

## **Vocal wellbeing: a new perspective of vocal care**

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## **Preface**

Your voice, teacher, is an indispensable work instrument. It carries contents, messages, emotions, attitudes, lessons of life, and it is essential for a good communication and for your students' adequate learning. However, caring for your voice is not always easy, and almost never your priority, due to the enormous professional demand and responsibilities that you face on a daily basis. We know there is a lack of basic information and, most of the time, you teach in unfavorable conditions for your voice.

This guide gathers the 60 main questions asked by teachers in our clinical experience at the São Paulo Teachers Union (Sindicato dos Professores de São Paulo – SinproSP) and at

Center of Voice Studies (Centro de Estudos da Voz - CEV), helping you to identify essential aspects that will contribute, directly or indirectly, to your vocal wellbeing.

The first edition had 15,000 copies and thousands of electronic access, and was the national document most consulted on the theme. The second edition, with 10,000 copies, was carefully revised and updated with the aims to inform teachers and contribute to the prevention of voice disorders. The third edition was also revised and updated, and we included a test for you to check your knowledge about voice and two instruments that indicate whether you are at risk for developing voice disorders. After all, teacher, you depend a lot on your voice!

We are at your service to answer your questions or hear suggestions that may arise during your reading. Don't refrain from contacting us. We want to hear your voice!

The authors

## Presentation

Here is the third edition of the guide Vocal Wellbeing – A New Perspective of Vocal Care. This material integrates the actions of the Vocal Health Program of the SinproSP.

By compiling the 60 most common questions presented by teachers regarding voice and expressing clearly and objectively the answers, the guide has become an important document in the teaching routine.

The first and second editions, printed in 2006 and 2011, respectively, have circulated at schools, lectures, and at the daily service provided at the SinproSP headquarters, and are now out-of-print.

The material has also gained force at the web, with numerous visits from all over the country to the file available at [www.sinprosp.org.br](http://www.sinprosp.org.br).

With this new edition of the Vocal Wellbeing, we hope to continue our work for the awareness of preventive care of teachers' main instrument: the voice.

Board of the SinproSP

## About the voice

### 1. Why is the voice so important for teachers?

Because voice carries the words and also delivers the emotional message attached to them. We've all had the experience of noticing joy or worry from a simple "hello". Thus, the sound of the voice has the double function of informing content and feelings. Particularly for teachers, voice teaches, controls the students, shows attention and affection, and is the main resource for transmitting the class content.

### 2. Why do teachers have so many voice problems?

Because teachers use the voice constantly, just like athletes use their body muscles. However, unlike the sportsmen who go through specific training and develop a physical shape usually good enough to resist to the wear of their profession, it is rare for a teacher to have had the opportunity to develop his voice for communication in the classroom. Moreover, to be effective, voice has to count on environmental conditions that favor its projection and, many times, that does not happen in schools.

### 3. How is voice produced?

Voice is produced in the larynx, which is in the throat. The sound of the voice depends on a refined cerebral control that promotes the vibration of the vocal folds, popularly known as vocal chords. The fuel for this vibration is the air that comes out of the lungs. A good coordination between the air that passes through the larynx and the vibration of the vocal folds produces the human voice, which turns into speech sounds through the movements of the articulators, such as tongue and lips.

### 4. What helps the voice?

A good general health condition is important. A minimal speech-language training for teaching activities helps to develop the vocal competence. Noticing vocal deviations and trying to minimize the damage is one of the first steps to preserve the vocal wellbeing. To measure the time

of speech, the tone (high- or low-pitched), the volume of the voice (weak or strong), rest intervals, hydration and noise competition (conversations in the classroom and outside noise) are some of the strategies to be used in the daily routine. You have to notice what is more harmful to your voice and try to control it.

#### 5. What is harmful to the voice?

Talking too much when you are sick, tired, after a sleepless night, with colds and flu, in inhospitable environments and when you are very stressed are some of the voice enemies. Evidently, smoke and alcohol are admittedly harmful to the general health and particularly represent the greatest vocal risk.

#### 6. How do I know if I have a voice problem?

If your voice has changed lately, if you notice that your voice is much better when you are on vacations than it is during the school months, if you make effort to talk, if your voice is weak, hoarse and/or tired at the end of the day, if you had to change your teaching style because of the voice, if you are talking less, if you feel any discomfort when talking or if others ask what is going on with your voice, it is possible that you have some problem that should be attentively investigated.

