CLARINET BASICS

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BREATHING AND AIR SUPPORT: The Foundation for EVERYTHING

1. Basic principles for breathing

- the diaphragm is a passive muscle; you do not control it during the breathing process; the abdominal & back muscles control breathing and affect the diaphragm
- relax; do not collapse
- exhale stale air, muscles and brain need fresh oxygen
- breath quickly and deeply:
  inhaling action must be faster than exhaling
  action cold air vs warm air (fast vs slow)
- lungs should be filled to capacity
- good breath support comes from the natural contraction of the abdominal muscles as they push the air out of the lungs; release smoothly (in or out)
- do not over tense muscles, this only creates tension, not support!
- throat should be kept relaxed; do not lock air in with throat
- embouchure should not bite to create resistance; you must have a reed that will support your air-stream
- do not over-blow

2. Exercises to achieve good breath support and airflow

- cough to feel stomach muscles
- lay on back and notice how you breath naturally; (shoulders will not raise up)
- after an aerobic physical exercise, notice how you breathe
- put hands on rib cage, thumbs in back; feel expansion
- stand with back against wall, feel lower back expansion
- yawn and feel openness and action of lungs
- exhale all air; count to 10; open mouth and feel inward rush of air.
- talk with firm waistline
- play in chair with feet off the floor
- sit in chair; lean over & grab ankles; inhale deeply; sit up and hiss.
- long tones
- blow up a balloon to feel muscles

EMBOUCHURE: The shape of the mouth and oral cavity

EASY STEPS TO USE WHEN FORMING THE EMBOUCHURE

1. WHISTLE—THE CORNERS OF THE MOUTH SHOULD MOVE INWARD

When you whistle, the corners of the mouth move inwards automatically. This inward position firms up the lower lip, creating an ideal surface for the vibration of the reed. The "whistle position" also helps focus the sound by preventing air leaks. If students are unable to whistle, tell them to pretend they are blowing out a candle—this action will result in basically the same facial position. Another option is to have students say the vowel sound "ooooh." The corners of the mouth should move inward. These approaches make embouchure formation a relatively simple process. Other analogies may be helpful, such as sipping a thick milkshake, or blowing air through straw—both of these usually result in good embouchure formation.

2. BOTTOM LIP SHOULD BE FIRM, BUT FLEXIBLE

The bottom lip acts as a cushion between the lower front teeth and the reed. If the bottom lip is not firm enough, a weak muffled sound will result as the lip absorbs the vibration of the reed. Approximately 2/3 to 3/4 of the bottom lip will curl over the lower front teeth. Some of the red part of the lip should be visible, however. If the entire bottom lip is curled inside the mouth, the reed will not vibrate as efficiently.

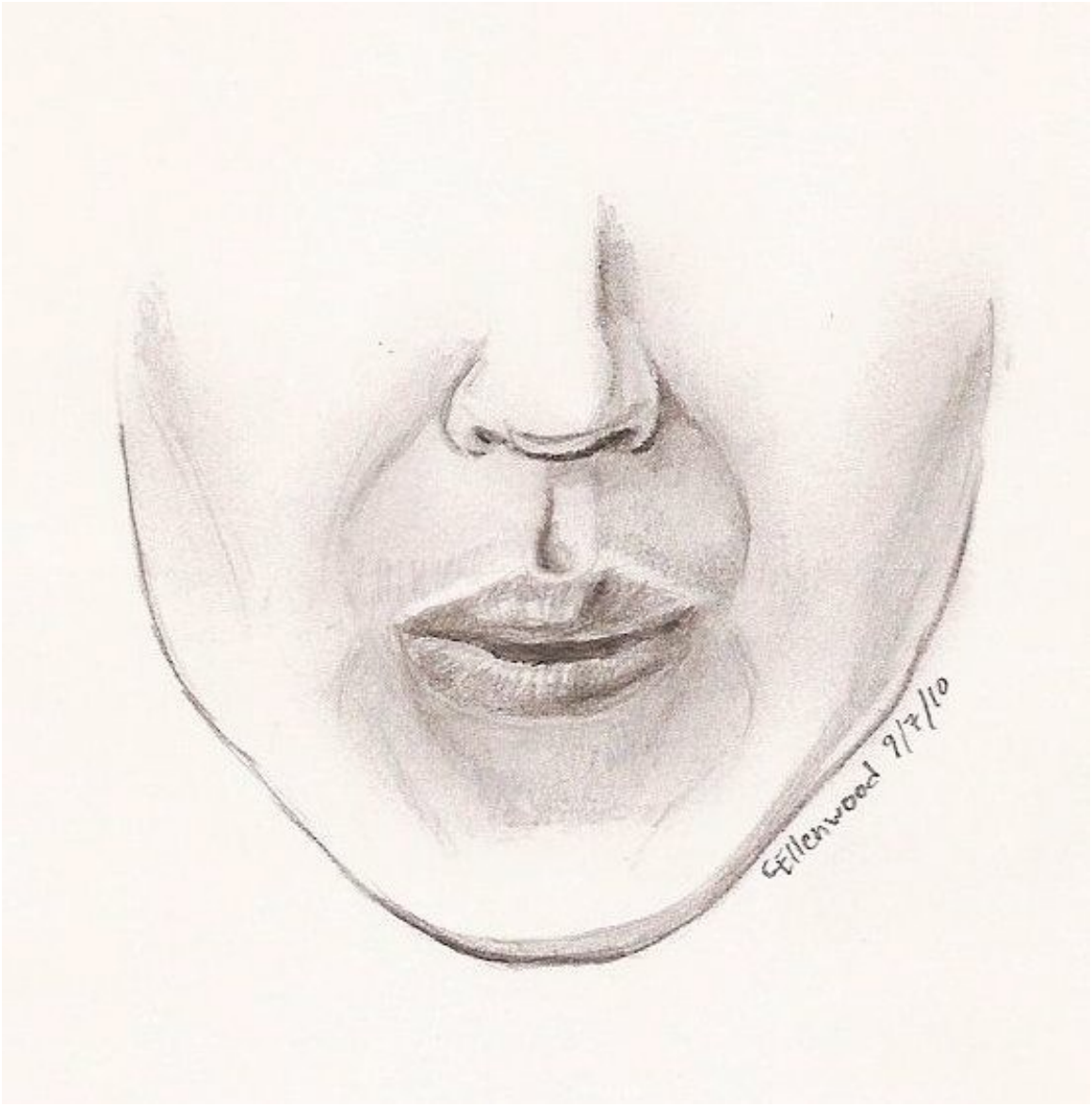
3. THE SKIN ON THE CHIN SHOULD BE FLAT AND FIRM

When the skin on the chin is flat and firm, the chin takes on a slightly concave profile. If the skin on the chin becomes curved or bunched up, it indicates that the student is biting down on the mouthpiece or reed (creating a pinched, weak, sharp sound) or is relaxing the jaw pressure too much (creating a loud, coarse, unfocused, flat sound).

4. SAY "HEEEE"

Saying "Heee" opens the back of the mouth and throat, allowing air to pass through easily. The "EEE" vowel places the middle portion of the tongue high in the mouth, resulting in a fast, focused air stream. When the tongue is low in the mouth, as with the vowel sound "AH," a flat, unfocused sound is produced.

