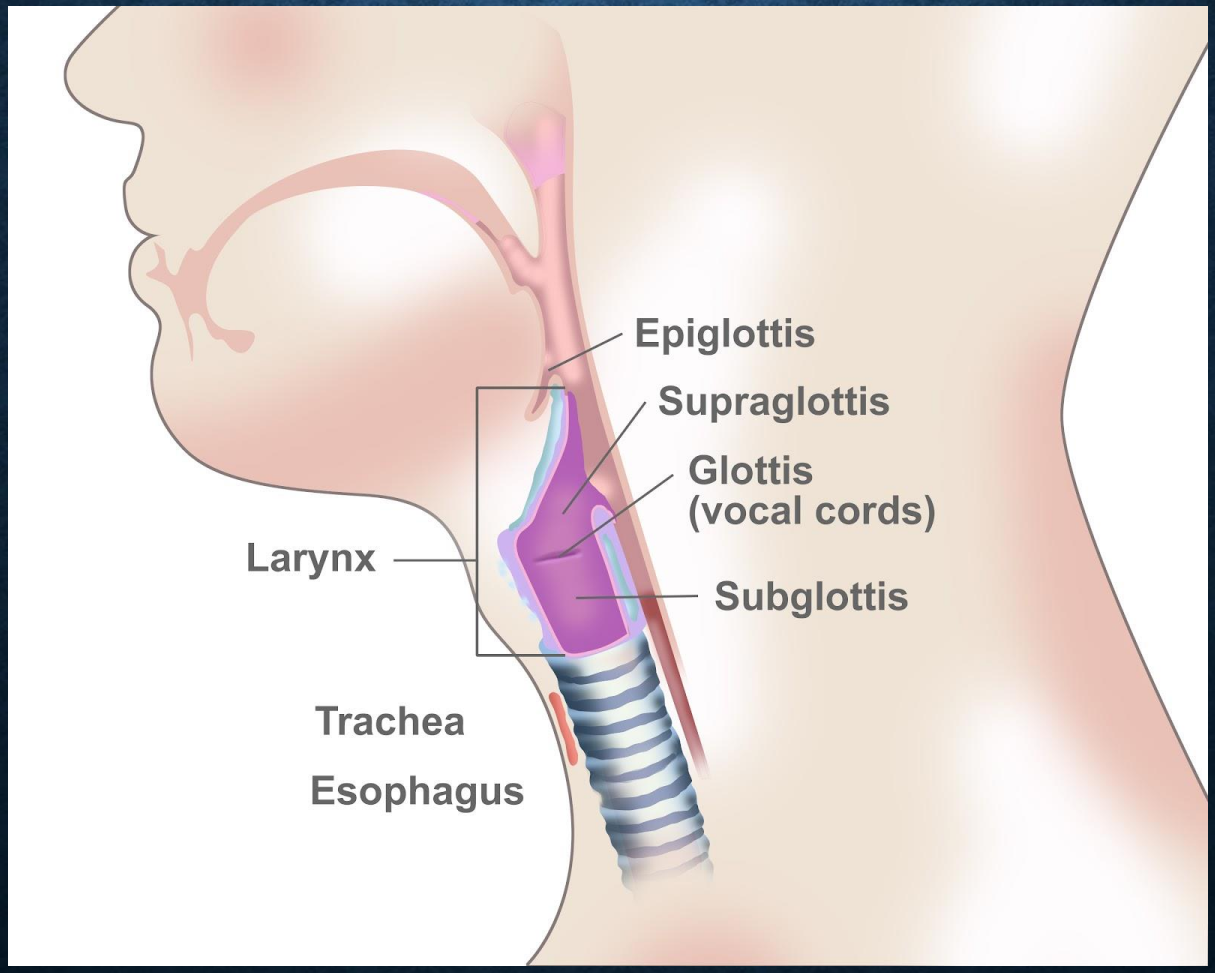
VOICING AND CONSONANTS

THE LARYNX

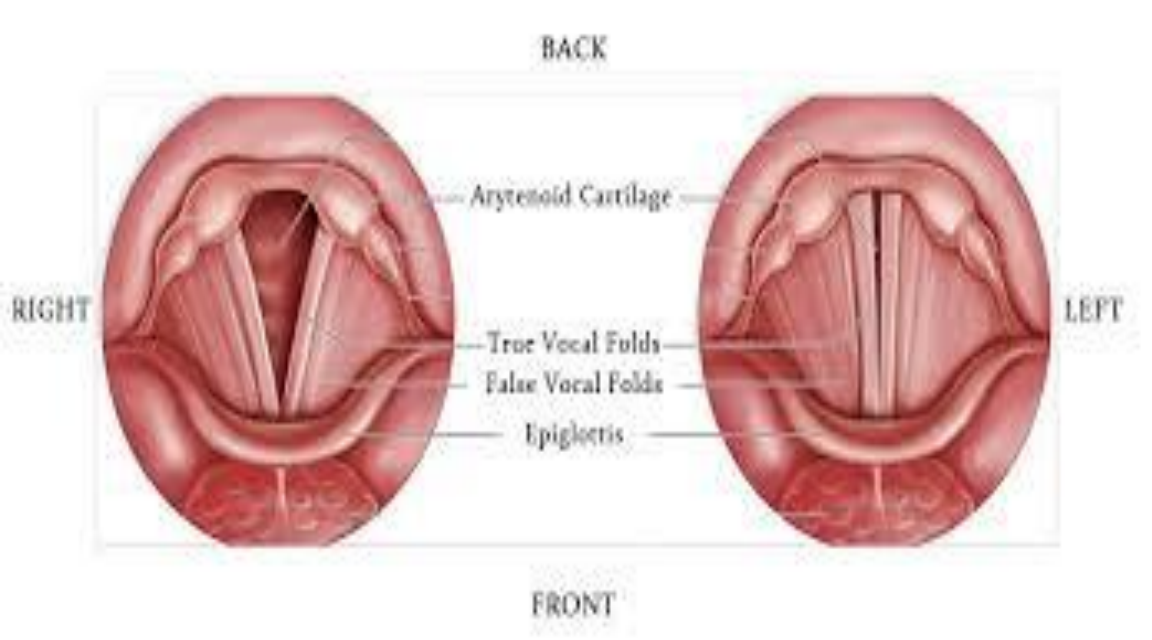
- **Larynx is in the neck.**
- **Its main structure is CARTILAGE.**
- **Larynx is made up of two cartilages these cartilages are hollow and are attached to the top of the TRACHEA.**
- **When we breath the air passes through the trachea and the larynx.**

- The front of larynx has **Adam's Apple** which is quite prominent in slim adults.



Adam's apple is in fact a box which contains vocal folds which are made up of these two cartilages.

Vocal Folds: These are two thick flaps of muscles rather like a pair of lips, previously called vocal cords.



DIFFERENT POSITIONS OF VOCAL FOLDS

- **Wide Apart:** The vocal folds are wide apart for normal breathing and usually during voiceless consonants like p, f, s.
- **For example:**

- **Narrow Glottis:** If air is passed through the glottis when it is narrowed, the result is a fricative sound for which the symbol is /h/. The sound is not very different from a whispered vowel. It is called a voiceless **Glottal Fricative**.
- **Position for vocal fold in vibration:** when the edges of vocal folds are touching each other are nearly touching, air passing through the glottis will usually cause vibration.

- **Vocal folds tightly closed:** the vocal folds can be firmly pressed together so that air cannot pass between them.
- We call this position a glottal stop or glottal plosive, and for this we use the symbol /h/.it can be practised by coughing gently ; then practise the sequence ahahahah.

RESPIRATION AND VOICING

- When air is moved out of the lungs we say there is an egressive pulmonic air stream.
- All speech sounds are made with some movements of air.
- How air is moved in and out of the lungs?
- The lungs are like sponges that can be filled with air and they are contained within the rib cage.

DIFFERENT VARIATIONS IN THE VOCAL FOLDS FOR DIFFERENT VOICING.

- **Variations in intensity:** We produce voicing with high intensity for shouting, for example, and with low intensity for speaking quietly.

- **Variations in Frequency:** If the vocal folds vibrate rapidly, the voicing is at high frequency; if there are fewer vibrations per second the frequency is lower.
- **Variations in Quality:** We can produce different sounding voice qualities, such as those we might call harsh, breathy, murmured, or creaky.

