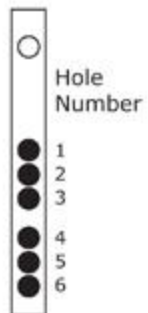
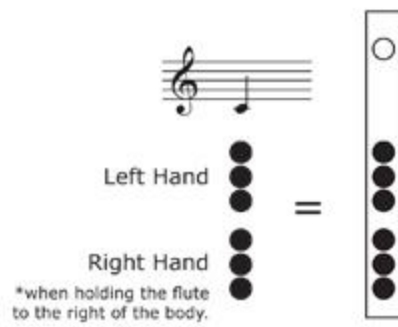


Explanation of Diagrams

- Open Hole
- Closed Hole
- ◐ Half Hole



Key of C

①

The first staff of exercise 1 shows a musical phrase in treble clef with a common time signature. The notes are C4, D4, E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4. Below the staff is a corresponding fingering diagram with two rows of circles. The first row has 14 circles, and the second row has 14 circles. Filled circles indicate finger placement, and open circles indicate no finger placement.

The second staff of exercise 1 shows a musical phrase in treble clef with a common time signature. The notes are C5, B4, A4, G4, F4, E4, D4, C4, B3, A3, G3, F3, E3, D3, C3. Below the staff is a corresponding fingering diagram with two rows of circles. The first row has 14 circles, and the second row has 14 circles. Filled circles indicate finger placement, and open circles indicate no finger placement.

②

The first staff of exercise 2 shows a musical phrase in treble clef with a common time signature. The notes are C4, D4, E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4. Below the staff is a corresponding fingering diagram with two rows of circles. The first row has 14 circles, and the second row has 14 circles. Filled circles indicate finger placement, and open circles indicate no finger placement.

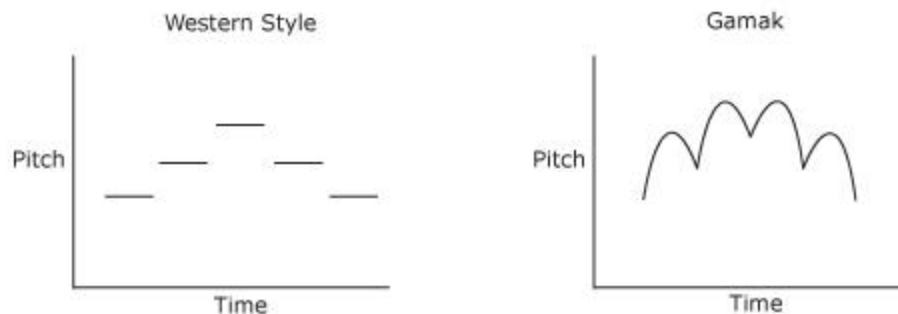
The second staff of exercise 2 shows a musical phrase in treble clef with a common time signature. The notes are C5, B4, A4, G4, F4, E4, D4, C4, B3, A3, G3, F3, E3, D3, C3. Below the staff is a corresponding fingering diagram with two rows of circles. The first row has 14 circles, and the second row has 14 circles. Filled circles indicate finger placement, and open circles indicate no finger placement.

Gamak

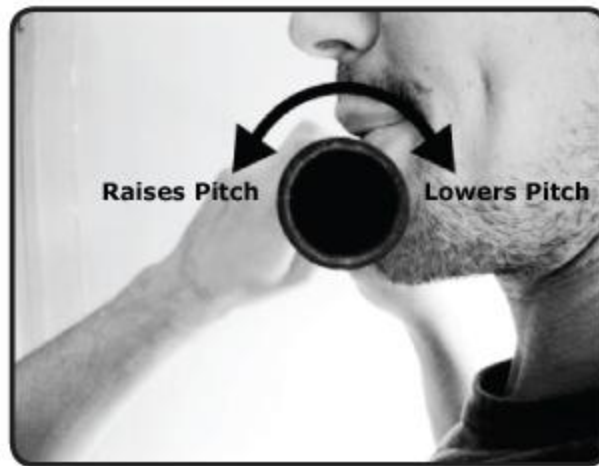
Gamak is a rhythmical shaking of pitch. This shaking occurs between a given note and the note above it. It is not an alternation of notes as in a trill, but a rapid slide back and forth *between* the notes. This imbues a note or phrase with a rhythmic intensity, as the shaking can imply a double-time feel. When played through a scale, it results in a lattice-like pattern of melody.

The musical effect of *gamak* is an increase in intensity in the phrase. It rhythmically doubles the subdivision as each note now has an up and a down to it. For example, tapping your finger in 8th notes produces 16th-note subdivision. In addition, the effect of bending the pitch of the note also tends to destabilize its consonance. The same note is less consonant when its pitch is shaking than when it is stable.

When practicing *gamak*, remember that musical notation is not an accurate way of representing the correct sound. In other words, you are not jumping from one note to the other, but instead sliding through the pitches. *Gamak* is analog, not digital. Also take note of how when you move from one note to another, regardless of whether you are moving up or down the scale, you always jump up before going down. In addition, since you are sliding through the pitches, you don't necessarily have to travel all the way to the next note in the scale before coming down onto your target note. The distance you slide is a variable that you can experiment with — thus you will find that there is light and heavy *gamak* depending on how far you bend the pitch. Regardless of how heavy or light your *gamak* is, however, the basic shape of the line should stay intact.



Playing in tune in some keys will require significant corrections to the pitch. The reasons why will be explored thoroughly toward the end of this book. Nonetheless, a very effective way of adjusting pitch is to roll the flute, especially in the lower register. This changes the angle and length of the airstream. Rolling the flute toward you lowers pitch; rolling it away will raise the pitch. Playing in tune is a balancing act of rolling the flute, adjusting your airstream direction and speed, and metering your airflow.

**Factors affecting pitch:**

Hole Size (for half-holed notes) – opening the hole more raises the pitch, closing it more lowers it. Large holes increase the strength of the tone, and small holes decrease it.

Roll In/Roll Out – rolling the flute toward you lowers pitch; rolling away raises pitch. Rolling in makes the tone brighter and stronger, and rolling out makes it mellower with more airiness in the sound.

Angle of Airstream – Blowing down into the hole lowers pitch; blowing more out across it raises pitch. Blowing down makes the tone brighter and stronger, and blowing out makes it mellower with more air in the sound.

Speed of Air Stream – a faster airstream raises pitch, and a slower one lowers pitch. A faster air stream makes the flute louder and brighter; a slower one makes it softer and mellower.