



# Improving the Sound and Efficiency of High Register Brass Playing

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Playing in the high register can be an intimidating and frustrating experience for many brass players. Often it seems students are looking for a trick or “secret” to achieve a better high range. Most of the time, though, a more secure, better sounding high register comes from using proper technique and through repeated daily practice in that range. Don’t shy away from the high register just because it doesn't sound as good; the only way it will get better is to work on it!

While there aren’t any real “secrets” to sounding better in the high register, there are definitely some strategies in each of the different fundamental areas of brass playing that are very important. Keeping tabs on these items can help your high register become more successful, more consistent and sounding better. That last point, “sounding better”, is really the most important. The ultimate goal is not just to play higher, but also to have the upper register sound as beautiful as the rest of our range. The following items are strategies and suggestions we have used both in our own playing and with our students to work towards this goal.

## I. Playing in the high register

- A. Make everything work together, not against each other!
- B. Range Goals
- C. Range affected by technique
- D. Difficulties

### So, how do we do it?

A higher pitch needs a faster vibration (buzz), faster air makes lips vibrate faster. So, how do we create a faster air stream? There are lots of ways, but what gives the best result? This fast air stream should be created from a balance of proper air setup/support behind the teeth along with the correct setup/support in front of the teeth.

## II. Everything Behind the Teeth

- A. Quality air intake
- B. Firm support for the air
- C. Role of the oral cavity and tongue

### Applicable Breathing Exercises:

In for 8, out for 8, in for 4, out for 8, in for 2, out for 8, in for 1, out for 8

Use a pinwheel

Imagine blowing a toy car up a long ramp with a slight incline

Blow a piece of paper off of your music stand

Stand next to a wall and keep a piece of paper stuck to the wall with your air stream

### III. Everything in Front of the Teeth

- A. Air gets funneled through the aperture
- B. The smaller the aperture, the faster the air stream
- C. Don't stretch or smile with the aperture/embouchure
- D. Keep the aperture round
- E. Aperture smaller = more air support needed, and more embouchure strength needed
- F. Soft practice, not too much mouthpiece pressure

#### Applicable Exercises:

Lip-slurs, up and down the partials in each fingering combination or slide position and keep a constant buzz!

Play a high note in a "lower" fingering or slide position and work up chromatically:

Play an F in 6<sup>th</sup> position or corresponding fingering, gliss/slur up to a high, G, A-flat, A or B-flat

Play a high B-flat in 5<sup>th</sup> position or corresponding fingering, gliss/slur up to high D

### IV. Developing Strength/Efficiency and Use Your Ears!

This is really the most important area of brass playing in general, but also an area that seems to disappear more often in the high register. Make sure you know what you want to sound like (tone, pitch, melody) before you pick up the horn to play. Listen to good players that you admire. Have their sound in your head. Listen to the piece that you are working on. Know the melody inside and out. One of the biggest mistakes that we hear students make is that they try to play purely by feel in the high register. Many of the previous suggestions are centered around the physical aspects of playing brass instruments. These are ok to isolate and work on in the practice room. But when you sort these out and are ready to perform, hopefully you are just hearing the music in your head and trying to "sing" through the horn!

- A. Develop embouchure and breathing fitness
- B. Incremental with focus on sound
- C. Getting response at soft dynamics
- D. Reduce tension and excess effort
- E. Develop the sound concept of what you're trying to play (listen!)
- F. Imitate greatness
- G. Pay attention to the tone quality, pitch center and intonation
- H. When things aren't right, observe the physical for possible causes
- I. Don't try to change bad habits; work to form good habits

#### Applicable Exercises:

Take etudes you are working on and play them in different keys, clefs, octaves

Or take easy, simple tunes and play them in the high register. Sometimes the notes come out better and easier when you don't know how high you are playing!

Try "Twinkle, Twinkle, Little Star" in all keys and see how high you can go!

If you bend the pitch down and then back up, it can help find the sweet spot of the note. This helps make a more efficient and resonant sound. Ultimately, great brass players know how this "sweet spot" sounds and they go to it quickly and instinctively.

## **Summary:**

All of the above ideas are meant to be a springboard for working on the high range in a more thoughtful, deliberate and hopefully successful way. It can be a very frustrating thing to work on, especially when going at it alone in a practice room. Finding a great private teacher can be extremely helpful in not only reinforcing great habits, but also in having an outside set of ears to evaluate the results and provide suggestions for improvement. It is very important to pace yourself, though, as too much work in the extreme high range can cause excessive fatigue or even embouchure damage. Take breaks, monitor yourself and chip away a little every day! Ultimately, improvement in the high register comes over time through dedicated practice, but if you're approaching it the "right" way the progress will be quicker, and the results will be better!

Please feel free to contact us, or have your students contact us with any brass playing questions. We enjoy working with students and are always willing to give whatever help we can. Best of luck!