#### 7. Who could help me solve my voice problem?

The professionals trained to help you verify your vocal conditions are the doctor and the speech-language pathologist. Regarding the doctors, depending on the configuration of your workplace, you might be referred to a general practitioner, occupational physician or otorhinolaryngologist, which is the ear, nose and throat specialist. Some schools have the help of a speech-language pathologist, who can also guide you on this first search for help and refer you to a voice specialist if necessary.

#### 8. How do I know if I speak too loud?

Usually, people who speak too loud do not notice the volume of their voice, but receive negative comments about it. Some families have the habit of speaking loud, specially the most outgoing ones. Other times, a noisy workplace demands a high volume of the voice and you end up losing the actual awareness of the voice used, developing the habit of speaking loud.

#### 9. What are the main tips to maintain my voice healthy?

The main tips are: develop a differentiated listening, pay attention to your voice and to the voices of others, try to reduce the strength you use to talk, improve your physical conditions, respect your feeding and resting times, and see if there is any chance to improve your workplace. Remember to keep you body hydrated. Taking sips of water during the classes is an easy, simple and very effective resource to reduce the friction between the vocal folds. To relieve a tired voice, speak slower, articulate the words well, open your mouth when talking, and modulate your voice, since these mechanisms contribute for less vocal wear.

#### 10. How can I communicate better?

Be objective, use short and direct sentences to avoid long periods of talking, which usually include pauses and hesitations that distract the listener. It is important to make sure that students are paying attention and understanding the message. Do not talk turned to the board and make eye contact with all the students. Make your communication interesting, use a modulated voice and good diction. Allow the student to make questions and participate actively in the class, which should be, above all, a rich communication experience with the teacher. Move naturally and use gestures that add information or highlight ideas and words. However, be careful not to exaggerate on the movements, gestures and voice.

#### 11. What is more tiring: reading or improvising?

Usually, reading out loud is more tiring for there are few people trained for this special task, which requires the use of specific expressiveness resources. Besides, keeping the students'

attention during a reading is difficult because most of the texts are not adapted for reading and also there is a tendency for reducing the voice modulation in this task. Improvising is more dynamic. Actually, for teachers, improvising almost never happens because the classes are prepared.

#### 12. What should I do when I'm hoarse and tired?

The best attitude would be resting the body and the voice, but that is not always possible. If you really need to teach when tired, use a lower voice without whispering, because that may be an additional effort. Speak slower and modulate, use short sentences, develop activities with the students that require less of your voice, and keep hydrated.

#### 13. Can I lose the voice permanently?

That is practically impossible. However, a continued overload on a hoarse and tired teacher will gradually make the voice more damaged and increase the effort necessary for teaching. Thus, it is recommended to look for help as soon as you notice any vocal problem.

#### 14. Does talking too much give cancer?

No research has proven that talking too much gives cancer. Nowadays it is known that there are several factors that contribute to the development of larynx cancer, such as smoke, alcohol, genetic and environmental conditions. Everything that irritates the body tissues potentially contributes to the development of cancer. Thus, from a theoretical point of view, to continue speaking without a good vocal health may, eventually, be an additional risk factor. Talking too much does not give cancer, however, one of the main symptoms of larynx cancer is hoarseness and, therefore, searching for early medical help offers better conditions for diagnosis and several treatment options, with better chances of vocal recovery.

#### 15. How do I know if I have to see a specialist?

If you have any doubts about that, look for one of the services listed at the end of this publication or look for a reliable indication. Also remind that you use your voice professionally,

which is a different reality from most of the people. The same way that a pianist takes preventive care for his hands and a soccer player takes all the precautions with his knees, you must take special care of your voice. Preventing voice problems is your biggest ally to develop a long and satisfactory teaching career. Being a teacher is one of the noblest professions and the use of communication is the primary means to get to your students.

16. How to tell if a voice treatment will require medicines, exercises or surgery?

This is defined by the doctor, who may ask for other professionals' help, specially the speech-language pathologist. Medicines are generally used for conditions such as inflammations, infections, allergies and gastroesophageal reflux. Only the doctor can prescribe medicines and you should never self-medicate or take medicines that worked for someone else. Medicines can help an organic condition that harms your voice, but they do not treat the vocal behavior itself. Vocal exercises are part of what is called vocal rehabilitation, and the speech-language pathologist is the professional trained to prescribe and orientate them. Similarly to medicines, an exercise that is good for your colleague is not necessarily going to help you and might even be negative to your voice. Surgical procedures are applied in many situations, such as removing benign lesions ("calluses" – nodules, polyps or cysts), malignant lesions (larynx cancer), and to solve other problems like vocal fold paralysis.

