



## The Importance of the Diaphragm in Vocals

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**Abstract:** This article talks about vocal science, which plays a key role in musical theater acting, and the ancient history of its emergence and development.

**Keywords:** vocal, art, performance, breathing, diaphragm, sound, resonator, voice, singer

### INTRODUCTION

Vocal science is one of the main subjects that theater actors take in the bachelor's course, musical theater acting. Vocal science is taught individually to students studying in these directions in all semesters.

The emergence of art samples created by means of the human voice and intended for voice performance is much older than instrumental music, and its history goes back to primitive times. The forms of solo and ensemble performance have been used since ancient times in the professional music art that arose in the Middle East, especially in Central Asia. The simple form of performance appeared among the local working people on the basis of folklore music, and the professional form appeared much earlier in the cultural, entertainment and introduced Zoroastrian rituals of the palace. In Western European countries, the professional approach to singing first appeared through church music. European vocal art developed mainly in the form of folk and melodic songs. Folk performance art, church singing - all this created the ground for the emergence of secular professional vocal art with its high vocal culture.

The first historical representatives of vocal art are folk singers. In Italy, by the 16th century, musical works for a solo voice accompanied by instruments began to be created. Historians believe that the art of singing literally began to emerge in Europe from this period. In the 17th and 18th centuries, vocal art rose to high levels in many European countries. The singers not only sang at a high level, but also played strong dramatic roles.

Vocal science is based on the further development of students' musical abilities and teaching the skills of the art of singing. The main goal of vocal science is to help future actor students to voice, develop breathing skills, hearing ability, different ways of singing, pronunciation problems, to be able to sing in different dynamic nuances by means of vocal art and to equip pedagogical skills with practical and theoretical foundations, to educate aesthetic and artistic tastes, and to teach and develop artistic performance skills. Vocal-artistic development of students' vocal abilities is organically combined with teaching them singing techniques. It is also based on a number of didactic principles, such as acquisition of vocal skills, systematicity, consistency, individual approach from simple to complex vocal pedagogy.

Vocal movements are controlled by a complex of sensory organs. Therefore, every singer not only hears the sound he wants to make, but also feels it. Each singer has a "vocal body scheme" that includes different sensations from different organs and parts of the vocal apparatus. Accordingly, different types of vocal technique are reflected differently in this sensory system.

Music has three dimensions - pitch, timbre and power. In order for the height of each pitch to be clear, the performer must help connect the sound layers and free the timbre from extraneous sounds. As for the range, the abdominal muscles and diaphragm should be actively involved in the performance of the upper curtains, and the chest muscles should be actively involved in the lower curtains. Inson diafragmani seza olmaydi. However, we feel the abdominal muscles and help ourselves to breathe correctly, in a way that is comfortable for us. Standing as freely as possible, lower your shoulders, keep your neck free, feel a firm support in your legs, and exhale a little air between your teeth while smiling a little. An "S" sound should be formed. Now do the same exercise, only with abdominal movements. Before the exercises, you should breathe freely without raising your shoulders. Once you feel the body and especially the abdominal muscles, you can sing.

The diaphragm has two domes, right and left, attached to the lower ribs and spine. During breathing, the muscles of the diaphragm contract, its two domes expand the size of the chest and fall down. The diaphragm consists of transverse striated muscles. Its movement does not obey our organism at all. We can consciously catch the exhalation. But the complex movements of the diaphragm in the production of sound occur subconsciously. The diaphragm regulates the speed of air passage and changes the pressure under the folds and their strength during the formation of sounds. Spaces located in the subvocal folds:

- Nose;
- Mouth;
- Throat;
- A trumpet that passes over the upper part of the larynx.

The upper part of this larynx is the nasal cavity. It is formed from the soft tissues of the nose and the surface (face) of the skull, and is opened vertically from the middle line of the nasal wall to the left and right halves, behind and in front. In the walls of the nasal cavity there are small canal openings, which connect with the air passage space located on the surface of the skull, and they are covered with mucous layers, just like the nasal cavity, and this space when infected, it can be filled with pus, which negatively affects the quality of the voice when singing.

