

# Ways to Improve the Sound of your Saxophone Section!

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What is Involved in “sound”?

- Equipment (reed, mouthpiece, instrument)
- Embouchure
- Airstream
- Oral cavity position (tone production, intonation, control)
- Articulation

Equipment:

- Neck straps:
  - Avoid the stretchy ones! Harnesses should be encouraged
  - For advanced saxophonists who aren't restricted financially, here's [a list of ergonomic neckstraps](#).
- Reeds:
  - 2.5 for beginner, move up to 3-strength sooner rather than later!
  - After 6-12 months of study, students should move up in reed strength on most mouthpieces.
  - Resistance matters for intonation and embouchure musculature.
  - Too hard: sharp intonation, causes biting, overuse of embouchure muscles.
  - Too soft: Flat intonation, promotes poor embouchure and lack of air support.
  - [Here's a video about reed resistance](#).
- Mouthpieces:
  - Stock mouthpiece is fine at first, but within 1-2 years, students should upgrade. A professional mouthpiece is an excellent investment and vastly improves tone and control.
  - Use a mouthpiece patch, thinner clear ones last longer. Layer for uneven top front teeth.
  - Recommended:
    - Vandoren AP3, AL3, AL5
    - Selmer Concept, S90 180
    - Rousseau Classical Series
    - D'Addario 155

- Ligatures:
  - Leather or cloth dulls/darkens, but is durable. Might be best for beginners
  - Metal is more fluid/resonant, but less durable. Better for intermediate and advanced players.
  - Recommended:
    - Vandoren Optimum and m/o (metal)
    - D'Addario (metal)
    - BG (leather or metal)
    - Rovner (leather)
    - Bambú (fiber)
    - Silverstein (metal and fiber)
    - Ishimori (metal)
- Instruments:
  - In most cases, I recommend skipping from student model to professional model.
  - Intermediate models can be good for secondary instruments.
  - Reliable brands to stick with: Selmer, Yanagisawa, Yamaha.

#### Maintenance:

- Instrument:
  - Swab instrument out after EVERY use, no matter how long, with a silk or microfiber swab
  - Recommended:
    - Hodge silk swab
    - BG microfiber
- Reed:
  - Break reeds in. Here are a few videos:
    - [Robert Young](#), Prof. of Saxophone at UNCSA
    - [Vandoren](#)
    - [Stephen Page](#), Prof. of Saxophone at UT-Austin
    - [Noa Even](#), Instagram Reel
  - Reed adjustment:
    - This is particularly for advanced students and educators who want to salvage student reeds.
    - [Here's a helpful video](#)
    - [Here's a video on flattening warped reeds](#)
  - Reed maintenance:

- Store reeds in a humid environment. This can be a double ziplock bag, Tupperware, or some other airtight container
- D’Addario and other snap cases are NOT airtight. Store them in a bag or additional container
- Boveda humidity packs are recommended
- [Here’s a video with tips.](#)
- Use a mouthpiece cap when not playing – this protects the reeds and keeps it damp

DO NOT:

- Use one of those fuzzy sticks inside of the instrument
- Use a yellow felt swab – these get stuck and don’t clean well

Embouchure:

DO:

- Whistling face, form “ooh” shape with lips
- Firm outer muscles, pucker – equal pressure all around, like drawstring
- Corners IN, chin FLAT
- Lower lip is a cushion, firm and squishy
- Top teeth placed approx. ½ - ¼ inch from tip of mouthpiece (where reed meets the mouthpiece)
- Natural overbite, as if blowing down slightly
- Distance between top and bottom teeth is just enough for mouthpiece and lip

DON’Ts:

- Bunch chin
- Puff cheeks
- Leak air from corners
- Take in too little or too much mouthpiece
- Lower jaw too much (too much space between top and bottom teeth)
- Pull corners back
- Float top teeth
- Curl top lip under top teeth – double-lip embouchure

Airstream:

Breathing:

- Diaphragmatic breaths, open airways when breathing.
- “how” is a good syllable to use, or backwards yawn to encourage silent breath

- Expand fully like a balloon, low and all around
- Fill from the bottom up, NO rising shoulders
- One helpful exercise is to have students lay down and take deep breaths with a hand on their belly. They will be able to feel if their shoulders move up against the ground.