17. What are the chances of a treatment not working?

The health area is not an exact science and, therefore, a treatment may not have the expected results. However, there are many options that can be used and constant monitoring helps selecting several treatment possibilities. In every situation there are always chances of improving communication. The patient's participation is one of the main aspects of the final result in any treatment. People should not be passive when it comes to their health and wellbeing, which includes the voice.

18. Can I lose the voice because of a larynx surgery?

It is practically impossible that this happens. Nevertheless, your voice may be temporarily worse after a surgery where a part of the vocal folds or other larynx structures have been removed. The rehabilitation in these severe cases has improved a lot in the last decades and there are resources to reduce the limitations that can, many times, be inherent to the performed treatment.

19. Why does hawking harm my voice?

Because when you clear your throat you use a strong friction between the vocal folds, which might favor the occurrence of lesions in the larynx tissues. If you feel you have a lot of secretion (phlegm or mucus), try to swallow it or gently clear your throat. Keeping your body hydrated helps diluting the viscous secretions.

20. Can I change my voice?

The voice results from the sum of anatomic, emotional and cultural aspects. Thus, in the course of life, we develop a voice based on organic factors (less flexible) associated with emotional, cultural and professional aspects (quite variable). Actually, we use several types of voice according to the interlocutor, the situation and the communication environment. We can learn to vary the voice more consciously and adequately to the needs. If you do not like your voice for any aesthetic reason, for considering it too nasal, dull, high or low-pitched, too strong or too weak, look for a specialist to analyze the possibilities of changing the adjustments involved in your voice pattern. Everyone can improve their voice.

## About the body

### 1. How does my body interfere with the voice?

We can say that the whole body contributes to the production of voice. If the body is tense, there is a great chance that the voice will also be tenser. On the other hand, more loose and free movements and gestures favor a good voice, If the body is sick, the voice usually signals this fact. If we are tired and without energy, the voice may reveal these aspects becoming lower and weaker. Thus, in general, body and voice work in parallel depending greatly on each other.

### 2. Is it normal to feel pain when I talk too much?

Speaking should not be painful. However, in some situations, when you talk for a long time or in adverse conditions (too much background noise or for a large audience) you may feel your neck, throat and mouth sore, which should go away in one or two days. If these symptoms persist, you should look for help. Some teachers report back pain or even in other parts of the body from forcing too much to speak. A correctly produced voice must not generate discomfort or pain.

### 3. What to do when I have a cold?

The best thing to do is to avoid talking too much, because the tissues of the larynx are more susceptible to irritation when we have a cold. To project the voice when you have a cold or the flu demands more effort and energy, and it is more difficult to control the quality of the emission. However, sometimes the teacher needs to work even when s/he is sick. If this is the case, try to speak lower and slower, hydrate and ask for the students' special attention. Check if it's possible to use some didactic resource that allows you to spare your voice (movies, group work, or a dynamic activity with the students).

### 4. Is there a diet that can help with the voice?

A good diet helps the health in general and, consequently, the voice. Keeping a balanced diet is important because professional communication requires more energy. Heavy and seasoned food can hinder digestion, favoring the occurrence of gastroesophageal reflux (see ahead its

relationship with voice problems – question 6), causing hoarseness, and limiting the necessary breath to use the voice in the classroom. The teacher is a voice professional and must control the factors that have negative impact, such as food deprivation for long periods, excess intake of caffeine (coffee and soda with “cola”), constantly having snacks, and eating too late at night, before going to bed.

5. Are cold water and ice cream bad for your voice?

No. Most people do not have any impacts on their voices due to cold water or ice cream. Some people are a little more sensitive to temperature differences and, therefore, should avoid the thermal shock by keeping the ice in the mouth for a little while before swallowing. If you do not have any problems with cold, you do not need to worry.

