a prominence known as the Adam's Apple which can be felt midway down the front of the neck.

Attached to the upper end of the larynx is the epiglottis, a curved flap of cartilage which swings down when swallowing. This prevents substances other than air from entering the larynx. Instead, substances such as food travel down behind the larynx in the digestive tube called the oesophagus.

The oesophagus is attached to the laryngopharynx at the top and the stomach at the bottom.

If the closure of the epiglottis during swallowing fails food is described as going down the wrong way. This automatically triggers a strong cough reflex to hopefully clear the blockage.

The larynx is not only concerned with the safe passage of air but is the region for sound production.

It contains the voice box where the vocal cords are situated.

The vocal cords are mucosa-lined membrane folds extending horizontally from the front to the back of the larynx.

These cords sometimes referred to as ligaments are adjusted by delicate muscles which allow the spaces between them to alter in length and size.

To make sounds the vocal cords are drawn together and are vibrated by the expelled air from the lungs.

The expelled air has travelled from the lungs up the windpipe (trachea) that joins the bottom of the larynx.

Tightly stretched vocal cords vibrate rapidly to produce high-pitched sounds.

Men have lower pitched voices than women because their vocal cords are longer, thicker and vibrate more slowly.

The loudness of voice depends on the force with which air passes between the vocal cords. The greater the force the louder the sound.

The diaphragm controls the amount of air pressure in the lungs.

The volume and timbre of sound is created by various resonating cavities or chambers.

The primary resonating chambers are the small ones of skull sinuses, and the nasal, oral pharyngeal cavities.

Sound vibrations can be felt in the larger resonating chambers of the pelvis and chest (thorax) creating lower sensual and heart-stimulating pitches.

If a person separates their feelings from what they say these sensations implode back into them.

Proprioceptors are sensory receptors in the joints, ligaments, tendons, muscles and the inner ear. They register movement, balance and body placement in space. 50% of the body's proprioceptors are found in the head and neck.

Tightness in the superficial muscles of the jaw, neck, shoulders, belly and back diminishes sensory feedback and reduces resonance.

Sound is shaped by the soft tissues of the pharynx and mouth.

It is articulated by the lips, cheeks, teeth and tongue which are controlled by muscles into recognisable vowels and consonants.

Vowels vibrate and consonants interrupt, clip and shape the flow of air.

When a person separates their lips for a sudden air release, they produce the 'p' sound.

Singing, toning and the vibrating of body tissues stimulates relaxation by encouraging the flow of blood which enhances endocrine balance.

The thyroid gland is situated in front of the trachea, below the larynx level with the sixth cervical vertebrae.

It has two lobes one to the right and the other to the left.

The thyroid gland produces the hormone thyroxine which increases the body's overall metabolic rate, governs growth development, and influences the nervous system.

Thyroxine release is stimulated by the anterior lobe of the pituitary gland in the brain.

The parathyroid glands are four small button-shaped highly vascular glands. They are in the thyroid gland, two in the right lobe and two in the left.

These glands work with the thyroid to adjust the calcium levels in the blood.

The throat chakra is the centre of self-expression. From here a person communicates with their outer world not only through authentic voice, but drawing, thought and writing.