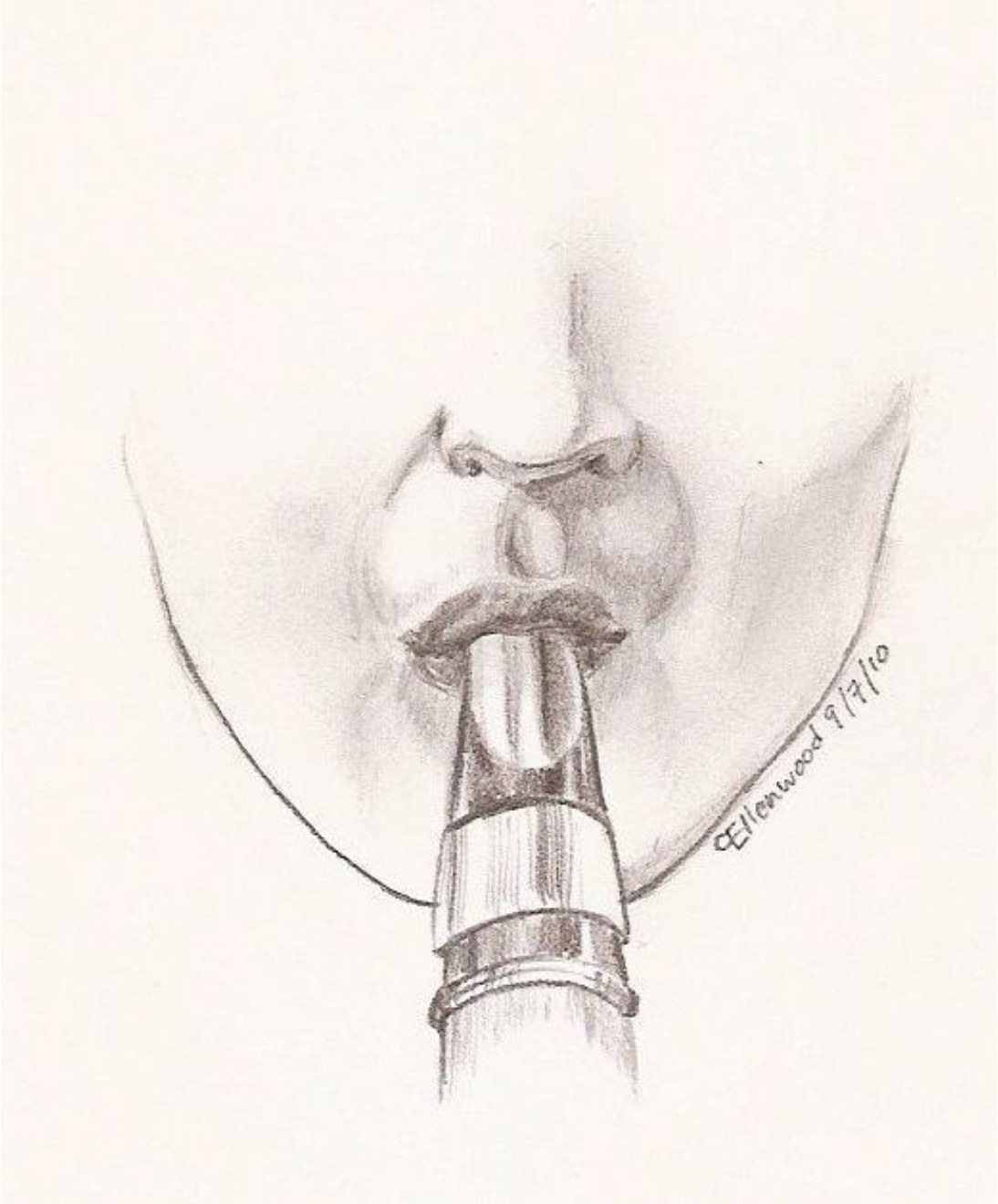
EMBOUCHURE DIAGRAMS



Embouchure viewed from front without clarinet.

Note:

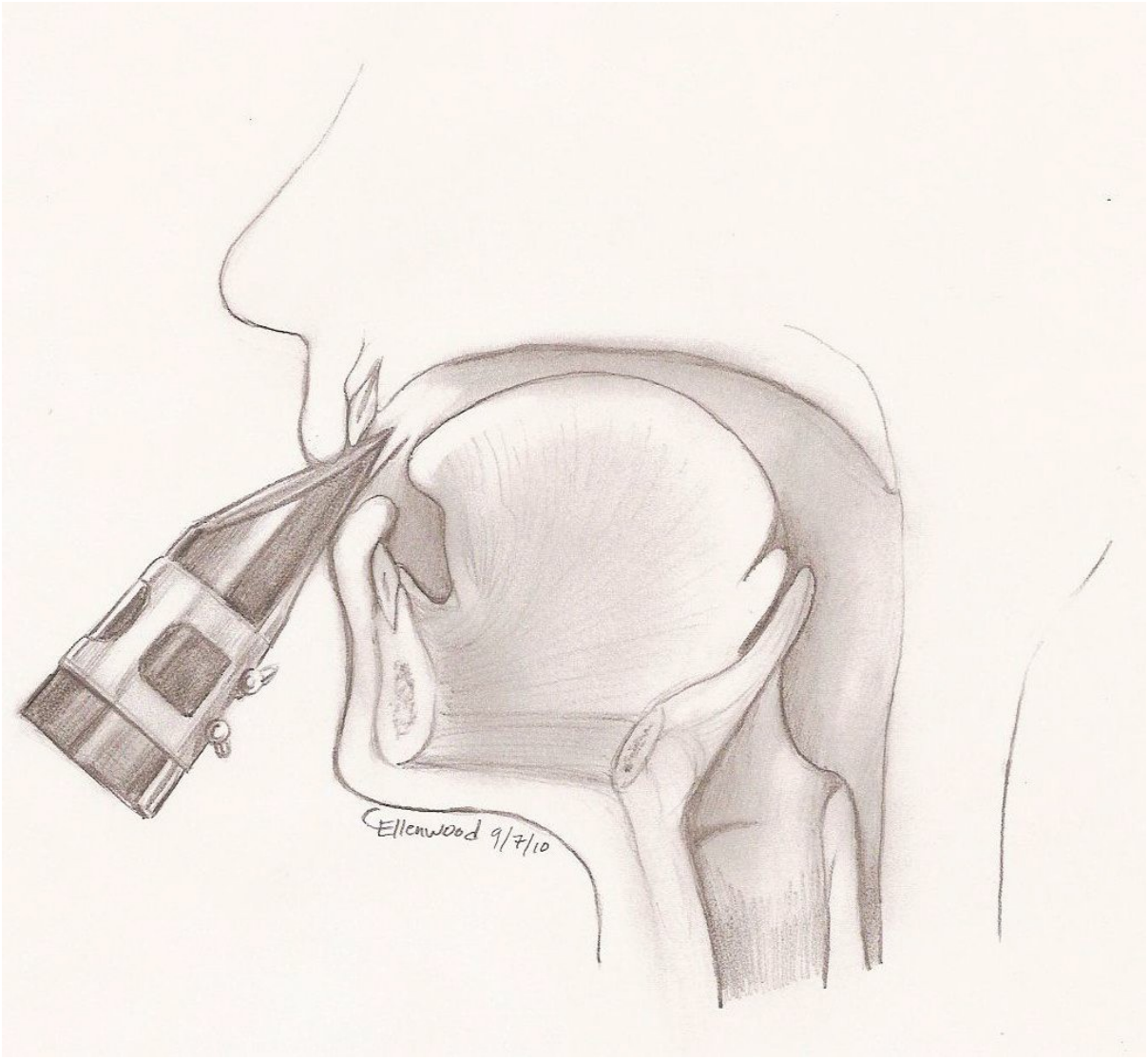
- firm lips
- skin is drawn flat over chin
- corners of mouth pushed inward
- muscles are active and draw the face firmly against the bones and teeth



Embouchure viewed from front with clarinet.