6. Can a stomach problem interfere with the voice?

Yes, especially the gastroesophageal reflux. If your voice gets worse after meals, if hawking increases or if you feel the return of liquid from the stomach up, regardless of having heartburn or burning, you may suffer from reflux disease. The larynx is not prepared to receive the stomach liquids and may become inflamed or irritated, hindering the voice and causing hoarseness. Some strategies to avoid reflux are eating small portions of food, avoiding teaching with a full stomach, and not sleeping right after eating, maintaining a three-hour fasting before going to bed.

7. Can allergies, asthma and bronchitis make me hoarse?

Yes. Any alteration in the airways, from nose to lungs, may damage the voice. It is important that the respiratory flow is free because the air is the fuel for the voice production. Nasal allergies swell the nose and throat tissues and may demand a greater effort to speak and control the instability in your voice. Asthma and bronchitis cause uncontrolled breath and hinders speech coordination, as well as the voice projection into the environment.

#### 8. How do I know if I have good breathing to talk?

Most people have a sufficiently good breathing to talk. However, they may have the habit of talking until the very end of the air or may start talking without breathing, forcing the voice mechanism. When we are in silence, our breathing occurs predominantly through the nose, which favors the filtering and heating of the air. When we speak, the very rhythm of our speech allows us to breathe through the nose only during long pauses, since we reload our lungs through the mouth, which is easier and quicker. Singers and actors need to develop a special breathing because of their profession's requirements. In the case of teachers, the main focus is to coordinate the air with the speech and frequently reload the lungs.

#### 9. Is there any relationship between sleep and voice?

Yes. Studies have shown that people who sleep better present a clearer voice quality. You may have already observed that your voice is heavier in the morning after a sleepless night, or even low-pitched and hoarse. We recharge our energies during sleep, and the voice depends on a highly energetic metabolism. Some people wake up with the voice a little different from the usual, commonly lower, lower-pitched and speaking slower, which is recognized by others and may be a reason for jokes over the phone. The voice is usually in back in its usual pattern 15 to 45 minutes after waking up, but if you have to teach early in the morning, it is important to exercise the throat and mouth muscles, making yawn and warm up exercises, with the orientation of a speech-language pathologist.

#### 10. Is there a relationship between physical exercises and the voice?

As already explained, there is a relationship between the body and the voice, therefore, exercising regularly is good for physical shape and, consequently, for the voice. Be careful not to exercise with excessive effort, maintaining a free breathing without blocking the air in the throat. Also, avoid talking while making exercises that use force. At the gym, always look for the teacher's orientation so you will not be under unnecessary risk.

11. Is there a relationship between stress, tension and voice?

Yes, and this fact has been known since the time of Ancient Greece. Stress consumes energy and may deplete the voice. A tense voice can be less resistant when you have to speak for a long time. Psychological or physical tension is easily transferred to the muscles responsible for voice production, which is frequently noticed by the listener. If the work condition is too tense, you might learn to control the impact of the stress and tension to the voice, which requires training. A tense voice usually sounds higher-pitched, and the effort is noticed by the listener, who may consider it unpleasant and have the impression that the speaker is a nervous or harsh person.

12. Does water help to make the voice cleaner?

It is important to remind that the water does not pass through the vocal folds (vocal chords). However, hydrating is essential so they can vibrate easier and the voice is produced in better conditions. When we are dehydrated, we have more difficulty maintaining the voice control and usually make more effort, producing a worse sound.

13. Are there medicines that may help or interfere negatively with the voice?

There are no specific medicines that improve the voice. There are medicines for sore throat, inflammations, infections, and for gastroesophageal reflux that might, indirectly, relieve some vocal symptoms and favor an easier emission.

Some medicines can interfere negatively and you must notice if your voice gets worse when you are under some medication. Sedatives and diet pills can cause dry mouth and slurred speech; diuretics also dry out the vocal tract and may require more effort to speak; stimulants can haywire the breathing, the diction and the speech flow, also drying out the tissues. If you have to take such substances, increase the water intake and report any side effects to your doctor.

14. Are there miraculous recipes for voice, such as honey, propolis and candies?

There are no miraculous recipes, although honey can help as lubricant and propolis as anti-inflammatory. Their relation with the voice is indirect because only the air passes through the

larynx. Candies and lozenges can provide a muscular relief, since they exercise the muscles from the mouth and can relieve the sense of effort, but they are only palliative. When they are too strong or contain substances called refreshing, they might hinder the voice control.