PLOSIVES

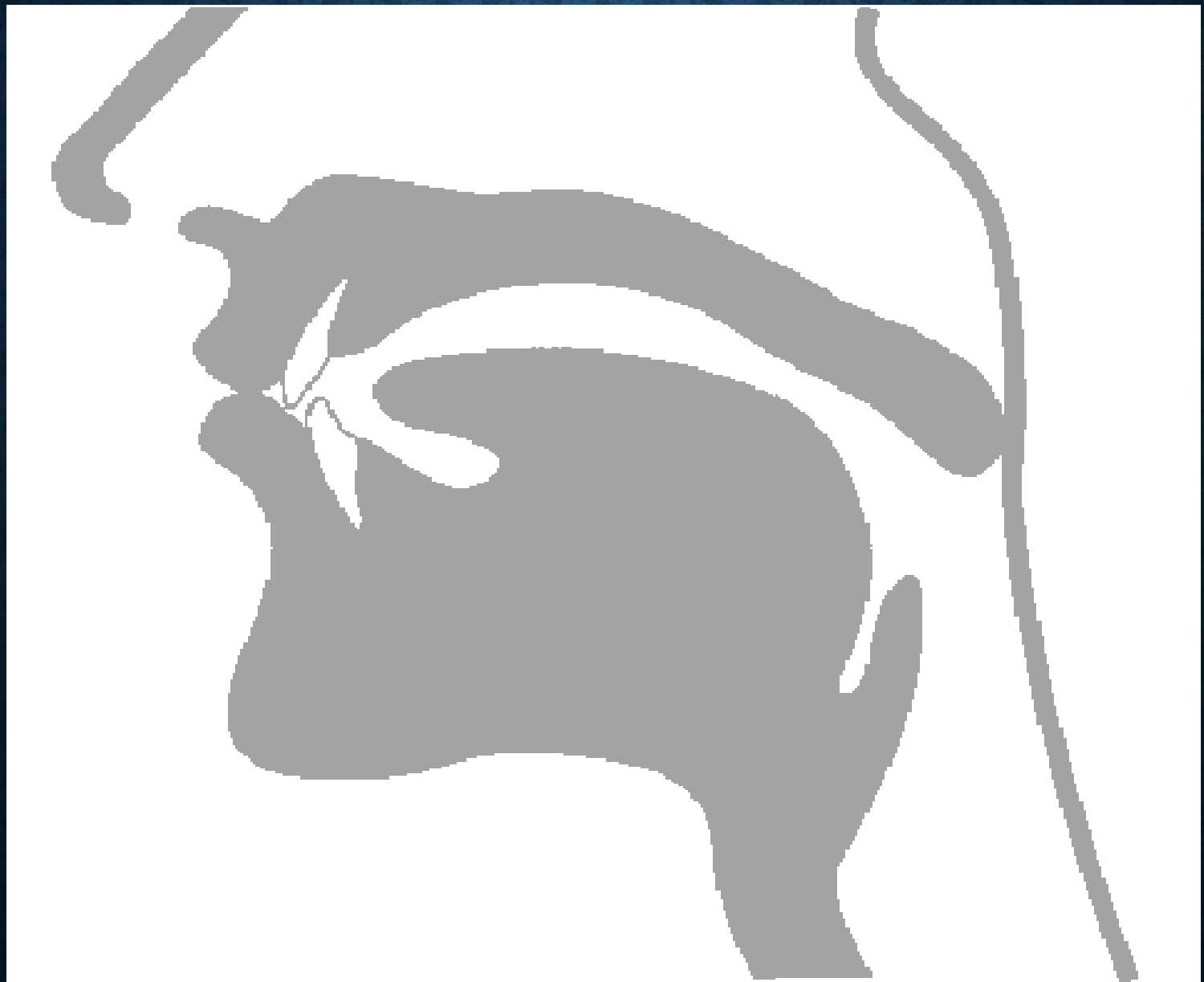
- INTRODUCTION

	Bilabial	Alveolar	Velar
Fortis (Voiceless)	p	t	k
Lenis (voiced)	b	d	g

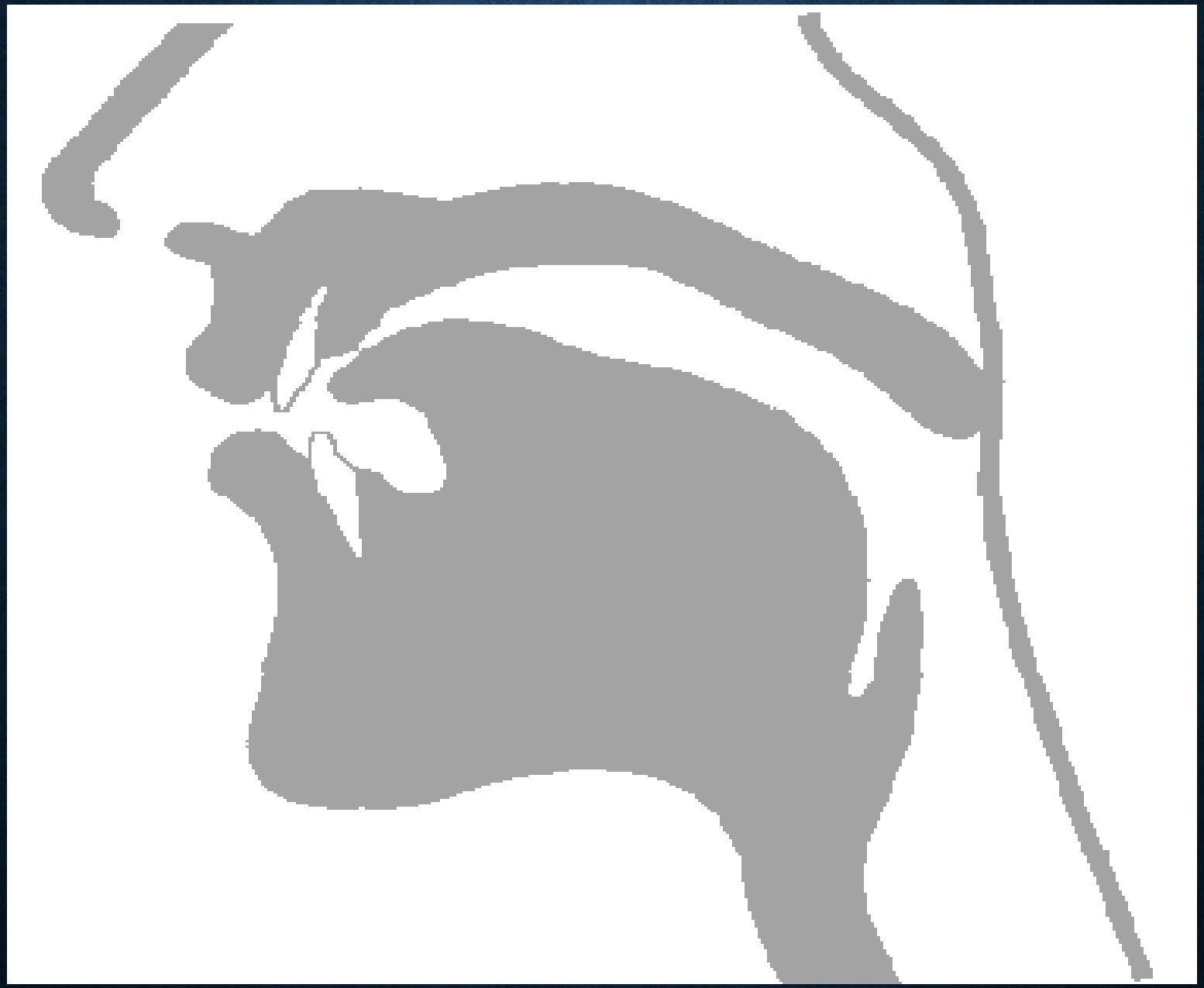
FOUR PHASES OF ARTICULATION

- Closing phase
- Compression phase
- Release phase
- Post release phase

- BILABIAL



- ALVEOLAR



- VELAR

POSITIONS OF PLOSIVES

- Initial position (c v)
- Medial position (v c v)
- Final position (v c)

INITIAL POSITION (C V)

- Closing phase

- P, t, k (No voicing takes place)

- b , d , g (No voicing takes place)

INITIAL POSITION (C V)

- Compression phase

- P , t , k (No voicing takes place)

- b , d , g (voicing takes place during the entire compression phase)

INITIAL POSITION (C V)

- Release phase

- p , t , k (Release of p,t,k is followed by an audible plosion)

- b , d , g (Release of b,d,g is followed by a weak plosion)

INITIAL POSITION (C V)

- Post-release phase

- p , t , k (Air escapes through vocal folds, making a sound like h. ”aspiration”)

- b, d ,g (there is no aspiration and voicing continues)

DIFFERENCE IN THE INITIAL POSITIONS OF *P, T, K* & *B, D, G*

- Aspiration
- In initial position b , d ,g cannot be preceded by any consonant
- In initial position p , t ,k can be preceded by s and in such a situation p , t ,k will be unaspirated (spy, store, ski)

P,t,k	B,d,g
aspirated	Nonspirated
Voiceless	May be voiced
Can be preceded by s	Cannot be preceded by any consonant
strong	weak

FINAL POSITION (V C)

- In final position b , d ,g have little voicing and if there is voicing it is at the beginning of compression phase.
- In final position p , t , k are obviously voiceless.
- In final positions the plosion following the release of p,t,k & b,d,g is very weak and often not audible.

- In final positions the vowels preceding p,t,k are much shorter. The shortening effect of p, t, k is most noticeable when the vowel is a long vowel or a diphthong. Note the length difference in vowel
- Mate
- Made
- Leak
- League
- Hurt
- Heard

CONCLUSION

- The process of voicing, different articulators---their anatomy and physiology have been discussed in detail. The complex phenomenon of place and manner of articulation of English plosives have also been discussed because in the realm of consonants this is a problematic area regarding voicing as three of the plosives are voiceless and aspirated (/p/, /t/, /k/) whereas the rest of the three are voiced (/b/, /d/, /g/).