Note:

- firm lips
- skin is drawn flat over chin
- corners of mouth pushed inward
- muscles are active and draw the face firmly against the bones and teeth
- top lip pulls down and around the mouthpiece to create a seal



Embouchure viewed from side, interior of oral cavity shown.

Note:

- top teeth rest on top of mouthpiece
- skin is drawn flat over chin, resulting in slight concave shape
- tongue is in an EEE vowel position, close to the roof of the mouth
- clarinet enters mouth at angle of approximately 45°
- bottom lip is a firm cushion, and supports the reed at the fulcrum point (where mouthpiece and reed begin to meet)

HAND POSITION: Relaxed and EFFICIENT

1. Arm, elbows, and wrist must be relaxed, not cocked in strange positions.

2. Hand position controls finger motion.
    a) Use the natural curve of the hand. Ultimate goal is to have the fingers cover the tone holes and activate the keys with the most efficient motion.
    b) Fingers move from the knuckles of the hand while maintaining a natural curve. Place hand on a flat surface with fingers curved. Practice moving individual fingers.
    c) Fingers remain over their own tone hole and close to the keys when they are not depressed.

3. Right Hand Placement
    a) Place fingers on rings with good curve to fingers, little finger on the c-f key.
    b) Move wrist until a comfortable arm, hand position is found. Let thumb find natural relaxed position. (Some thumb rests are too low for players with long fingers.)
    c) Knuckles should be parallel to the body of the clarinet.

4. Left Hand Placement.
    a) Hold clarinet out from body. The thumb should be pointing up and to the right (at about "two o'clock")
    b) If thumb is too parallel to the clarinet ("twelve o'clock"), flexibility of first finger is limited and wrist is collapsed in.
    c) If thumb is too perpendicular ("three or four o'clock"), tension develops in ring and little finger and wrist is bent out.
    d) Thumb should cover ring and depress register key easily without shifting position. Think of releasing thumb rather than closing.
    e) Fingers should curve easily around body of the clarinet and approach being parallel.

Check little finger of each hand -- particularly the left. First finger of left hand should be able to easily reach A & G# keys as well as the ring.

Do not press so hard that the fingers collapse; relax the hands. If you press and squeeze hard, the fingers tend to pull off of the tone holes. Watch especially the middle finger of the left hand and the ring finger of the right hand.

The left wrist should not shift when playing throat tones G#, A, or Bb. Learn to shift with the back knuckle.

Do not grip hard with the right hand in an attempt to "hold" the clarinet in your mouth. A well-developed embouchure will take care of itself.

ARTICULATION: Releasing the sound and stopping it—with the tongue

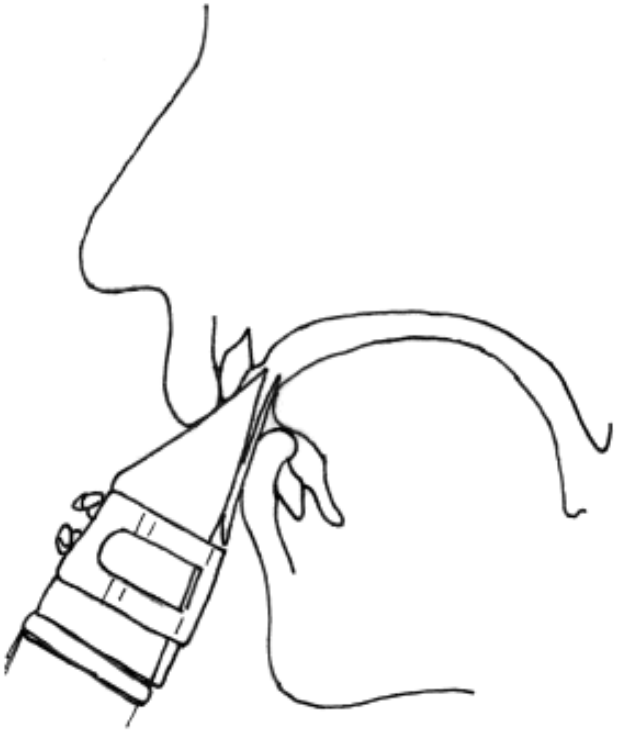
1. The tongue touches the reed **very lightly**, near the tip of the reed

2. Use "TEE" and "THEE"

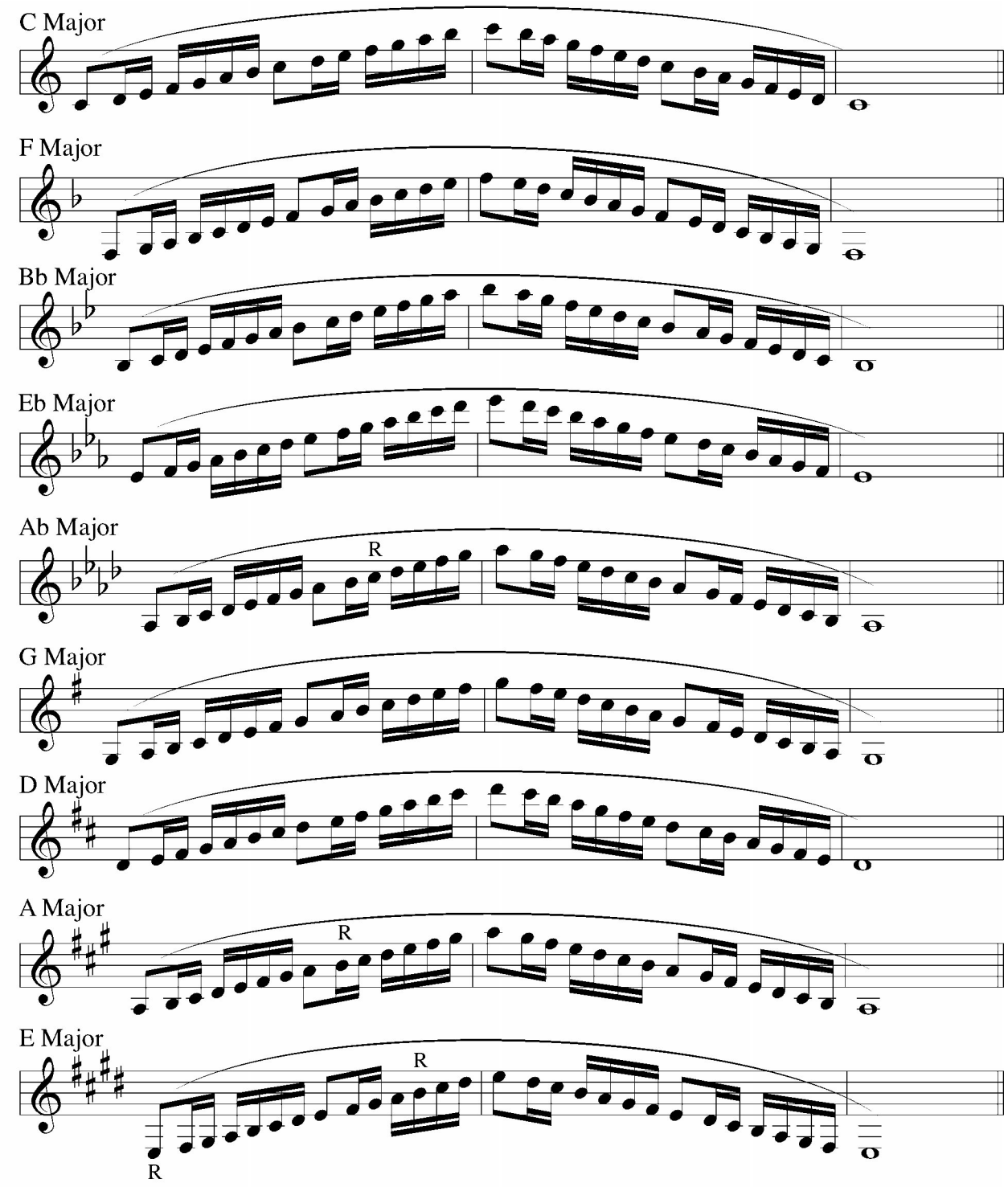
3. Air flow/air support should be constant and continuous—don't pulse the air