#### Air support:

- Cold, focused, direct, and constant
- Fast air = loud, slow air = quiet
- Core muscles should always be engaged
- [Breath builder](#) can help
- [Here's a video that can help](#)

#### Oral Cavity:

- This often goes unintroduced until college – please address this!
- The instrument BEGINS with the oral cavity – it is part of the instrument.
- Understanding voicing is the key to intonation, sound, control, and playing in the altissimo register
- Voicing=adjustments of vocal cord position and tongue position
- My go-to, neutral position:
  - “Eee” position – this arches tongue so that the sides of tongue touch the top molars, brings tip of tongue down by bottom teeth.
  - “-ing” position – arches tongue behind the teeth by the uvula
  - Keep muscles relaxed
- Voicing is not fixed! It is always changing based on desired intonation, tone, register of note being played, and range of interval
- Exercises:
  - Mouthpiece pitch (concert A or Bb on alto) matching and bends
  - Overtone exercises
  - F-trick
- Don't overdo these daily – no more than 15-20 minutes with breaks.
- These exercises could start as early as middle school
- Method books with exercises:
  - [Donald Sinta's Voicing](#)
  - [Eugene Rousseau's Saxophone High Tones](#)
  - [Rosemary Lang's Beginning Studies in the Altissimo Register](#)
  - [Sigurd Rascher's Top Tones for the Saxophone](#)
- Videos with exercises:
  - [Voicing Basics – Robert Young](#)

- [Intonation: Part 1 - Robert Young](#)

Articulation:

- Watch my videos on the Vandoren YouTube channel:
  - [Part 1: Mechanics of tonguing, legato, initial onset](#)
  - [Part 2: Staccato](#)
- Exercises from my handbook – these are also introduced in the videos linked above:

## FUNDAMENTALS

### NECK EXERCISES

Warming up on the neck of your saxophone is a fabulous way to work on fundamentals without any of the distractions that come with playing your full instrument. The short length of this abbreviated saxophone allows you to place some of your most basic issues under a microscope – you'll hear things differently, and often more clearly. With this acute aural feedback, you can also fix problems with greater efficiency. **As you work with the neck, be mindful of the angle at which you are holding it – the wrong angle can cause new problems!**

#### 1.) Long tones:

- a.) Take as full a breath as you can, begin a long tone with an air attack, and sustain a full *mf-f* concert G#\*. The goal is to focus on air support, warm up the embouchure muscles, and improve/maintain tone quality.
  - Be aware of how your embouchure, oral cavity position, and air support **work together** to produce your sound. Make adjustments to each component as needed. Notice and release any tension throughout your body.
  - After 2-3 minutes of long tones, take a 2-3 minute break.
  - Do another set of long tones, bending the pitch downward slowly and then back up. This will warm up the various muscles in your oral cavity and help you discover how to better use your oral cavity.
  - The kind of sound you are striving for with this exercise is up to you! Whether you are going for a certain vocal sound, flute-like

approach, or something entirely different, these long tones are intended as an exploratory warm-up for your ears as well.

\*On the alto, this will be a G#.

b.) Use gravity to help you establish a better oral cavity position by doing the above exercise while bent over at approximately a 90-degree angle. This position should move your tongue forward and open up your oral cavity in a certain way. Try to let gravity do the work and make adjustments as needed. Gradually stand up while holding a long tone and try to maintain the position you achieved.

- Be careful not to get into or out of that position too quickly, or you might become light-headed!

c.) Set your metronome to 60 bpm; air attack one quarter note, rest one quarter note, air attack one quarter note, rest one quarter note, etc.