Performance is the most complex function of the breath, controlling and correcting exhalation. It ensures diaphragmatic breathing, corrects the air flow during exhalation, and correctly positions the chest to maintain the performance volume. Performance is an exhalation skill, but not all professionals have it. In the beginning, it is better if everyone learns not to choose the breath from the first sound sentence, that is, if it is placed in a smooth flow gradually until the end, it will ensure a smooth sound.

The diaphragm is straightened during inhalation. When exhaling, it does not quickly change its shape, but very slowly returns to its first appearance, dome-shaped state. The same process helps to realize the process of exhalation in performance. The chest can't go down too fast during the performance. When exhaling during performance, air comes out continuously, the volume of the chest does not decrease. Now repeat the sensation of blowing out the candle with a sound, that is, sing the sound "U" while exhaling and hold it for a certain time. Follow the mechanism of exhalation with your hands. Pay attention to the fact that the abdomen does not move during the performance, that is, the abdomen does not move and does not bulge forward (it should not look like a watermelon).

As already mentioned, when air enters the lungs, the chest expands due to the ribs, and opens from below due to the diaphragm. The dome of the diaphragm contracts and descends through the expanded lung pressure. In turn, the contracted diaphragm compresses the contents of the abdominal cavity from above, and therefore the abdomen bulges forward during breathing. As a result, when breathing, the ribs move to the side, and the stomach moves forward. Abdominal muscles and diaphragm help to properly regulate exhalation during performance, and chest resonators (chest) make it voluminous and powerful without changing its shape during sound. The same holds true for

vocals, and when paying close attention to the diaphragm and chest resonators using the chest, students will understand the mechanism of diaphragmatic breathing much more quickly.

Mastering the diaphragmatic breathing technique helps to ensure that the breath is not interrupted in a smooth, collected flow, the speed is good, and the sound is even and sonorous. The gradual release of air ensures that it turns into resonant sound waves. Knowing how to use the breath in this way determines that it becomes a sound without any residue, that the exhalation in performance is skillfully mastered. Untrained performers often take in a lot of air when they breathe and spend it on the first sound of a musical phrase. According to S. Fuchito's testimony, the great singer E. Caruso always trained his breath with special exercises, and strengthened control over the use of air until he reached a high level of proficiency. Lamperti recommended uniformity and sparing of breathing exercises. In controlling the exhalation, he advised the performer as follows. Place a lighted candle in front of the mouth, if the flame does not move (no movement) when making a sound, then the exhalation is being used very correctly. The famous Russian tenor D. Smirnov also made a similar experiment. Instead of a candle, he took an ostrich feather and held it 20 cm from his mouth during the performance. It is impossible to develop the breath of performance without sound, and vice versa.

Educator M.E.Tessier compared the process of exhalation in performance with the drops of a fountain, that is, it can hold a light ball as a result of its constant flow, that is, the ball does not fall during the constant water spout. A similar sound should never be made, because the continuous burst of breath will hold it back. If the sentence is long, then you squeeze your stomach from below, this movement will give the rest of the breath, and you can carry the sentence to the end. E.T. Petrenko writes: It is much easier to show the beginner how to breathe in performance. Some singers do not understand what it means to breathe until the last sentence of their words, and those at the beginning level do not know how to hold the breath until the end of the sentence and do not say all the sounds on the back. Vocal exercises should be very simple and slow to improve exhalation skills. They should be said with even volume, and self-control and hearing are important.

Help control the correctness of all these processes with your own hands, alternating our simple breathing exercises with vocal exercises. In order not to lose the clear and fresh feeling, remember that at the end of the sound, the reader quickly lowers the chest and exhales, the remainder cannot be expelled. It is necessary to prevent relaxation in the breathing part (diaphragm), and to keep the body, which is the mechanism of vocal formation, straight and upright. This kind of vocal shape maintenance control and developed technique guarantee a smooth professional sound that fills in spent breath pauses or between sentences.

Do not let out all the air until the end, because this also spoils the naturalness and freedom. In order to know how to use the breath correctly, you must first learn two laws:

1. Do not take too much while breathing;
2. When exhaling, do not squeeze to the end.

At the end of the sound, the student cannot release the remaining air by lowering the chest at speed or relaxing the diaphragm. That is, the body must maintain the "vocal form" in silence between exhalation and new inhalation. This guarantees flatness and sound support. Observe the moment of exhalation between inhaling and the beginning of the sound. Remember that it is very important to hold the breath for a moment.

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