15. Can clothes interfere with the voice?

Tight clothing in the neck, chest and waist may restrict the movements of the structures and force the mechanism of voice production. Very high heels may induce body tension and, indirectly, voice tension. Use appropriate clothing for the weather to facilitate the homeostasis (balance) of the body and general wellbeing.

16. Can a voice problem harm my quality of life?

Yes and very seriously. The voice has a special meaning for the teacher, and the impact of a voice problem in the quality of life can be measured by questionnaires and specific evaluation. Teachers with voice problems may feel frustrated and anxious, may have to change their teaching style, talk less or have to repeat many times what they say to be understood. A voice problem can produce vocal and body fatigue, harming work activities, social life and emotional balance.

17. How can thyroid problems affect the voice?

The thyroid gland is on the larynx, just below the neck skin. The nerves that send stimuli for the movement of vocal folds in order to control their vibration and the adjustments of tone (high- or low-pitched) pass through this region. Nodules on the thyroid gland may compress the nerves and harm the activity of the muscles responsible for the voice. An unbalance of the hormones produced by this gland may also affect the voice, making it more unstable, hoarse and low-pitched.

18. Can hearing problems harm the voice?

Yes, because we monitor our voice by hearing it. Good hearing is essential to control the tone, effort and quality of the voice. People who do not hear well can speak up and have a greater risk of developing a voice problem. It is essential that the environment is not too noisy so you can

hear your own voice. Besides, talking to someone with hearing problems can also require a greater vocal effort; in such situation, more effective than speaking up is approaching the interlocutor and talking slowly and articulated, with good diction.

19. Can the voice change during the menstrual period?

Some women suffer from Premenstrual Syndrome (PMS), presenting mood swings (more irritability and sensibility) and body swelling. A percentage of these women notice that the voice gets more unstable, low-pitched and less clear in this period. Try to observe, in the next cycle, if your voice changes in the 3 days that precede the period and right after it begins. If that occurs, double the attention for the correct use of the voice and be sure to do your vocal exercises.

20. Does the voice age?

As the whole body, the larynx and the voice also get old. Like a well preserved body, a trained voice may retard the aging signs by exercises, healthy habits and periodic health controls. However, elderly people frequently present weaker and more unstable voices, which can be minimized with specific speech-language training.

## About the environment

### 1. What are the worst environments for my voice?

Surely polluted and noisy environments, for they demand that you speak louder, with more effort, and limited conditions to control your emission.

### 2. Why does noise disturb the voice so much?

Because we lose the control of the voice by hearing and, by reflex, we automatically speak louder (stronger) and with more effort.

### 3. Using the microphone in the classroom helps or is a crutch?

It helps a lot! The teacher that has a good voice and has his voice amplified, gets greater comfort and contributes to the longevity of his career. The teacher with voice problems, when using the microphone, rests and contributes positively for his treatment. It is essential to get trained on the correct use of the microphone and develop specific strategies to enjoy all the benefits that an amplification system can offer. It is not necessary to yell or modulate excessively at the microphone.

### 4. Talking at home, with my family, can wear my voice?

Speaking at any situation can wear the voice if the production is tense, excessive, at strong intensity and competing with background noise. We use the same structures to speak, sing, whisper, cough, sneeze, hawk, laugh, and cry. Any of these vocal manifestations, if in excess, can be an attrition factor between the vocal chords, which is called phonotrauma. However, talking normally is good, and communication is one of the main elements that contribute to happiness.

### 5. Does the telephone help or hinder?

Speaking too much on the phone under inadequate conditions (reception difficulties, echo and delay on the call, noise on the line, and calls from noisy places) can also be a phonotrauma

factor. Use the telephone consciously, and take extra care at the cell phone, especially after classes, when you have already used your voice a lot.

#### 6. The use of a whistle can help?

Many times, physical education teachers use the whistle in games to orientate and get the students' attention. Unfortunately, we do not have the tradition to use megaphones at sports facilities, such as in other countries, even though it can help to preserve vocal health. If you use a whistle, be careful not to put too much strength in blowing it, which can even make you hoarse and tired to talk.

#### 7. Which is better: hot or cold weather?

Too much heat or cold can cause body and vocal discomfort. When there is too much heat, we get slower, have less energy, and speech production may be more difficult. When it is too cold, we can get tense and reduce the ingestion of liquids, hindering the body's adequate hydration. Heated or chilled environments may lead to thermal shock, and some people are sensitive to these changes. Once more, use adequate clothes and be prepared, whenever possible, for temperature changes.