- These tones should be full, strong, round, and sustained all the way through to the next rest – a block of sound, just like your long tones. Fill up with air initially and then only breathe when you need to, not in between each tone.
- Your goal is to control your intonation and tone at the points of attack so that there is no accidental splattness or pitch scooping. This requires you to anticipate your oral cavity position and have your embouchure set before you play.
- If you are struggling with control, consider playing your notes for two beats and taking two beats to reset. Or, adjust the exercise in some other way so you have more time to process your actions and still listen carefully to your own sound.

## 2.) Articulation:

The mechanics: Be sure to bring your tongue to the **\*very\*** tip of the reed, thinking of tapping just one taste bud about ¼-½ of an inch back from the tip of your tongue in a valve-like motion. Only the front part of your tongue should move. Flex or stiffen at least the front portion of the tongue so you have more control over it.

a.) Starting at 60 bpm, play continuous legato quarter notes.

- If there is a buzzing sound each time you tap the reed, you are likely hitting the surface of the reed rather than just the tip. If the pitch fluctuates or bends, you are likely moving too much of the

back of the tongue or changing your oral cavity position in some other way. Make corrections as you go.

- Your air should always be focused, supported, and flowing forward as you lightly tap the tip of the reed with your tongue. Keep the front of the tongue close to the reed. Listen, evaluate, and make adjustments.
- Think of "dee" or "doo" as the syllable you are using.
- Experiment with different tempi.

b.) Play the same rhythm as 1b (above): begin with an air attack on the initial note, release the note by bringing the tongue forward to the reed to stop its vibration, release the tongue from the reed to play the next quarter note, etc.

During rests, you should continue pushing your air forward as though you are holding one long tone throughout. It is your tongue resting on the reed that creates rests, not your airstream stopping. That is the difference between 1b and this exercise. **This is slow-motion compression tonguing** (or, tongue-stop staccato). Maintain a good, full *mf-f* sound. Experiment with different tempi.

- This exercise reinforces proper mechanics when playing fast staccato.
- Be sure to bring your tongue to the very tip of the reed, thinking of touching just one taste bud to the reed.
- Do not close the entire tip opening of the mouthpiece with your tongue when you release each quarter note. Some air *should* flow into the mouthpiece during rests, as long as you are continuing to push your air as though you are holding one long tone.
- An analogy: Releasing water from a water hose nozzle by squeezing the nozzle handle is like removing your tongue from the reed to allow the reed to vibrate freely. Closing the nozzle by releasing the handle to stop the water from escaping is like placing your tongue back on the reed to compress your air flow. The water is still pressurized behind the nozzle and ready to go, just as your air should be compressed and ready to go behind your tongue.
- Think of "deed" or "deet" as the syllable you are using.
- Experiment with different tempi.

c.) Keeping your metronome at 60 bpm, play one quarter note followed by one note as short as possible with a tongue release on the next beat. Keep the air

compressed behind the tongue until the next beat and play the pattern again. Add another short note so it's long-short-short, then long-short-short-short, until you have four short notes following the quarter note. The short notes should always start on beat 2 of the pattern.

- This should feel similar to 2b: your air should continue moving forward and the tongue is doing the work of creating separation between the short notes. The quarter note should move right into the compressed notes; so, do not separate the long note from the short ones.
- This exercise is intended to increase your compression tonguing speed.
- Be aware of your tone and pitch throughout.
- If you need more time between repetitions, rest for an extra beat each time.
- Experiment in this manner with different rhythmic patterns and tempi.

d.) Set your metronome to 104 or 108 bpm and play quarter-note, four 16<sup>th</sup> notes, quarter-note, four 16<sup>th</sup> notes, etc. Play the 16<sup>ths</sup> as short and evenly as possible, stopping each 16<sup>th</sup> with a tongue-stop. Work your way gradually up to 152, but not all in one day! It may take several weeks—or months—to arrive at that tempo. See 4d below for notated rhythm.

- Maintain good tone and intonation
- A helpful syllable pattern is: "deeeeee-deet-deet-deet-deet-deeeeee," etc., or replace the "ee" with "oo."

e.) "Air dart" staccato is used when notes require separation at slower tempi. Set your metronome to 60 bpm, play even staccato 8<sup>th</sup> notes **without tonguing** by shooting spurts of air from your abdomen. Create space between notes by changing the length of your airstream. The shorter the spurt of air, the shorter your note will be.