4. Keep your face, jaw, and chin steady!

5. Tongue is relaxed; move only the front part of the tongue, and keep the rest of it in the EEEE vowel position



MAJOR SCALES

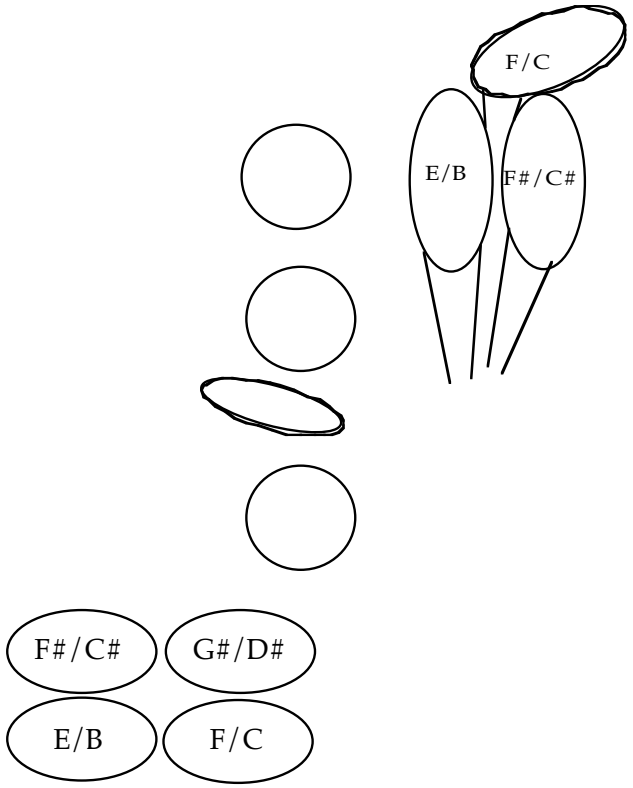


R=Right Hand little finger

THE LITTLE FINGER KEYS OF THE LOWER JOINT

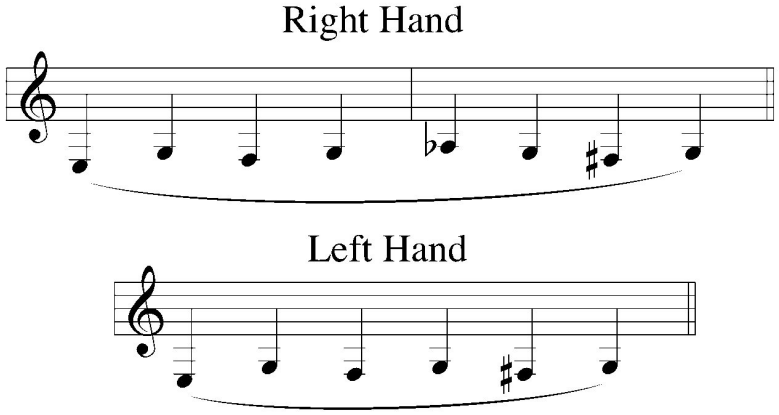
CHALUMEAU REGISTER NOTE GIVEN FIRST, THEN CLARION REGISTER NOTE

LEFT HAND



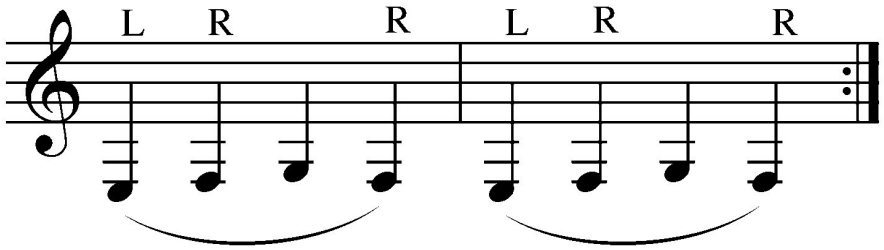
RIGHT HAND

CHALUMEAU EXERCISES

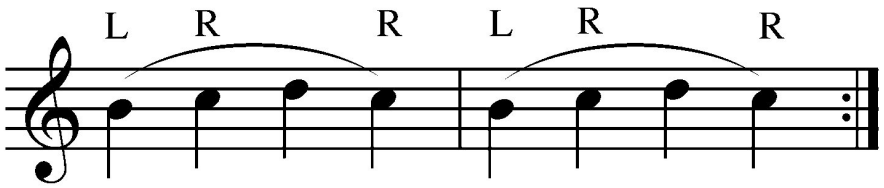


Pinky Key Exercises

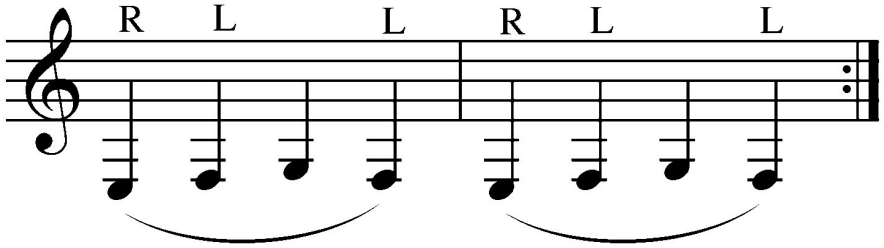
- Keep fingers curved and relaxed.
- Pay attention to thumb position.
- Watch for motion in the ring fingers, especially in the left hand.



