The anatomy of speech

As we speak, we repeat certain sounds over and over again in different patterns that we call words. The muscles of our mouths develop patterns and habits through these repetitions. Talking is like body-building for the mouth – and it's a very regular workout!

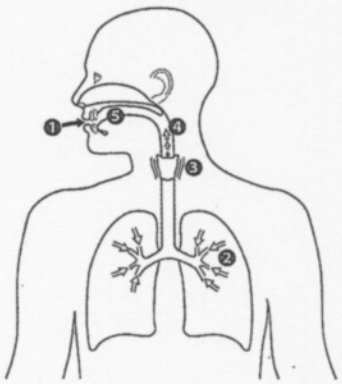
The habits we build are specific to our native language and accent. If you speak English, using the muscle habits from your native language, you will have an obvious international accent. So, if you want to learn RP, you need to retrain the muscles in your mouth to behave in a different and unfamiliar way.

Talking may not seem like an athletic activity, but the process of learning a new accent sound system is no different to learning gymnastics. You need to retrain your muscles to handle the new moves!

And just like gymnastics, the more regularly you practise, the better and faster you will see results.

In order to learn these new muscular patterns, you need to understand how your voice works and you'll also need to learn some technical terms to explain how your voice works.

How your voice works



This is what happens when we speak:

1. Inhalation: We breathe in – air comes into the lungs. Air is the fuel of speech.
2. Exhalation: We start to breathe out.
3. Voicing: As the air moves through the larynx, the vocal folds vibrate and turn it into sound.
4. Resonance: The sound gets amplified, as it vibrates in the body.
5. Articulation: The mouth moves to create individual speech sounds which combine to make words.

The larynx

The larynx is another name for the voice box. It is also sometimes called the Adam's Apple. It's the bit that sticks out in the front of your neck and is more obvious in men than women. Inside the larynx is a set of very tiny muscles called the vocal folds. As we exhale, air passes up from our lungs, through the larynx, making the vocal folds vibrate. When the vocal folds vibrate, they turn this air into voiced sound.

Try this exercise:

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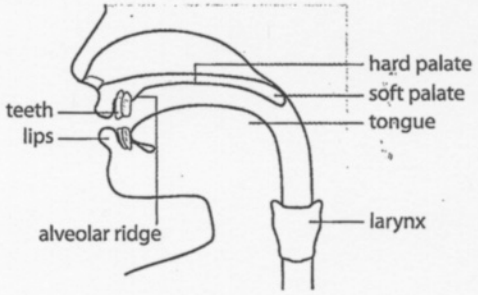
- Put your hand on your larynx (front of your neck) and say the sound 'aaaah'. Even if you say it quietly, you will feel vibration under your hand. That is the vocal folds vibrating.
- Keep your hand in the same place and this time whisper the sound 'aaaaah'. Now you won't feel any vibration, because the air is passing straight through the vocal folds.
- Sounds which make the larynx vibrate are called *voiced* and those which don't are called *voiceless*.

Some consonant sounds exist in voiced and voiceless pairs. This means you do exactly the same thing with your mouth for both sounds, but just add or remove voicing in the larynx.

- Let's practise this with the consonant pair /s/ and /z/.
- Put your hand on your larynx: say the sound /z/ as in 'zoo'. You will feel vibration under your hand.
- Keep your hand on your larynx: now whisper the sound /z/. You will not feel any vibration under your hand.
- A whispered /z/ is a /s/ sound! /z/ is voiced and /s/ is unvoiced, but in every other way they are identical.

The articulators



The articulators are the parts of the mouth that are responsible for turning sound into speech. We have two types– **fixed articulators** and **mobile articulators**.

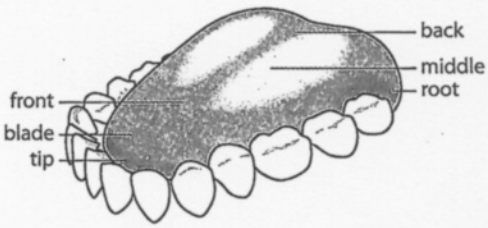
The **fixed articulators** are made of bone. They form part of the framework of the mouth so we cannot move them or train them to do something different. These are: the *teeth*, the *alveolar ridge* and the *hard palate*.

- Look at the illustration above, and note where the fixed articulators are. While you will know where your teeth are, you may not have heard of the other two before, but you will almost certainly have used them in speech.
- To find your alveolar ridge, run your tongue tip backwards from the back of your top front teeth. After you pass the top of the teeth you will find a little bump – this is the alveolar ridge.
- Just after the bump you will feel the roof of the mouth swoop into a large curve, which feels hard – this is the hard palate.

These three essential articulators never move, so instead we move the other, mobile articulators to touch them.

The **mobile articulators** are muscles, so they can move. These are the *tongue*, the *lips* and the *soft palate*. It is these articulators that we need to retrain to learn a different accent. It is essential that you understand these articulators so that you can form new habits.

The tongue



The tongue is the most important articulator. For the RP accent, there are two general rules:

- The back of the tongue has to be very relaxed and dropped, to make a lot of space in the back of the mouth.
- The tip of the tongue has to be flexible and dynamic. This is the main tool in creating many of the crisp consonants found in English.

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Try this exercise to get your tongue ready for the sounds and movements of RP:

- Put out your tongue, and alternate between pointing and relaxing it.
- Curl the tip of your tongue upwards, so that it touches your lips, then teeth, then alveolar ridge. Repeat this several times.
- Put the tip of your tongue on the back of your lower teeth, then yawn, without letting the tip move. Notice the stretch that you feel in the back of your tongue.