- Support your sound as though you are holding a long tone at *mf-f*. Think of creating a linear phrase with your 8<sup>th</sup> notes. Think forward and up, not down and heavy.
- Experiment with different tempi and rhythmic patterns. Quarter, two 8ths, quarter, two 8ths would be particularly helpful.
- Once you are comfortable without the tongue, re-incorporate the tongue so that you are lightly articulating each note. However, **DO NOT** release the notes with your tongue.



- f.) Fizzle tonguing will show you just how lightly you can (and should!) touch the tip of the reed when you articulate. Begin playing a supported long tone, place just one taste bud about ¼ inch back from the tip of your tongue on the very tip of the reed and try to keep it there while. The vibration of the reed should cause the tongue to bounce lightly producing a delicate morse code-like articulation pattern.
- Do not close tip opening of mouthpiece with your tongue.
  - If there is a buzzing sound each time you tap the reed, you are likely hitting the surface of the reed rather than just the tip. If the pitch fluctuates or bends, you are likely moving too much of the back of the tongue or changing your oral cavity position in some other way. Make corrections as you go.

## FULL SAXOPHONE EXERCISES

### 3.) Long tones:

- a.) Take as full a breath as you can, begin a long tone with an air attack on middle F – match the tone you established on the neck. Work your way down the chromatic scale, or some other step-wise pattern, to the lowest note in that pattern. Then, go back to your mid-range starting note and move up to the highest note in your pattern.
- Be aware of how your embouchure, oral cavity position, and air support **work together** to produce your sound. Make adjustments to each component as needed. Notice and release any tension throughout your body. Take breaks as needed.
  - Always listen to yourself, keep the air supported, and make adjustments. This is your chance to get to know how your instrument responds, how you can control your own sound, etc.
  - When you are ready, re-incorporate the tongue to start each note.
- b.) Set your metronome to 60 bpm; starting on a mid-range note, air attack one quarter note, rest one quarter note, air attack one quarter note, rest one quarter note, etc. Work your way up and down the range of the instrument.
- These tones should be full, strong, round, and sustained all the way

through to the next rest – a block of sound, just like your long tones. Fill up with air initially and then only breathe when you need to, not in between each tone.

- Your goal is to control your intonation and tone at the points of attack so that there is no accidental splattness or pitch scooping. This requires you to anticipate your oral cavity position and have your embouchure set before you play.
- If you are struggling with control, consider playing your notes for two beats and taking two beats to reset. Or, adjust the exercise in some other way so you have more time to process your actions and still listen carefully to your own sound.
- When you are ready, re-incorporate the tongue to start each note.

#### 4.) Articulation:

a.) Starting at 60 bpm, play four legato quarter notes in the mid-range, move down a step in a scale of your choosing, repeat the pattern until you reach the lowest note in your key signature or pattern. Return to your starting note and move up the scale arriving at the highest note that fits your pattern in the normal range of the instrument.

- Your air should always be focused, supported, and flowing forward as you lightly tap the tip of the reed with your tongue. Keep the front of the tongue close to the reed. Listen, evaluate, and make adjustments.
- Pay attention to how your embouchure, oral cavity, and air support work together.
- Experiment with different tempi.

b.) Do the same thing as 2b (above): begin with an air attack on a mid-range note, release the note by bringing the tongue forward to the reed to stop its vibration, release the tongue from the reed to play the next quarter note, etc. Play each note four times and then move up or down a scale. Make sure to cover the whole range of the instrument.

- Be sure to bring your tongue to the very tip of the reed, thinking of touching just one taste bud to the reed. You want to use about  $\frac{1}{4}$  of an inch back from the tip of your tongue in a valve-like motion. Only the front part of your tongue should move. Flex or stiffen at least the front portion of the tongue so you have more control over it.

- Do not close the entire tip opening of the mouthpiece with your tongue when you release each quarter note. Some air *should* flow into the mouthpiece during rests, as long as you are continuing to push your air as though you are holding one long tone.
- Think of "deed" or "dood" as the syllable you are using.
- Experiment with different tempi.