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# Aequale

First 16 bars in original voicing

A. Bruckner

Musical score for the first 16 bars of 'Aequale' in original voicing. The score is in 4/4 time and features three staves: Trumpet in B $\flat$ , Horn in F, and Trombone. The first system (bars 1-8) is marked *mf*. The second system (bars 9-16) is marked *f*. The key signature has two flats (B $\flat$  major or D $\flat$  minor).

# Aequale

Trombone in high range

A. Bruckner

Musical score for the first 16 bars of 'Aequale' with Trombone in high range. The score is in 4/4 time and features four staves: Trumpet in B $\flat$ , Horn in F, Trombone, and B $\flat$  Tpt. The first system (bars 1-8) is marked *mf*. The second system (bars 9-16) is marked *f*. The key signature has two flats (B $\flat$  major or D $\flat$  minor).

# Aequale

Horn in high range

A. Bruckner

Trumpet in B $\flat$   
Horn in F  
Trombone

*mf*

This system contains the first three staves of the score. The top staff is for Trumpet in B $\flat$ , the middle for Horn in F, and the bottom for Trombone. All three parts begin with a dynamic marking of *mf*. The music is in 4/4 time and features a series of notes with slurs and accents.

B $\flat$  Tpt.  
Hn.  
Tbn.

*f*

This system contains the next three staves. The top staff is for B $\flat$  Tpt., the middle for Hn., and the bottom for Tbn. The dynamic marking changes to *f* for all parts. The music continues with similar notation and dynamics.

# Aequale

Trumpet in high range

A. Bruckner

Trumpet in B $\flat$   
Horn in F  
Trombone

*mf*

This system contains the first three staves of the second system. The top staff is for Trumpet in B $\flat$ , the middle for Horn in F, and the bottom for Trombone. All three parts begin with a dynamic marking of *mf*.

B $\flat$  Tpt.  
Hn.  
Tbn.

*f*

This system contains the next three staves. The top staff is for B $\flat$  Tpt., the middle for Hn., and the bottom for Tbn. The dynamic marking changes to *f* for all parts.

Resources:

### General Resources

Caruso, Carmine, *Musical Calisthenics for Brass*. An influential book by a great teacher, it focuses on stabilizing and strengthening the embouchure in an isometric way by taking the student through exercises that progressively go up or down, while requiring four rules: 1) tap foot in rhythm, 2) keep mouthpiece in contact with lips and engaged while breathing, 3) steady, continuous air, and, 4) breathe only through the nose.

Sam Pilafian and Patrick Sheridan, *The Breathing Gym* (Book with DVD video). Many elements available on YouTube. These exercises are very athletic and engaging.

### Trumpet

#### Books:

Campos, Frank Gabriel, *Trumpet Technique*. This comprehensive book is helpful to all brass musicians, and it provides a wealth of great advice on breathing (largely inspired by Arnold Jacobs) and embouchure (often quoting Philip Farkas)

**Strength-focused methods without much focus on efficiency and tone** (these methods can be helpful for developing range, but need to be tempered by the more-refined concepts of the books in the section that follows):

Adam, A. A. ("Sandy"), *Super Power Embouchure*. A method on building embouchure muscles off the trumpet by doing isometric exercises for lip-area muscles. Similar to these ideas is a product called the P.E.T.E. sold by Warburton; it is a piece of metal that one holds in the aperture area of the embouchure and allows off-trumpet embouchure muscle development.

Anderson, William A. ("Cat"), *Trumpet Method*. By Duke Ellington's famous lead player, this book features extremely-long long tones played whisper soft (e.g., 20 minutes per note).

Colin, Charles, *Breath Control, Range and Endurance, Developed Through Chromatic Technique*. Dr. Charles Colin's method combines chromatic scales with breath accents at key moments, which help to create better breath control in different parts of our register.

Colin, Allan, *Corners*. Allan, son of Dr. Charles Colin, emphasizes embouchure strength by maintaining embouchure setup in contact with the mouthpiece while breathing in between exercises ("nose breath"); there is some focus on the pedal register.

Frink, Laurie and John McNeil, *Flexus, Trumpet Calisthenics for the Modern Improvisor*. This book helps the trumpeter incorporate ideas on stamina and range while improvising.

Gordon, Claude, *A Systematic Approach to Daily Practice for Trumpet*. A very well-planned series of 52 weekly lessons that progressively address range (both high and low) and stamina while also demanding traditional technical progress.

Knevitt, Bill, *Developing 21<sup>st</sup> Century Range & Endurance on Trumpet*. Knevitt's book continues the ideas of Gordon, emphasizing long tones that must remain fluid.

