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Review Article

Posture management in vocal training

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Abstract

The ideal posture and teaching the principles of how to use it physically constitutes the basis of professional vocal training. The aim of the current study is, first, to raise awareness to find the ideal posture which must be learned and employed in vocal training, and second, to provide a source which vocal trainers and students taking singing lessons might utilize in their pursuit of the ideal posture. To this end, in this study, a blend of some pieces of information collected from recent sources and our knowledge is presented. In the preparatory stage of the current study, a lot of recent sources were reviewed to elicit up-to-date information. In the article, first, the issue of posture, which is a function fundamental for living beings, is addressed in detail in terms of its anatomical and physiological aspects, with the addition of many pictures and drawings. Besides, the study draws attention to how experienced vocalists maintain the optimal vocalization as they are fulfilling the dramatic requirements on stage. The article revolves around and has its roots in the 'Six Balance Points' adopted from a joint study titled "What Every Singer Needs to Know" by Melissa Malde, MaryJean Allen, and Kurt-Alexander Zeller. In the conclusion and recommendations section, various exercises are provided to reinforce the presented information regarding how to achieve the ideal posture to be more meaningful and applicable. Finally, the acquisitions that this discipline brings to singing are summarized, and many reference illustrations are given at the end to conclude.

To cite this article

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Introduction

Helping students find the ideal posture for singing is an essential part of vocal training. While many musicians try to use their body properly in the sense 'in a coordinated way' as they sing or even play an instrument, they also aim at doing so in the most efficient way that is sustainable. Every living organism has some kind of a skeleton or skeletal structure. The structure and the use of this skeleton may vary depending on the organism's species, genetics, gender, body mass, and even profession. Even if we think of two individuals with the same features, their skeleton structures and the use of their skeletons may develop differently due to external factors.

Let us think of two siblings of the same gender and sharing the same genetic heritage. Suppose that these two siblings spent their childhood and adolescence in the same environment and they engaged in the same activities, including their diets even, in the same way, and to the same extent. Yet, in their adulthood, one of the siblings becomes a scientist who works sitting at a table inside a room, and the other one becomes someone who loves to spend time and live outside in nature. Although these two siblings share genetic features and have a common background, wouldn't they differ from each other in terms of their physical structure after their lifestyles changed form? They definitely would. They would even differ from each other in terms of their psychology.

Every decision we make in our lives and what it teaches us projects itself to our genetic heritage. Similarly, the projections of the activities we perform on purpose can be observed in our bodies. As a matter of fact, these all start with our posture. All the physical activities that we engage in throughout our life - such as dancing, playing sports, etc. - change the direction of posture development and enhance it. Sometimes, this kind of 'physical alignment' can even enable an artist to use his/her posture in his/her career. Therefore, it is possible to develop a proper posture for any occupation and employee if supported with in-depth examination and research from childhood onward.

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The aim of this article is to raise awareness of how to turn the ideas concerning posture teaching that are taught through imagination, into a subjective gain in vocal training. Furthermore, the intention of this article is to do a contemporary study with a new, different perspective on the sources in the literature, for both vocal coaches and students.

The sources from the anatomy literature and physiology literature not only shed light on body mapping and raise body awareness but also enable vocal coaches and students to discover the ideal posture and to replace misinformation or lack of knowledge concerning the use of the ideal posture by more up-to-date knowledge to improve. As a result, the learning process of body mapping will increase the artist's mobility, tone quality, breath control, ability to express emotions, therefore, the artist will enjoy freedom in every respect.

The Structure of Your Spine

Your spine is segmented and flexible, with 24 individual bony vertebrae, 9 fused vertebrae, and 23 cartilaginous discs. There are 7 cervical vertebrae (C1-C7), 12 thoracic vertebrae (T1-T12), and 5 lumbar (L1-L5) vertebrae. The remaining 9 fused vertebrae comprise your sacrum (S1-S5) and coccyx (Co1-Co4). Your 24 vertebrae and smaller in thickness and circumference near the top of your spine and larger near the lumbar spine. You can see this on any medical grade skeletal model and in any accurate anatomical drawing, such as Figure 1. As you study Figure 1. notice the size of each vertebra along the entire spine (Malde, Allen, Zeller, 2013, p.20).

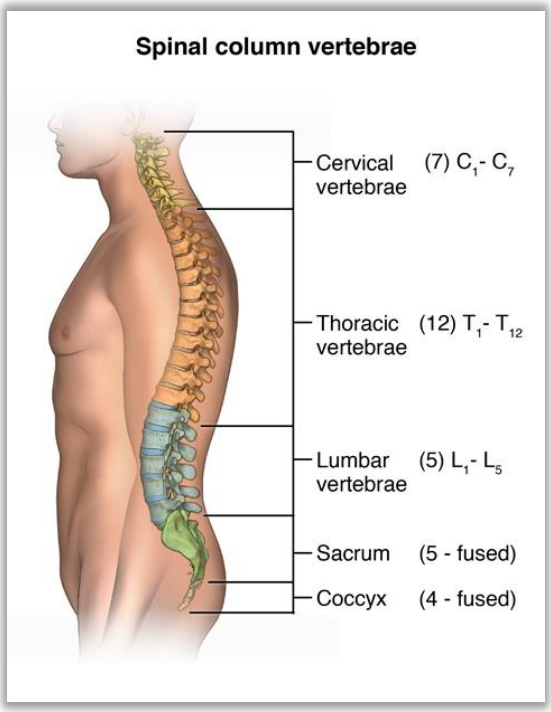


Figure 1.
Spinal Column Vertebrae (https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/xrays-of-the-spine-neck-or-back)

The Body's Anatomical Structure and Its Physical Use

The first step of maintaining the ideal posture is to learn it. To learn it, one should first learn about human anatomy and physiology. Anatomy is the study of the morphological structure of the bodies of living beings and the mechanisms within their bodies - both individually and in terms of the relationships between one another. Physiology is the study of how those mechanisms are used.

Contrary to the common belief, the development of the human body does not cease by puberty. After puberty comes maturation. This phase continues until the age of 25-28 in males and 20-22 in females. The body development continues in this phase, however, it does so very slowly. The body parts and the organs do not really get bigger, yet they become stronger and develop to fulfill the increased needs of the body (Çakır, 2007, p.3).

Anatomical and physiological knowledge is crucial for vocal training because one of the essentials of vocal training is to learn how to present the performance in the best way possible through the ideal posture for resting and singing. Here, it should be noted that vocal training is not only about the throat and the diaphragm. This is because of the fact that one must know and be able to use the functions of the body including posture and breath control in order to be able to sing optimally.

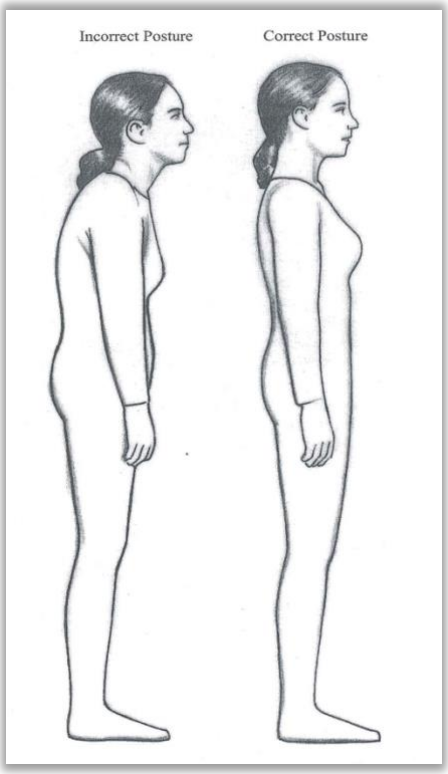


Figure 2.
Correct Posture for Singing (Bickel, 2008, p.33)

The correct posture for singing includes a comfortably wide stance, unlocked knees, slightly tucked hips, an upward lift in the sternum and rib cage overall, shoulders comfortably down and back, and the upper most portion of the body should be the crown of the head (Not the forehead). Your earlobes should be directly over your shoulders in order to align the head on the body correctly. Note the difference here between the poor posture on the left, and the correct posture on the right (Bickel, 2008, p.33).

