

Overcoming the Clarinet Undertone: suggestions for students and teachers

What is a clarinet undertone? An undertone can be described as nondescript, sometimes "humming" sound, with no distinct pitch. Some refer to the undertone as a "grunt." In developing players, an undertone may appear when the register key is pressed to shift into the middle (clarion) register. Undertones may also occur when students approach the altissimo (notes above high C on the staff).

Here are some issues that can cause an undertone in developing players:

1. Slow airspeed

Slow airspeed is the primary cause of an undertone from low register (chalumeau) to middle register (clarion) in developing players. Playing clarinet successfully requires fast enough air to create resistance.

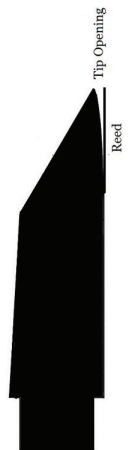
2. Reeds

A reed that is too soft without sufficient heart will almost always contribute to an undertone. Soft reeds are usually easy to blow and wear out very quickly. When this happens, an undertone will almost always appear.

Recently, a student with whom I had been working discovered that her airspeed was too slow for upper register playing. After working to correct the slow airspeed, we increased the reed strength slightly by one-half. This increase made her speed up the air enough to produce the high register notes. An increase in reed strength may not be necessary, but a reed that is not too soft or worn out is!

Consider these variables when choosing mouthpieces and reeds: 1) student age and playing experience and 2) student practice time. Equipment needs will most likely change as the student progresses. Match good quality, medium strength reeds to an appropriate mouthpiece for the individual's needs.

Most mouthpiece manufacturers recommend a reed strength appropriate for the tip opening of the mouthpiece. An open tip mouthpiece has a large distance between the mouthpiece surface and the reed. Open tip mouthpieces work best with soft reeds. An open setup may produce a sound quickly in the low register where the clarinet is most responsive, but may lack the necessary resistance to play in the middle register and beyond. Closed tip mouthpieces are opposite. There is a small distance between the mouthpiece surface and reed, requiring a stronger reed. Ignoring reed strength recommendations will change the intended sound and response of a quality mouthpiece and may contribute to an undertone.



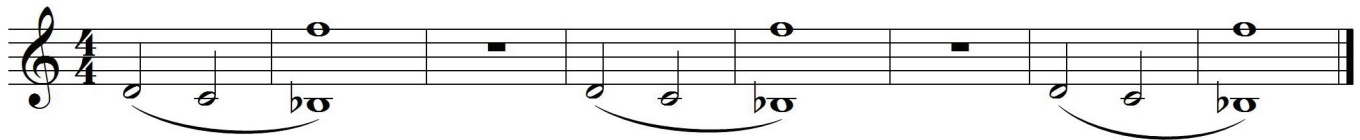
3. Improper voicing (where the tongue is too low) will cause an undertone.

Howard Klug, author of *The Clarinet Doctor* states "If notes were food, push them forward and high in the mouth." (p. 68).

One of my developing students encountered undertones as she approached highest C# and D for the first time. I asked the student to push the tongue forward – as close to the tip of the reed as possible – in an "E" position. After a few tries, the notes began to speak. She described the adjustment this way: "...I lifted my tongue and pushed it closer to the reed."

It is unfortunate that we cannot see inside the oral cavity to determine the actual position of the tongue when playing clarinet. What we do know is that vowel sounds greatly affect sound of the voice when singing and speaking. In *The Singing Book* by Dayme and Vaughn, the authors confirm that the “tongue...carries a large part of the responsibility for the production of vowels” (p. 291). The vowel sound “E” as in “beet”, creates a high and forward position of the tongue (p. 296).

Check for an undertone as soon as the lowest Bb is vibrant and focused, approximately at the sixth week of instruction. Have the student play the low Bb while you touch the register key. The higher sound may startle the player because it sounds “different” and the student may stop playing immediately. Be prepared to repeat this exercise until the student understands what is happening. If the top F sounds immediately when you press the register key, most likely everything is working properly. The next step would be to have the student articulate – consecutive tongued notes on the low Bb – that also speak at the 12th (F).



If F does not speak:

- Tell student to increase air speed.
- Check for a firm embouchure grip – top teeth on the mouthpiece and corners squeezed in.
- Check to see there is sufficient mouthpiece inside the mouth.
- Check reed condition and strength.
- Ask student to move the bottom lip down on the reed to allow more vibrating surface inside the mouth.

Bass clarinetists may also encounter undertones around G3. Playing bass clarinet exclusively (for a developing player) may encourage a “too-large” embouchure, where the jaw and tongue position drop too much. Combine a low tongue position with slow airspeed and you almost always hear an undertone. Have your bass clarinetists practice on Bb clarinet to remind them of the smaller embouchure, high tongue position, and firm grip needed to produce the full range of the instrument.

