**Phonetics and Phonology**

**2ND Year**

**Lesson Two**

**2 The production of speech sounds**

**Articulators above the larynx**

All the sounds we make when we speak are the result of muscles contracting . The muscles in the chest that we use for breathing produce the flow of air that is needed for almost all speech sounds .

The muscles in the larynx produce many different modifications to the flow of air from the chest to the mouth. After passing through the larynx, he air goes through what we call the vocal tract, which ends at the mouth and nostrils . We call the part comprising the mouth the oral cavity and the part that leads to the nostrils the nasal cavity. Here the air from the lungs escapes into the atmosphere. We have a large and complex set of muscles that can produce changes in the shape of the vocal tract. And in order to learn how the sounds of speech are produced , it is necessary to become familiar with the different parts of the vocal tract. These different parts are called articulators , and the study of them is called **articulatory phonetics.**

**1) The pharynx :** is a tube which begins just above the larynx. It is about 7 cm long in women and about 8 cm in men, and at its top end it is divided into two , one part being the back of the oral cavity and the other being the beginning of the way through the nasal cavity.

**2) The soft palate or velum :** allows air to pass through the nose and through the mouth. In speech , it is often raised so that air cannot escape through the nose. The other important thing about the soft palate is that it is one of the articulators that can be touched by the tongue. When we make the sounds / k / and / g /, the tongue is in contact with the lower side of the soft palate, and we call these **velar consonants**.

**3) The hard palate :** is often called the "roof of the mouth". A consonant made with the tongue close to the hard palate is called **palatal**. For example . The sound / j / in ' yes ' is palatal.

**4) The alveolar ridge :** is between the top front teeth and the hard palate. Its surface is really much rougher than it feels , and is covered with little ridges. Sounds made with the tongue touching here (such as ,/ t / , / d / and / n / ) are called **alveolar**.

**5) The tongue :** is a very important articulator because it can be moved into many different places and different shapes. It is usual to divide the tongue into different parts (tip , blade , front , back , and root ).

**6) The teeth (upper and lower) :** are usually shown immediately behind the lips. The tongue is in contact with the upper side teeth for most speech sounds. Sounds made with the tongue touching the front teeth, such as English / / in **three** , and / / in **father** are called **dental**.

**7) The lips** : are important in speech. They can be pressed together (when we produce the sounds / p /, / b /), brought into contact with the teeth (as in / f /, / v / ), or rounded to produce the lip-shape for vowels like / u: / . Sounds in which the lips are in contact with each other are called **bilabial**, while those with lip-to-teeth contact are called **labiodental** .

The seven articulators described above are the main ones used in speech, but there are other parts to remember. These include :

**The larynx , the jaws , and the nasal cavity .**

When speaking , they are also very important part of our equipment for making sounds (which is sometimes called our vocal apparatus) .