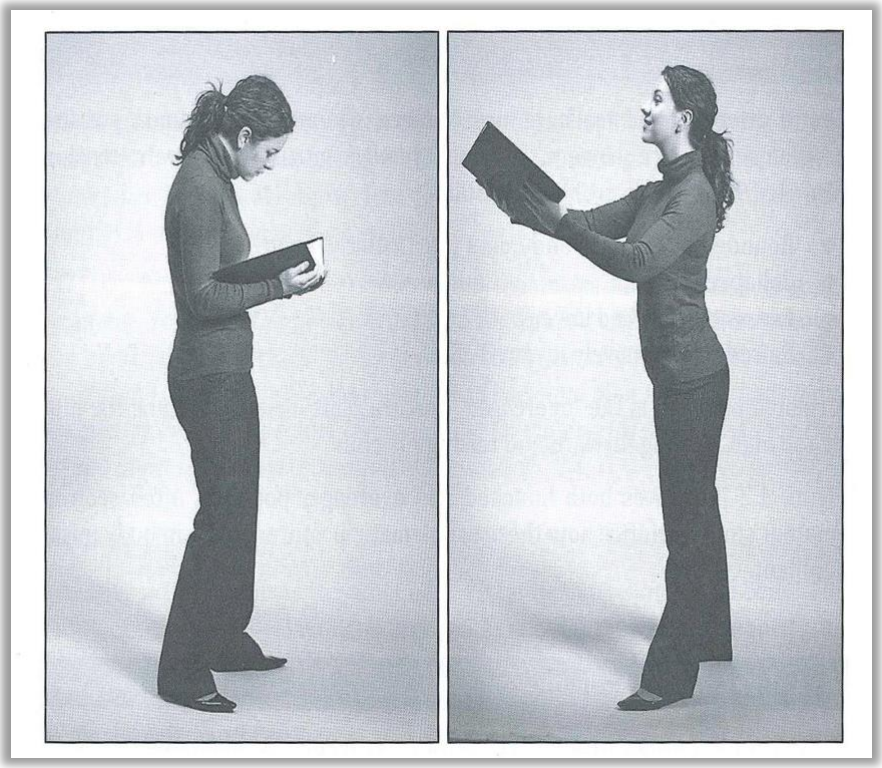


Figure 3-4.
Examples of Hunched and 'Overeager' Postures (Davids, La Tour, 2012, p. 18)

Being Axial and Noble While Singing on Stage

Regardless of the performance medium, it is neither possible nor desirable to hold to a rigid, static body posture. In fact, there are no physical movements or body positions that a stage director may request that cannot be accommodated (unless bizarre contortion is required at high vocal climaxes). However, because the relationship between breath management and phonation is fundamental to solid technique, physical alignment must become standardized procedure. Maintaining a noble position does not mean that it is never varied to meet dramatic obligations. Head, neck, and torso alignment can pertain in standing, walking, dancing, fencing, bowing, kneeling, sitting, or lying down. In fact, all can be ideal for singing. Stage movement benefits vocal freedom (not to be mistaken for rhythmic weaving and bobbing). Because of the body alignment it induces, a member of singers finds lying down on stage can actually be beneficial to vocalism. In any postural stance, the head can be turned to either side without disturbing the basic axial posture. But all movement during skilled vocalism must be based on initial axial relationships.

In extreme ranges or exceedingly difficult passages, if the singer is requested to assume various body positions, a stage-wise singer knows how to handle them. In the opening passages of 'Ecco ridente in cielo' while serenading Rosina, Almaviva must gaze up to her balcony. But as he approaches his *secondo passagio* or when singing above it, a clever count looks back at his mandolin, thereby reestablishing an axial posture. Pellets must look upward to Melisande's Tower as he reaches for her hair, but he will wisely return to a noble position in approaching the subsequent dramatically intense high-lying passages, thereby avoiding laryngeal elevation.

For Romeo, dawn does not break with an overhead sun. Rusalka's Moon need not shine directly above her so that she has to look at the ceiling while executing demanding passages of high tessitura. The eyes of both Rusalka and Romeo can be focused at the near horizon. Sour Angelica's highly emotional imploring of heaven's help is technically disadvantaged if she stares upward in search of spiritual sustenance. God and the Saints listen at all levels. He, they, and we will appreciate Angelica's vocalism better if she maintains a noble petitioner's position, allowing her to sing out toward the house rather than to the last row of the topmost balcony. Experienced singing artists learn to maintain optimum vocalism while complying with dramatic stipulations (Miller, 2004, p.35-36)

Six Balance Points in Vocal Training

One should learn about the six balance points and their use in vocal training to find the ideal posture. The idea of the six balance points was proposed by Melissa Malde, MaryJean Allen, and Kurt-Alexander Zeller. These six points are as follows:

- The AO joint
- The thorax in relation to the lumbar spine
- The hip joint
- The knee joint
- The ankle joint (Including arches of the feet and foot tripods)
- The arm structure (Malde, Allen, & Zeller, 2013, p.53)

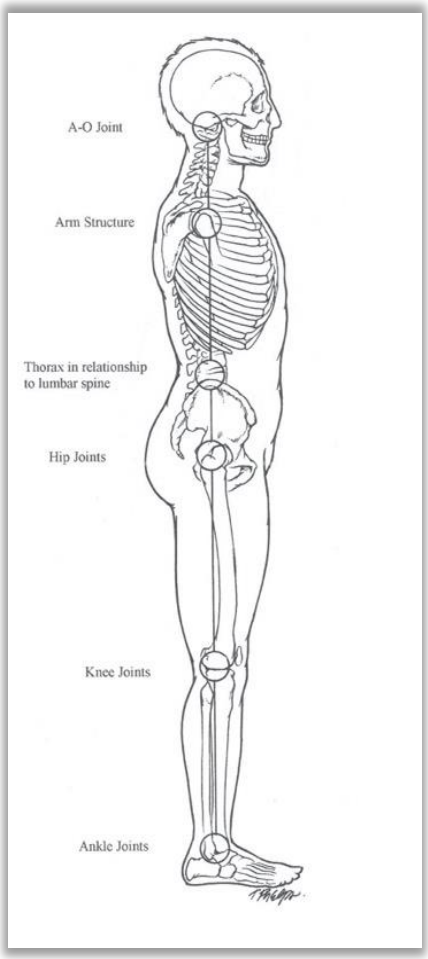
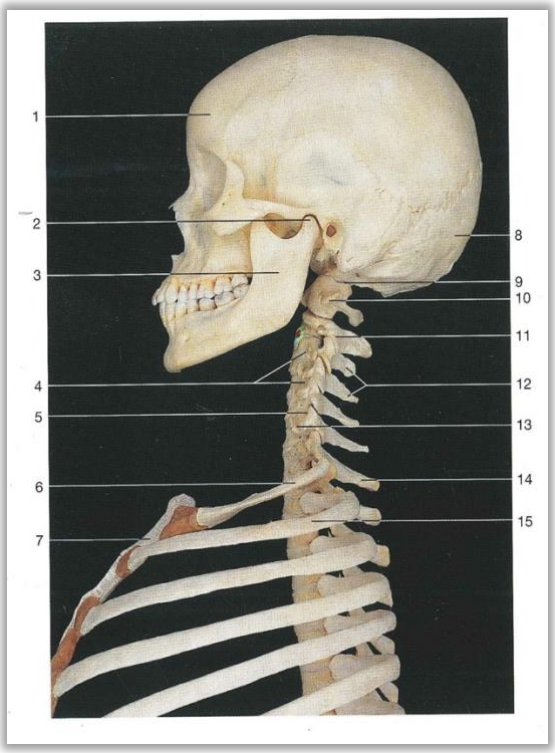


Figure 5.
Six Balance Points in Vocal Training (Phelps, 2008; transmitted by Leborgne & Rosenberg, 2014)

Below you will find some general information regarding these six balance points. Additional information and some exercises on the same issue that will provide help for kinesthetic learning are given in the conclusion and recommendations section.

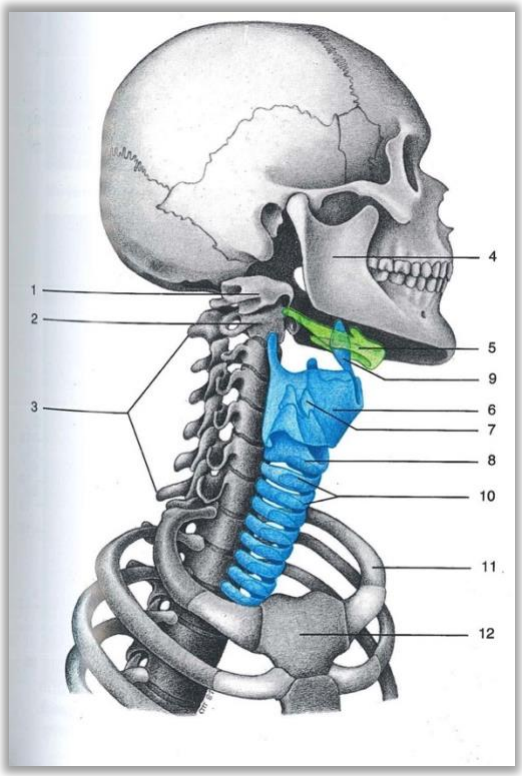
A-O Joint

The head makes up about 8% of the body and weights 8-10 kilograms on average. In anatomy, the topmost vertebra of the spinal column, as known as the atlas, is located underneath the head and in the middle of the neck. In Greek mythology and in his many projections in art, Atlas is depicted as a man carrying the Earth on his neck. This is why the most important carrier vertebra of the head is named after him.