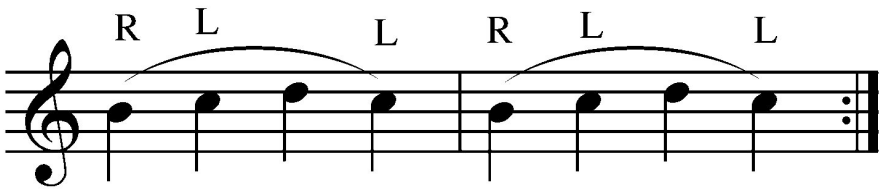
Same exercise, with register key depressed:



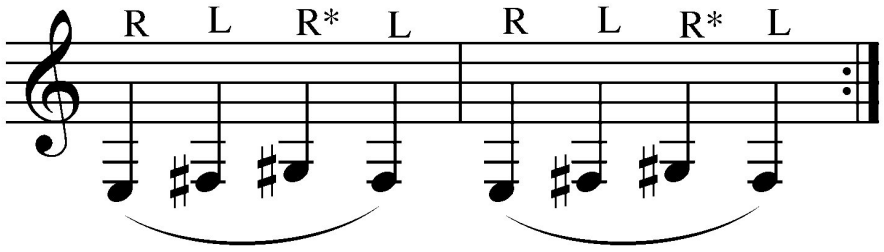
Now, starting with Right Hand Pinky:



Same exercise, with register key depressed:

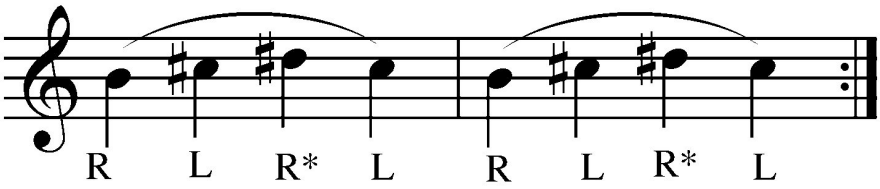


Scales with chalumeau G# require the use of Right Hand E. On most clarinets, there is only one G#/D# key, and it is on the Right Hand side (R*).

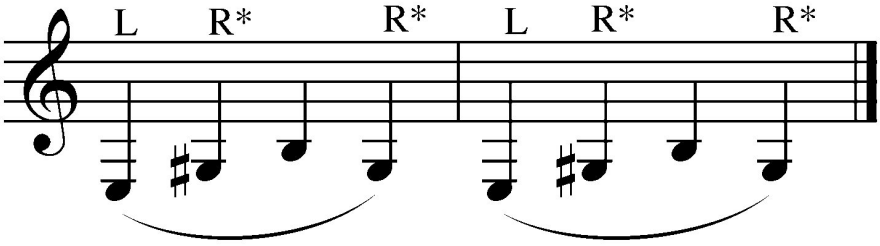


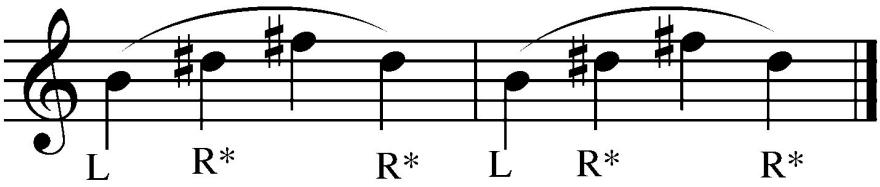
Pinky Key Exercises, cont'd.

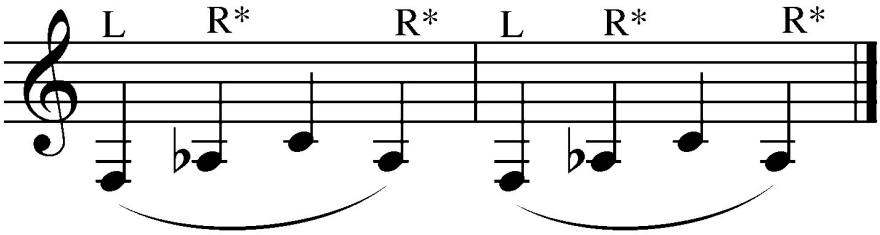
Scales with clarion D# require the use of Right Hand B.

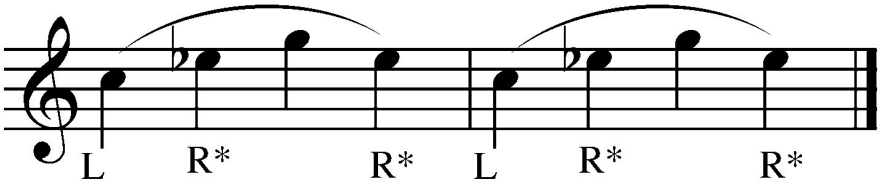


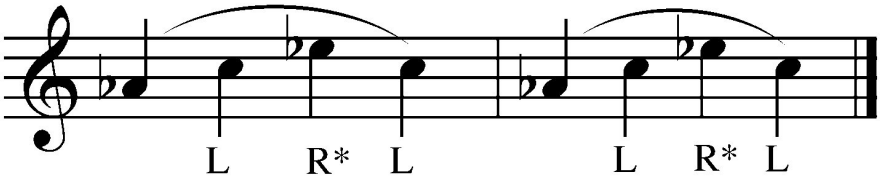
Arpeggio patterns to practice:





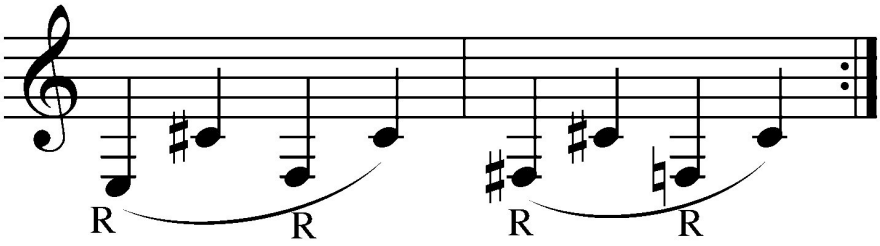




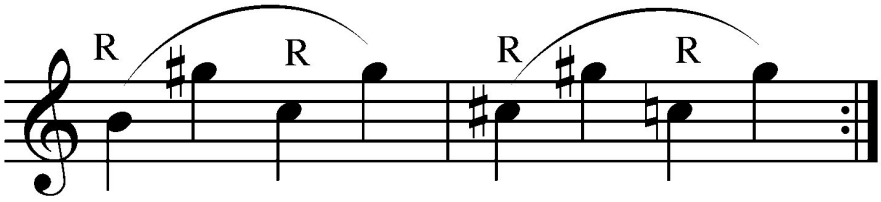


Pinky Key Exercises, cont'd.

Leaps from chalumeau E, F, and F# to chalumeau C# require use of the Right Hand Keys:

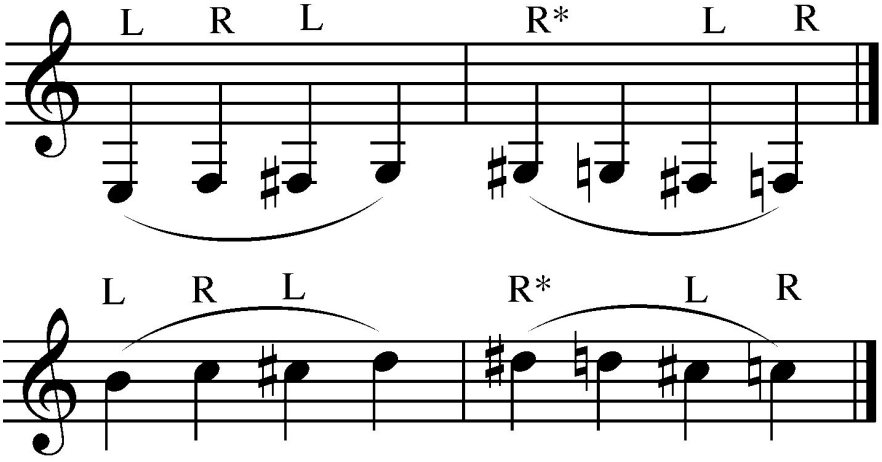


The same is required for leaps from clarion B, C, and C# to clarion G#:

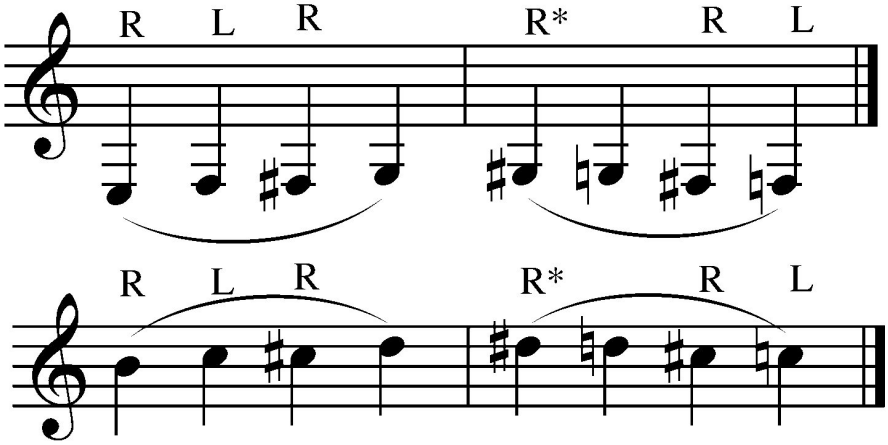


Chromatic Scale Sequences:

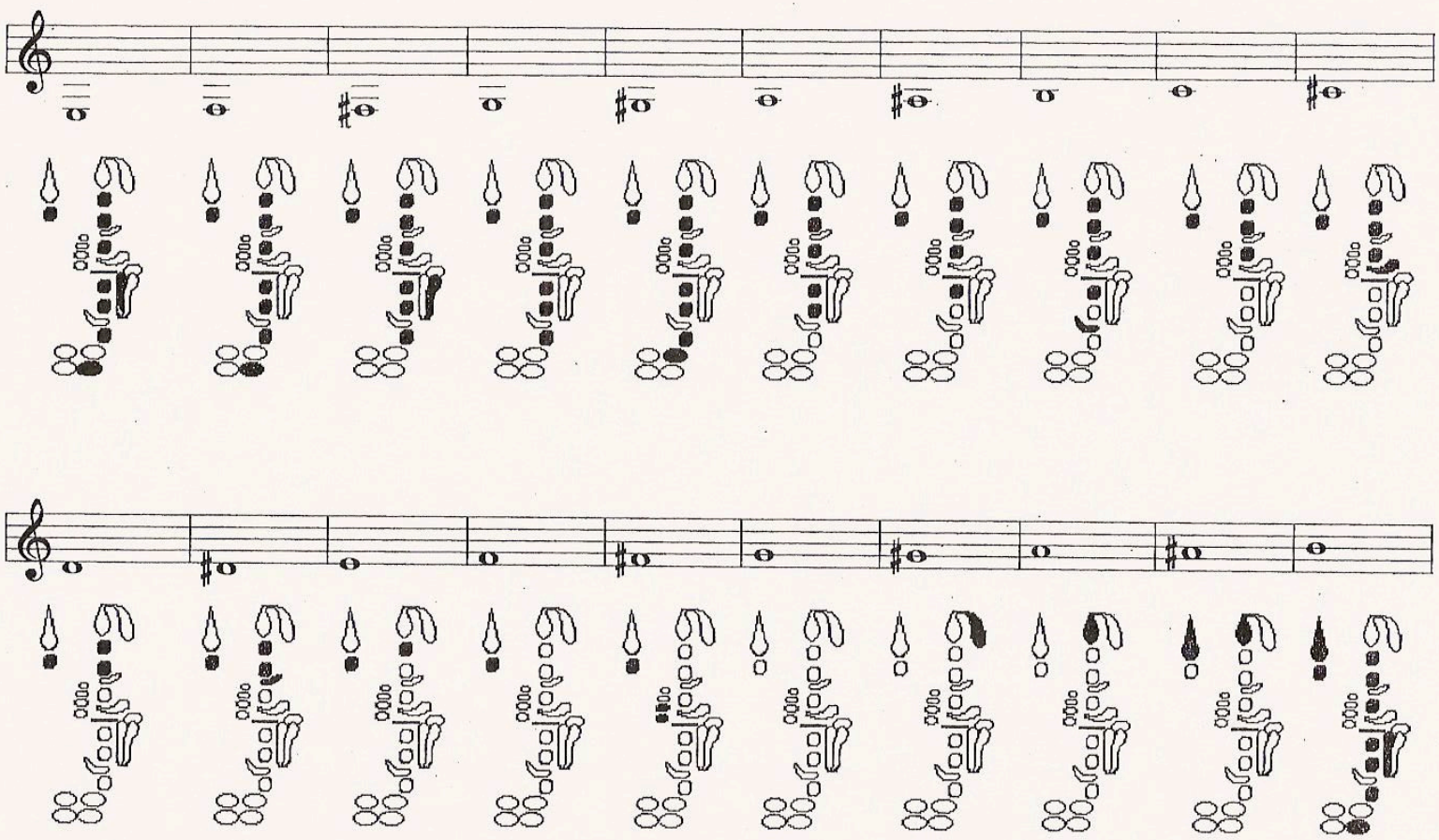
Most used:



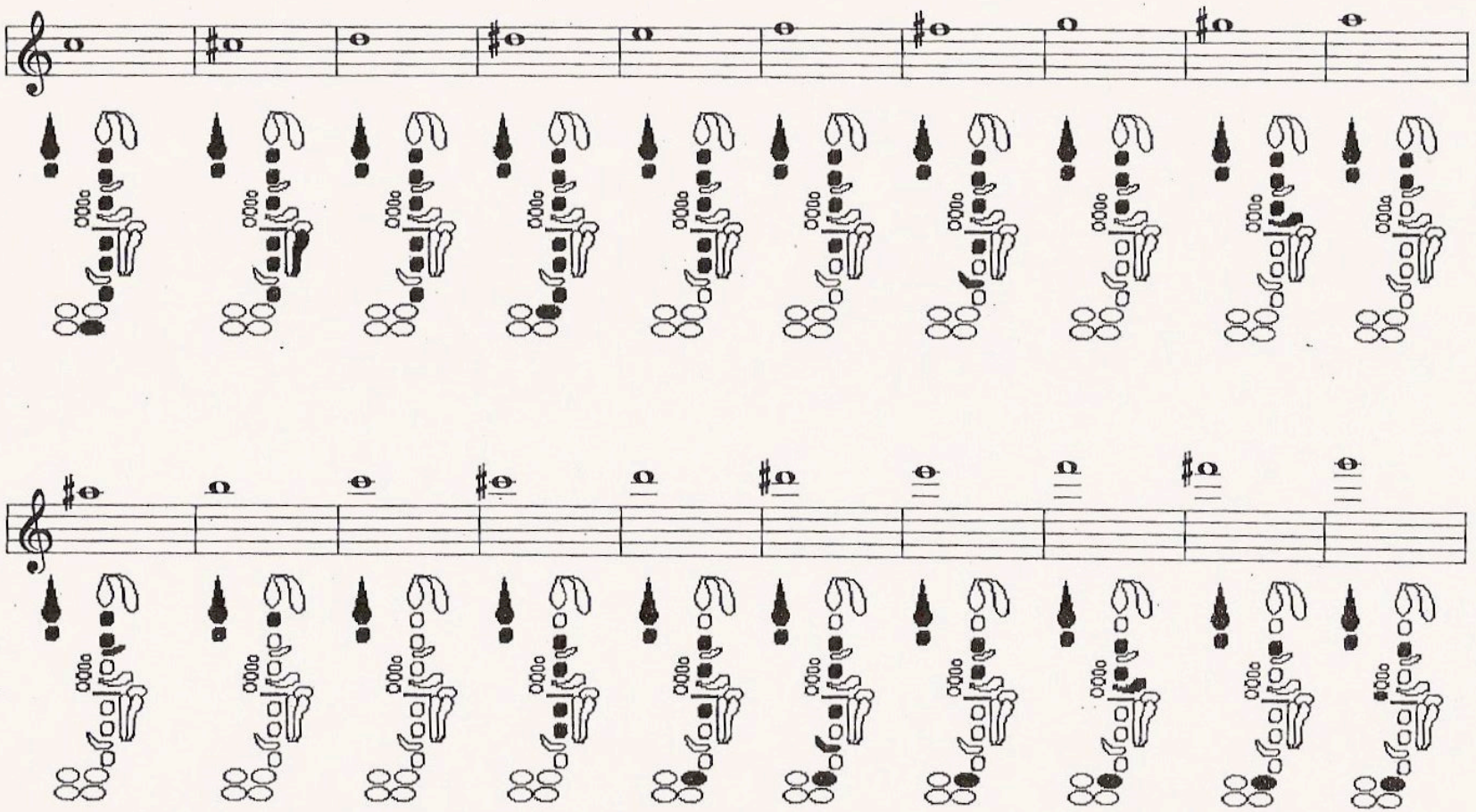
Alternate versions:



CLARINET FINGERINGS FOR THE CHROMATIC SCALE

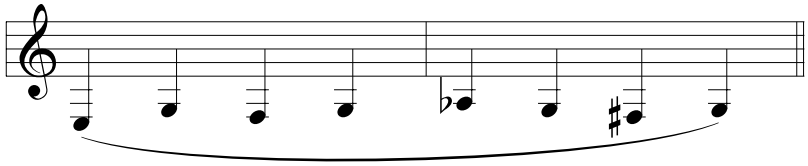


CHROMATIC SCALE, p. 2

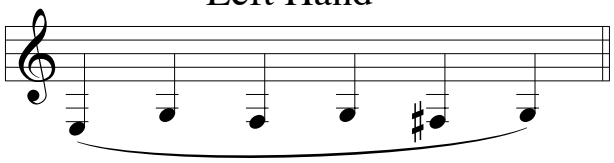


CHALUMEAU EXERCISES

Right Hand

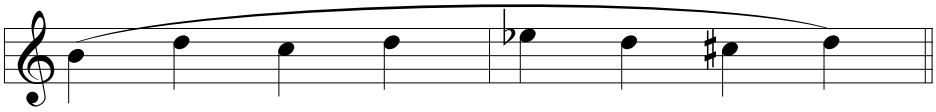


Left Hand

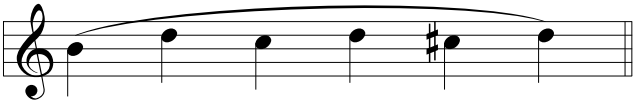


CLARION EXERCISES

Right Hand



Left Hand



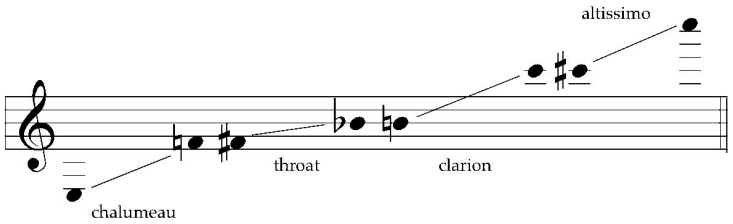
REGISTERS OF THE CLARINET

The range of the clarinet is divided into four registers:

1. Chalumeau
2. Throat
3. Clarion
4. Altissimo

These registers are shown in the diagram below.

Clarinet Registers



REGISTER CHARACTERISTICS

Beginners can play easily in the low chalumeau register. Chalumeau notes have a full, ringing quality. The lowest notes of the chalumeau (E, F, and F-sharp) tend to be flat on many clarinets. Increased embouchure support is necessary to keep these notes in tune when playing loudly.

The register immediately above the chalumeau is called the throat register (so–called because the "throat" of the instrument is used when playing these pitches). The throat register is acoustically imperfect. Throat register notes are less resonant than any other register. Clarinetists make these notes more resonant by covering open tone holes with the right hand.

The clarion register is produced by adding the register key to the chalumeau fingerings. Unlike other woodwind instruments, the clarinet does not overblow at the octave—the clarinet overblows at the twelfth. When the register key is added to the chalumeau fingering for "E," a "B" is sounded. The upper notes of the clarion register (B and C) tend to be sharp.

The altissimo register completes the range of the clarinet. Although this register creates the most anxiety in younger players, the notes speak quite easily. Discourage students from biting or pinching down on the reed.

THE BREAK

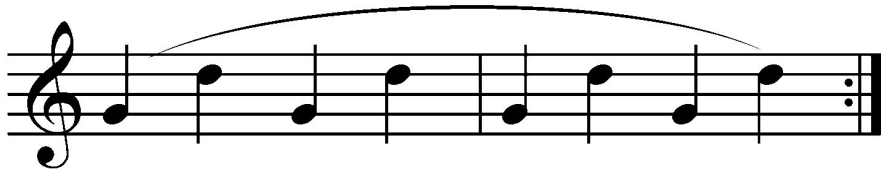
The "break" refers to the sensation of resistance one encounters when crossing between upper and lower registers. There are really 2 breaks: one break is encountered when moving from the chalumeau or throat registers to the clarion register, and the second is felt between the three lower registers and the altissimo register. Crossing the break requires a solid, supported air stream and complete stability of the embouchure. Moving from the throat to the clarion register can be especially challenging for young beginners because of the change in resistance between registers—"short tube" throat notes have much less resistance than "long tube" clarion notes. **Encourage beginners to "blow through" this resistance, while keeping the embouchure absolutely steady**. Keeping the right hand fingers down when moving between throat and clarion registers also helps smooth over the break.

Crossing Between Throat and Clarion:
RIGHT HAND DOWN TECHNIQUE

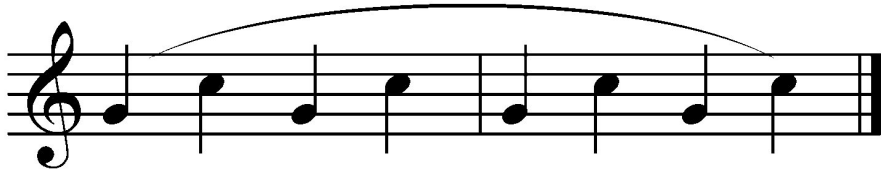
- **Stable embouchure.**
- **Constant air support.**
- **Coordinate finger motion.** Maintain curved fingers!
- **Cover Right Hand Tone Holes.**
- Pay attention to thumb coordination.
- Practice in front of mirror.