#### 8. Which is better: dry or wet weather?

Wet weather helps voice production, while dry weather favors the installation of allergies and other respiratory problems. Remember to increase the water intake when the air is too dry.

#### 9. How does the city pollution hinder the voice?

The pollutants can cause dryness in the respiratory tree and allergy symptoms (rhinitis, pharyngitis, laryngitis or bronchitis), hindering the voice. Too much smoke, either from cars or from artistic performances (shows, theaters, night clubs), can also produce voice problems in more sensitive persons.

10. Is speaking or singing in the car tiring?

If the conversation is long or if you sing excessively, it can be tiring, for, besides the vocal effort, there is sound competition with noise from the car engine or from the city traffic. In this situation, your auditory feedback (the control of the voice through hearing) is hindered, and you have less conditions to keep a good voice.

11. Is singing good or bad?

Singing is very good when performed on the right tone and without effort. If you like to sing, take some singing lessons to learn the minimal resources that are necessary to perform this activity. Singing can be a great strategy to reduce stress and to learn to control several vocal parameters, as well as to entertain your friends. However, singing is not a treatment; it is not vocal rehabilitation and can be an additional effort if you have been talking all day long.

12. Can the chalk dust hinder the voice?

Yes, especially for allergic persons. Writing on the board and speaking at the same time may facilitate the entrance of chalk dust on the mouth and the throat, which can hinder the voice. When writing on the board, use the strategy to keep your lips sealed and speak only when you turn to the students. Erase the chalkboard from top to bottom and, whenever possible, ask for the students' help. Do not hit the eraser to clean it.

13. How do I make the students be quiet?

When the students are being too loud, the best is not to compete trying to speak louder than them, which may make the agitation increase. Using strategies such as clapping, snapping your fingers, knocking on the table or even decreasing the voice intensity may be efficient and reduce the vocal wear. Stand still looking firmly to the students might also signal a silence request.

14. How should I position myself to speak in the classroom?

Try to speak facing the students, looking to all of them alternately. Change your position periodically, but avoid walking from side to side repeatedly. Explaining while you write on the

board is more demanding to the voice, because you lose visual contact and the direction of the vocal projection to the classroom. Use expressive gestures to emphasize ideas and illustrate the meaning of what you are talking about.

15. Can the air conditioning hinder the voice?

Yes. Some people are very sensitive and quickly feel their throat get dry and their voice get altered in environments with air conditioning. Cleaning the appliance's machine and filters is a very important aspect. The air conditioning cools down the environment and removes moisture from the air, which is the main reason for the dryness sensation. If you work in air-conditioned environments, increase the water intake, drinking good sips all day long.

16. Does the working fan hinder the voice?

Some fans are very noisy and constitute an additional sound competition for the teacher. Moreover, the wind itself can act negatively, causing dryness in the vocal tract. In this case, turn the fan off during the period of greater use of the voice, and verify the possibilities to fix the blades and the engine or to substitute the fan for a less noisy model. Drink water to control the dryness of the vocal tract.

17. What can I do when there is outside noise?

Analyze the environment and check if something can reduce the noise. For instance, closing doors and windows during the lecture is usually very effective. Changing the position of the students in the classroom to be closer to them also helps to spare the voice and facilitates the transmission of the message. If possible, use a microphone.

18. How can I reduce the vocal wear when I teach in an open environment?

For long explanations, gather the students and get near them to talk; use a microphone and other resources such as clapping, whistling or even a megaphone to call their attention, especially when in excursions, festivity rehearsals or physical education classes.

19. What precautions should I take at the teachers' room to preserve my voice?

Breaks are a good opportunity for you to rest your voice. When you meet your colleagues at the teachers' room, try not to talk too much and control the intensity (volume) of your voice. Remember that this environment may also be noisy and have a lot of vocal competition.

20. How to reprehend an inadequate behavior from the students without yelling?

If there is parallel conversation, ask for silence in a deeper and firmer voice, but do not try to speak louder than them. The vocal energy of children and adolescents is usually enormous, and must be positively channeled for interaction and learning.

## Test your knowledge about the voice

1) How is voice produced?

- a) Through the vibration of vocal folds, which are in the neck (larynx).
- b) Through the air voiced in the throat, mouth and nose.
- c) Through the coordinated vibration of four vocal folds.
- d) Through the vibration of vocal folds located in the lungs.

