

Let Your Voice Be Heard: Protecting Your Vocal Cords

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As Spinning Instructors, we take measures to prevent over-training and injury, yet we often ignore the larynx and vocal folds (our throat's voice production system)—an area that takes a fair amount of abuse. We use this area more than most other muscles, but it receives almost no proper care or recovery time.

If you teach an average of ten classes a week, you use your voice as much as a Broadway singer performing in a two-hour show that runs five times a week. Of course, Broadway singing professionals follow a strict vocal care regimen daily. Why shouldn't you? If you are a fitness professional teaching several classes a week, you are a full-fledged candidate for vocal damage. Unless proper measures for prevention and care are implemented, you may be on the road to a vocal breakdown.

At one time or another, you have probably experienced some level of damage to your vocal folds known as hoarseness. Luckily, this minor stage of damage is typically resolved by vocal rest. But the more severe stages of damage, in some cases, are treatable only by surgery.

Most vocal fold damage is not severe, so it is not immediately noticeable. To understand how this damage occurs, you need some scientific background. The larynx is the throat area located just above the trachea (windpipe). Your vocal folds (voicebox) are housed in the larynx. The primary function of the vocal folds and the larynx is respiration and protection of the airways, and voice production is actually a secondary function. The cords are open when breathing, otherwise they remain closed to restrict foreign objects, like your lunch, from slipping into the windpipe. This is why many people cough or choke while talking and swallowing food at the same time.

To produce sound, the adductor laryngeal muscles bring the vocal folds to a somewhat closed position (not as tightly closed as when holding your breath or swallowing). The lungs must produce sufficient airflow to overcome the resistance of the closed cords. Using the diaphragm muscle is more efficient because it helps to generate this airflow with much more power, yet less effort. This air pressure begins to blow the vocal folds apart, creating a series of vibrating movements, which lead to the resonance of sound. Finally, actual voice production occurs when the sound travels to the mouth and nose, where the tongue, palate, cheek and lips all work together to create speech articulation.

This is when trouble can start! If you use your voice too much, too loudly or improperly over



time, friction between the vocal cords begins to cause tissue swelling. Other damaging elements include teaching or screaming over loud music, not using a microphone, dusty rooms, dry throat or not staying hydrated, using harsh or high-pitched vocal ranges and not using your diaphragm for proper airflow. Spinning® Instructors often encounter many of these ignored conditions and are more susceptible to vocal fold tissue swelling. This swelling can lead to hoarseness, or more serious nodules or polyps.

Vocal nodules are callous formations on the cords, usually occurring as a bilateral symmetric swelling. Vocal polyps are isolated, usually larger, and typically occur on just one of the folds. Both conditions prevent the vocal cords from fully closing causing poor vocal quality and in some situations, can be painful. Treatment for both of these conditions centers on voice therapy or a period of vocal rest. However, in cases that are not resolved by these means, surgery is often the next step. For singers or fitness instructors who depend on their voices for their livelihood, this is a nightmare. And, although most nodules and polyps are benign, some tissue biopsy results do reveal malignancy.

So what can Spinning Instructors do to help prevent damage?

- Spend more time teaching off the bike and giving one-on-one attention to those students who need it.
- Less is more. Don't feel compelled to speak every minute of class. Giving your students periods of silence lets them digest and reflect upon what you have already said and focus internally.
- Focus on creating diverse tones when coaching, like peaks and valleys. Your class will be more interesting from a verbal perspective and you will prevent overuse of the cords that occurs when using only one pitch or volume.
- Always use a microphone. Using a mic amplifies your voice and allows you to speak in a normal, conversational tone without straining the cords. Teaching without a microphone is like training without hydrating – it can be done, but not without detriment to performance levels and possibly long-term damage. No longer is it permissible for instructors to say “I have a loud voice – I don't need a mic” or “It's a small room, they can hear me.” You need a mic - not only for you but so your students can hear you. You don't want your students to injure themselves because they couldn't hear your safety cue.

Other tips to keep in mind:

- Don't scream or yell while teaching.
- Avoid dusty, smoky or fume-filled areas.
- Don't hold your breath while lifting weights. This causes the vocal cords to press tightly together, often resulting in hemorrhages of the cords.
- Drink plenty of fluids to keep the cords moist and hydrated.
- Avoid clearing your throat continually.
- Use the diaphragm muscle to generate proper air flow.
- Don't speak in a range that's uncomfortable.
- Keep your environment humidified.

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