## **Methods with focus on sound and efficiency while allowing for development of strength and stamina:**

- Bond, *The Singing Trumpet*. A new publication by recently-retired Met Opera trumpeter, Peter Bond. His transformation from a very physical Drum and Bugle Corps trumpeter to a refined classical player and renowned teacher provides the background to one of the most original and compelling methods that will help develop range with efficiency and tone. Notable is his connection of trumpet technique to operatic singing.
- Clarke, Herbert L., *Technical Studies for the Cornet*. This demands response at very soft dynamics while requiring technique and increasing range as one progresses; this is a book for life-long study.
- Daniel, John, *Special Studies for Trumpet*. Daniel's book focuses on different aspects of playing with a keen eye toward efficiency, fluidity, response and tone; a fantastic study book.
- Irons, Earl D. Irons, *Twenty-Seven Groups of Exercises for Cornet and Trumpet*. This book starts out with slow slur studies (getting faster and faster), but then starts incorporating long tones, timing drills, technical studies, and multiple-tonguing exercises; a classic.
- Mitchell, Harold, *Trumpet Method (4 vols.)*. A fantastic series of lessons to help an all-around student develop more range and stamina.
- Ponzo, Mark, *Embouchure Stabilization Patterns*. An innovative series of exercises that encourages embouchure development with an emphasis on buzzing, efficiency and response.
- Sachs, Michael, *Daily Fundamentals*. A now-class book that works on fundamentals while encouraging great tone, resonance and response.
- Shuebruk, *Lip Trainers*. A classic from the 1920s that gives solid advice on timing drills (for good response), continuity of phrasing, and development of high register.
- Smith, *Top Tones for the Trumpeter*. An excellent advanced etude book, which has a range-building series of exercises in the introductory material; these are a series of scales that require basic fundamental control, with the idea that the student adds a new, higher key when she has mastered the previous scales. Progress is slow, but with solid all-around ability developed alongside range.
- Stamp, James, *Warm-ups and Studies for Trumpet*. One of the greatest trumpet teachers of all time, Stamp's book helps the student resonate the trumpet in the sweet spot of the slot while connecting from one note to the next. It's recommended to have *Roy Popper's Commentaries on The Brasswind Methods of James Stamp* as a guide to understanding how to use Stamp's book.

## **Videos:**

- Curtis, Head and neck posture: using a mental model: <https://youtu.be/hdIJh8AaTrE> This video encourages some mental models to help relax the neck for better tone and efficiency when playing trumpet.

Morrison, Trumpet Tutorial; Part 3 Range: <https://youtu.be/ujrTDbnvDpU> This video from the fantastic James Morrison, who plays all the brass instruments very well, does a great job of explaining how the air helps us play high, low, loud and soft.

## Trombone

### Books:

Vining, David, *Rangesongs*:

<https://www.mountainpeakmusic.com/rangesongs-for-tenor-trombone/>

Bolter, Norman, *High Range Exercises for Trombone*

Edwards, Brad, *Lip Slurs and Lip Slur Melodies*

<https://www.trombonezone.org/books/lis-lsm/>

Murphy-Veldkamp, *24 High Note Range Studies*

<https://qpress.ca/product/veldkamp-24-high-range-studies-trombone-spud-murphy/>

### Videos:

Developing High Range on the Trombone, by Austin

Westjohn: <https://www.youtube.com/watch?v=JkvOQB8ohD0>

Technique or Muscle? Rangebuilding Part 1 of 2, by Norman

Bolter: <https://www.youtube.com/watch?v=P-aceUul7h4>

Technique or Muscle? Rangebuilding Part 2 of 2, by Norman

Bolter: <https://www.youtube.com/watch?v=LVNT7JdRnyg>

## Horn

### Books:

Farkas, Philip, *The Art of French Horn Playing*. This text is frequently referred to as the horn player's bible. And while there is some fantastic advice in this book, be careful to not take some of the pictures too literally!

\_\_\_\_\_, *The Art of Brass Playing*

Hornsociety.org: website of the International Horn Society; includes articles from 40+ years for the journal of the IHS, the Horn Call

Hornmatters.com: website created and maintained by John Ericson, the horn professor at Arizona State University; includes countless entries related to almost any and every topic for horn playing

Martin Hackleman, *21 Characteristic Etudes for High Horn Playing*, who transcribed clarinet etudes by Rose. The focus of these etudes is not so much on high playing, but rather on lyrical playing that extends into the high register. This is a masterful way of building the high range.

The Art of French Horn Playing by Phillip Farkas.



**Videos:**

FrankLloydHorn on YouTube. Frank Lloyd has been one of the preeminent horn soloists of the last several decades. His channel on YouTube provides several videos discussing various aspects of horn playing, including high playing.

Haley Hoops, <https://www.youtube.com/watch?v=Ng1zEgD7DA8> Brief tutorial on high horn playing by Haley Hoops, horn player in the Dallas Symphony Orchestra

**Tuba****Beginner Books:**

Getchell/Hovey, *First Book of Practical Studies*, Belwin

Gower/Voxman, *Elementary & Intermediate Methods*, Rubank/Hal Leonard

**Intermediate Books:**

Getchell/Hovey, *Second Book of Practical Studies*, Belwin

Gower/Voxman, *Advanced Method Vol. 1*, Rubank/Hal Leonard

**Advanced Books:**

Arban, *Complete Method for Tuba*, Encore

Bai Lin, *Lip Flexibilities*, Carl Fischer

Fink, *Studies in Legato*, Carl Fischer

Gower/Voxman, *Advanced Method Vol. 1 & 2*, Rubank/Hal Leonard