2) What goes through the vocal folds?

- a) Food, water and air.
- b) Only air.
- c) Water and air.
- d) Only water.

3) What is good for the voice?

- a) Eating strong menthol candies before classes.
- b) Speaking slowly and with low intensity.
- c) Drinking small gulps of water while using the voice.
- d) Gargling between classes.

4) What is bad for the voice?

- a) Talking too much when you're tired, smoking and drinking alcohol.
- b) Drinking water during classes.
- c) Eating ice cream.
- d) Eating very hot food.

5) Which of the speech standards below is best to be used in the classroom?

- a) Speaking strongly, imposing respect to the students.
- b) Speaking out loud, strongly and well articulated.
- c) Speaking with good diction, varying the tone (melody) and the volume of the voice (weak or strong).
- d) Speaking out loud while turned to the blackboard.

6) Why is yelling/screaming harmful to the voice?

- a) It requires some air and one should breathe a lot to speak.
- b) It requires energy and generates fatigue.
- c) It promotes greater friction between the vocal folds.
- d) It requires a lot of oxygen and minerals.

7) What can I do when I feel a sore throat?

- a) Using propolis and eating strong menthol candies.
- b) Gargling with warm water and salt or vinegar.
- c) Reducing the amount of speech and the volume of the voice.
- d) Whispering.

8) Why do teachers have so many voice problems?

- a) Because they speak wrongly and are too overloaded.
- b) They use the voice a lot and, generally, have no proper preparation for this.
- c) Because the voices of the children are much stronger than theirs.
- d) Because hoarseness is a natural consequence of the teaching activity.

9) Identify the type of impact (positive, neutral or negative) that the behaviors below produce in people:

- 1. Talking too much when you have the flu: positive, neutral or negative
- 2. Using the microphone in the classroom: positive, neutral or negative
- 3. Warm up the voice with exercises before class: positive, neutral or negative

10) What to do when the voice is tired?

- a) Partial vocal rest; neck and shoulder exercises to release the muscles; getting distracted with something that does not involve the voice.
- b) Sleeping; chewing ginger; gargling with water and salt.
- c) Forcing the voice for recovery; speaking louder; gesticulating more.
- d) Taking pain medication; singing to recover the voice; whispering.

Answers:

1) a 2) b 3) c 4) a 5) c 6) c 7) c 8) b 9) 1. Negative/ 2. Positive/ 3. Positive 10) a

## Test your voice

### Voice Symptoms and Signs

Mark whether you feel or not each sign and symptom of a voice problem. The final score is the sum of positive answers.

Voice Symptom/Sign	Current	
	Yes	No
1. Hoarseness	1	0
2. Voice tires or changes quality after short use	1	0
3. Trouble speaking or singing softly	1	0
4. Difficulty projecting voice	1	0
5. Loss of singing range	1	0
6. Discomfort while using voice	1	0
7. A monotone voice	1	0
8. Effort to talk	1	0
9. Chronic throat dryness?	1	0
10. Chronic throat soreness	1	0
11. Frequent throat clearing	1	0
12. Bitter or acid taste	1	0
13. Swallowing difficulties	1	0
14. A wobbly or shaky voice	1	0

Total = \_\_\_\_\_ Symptoms and Signs

### Results

Brazilian teachers, in general, present 3.7 signs and symptoms. Teachers with voice disorders report 6.6 or more symptoms. In case you have presented a high number of signs and symptoms, stay alert, for you may be at risk to develop a voice disorder.

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Behlau M, Zambon F, Guerrieri AC, Roy N. Epidemiology of voice disorders in teachers and nonteachers in Brazil: Prevalence and adverse effects. *J Voice.* 2012;26(5):665 e9-18.

Zambon F, Moreti F, Behlau M. Coping strategies in teachers with vocal complaint. *J Voice.* 2014;28(3):341-48.

## Voice Handicap Index-10

These are statements that many people use to describe their voices and the effects of their voices on their lives. Circle the response that indicates how frequently you have the same experience.

The final score is the sum of the points in each question.