The lips

The lips can dramatically change a sound because of the huge number of ways they can be shaped and manipulated. Here are some general guidelines for producing a good RP accent:

- The lips have to be very flexible.
- The corners of the lips should be relaxed, to allow more vertical movement than horizontal.
- Rounded lip shapes are very common in this accent.

DVD Try this exercise to get your lips ready for the sounds and movements of RP:

- Relax your lips and blow through them, making them flap. This will make a sound a bit like a horse.
- Screw your face up as small as you possibly can, and then stretch your face out. Repeat this several times.

The soft palate

The soft palate is the flap that separates the nose from the mouth. You can't see it (unless you open your mouth really wide and look in a mirror!) and you probably don't even know it's doing anything when you speak, but it is extremely important. It can open and close to control whether air passes through your nose or your mouth.

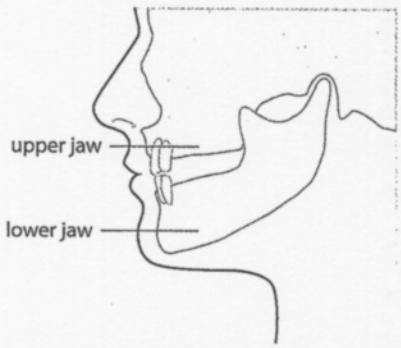
To feel this working, start to exhale through your mouth, and then half way through, change and finish exhaling through your nose. You should feel something move – this is your soft palate.

To produce a good RP accent, the soft palate has to be very responsive. It is completely lifted on all vowels and most consonants meaning the sound comes out through your mouth – these are *oral* sounds, but it is fully lowered for /m/, /n/ and /ŋ/ sounds meaning the sound comes out through your nose – these are *nasal* sounds.

DVD Try this exercise to get your soft palate ready for the sounds and movements of RP:

- Pinch and release your nose while saying the vowel sound 'aaaaa'. The sound should not change at all. If you hear some change in the sound, try yawning and notice the difference. This happens because when we yawn, the soft palate automatically lifts.
- Now try swapping between a completely nasal sound like /m/ and a vowel. Check that the vowel you produce is completely oral by pinching your nose.

The jaw



The jaw is the *almost*-articulator. We call it this because it is the only articulator that we want to become less active in order to speak English more clearly. A free and relaxed jaw allows the rest of the articulators to move more freely and makes speech easier. Tension in the jaw will always prevent clear speech in English. Here are some guidelines to producing a good RP accent:

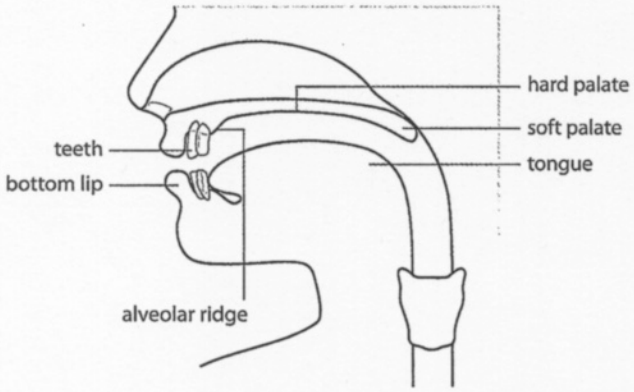
- The jaw should be very relaxed in order to produce the open vowel sounds
- Many accents don't open the jaw wide enough to create the sounds for RP English. For this reason you should work at loosening the jaw so you are able to produce the more open vowel sounds.

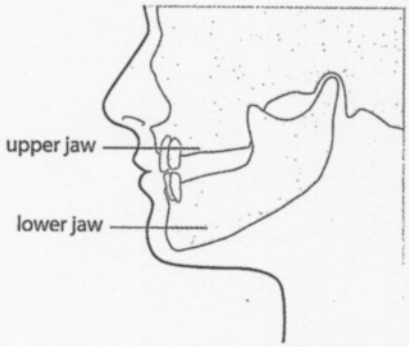
DVD Try this exercise to get your jaw ready for the sounds and movements of RP:

- Put your hands on the side of your face, clench your teeth, and then relax.
- Notice the place where you felt the muscle tensing.
- Now start to massage that area, whilst thinking of space being created between your molar teeth.

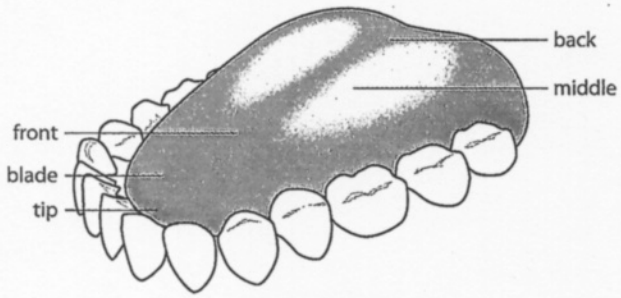
Glossary

1 Mobile and fixed articulators

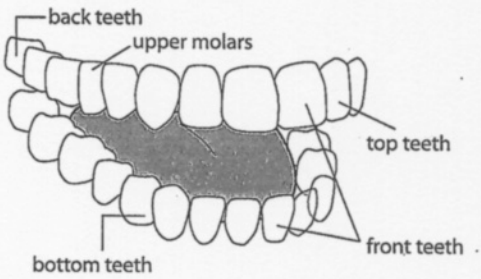




2 Tongue



3 Teeth



4 Lip movements

widen your lips / wide lips

part your lips

lips are neutral/relaxed

round your lips/rounded lips

seal your lips

Ashton & Shepherd 2012:
7-9, 150