1. Os Frontale
2. Art. Temporomandibularis
3. Mandibula
4. Cervical Vertebrae (C3-C4)
5. For. Intervertebrae
6. First Rib
7. Manubrium Sterni
8. Os Occipitale
9. Art. Atlantoccipitalis
10. Atlas
11. Axis
12. C3 and C4 Proc. Spinosuses
13. Proc. Transversus and Sulcus n. Spinalis
14. Vertebra Prominens
15. Second Rib

Figure 6.
Cervical Spine (Cervical Vertebrae) External-Side View with Upper Part. (Rohen, Yokochi, Lütjen-Drecoll, 2009, p.154)



1. Atlas
2. Axis
3. Vertebrae Cervicales III-VII
4. Mandibula
5. Os Hyoideum
6. Cartilago Thyroidea
7. Cartilago Arytenoidea
8. Cartilago Cricoidea
9. Epiglottis
10. Cartilagines Tracheales
11. Costa I
12. Manubrium Sterni

Figure 7.
The Location of the Larynx and Os Hyoideum In Relation to the Cervical Spine (Right External-Side Oblique Schematic View) (Rohen, Yokochi, Lütjen-Drecoll, 2009, p.159)

The function of the cervical spine is to support the head. It consists of 7 vertebrae. The topmost vertebrae which are known as the atlas (C1) and the axis (C2) are responsible for the neck's turning sideways. Followingly, the vertebrae between C5 and C7 enable the head to lean forward and backward. The A-O joint is located on top of this very line. The A-O joint is the first and most important of the six balance points that are needed for a proper posture. In order

for the A-O joint to be aligned, the vertebrae mentioned above must be on a straight line in the reverse order (from 7 to 1). This can ensure not only the disappearance of the load on the neck muscles, hence, on the back muscles, but also the alignment of the cervical vertebrae and the throcaic vertebrae that follow the cervical vertebrae in a way that less pressure is exerted on them, which, in turn, enable the body to gain the ideal posture that is free of stress.

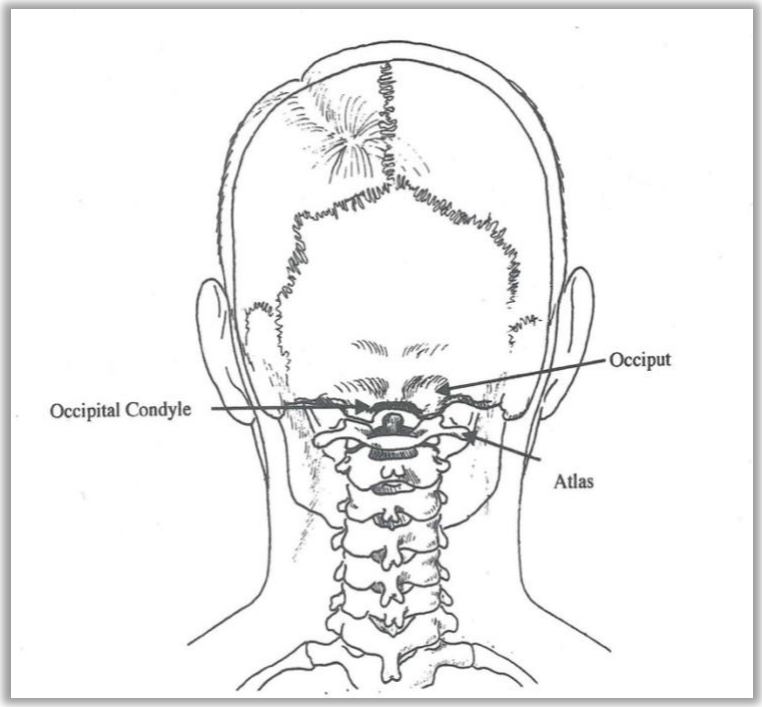


Figure 8.
A-O Joint, Back View of Skull with Cervical Vertebrae (Gorman, 2002, p.153)

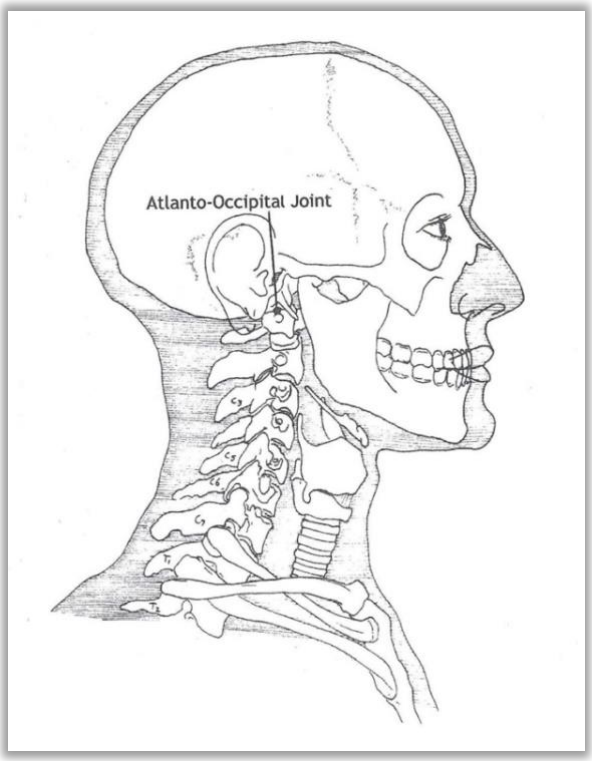


Figure 9.
A-O Joint Location in Context (Gorman, 2002, p.153)

After this awareness and application process, the neck muscles will be significantly relaxed. The right way of aligning the head and the neck is to get the neck muscles optimally relaxed by looking up (without straining the neck

muscles). This will ensure that the neck will be cleared of unnecessary tension and that the muscles are in the ideal length, therefore, the conditions will be suitable for singing. Doing kinetic exercises is very helpful to this end.

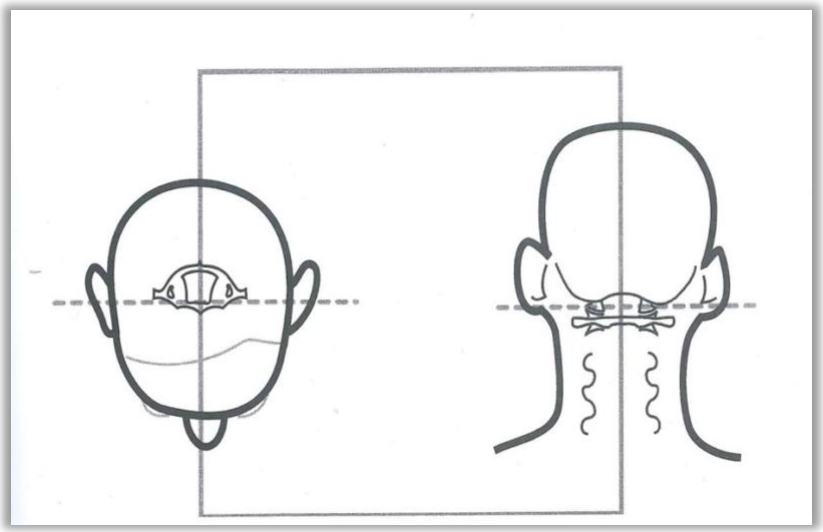


Figure 10.
A-O Joint Location (Leborgne, Rosenberg, 2014, p.6)

The Throcacic Balance in Relation to the Lumbar Spine

The thorax covers the area between right below the neck and the lowest rib bone (the 12th). This part of the body includes organs concerning vocal training: the rib cage and bones, the dorsal vertebrae, the lungs, and the diaphragm. The alignment and the pressure in the intermediary area very important. The thoracic spine has to act in unison with the cervical spine (above the thoracic spine) and the lumbar spine (below the thoracic spine) because any incorrect placement within the thoracic spine will affect the two negatively. It is known that, sometimes in vocal training, the balance of the thoracic spine is lost and that an unfavorable amount of pressure is exerted on the spinal disks as well as the upper and lower vertebrae when bending over or backward while singing. When faced with such a situation in vocal training classes or on stage, it is necessary to go back to the first state as soon as possible and to regain a balanced, comfortable position.

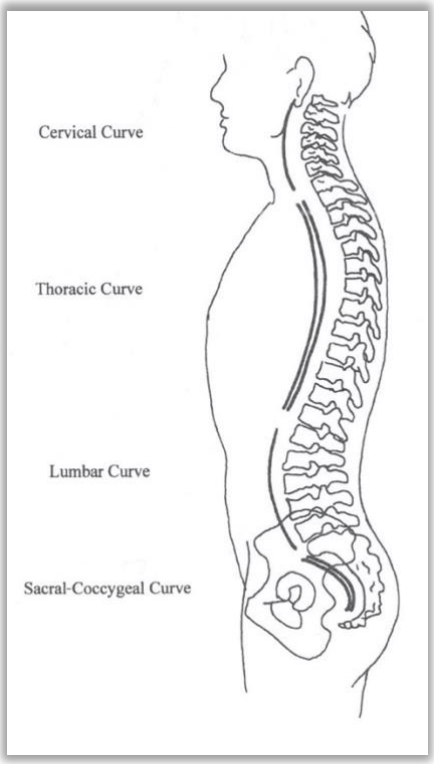


Figure 11.
Side View of Spine Outlining Curves (Gorman, 2002, p.45)

Balance of the Hip Joint and the Pelvic Arch

The pelvis is located right at the lower part of the trunk of the human body and responsible for the distribution of balance between the upper trunk and the legs. As we sit, the weight of our body is lifted by the sit bone. As we stand, however, the weight is transferred from the pelvis to the legs via the hip joints. Here, the location of the pelvis is very important. The pelvis line determines which leg is to be loaded with more weight. Therefore, a pelvis that is positioned properly enables one to move more freely, as well as to sing better.



