

Developing and Strengthening the Upper Register Some tips from Dan Cherry, Western Carolina University

How can I play that *high note*? This is one of the brass player's favorite questions, and the pursuit of a strong and reliable upper register is a continuous journey for most of us. It is easy to find several differing (and sometimes contradictory) suggestions about how to achieve those "high notes;" I believe this is an indication that different things work for different players. That being said, there are a few universal truths to consider:

- Notes in the upper register require a balance of work between the air and the embouchure.
- Physical relaxation and confidence are both great aids to developing a secure upper register.
- The only way to get better at playing high notes is to play high notes! However, your upper register can be enhanced (in several ways) by counterbalancing with work in the low register.

Air/blowing in the upper register:

There is some debate as to whether greater air *speed* or air *pressure* (**not** mouthpiece pressure!) is required for higher notes. Both can work to some degree, but I believe that you'll have greater success and a better tone in the upper register if you can blow *faster* without forcing the airstream by blowing *harder*.

Embouchure in the upper register:

The embouchure muscles all around the aperture will be firmer in the upper register; this will reduce the size of the opening and help to speed up the air, causing your lips to vibrate at a higher frequency. It is important that your corners remain strong and stable, not pulled back in a severe smile or frown – you may have to focus your embouchure energy/work towards to center of your lips, like a pucker. It is also important that you let your aperture be the point of constriction, not your throat or oral cavity (although there is some debate over the use of tongue placement/vowel shapes as an aid).

Exercises:

Breathing/blowing: It is important to breathe in (always!) with an open, relaxed throat and mouth shape. Maintain the open throat and oral cavity when blowing. The tongue can be used to help direct and speed the air towards the smaller aperture by thinking "EE" and creating an arch towards the front of the tongue. Do not overblow and force the air with extreme pressure, as this can actually spread the aperture open and defeat the entire purpose of the muscles working in your embouchure.

Buzzing: On your mouthpiece, stretch your buzzing range up gradually using the exercises in my Low Brass Warm-up. Try using a mouthpiece visualizer and mirror to check both the size/shape of your aperture and the stability of your corners. You should expect that you will not be able to buzz as high as you can play; as you improve your mouthpiece buzzing range, your actual playing range should stay ahead of the pace.

Trombones - Glisses: Work your way up from partials 4-12 (or as high as possible). Gliss from 6th position up to 1st position quickly with a pronounced crescendo and “OH” → “EE” vowel shape. Repeat the gliss on the same partial slowly, keeping the open “OH” shape as far up as possible. For partials 7 and 11, gliss from a sharp 7th position to a sharp 2nd position.

***Euphoniums:** Try the same concept as above using chromatic slurs, all within the same partial. Either leave out partials 7 and 11 or allow them to be flat (your choice).

Lip Slurs: By definition, quality lip slurs require us to use great airflow and an efficient embouchure in balance – this is exactly what is required to play high notes! There are many possible slur patterns that can be extended into the upper register. It is helpful (and more challenging!) to start in the low register, extending the big, warm quality of sound as high as possible. Check my handout on lip slurs for some ideas.

Vining Routines: Every one of David Vining’s *Daily Routines* includes a high register exercise – check these out! They are challenging, well-designed and incorporate low register passages to help keep the tone open and let the embouchure muscles recover.

Arban Book: Security and accuracy in the upper register are developed through flexibility. The interval studies found on pages 139-148 of the Arban book are great exercises for this aspect of performance. I suggest playing the exercises with the written repeats, slurring everything the first time and tonguing on the repeat.

Melodies in the Upper Register: Remember, the only way to get better at playing high notes is to play high notes! The melodies in Fink’s *Legato Studies* and the Bordogni/Rochut *Melodious Etudes Book 1* can be turned into upper register workouts by performing them higher than written; try playing them in tenor clef, alto clef, and up one octave while maintaining beauty of tone, musical expression, and a smooth legato technique.

Low Register: I strongly recommend alternating your upper register exercises with work in the low register. Playing low notes helps to reestablish good breathing habits and a characteristic low brass tone quality (warm, open and dark). They also help to get the blood flowing back into the lips if you’ve been using too much mouthpiece pressure!

Good Resources for Upper Register Development:

Scott Nelson, *Breathing for Musicians*, Reinhardt & Still Publishers

Reginald Fink, *The Trombonist’s Handbook*, Accura Music - Chapter 20, pp. 97-102

Buddy Baker, *Tenor Trombone Method*, Warner Bros. Publications – pg. 90 #7

John Griffiths, *Low Brass Guide*, E. Williams Music – chapter 8, pp. 59-64

Edward Kleinhammer, *The Art of Trombone Playing*, Summy-Birchard Inc. – chapter 7, pp. 45-48

Edward Kleinhammer/Doug Yeo, *Mastering the Trombone*, Edition Piccolo – chapter 5, pp. 28-30

David Vining, *Daily Routines for Trombone*, Kagarice Brass Editions