4. Undertones can appear when articulating.

Articulation can compromise the fast, steady air needed to avoid the tiny undertone that sometimes appears as the note starts. These “bumps” appear in the middle registers, especially around G3 to C3. When students are producing a fast, steady airstream, the tongue will have a better chance to stay close to the reed, in a consistent place, near the tip of the reed. Professor Klug says: “The under (sound) problem in articulated passages is driven by an inability to isolate the tonguing to the front part of the tongue only.” – *The Clarinet Doctor* (p. 68)

Larry Guy’s new book, *Articulation Development for Clarinetists*, is a complete examination of all things related to clarinet articulation. Larry has expertly organized and synthesized a wealth of information from great master teachers in a useful, understandable format complete with exercises and practice examples on CD (included). One of the many gems from this book is a section on the undertone. Here is a very brief excerpt:

“Assuming the reed has enough strength in its heart section, the undertone occurs when at least one of three things are happening...1)...not enough reed in the mouth...2) ...not sufficient lip pressure around the mouthpiece...3) the middle of the tongue is...too low” – *Articulation Development for Clarinetists* (p. 21). Larry’s suggestion – not enough reed in the mouth – is confirmed by Dr. David

Etheridge, in a YouTube video. Dr. Etheridge states “move the bottom lip down on the reed” to allow more reed surface to vibrate.

Repeated patterns are a good place to start for defeating articulated undertones. Work for consistent motion and placement on the reed. Vary tempo and dynamics, and expand the range to address problem notes.

1. Find your fastest tonguing speed by playing the 5-note bursts first. Use a metronome.

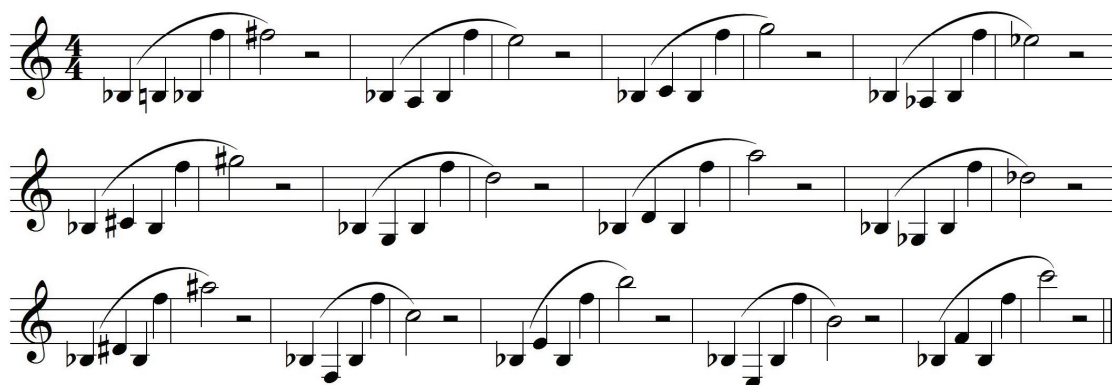


2. Then try for the same speed with fingers. Start with short segments first.



Exercises for defeating undertones

- Everything “grows” from the bottom. Fast air. Tongue high and forward.
- Put a very slight crescendo on the third note (Bb) of each group – just before the shift – to minimize the acoustical “delay” when the air column changes. The top note should not be louder than the bottom note.
- If an undertone appears, adjust the bottom lip down slightly on the reed to put more vibrating surface inside your mouth. Embouchure corners should push inward.



There are many ways to teach the altissimo register. This approach is not the easiest for fingerings, but it may encourage a more consistent tone – low to high. The interval leap occurs between chalumeau and clarion rather than clarion and altissimo.

- Build your range one note at a time. Go in order. Do not skip notes.
- Use a forward tongue position (close to the reed) and fast air.
- Keep the air moving, fast enough to make the instrument respond properly.
- If the highest notes don’t speak, adjust the bottom lip down slightly on the reed to put more vibrating surface inside your mouth.
- Delay articulation practice until notes are secure with proper airspeed and voicing.



References

Klug, Howard (1997). *Oral Cavity Adjustments – Things to Suggest to Students. The Clarinet Doctor*, p. 65.

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Etheridge, David (2009). *David Etheridge Gives a Lesson on Eliminating Undertones. YouTube (video).*



Paula Corley is known for her expertise in teaching clarinetists of all ages. Her research and extensive experience in secondary schools lead to the publishing two books for the developing clarinetist – **So You Want To Play The Clarinet** (a complete first year method) and **Daily Workouts** (exercises for the pre-college clarinetist). Currently she is the applied clarinet professor at Texas Lutheran University and is featured on www.playwind.com, an educational video “app” for students and teachers published by Buffet Crampon. Paula is an artist for Buffet Crampon and for Vandoren. For information on her books, free videos and materials, and to hear her recordings, please visit www.clarinetcity.com.