Figure 12.

Hip Joints and Pelvis, Front View, Weight Delivery (Conable, 2001; transmitted by Leborgne & Rosenberg, 2014)

The Balance of the Knee Joint

The knee joint is one of the six balance points that are crucial in singing training. Relaxing the knee joints ensures a rather comfortable bodily state for singing during phonation. The knee joint is not exactly located immediately behind the knee cap in contrast to the common belief. As a matter of fact, it is possible to feel this joint by fingers to locate it. It is actually beneath the knee cap.

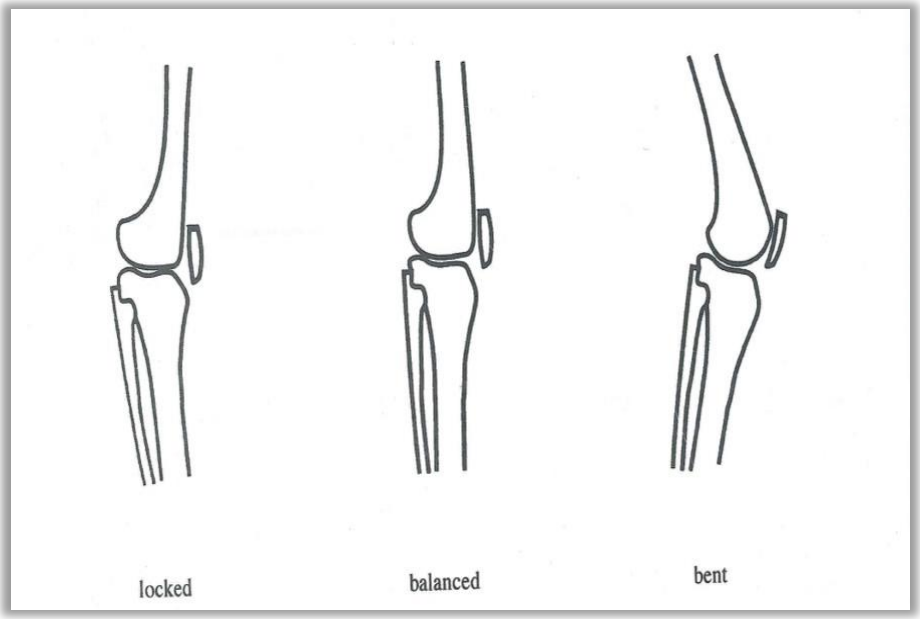


Figure 13.

Knee Joints (Malde, Allen, Zeller, 2013, p.42) Note: The knee joint has three positions: locked, balanced, and bent.

The locked position of the knee is a problem that is often faced in singing training. Though being very common, we basically do this to stand strong, to seem more powerful (confident). Doing so, however, puts us in a military stance in the eye of the audience, especially when singing difficult passages. If we assume the same posture by weighing on the lower back, it would be a lordotic posture, which imposes a burden on the lower back.

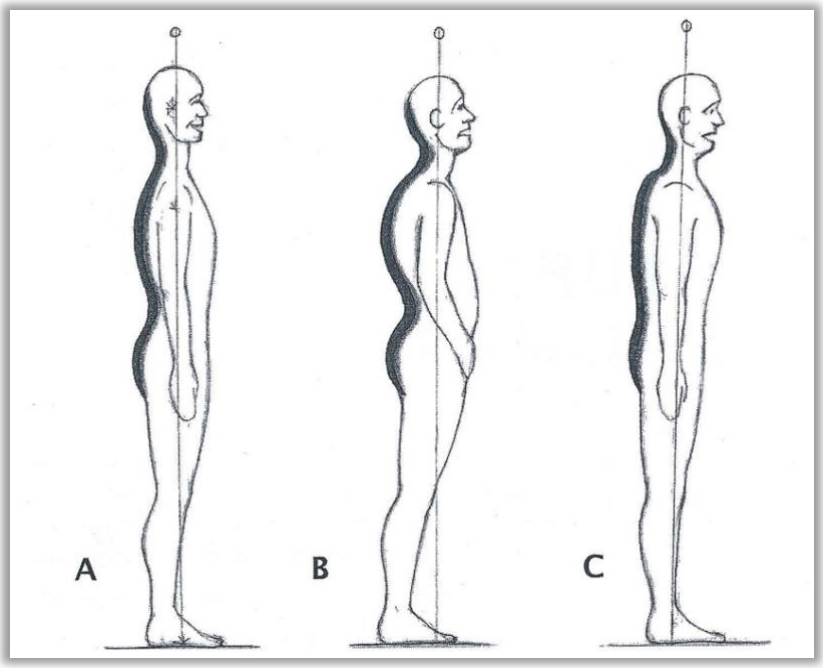


Figure 14.
Examples of Postures: A. Excellent, B. Lordotic, C. Militaristic or Overstraight (Chapman, 2006, p.24)

This tense posture spreads over the entire body, from the knees to the throat. Stand up and lock your knees, and try to speak and sing while your knees are locked. The muscle tension that originates from your knees will move to your thighs and eventually to your throat. You can easily feel the tension in your own voice. With the knees being locked, we find ourselves in an unwanted tension, with a feeling of constriction in our throat. This constriction will build up due to the stress caused by the muscles as we continue singing, which is not favorable at all.

The bent knee is a position that is suggested by the teacher as a remedy to the locked knees for relaxing in singing lessons. To this end, students may be asked to go down and up by bending the knees, to pull their legs towards the torso, to shake their legs, sometimes to walk, and sometimes to bounce even. Though being a remedy to the locked knees, it is a temporary one: When the singer is unable to manage their stress, they will lock their knees again.

As a matter of fact, in order to maintain the balance that is the ultimate goal, rather than doing this exercise mentioned above, the natural alignment should be taught and achieved. Without causing tension to the A-O joint and the neck muscles, having a line passing down through the head will enable one to use the optimum posture for singing without the need for tense or lax knees. This way, the use of the body for singing will be easier and free.

The Balance of The Ankle Joint

To learn how to use the ankle joint in order for the foot to step properly is the key to gain balance and align the optimal line, hence, to sing nicely.

The tibia bone that lies along the legs, is connected to the talus bone via the ankle. The talus bone is located on top of the ankle and it plays an important role in the distribution of gravity.

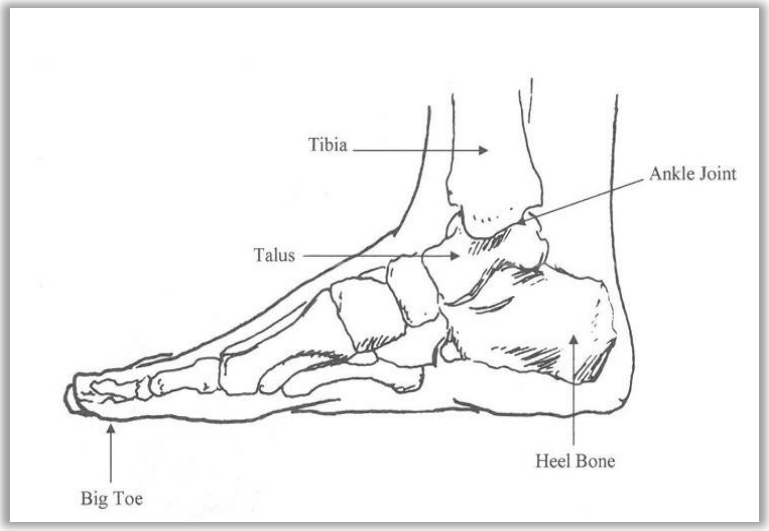


Figure 15.
Foot, Side View (Malde, Allen, Zeller, 2013, p.44)

This bone activates several groups of muscles as the center of gravity shifts. In a movement like bending over, the talus bone loads the body weight onto the navicular bone and the other bones located in the forefoot. A number of bones in the foot and their joints, as well as the toes, flex to help reduce the stress caused by this load. In a movement like bending backward, on the other hand, the weight load shifts over the heel bone. However, as the heel bone is on its own at the back of the foot, the likelihood of losing balance is greater in this position. This is why it is easier to bend over than to bend backward.

In addition to bending over and bending backward, it is also possible to bend sideways because of the physical structure of the foot. What makes side bends possible is the area that covers the metatarsal bones located alongside the line that goes from the bottom of the big toe to the bottom of the little toe. This area is also the area where the foot touches the ground to the largest extent and whereby doing side bends is the easiest. The area is called the transverse arch of the forefoot.