- c.) Keeping your metronome at 60 bpm, choose a mid-range note and follow the instructions for 2c. Move up or down a scale making sure to cover the whole range of the instrument.
- Like 2c, this exercise is intended to increase your compression tonguing speed, but this time, throughout the entire range of the instrument.
  - Be aware of your tone and pitch throughout.
  - If you need more time between repetitions, rest for an extra beat each time.
  - Experiment in this manner with different rhythmic patterns and tempi.

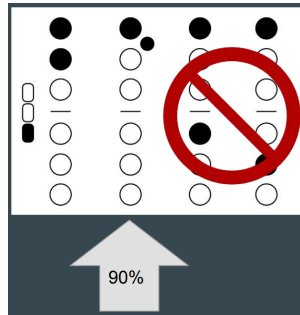
- d.) Set your metronome to 104 or 108 bpm and play the rhythm below (like 2d). Play the 16<sup>ths</sup> as short and evenly as possible, stopping each 16<sup>th</sup> with a tongue-stop. Work your way gradually up to 152, but not all in one day! It may take several weeks—or months—to arrive at that tempo. Rather than start on low C as indicated below, start on any mid-range note.
- Maintain good tone and intonation.
  - A helpful syllable pattern is: "deeeee-deed-deed-deed-deed-deeeee," etc., or replace the "ee" with "oo."

- e.) "Air dart" staccato: set your metronome to 60 bpm, play even staccato 8<sup>th</sup> notes **without tonguing** by shooting spurts of air from your abdomen. Create space between notes by changing the length of your airstream. Cover the entire range of your instrument using various scales and patterns.
- Support your sound as though you are holding a long tone at *mf-f*. Think of creating a linear phrase with your 8<sup>th</sup> notes. Think forward and up, not down and heavy.

- Experiment with different tempi and rhythmic patterns. Quarter, two 8ths, quarter, two 8ths would be particularly helpful.
- Once you are comfortable without the tongue, re-incorporate the tongue so that you are lightly articulating each note. However, **DO NOT** release the notes with your tongue.

Bb fingerings:

Take note:



Use the bis Bb fingering the most – teach scales with it. Side Bb is best to avoid sliding (F# major, B major scales, etc.)

Tuning:

- On Eb saxes, tune using lowest Concert A; on Bb saxes, tune using lowest concert A.
  - Lower notes are flatter; it's important not to tune flat.
- Once in tune, slur up to octave, tune with voicing, then return to lower note.
- Make sure not to be flat on lowest tuning note
- Blend and balance with sounding pitch, adjust mouthpiece for your BEST sound.
- Once tuning note is in tune, play open 4ths and 5ths to get a sense of other notes.
- Although tuning to a needle can be quick, spend some time tuning to a sounding pitch so students learn how to hear intonation.

SUMMARY:

- Introducing fundamentals properly and reinforcing regularly goes a long way!
- Have students practice FULL RANGE scales starting in middle school helps a ton!
- Biggest issues I see when students get to college:
  - NO understanding of oral cavity

- POOR tonguing mechanics
- NO understanding of intonation tendencies
- BAD posture
- NO reed care
- INCORRECT reed strength

Additional Pedagogical Resources:

- Books:
  - Dan Graser – *The saxophone manual*
  - Debra Richtmeyer – *The Richtmeyer Method, Vol. I & II*
  - Jean-Marie Londeix – *Hello, Mr. Sax!*
  - Eugene Rousseau – *Saxophone Artistry in Performance & Pedagogy*
  - Larry Teal – *The Art of Saxophone Playing*
  - Mark Watkins – *From the Inside Out: An In-depth Resource for the Development of Saxophone Sound*
  - Vanessa Cornett – *The Mindful Musician*
- Online:
  - [Saxophone Studio Class Online](#)
  - [Sean Hurlburt Music](#)
  - [Taking it from the top with Jeffrey Leung](#)
  - [Robert Young](#)