1.	My voice makes it difficult for people to hear me.	0	1	2	3	4
2.	People have difficulty understanding me in a noisy room.	0	1	2	3	4
3.	People ask, "What's wrong with your voice?"	0	1	2	3	4
4.	I feel as though I have to strain to produce voice.	0	1	2	3	4
5.	My voice difficulties restrict personal and social life.	0	1	2	3	4
6.	The clarity of my voice is unpredictable.	0	1	2	3	4
7.	I feel left out of conversations because of my voice.	0	1	2	3	4
8.	My voice problem causes me to lose income.	0	1	2	3	4
9.	My voice problem upsets me.	0	1	2	3	4
10.	My voice makes me feel handicapped.	0	1	2	3	4

Total = \_\_\_\_

## Results

Brazilian individuals with voice disorders present scores higher than 7.5 points. In case you have presented such score, stay alert, for you may be at risk for vocal problems.

## References

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Behlau M, Madazio G, Moreti F, Oliveira G, Dos Santos LM, Paulinelli BR, Couto Junior EB. Efficiency and Cutoff Values of Self-Assessment Instruments on the Impact of a Voice Problem. *J Voice* 2015. [Epub ahead of print].

## Where to find orientation

### **Vocal Health Program, SinproSP**

Active for 15 years, the Vocal Health Program of the SinproSP is an established prevention and care service for the main work instrument of teachers: the voice. It provides assessment, orientation, vocal enhancement and voice and communication workshops, as well as free speech-language pathology therapy to members, in a partnership with the Centro de Estudos da Voz (CEV). The main purpose, however, is prevention.

The teacher interested in using the program should schedule the first assessment with the speech-language pathologist Fabiana Zambon, who will evaluate the voice quality and several communication aspects, providing the necessary referrals. The teacher will also receive orientation about basic care to keep the vocal wellbeing and learn the most adequate warming-up and cooling-down exercises for his communication style and specific classroom needs.

The assessment should be scheduled by phone (55 11 5080-5988) or e-mail (voz@sinprosp.org.br).

Check the website [www.sinprosp.org.br](http://www.sinprosp.org.br) for available dates and times.

### **Sindicato dos Professores de São Paulo – SinproSP (São Paulo Teachers Union)**

Rua Borges Lagoa, 208 – Vila Clementino

São Paulo, SP – 04038-000

Phone: 55 11 5080-5988

### **Centro de Estudos da Voz - CEV (Center of Voice Studies)**

The CEV is a private teaching, research, and training institution in the area of human communication with 35 years of activity. It maintains the Graduate Specialization in Voice – CECEV, besides other courses for the continued education of speech-language pathologists and lay people. The institution is run and coordinated by Professor Mara Behlau, PhD, speech-

language pathologist and consultant in human communication. The first CECEV class graduated in 1993, and the students are now masters and doctors, coordinators of undergraduate and graduate programs, reviewers of journals in the area, and teachers at the institution. The CEV has conquered 20 scientific prizes and is recognized both nationally and internationally. From the publications organized by this center, we highlight the technical book "Voice. The specialist book" (Mara Behlau, org, Rio de Janeiro, Editora Revinter, volumes I and II, 2001 and 2005) and the book written especially for teacher "The voice that teaches. Oral communication within the classroom" (Mara Behlau, Maria Lúcia Dragone and Lúcia Nagano, Rio de Janeiro, Editora Revinter, 2004). The CEV also provides consulting in the area of human communication for companies, with the aim to optimize individual and team communicative competence.

Access the website [www.cevfono.com](http://www.cevfono.com)

CEV

Rua Machado Bittencourt, 361 – Vila Mariana

São Paulo, SP – 04044-001

Phone: 55 11 5575-1710

## **Vocal wellbeing – A new perspective of vocal care**

Is a publication of the Sindicato dos Professores de São Paulo (SinproSP) along with the Centro de Estudos da Voz (CEV).

Authors: Fabiana Zambon and Mara Behlau

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## **Vocal wellbeing: a new perspective of vocal care**

This guide, created by the voice specialists Fabiana Zambon (PhD, SLP) and Mara Behlau (PhD, SLP), gathers answers to sixty of the most important questions asked by teachers in their daily lives. Within the SinproSP project of contributing to the decrease of voice disorders among teachers, this publication is highlighted as an interesting, simple and attractive reading. It is divided into three great chapters that explore the main questions regarding voice production and its relationships with the body and the environment.

In this third edition, you can test your knowledge on the voice subject, and answer to two instruments that can help identify whether you are at risk for voice disorders.

Good learning, teacher!