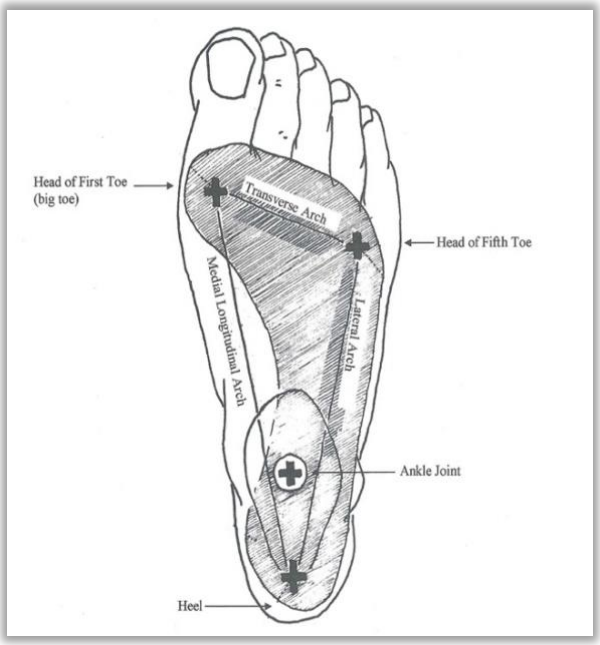


Figure 16.
Foot Tripod (Malde, Allen, Zeller, 2013, p.45)

The transverse arch is marked with three black crosses (+) in the picture above. Due to the shape of the foot, these three points constitute a scalene triangle right under the foot.

The Balance of The Arm

Using the arms deliberatively in singing helps out not only with breathing efficiently by expanding the ribs with ease but also with finding the ideal posture and maintaining balance.

The arm consists of three main parts: 'the arm' from the shoulder joint to the elbow joint, 'the forearm' from the elbow joint to the wrist joint, 'the hand' from the wrist joint to the fingertips. The arm is able to perform up-down, forward-backward, inward-outward movements by means of the shoulder joint. Hence, the most load is on the shoulder joints, especially when on stage.

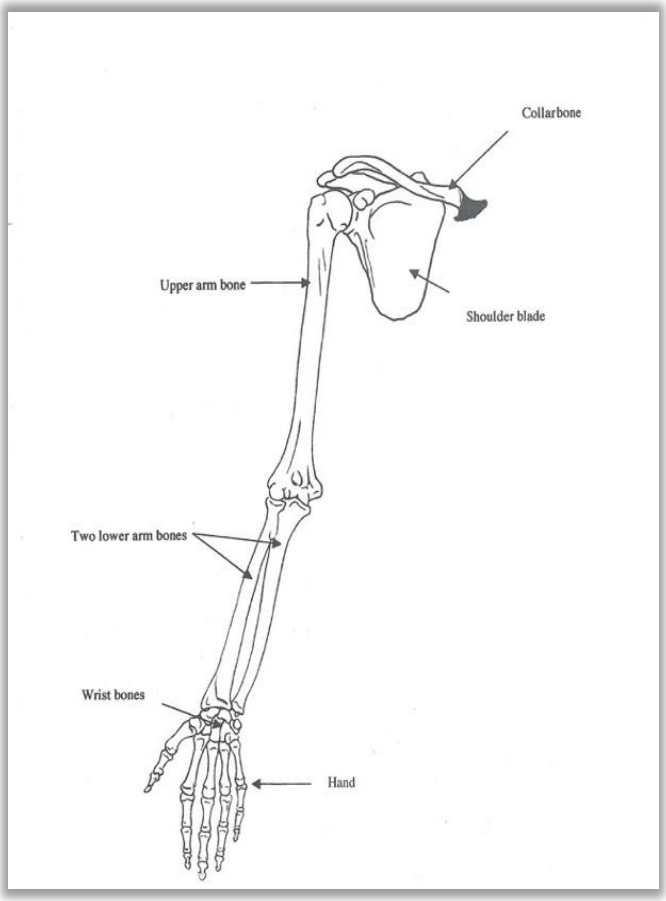


Figure 17.

Arm Structure (Malde, Allen, Zeller, 2013, p.47)

The arms play an important role in stage performances for conveying the expressions and emotions to the audience, especially when the performance takes place in a large theatre/concert hall where it is harder for the audience to see the performer's face. The arms magnify the performer's expressions and emotions, which reinforces the performer's narrative. In addition, the arms, hence the shoulder joints, are frequently used in many actions on stage, including running, walking, reaching out to things, pointing at things, lifting things etc.

For the optimal use of the arms in singing, it is important to know what positions generate the least muscle tension and are the most comfortable to use.

Another important issue that those who take singing classes should be aware of is Scapulohumeral Rhythm. Scapulohumeral Rhythm is about the movement of the scapula and the humerus when the arm is abducted 180° abducted. The humerus/scapula ratio is 2:1 in this movement. Video Recommendation for Scapulohumeral Rhythm Movement:

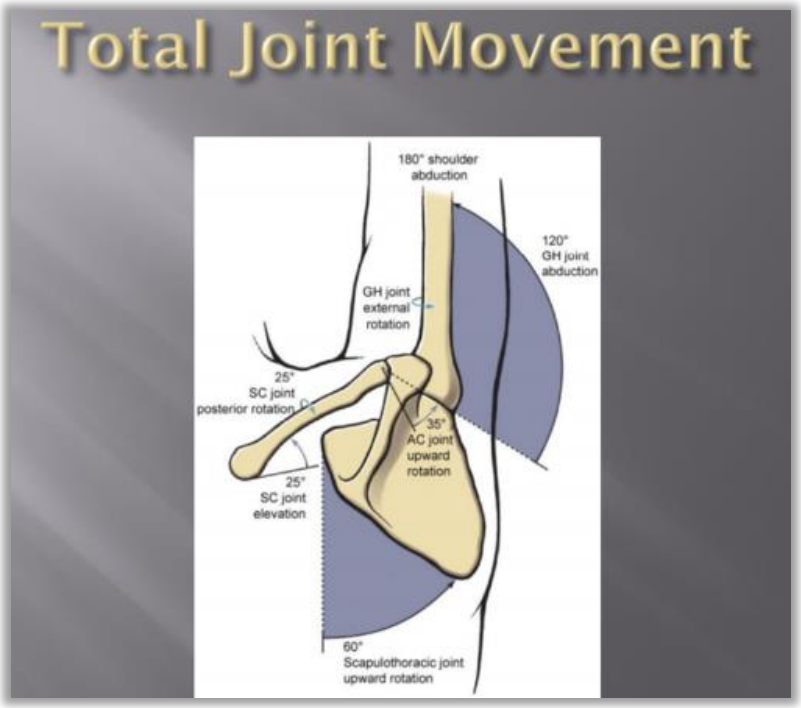


Figure 18.
Total Joint Movement https://quizlet.com/138929497/w2-shoulder-scapulohumeral-rhythm-flash-cards/

The student is usually asked to pull the shoulders and/or the arms back to ensure the ideal posture in singing classes. The idea behind this is to enlarge the thorax while inhaling more comfortably by holding the shoulders back, hence, ensuring an ideal posture. However, the student may sometimes overdo the movement, causing the shoulders to go back farther than necessary and exerting some redundant tension to the muscles - especially to the neck muscles.

Moreover, with the shoulders pulled back, the scapula and the collar bone's ability to move is restricted. In a situation like this, the student's Scapulohumeral Rhythm is disrupted, followed by a feeling of stress on the shoulders. Consequently, certain types of injuries such as the 'torn rotator cuff' might come up.

Another mistake is to lift the shoulders way too high when singing, which strains the shoulders. As a result, the strain on the shoulders will not only stretch the neck muscles too much but also disrupt the scapulohumeral rhythm in situations that necessitate the moving of the arms, followed by distress in the area.

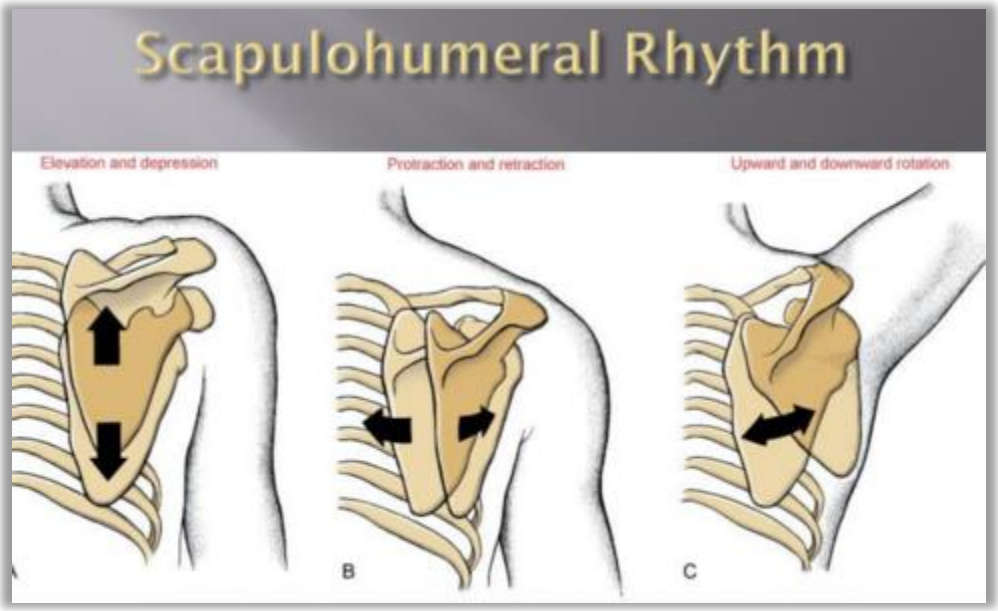


Figure 19.
Scapulohumeral Rhythm https://quizlet.com/138929497/w2-shoulder-scapulohumeral-rhythm-flash-cards/

This is why, as with the control of the other parts, it is crucial to teach the shoulder's movement that is the most comfortable and free of stress in using the arm. The arms moving comfortably mean relaxed shoulders and relaxed neck muscles. This is what is intended in singing.