FROM OPEN G

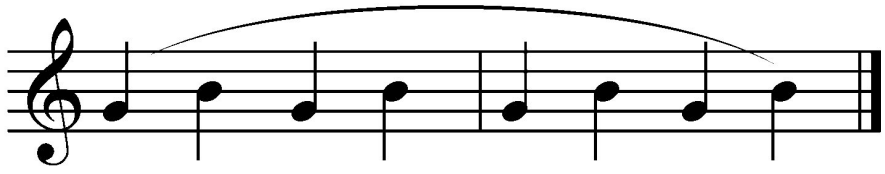
1. Keep the 3 Right Hand tone holes covered throughout:



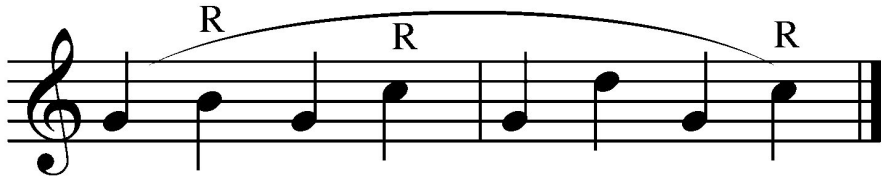
2. Keep the 3 Right Hand tone holes covered AND one of the C Pinky Keys depressed:



3. Keep the 3 Right Hand tone holes covered AND one of the B Pinky Keys depressed:

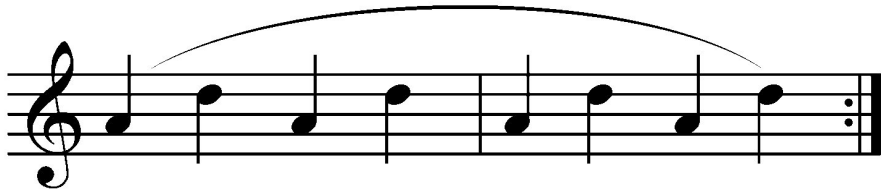


4. Keep the 3 Right Hand tone holes covered AND add the appropriate RH Pinky Key:

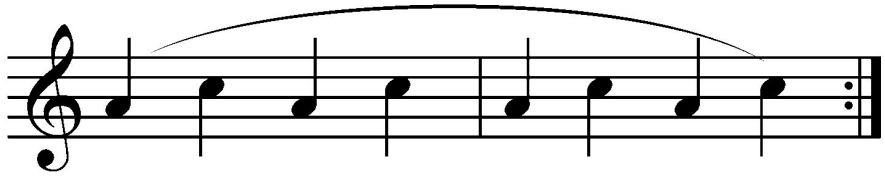


FROM THROAT A

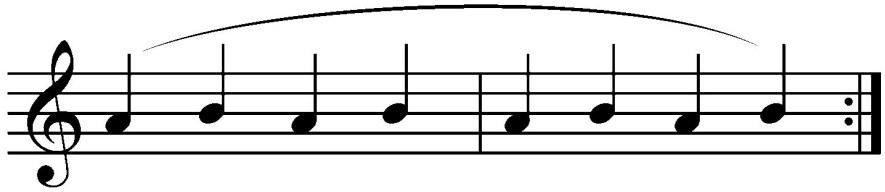
1. Keep the 3 Right Hand tone holes covered throughout:



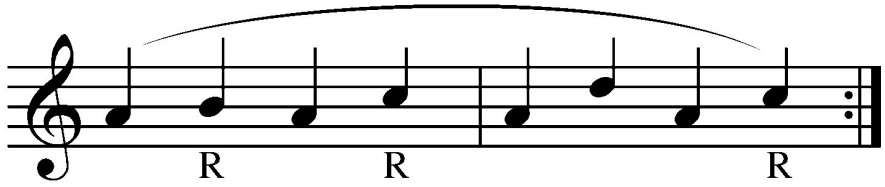
2. Keep the 3 Right Hand tone holes covered AND one of the C Pinky Keys depressed:



3. Keep the 3 Right Hand tone holes covered AND one of the B Pinky Keys depressed:



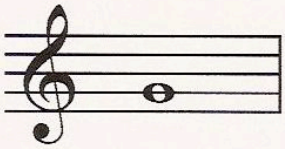
4. Keep the 3 Right Hand tone holes covered AND add the appropriate RH Pinky Key:

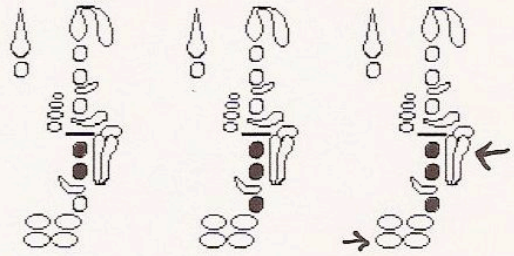


REPEAT THIS SEQUENCE, STARTING FROM **THROAT B^{b}** and **THROAT A^{b}**.

THROAT REGISTER:
RESONANCE FINGERINGS

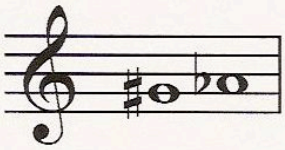
Open G





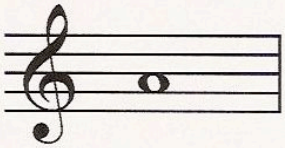
Standard | Flatter | Pinky keys can be added to lower the pitch or smooth break crossings to clarion register

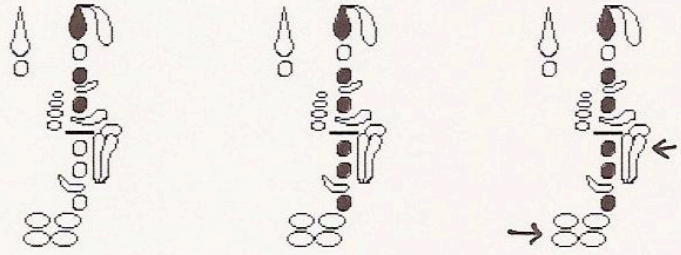
G#/Ab



Excellent resonance | For lower pitch | Pinky keys can be added to lower the pitch or smooth break crossings to clarion register

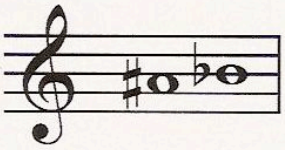
A

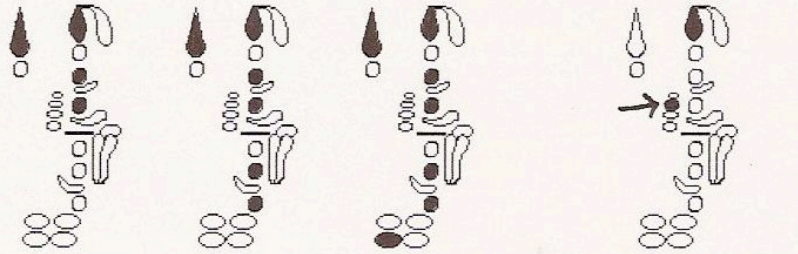




Standard | Flatter | Pinky keys can be added to lower the pitch or smooth break crossings to clarion register

A#/Bb





Simple | Richer | Richer and lower | Best, but difficult to get to in technical passages