Conclusion and Recommendations

Being comfortable while singing does not mean losing control. Therefore, singing in a comfortable state that is controlled is better than singing with uncontrolled tension. This control can only be achieved through such a philosophy and kinesthetic learning strategy. Let us now list the benefits of the awareness of the 'Six Balance Points.'

The Benefits of The Six Balance Points

As you correct and refine your body map by learning how to embody the Six Points of Balance, your singing will improve in the following ways:

- Your muscles will release the unnecessary tension
- Your entire body will become more buoyant and flexible
- Your tone quality will be more beautiful, your voice will be full and resonant
- You will be able to use your voice with greater ease in fast scalar passages
- Your acting will be more authentic and your gestures will improve *(Malde, Allen, Zeller, 2013, p.12)*

It is necessary to mention some exercises that can help reduce stress and fatigue experienced in daily life. This will constitute the last side of our hypothetical learning triangle.

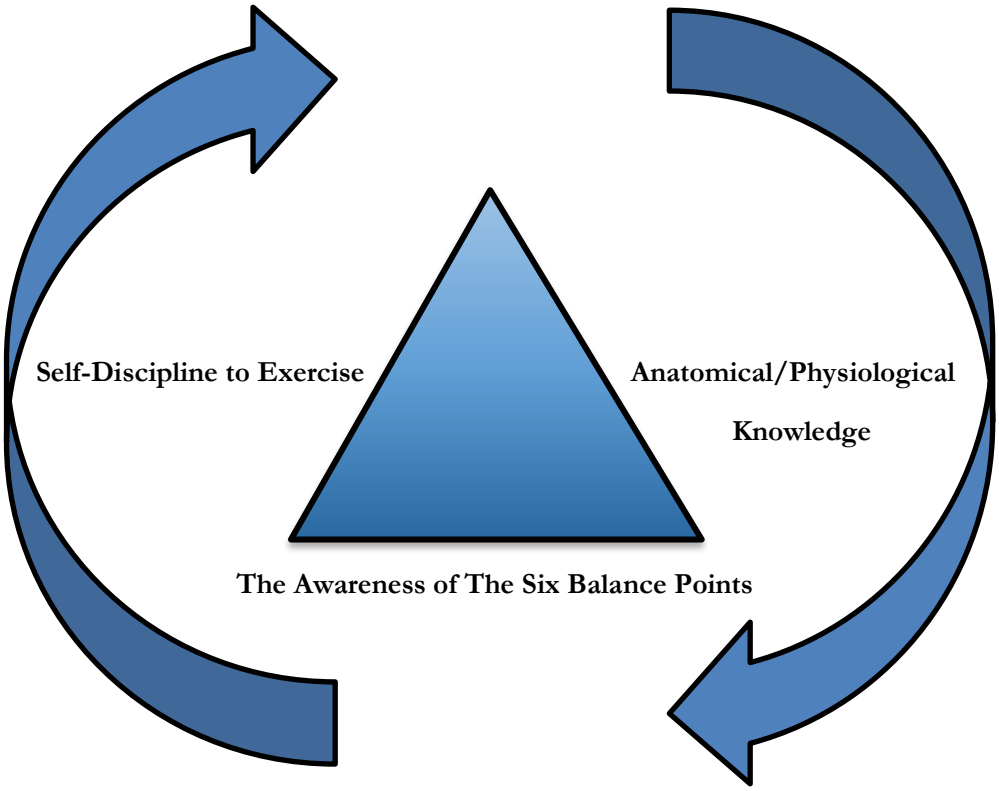


Figure 20.
Hypothetical Learning Triangle

Exercises that Help Raise the Awareness of the Six Balance Points

Alignment of the A-O Joint and Relaxed Neck Muscles Exercise

Before phonation, try doing these exercises as regular exercises first. Then, in phonation, do the relaxed neck muscles position between breathing breaks and do this as you sing without doing it too much. Followingly, continue singing as you maintain this position.

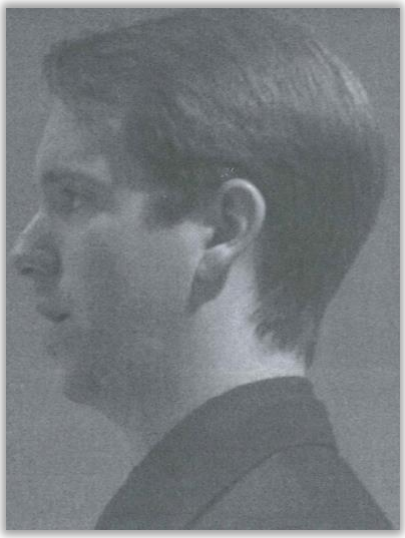


Figure 21.
Balance of A-O Joint (Aaron M. Johnson)
(Malde, Allen, Zeller, 2013, p.33)

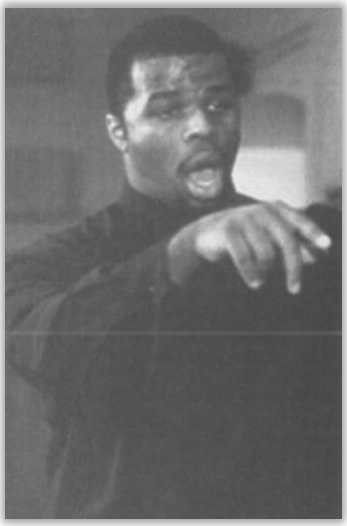


Figure 22.
Balance of A-O Joint (Lester Lynch)
(Malde, Allen, Zeller, 2013, p.34)

Thoracic Balance in Relation to the Lumbar Spine Exercise

Lay down, preferably on a carpet if possible. Put your arms behind your head such that they form the letter 'O'. Position your head right in the middle of this letter 'O'. This is the perfect position for the Thoracic Balance. Now, stand up without changing the position and attain the same alignment. Lastly, without moving your and torso, lower your arms only. Try to sing in this position.



Figure 23.
Balance of Thorax (Aaron M. Johnson) (Malde, Allen, Zeller, 2013, p.34)

The Balance of the Hip Joint and the Pelvic Arc Exercise

For this exercise, sit on a relatively hard surface (such as a piano stool). Sit right in the center of the stool, not at the front or at the back. Keep your knees in right angle (90°). After, put your hands under your hips, with the palms touching the hips. Keep your index fingers close. Now, swing softly to find the tip of the sit bones with the help of your hands. Once you have found the tip of the sit bones, but your middle fingers on this bone. Find the sharpest point of the same bone that touches your fingers by swinging back and forth, then stop. Put your hands on your legs slowly without changing the position. This is how you gain the balance in sitting without tiring the legs, right on the sit bones. In addition to this, align yourself on a line that goes up, taking the thoracic balance and the AO joint into consideration as well. This is the ideal sitting position. Now, try singing in this position.

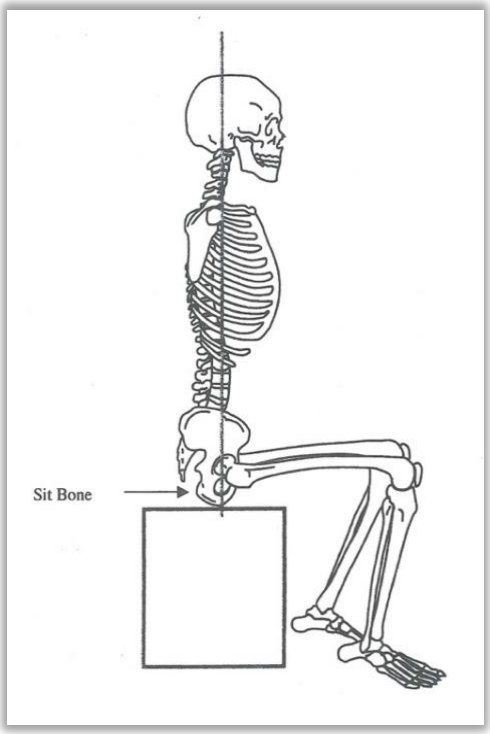


Figure 24.
You Can Sit Easily on Your Sit Bones, which Simultaneously Give You Stability and Mobility (Malde, Allen, Zeller, 2013, p.41)

The center of the body is in the torso if the head, arms, and the legs are excluded. Rise to a standing position maintaining the alignment of the torso. This is the ideal standing position. Of course, one cannot maintain this posture all the time on stage. This is why we should put one of our feet a little bit forth and find the balance thinking about the alignment of the body. This position is more flexible than the previous one in terms of bending over, backward, or sideways. However, as one of the feet is in the front, the other position's aperture of 180 degrees is deemed to decrease. Hence, the area of singing will shrink. This area should be kept nevertheless while singing. At the same time, there should be smooth transitions between the positions mentioned above.

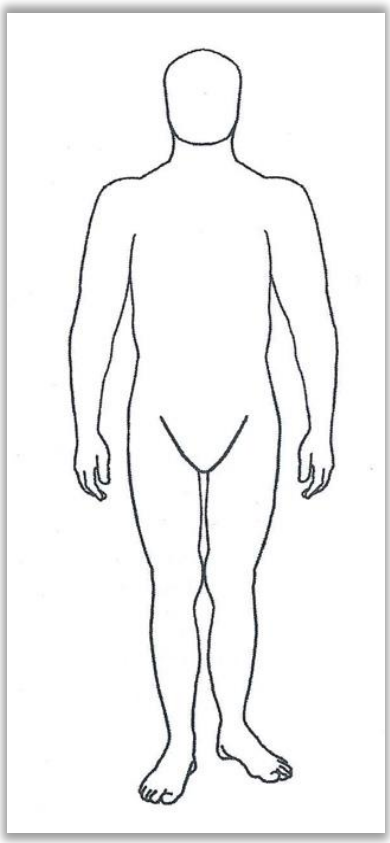


Figure 25.
The Effect on Unequal Leg Length on the Pelvic Gridle (Nair, 2007, p.106)

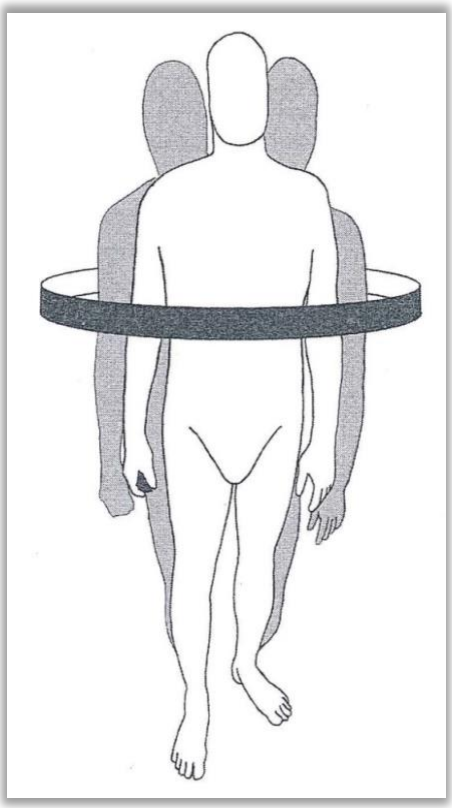


Figure 26.
Our Ability to Remain Centered While in the Equilibrium Stance Also Affords a Range of Body Motion Useful in Acting on Stage (Nair, 2007, p.107)

The Balance of the Knee Joint Exercise

To achieve this, stand up.

- Locked & Relaxed: Strain your knees and relax them back to the initial state. Do this a few times.
- Bent & Relaxed: Starting from the first position again, bend your knees gently and go back to the initial position. Do this a few times.
- Balanced & Locked & Balanced & Bent: The point that you designate as relaxed is your balance point. Now repeat the whole exercise from the beginning to the end, and try to find your balance point kinesthetically.
- Lastly, study every step of the exercise and sing in the final position. Maintain your balance point as you sing.

The Balance of the Ankle Joint Exercise

The awareness of the balance of the ankle and the foot sole is very crucial in order to sing healthily in the ideal posture. Even a little bending activates certain muscles to gain balance. The amount of the physical stress caused by this movement is determined by how much you bend. The more you bend, the more muscle power you will need to exert.

In order to achieve this, it is necessary to learn and digest the exercises below in the following order:

Position your feet side by side such that they indicate 11:05 o'clock on the ground. Leave some space in between your feet depending on your body type.

- What is ideal in moving back and forth is to transfer the pressure on the ankle joint to back and forth in a balanced way. To this end, the weight transference can be studied in a kinesthetic manner.
- In addition, the transverse of the forefoot, which the area that is responsible for the feet's bending sideways, can be worked on in the same way to raise awareness.
- The next step is to gain the ability to manage the two separate orientations as one. This ability can be acquired by learning the use of the body parts, joints, and muscles that are responsible for bending and of the bones on which the pressure is exerted, again through kinesthetic exercises.
- If you have done what is described in (c) properly, you should realize that certain points on both feet are simultaneously subjected to pressure. To take this one step further, pull one of your feet to the front (about a foot-away). While doing so, keep the position of 11:05 o'clock. Now, you will be able to form different pressure points at the three points on your feet when you try out the bending exercises described above, no matter which way you do it.

The reason for the different pressure points formed by a bending movement (forward/backward and/or upward/downward) is because of a third factor. This factor is the body line that you can position more freely in between the feet. With this positioning of the feet, you can create more than one movement space and be relaxed in different directions and on different lines. This way, you should be able to sing more beautifully without your movements and walks affecting your voice as you sing.

If you follow these steps properly, you will achieve one-dimensional balance in (a) and (b), two-dimensional balance in (c), and three-dimensional balance in (d).

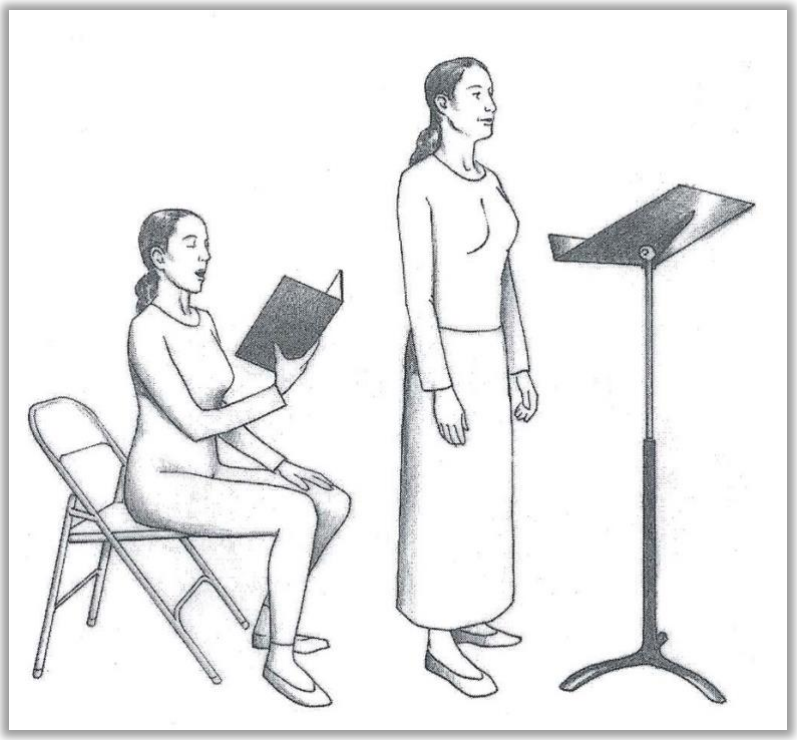


Figure 27.
Correct Position for Sitting and Using a Music Stand (Bickel, 2008, p.37)

The Balance of the Arm Structure Exercise

Start out with finding the comfort zone of the arms. Let your arms down. Form the shape of the letter 'O' with your hands right beneath your stomach (you may clamp your hands together if you wish). As you do so, let the shoulder joints, the knee joints, and the wrist joints to move a little. Keep your arms ready in a relaxed position (it is called the 'preparatory position of the arms' in ballet terminology). Now, position your shoulders on the same level as your ears, not too front, not too back. There should be no muscle pressure around the shoulders. Imagine that you are holding a big ball in your arms in this position. Lift the ball up, right above your head and then return it to the same position after you wait for a while there. Next, do the same exercise in front of a mirror.

If your shoulders go up a little, this is normal. Observe yourself. Try re-doing the exercise by holding your shoulders back, then finish the exercise. Do you feel where the strain originated? The reason for this is the fact that the scapulohumeral rhythm has been disrupted. If you continue like this, you might end up injuring yourself.

Avoid unnecessary tension around the shoulders while using your arms as you sing. Do not forget the fact that the scapula (as well as the collarbone which is connected to it) should be able to move freely for a better singing performance. To this end, you need to figure out your should positioning kinesthetically in the most optimal way for you. This manner of singing is how you can find an ideal and relaxed position for yourself.

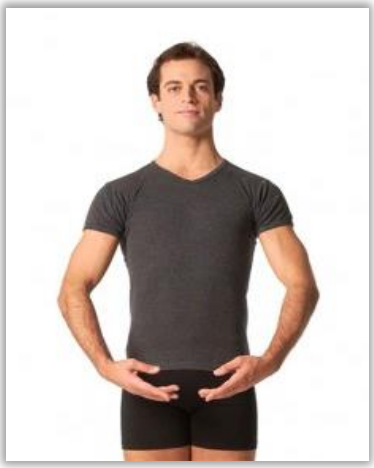


Figure 28.
Arm Position (1)

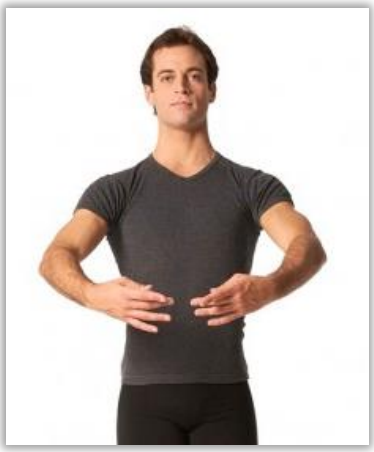


Figure 29.
Arm Position (2)

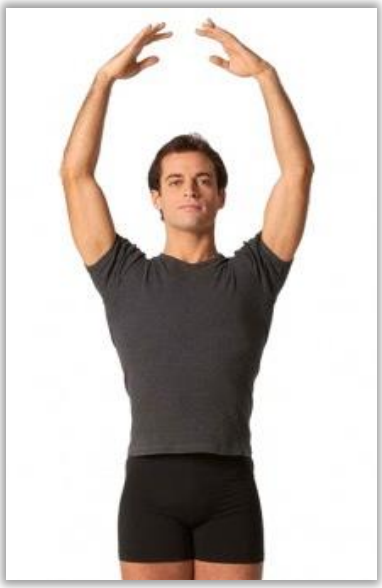


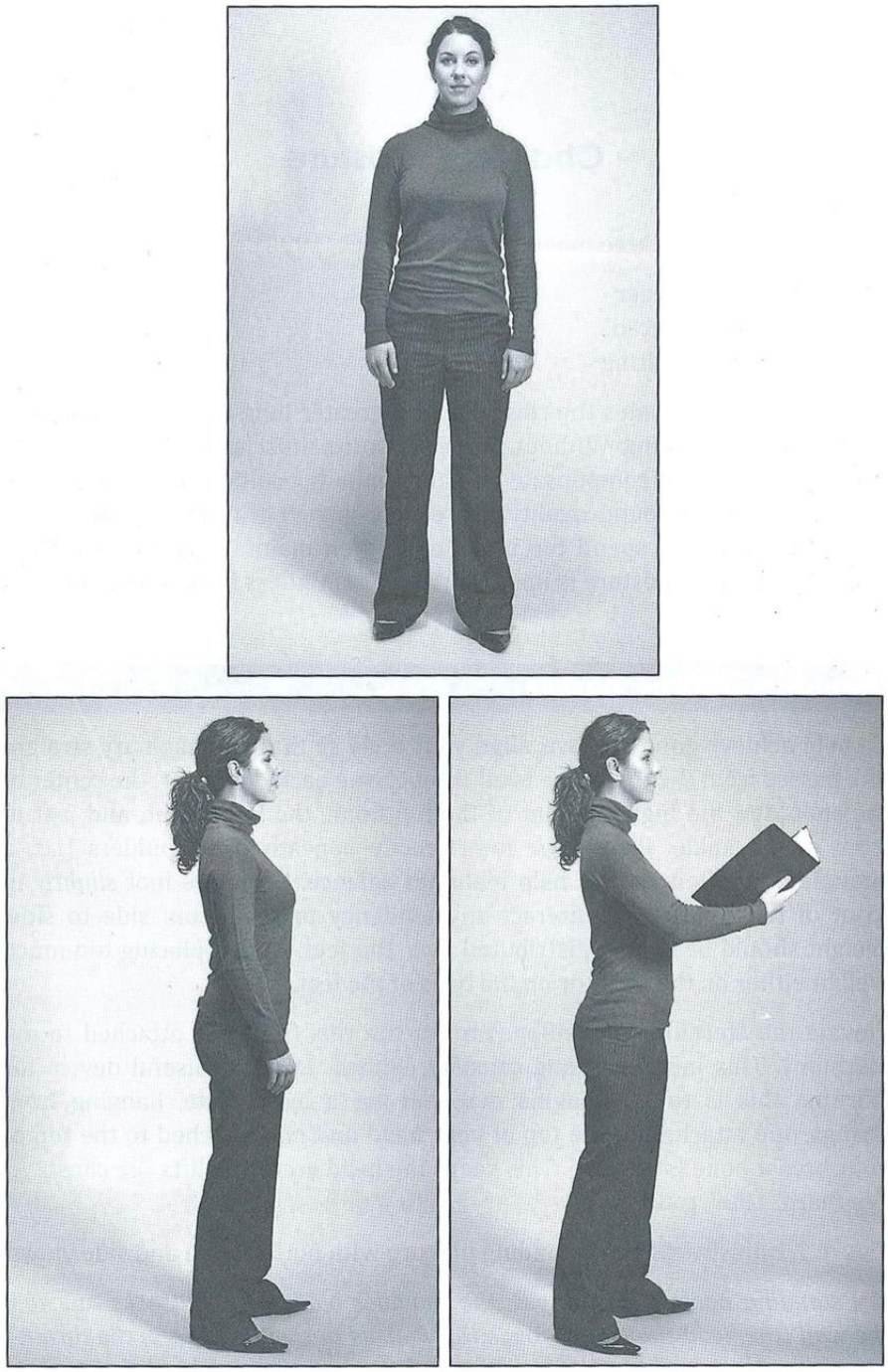
Figure 30.
Arm Position (3)

Arm Positions from Prepatory to Overhead (Continuous Movement)
https://dancer.com/ballet-info/in-the-studio/terms-positions

Posture has a key role in Vocal Training. It is important in every aspect of vocal training: From the very beginning, where the correct vocal technique is set, to learning how to breath correctly, to gaining an appropriate expression, to even being ready to form various combinations of body positions that might be required on stage (jumping, running, looking up/down, lying down, turning back, etc.), and if we even go further, to learning how to sing optimally with a heavy costume, a hat, and accessories that you might wear on in an opera; hence, virtually from the beginning to the end of the professional life.

As it is suggested by the current study, a student who is being trained in singing should also be equipped with anatomical and physiological knowledge to some extent. Furthermore, teaching the 6 balance points that Malde et al. (2015) proposed and the anatomical and physical use of those points will ease the process whereby the singer achieves an optimal body balance and an optimal phonation. Lastly, in vocal training, raising the student's awareness of the body, the balance of the body, and the ideal posture will enable the student not only to overcome certain handicaps within their body and to find the ideal posture, but also, to be able to observe any potential favorable outcomes of singing in an ideal posture both on themselves and on others, to be more motivated, and to perform more successfully.

More Correct/Ideal Posture Sample Images for Singers



Figures 31-32-33
Illustrations of Good Standing Posture (Davids, & La Tour, 2012, p. 14)

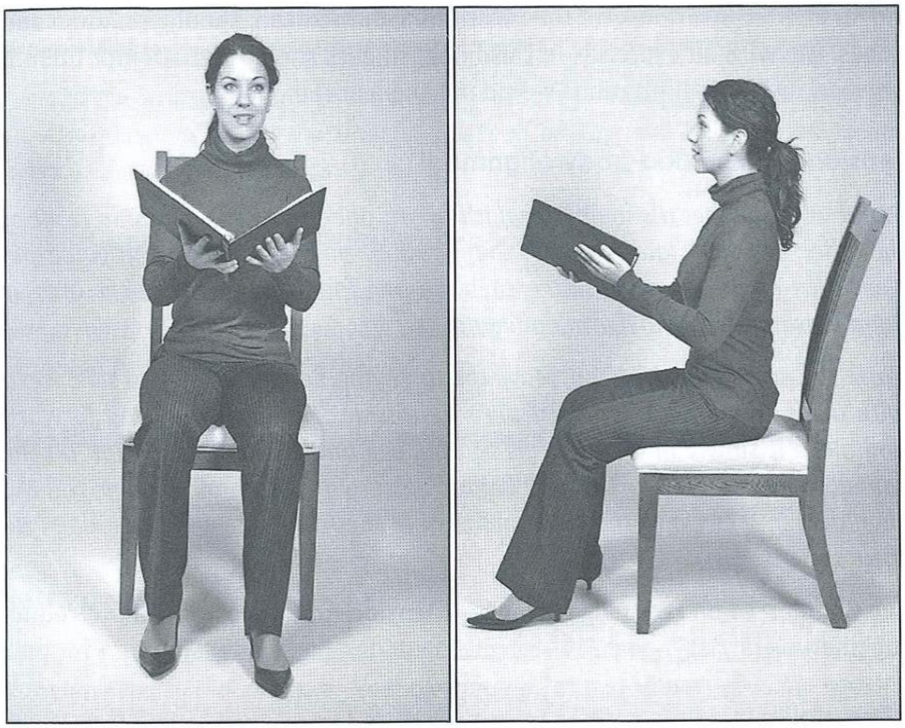


Figure 34-35
Illustrations of Good Seated Posture *(Davids & La Tour, 2012, p. 19)*

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