

## Vibrating at any speed

Like tone production exercises on one note, this key exercise is a straightforward practice or warm-up method which often becomes part of the routine of everyday practice.

Vibrato is made with only one active movement, which is *forward* to the in-tune note. The backward movement is like a rebound. This is similar to clapping, where there is only one active movement to bring the hands together, not an active movement 'out' to bring them apart: the hands go 'in-in-in-in', not 'in-out-in-out'. Similarly the vibrato movement is 'forward-forward-forward-forward', not 'forward-back-forward-back'.

The forward movement of the vibrato pushes slightly more deeply into the string. The backward movement slightly releases the string.

The **dotted eighth-note** = the forward, in-tune pitch of the vibrato.

The **x-note** = the backward movement which releases the string and hardly sounds.

F = forward  
B = back  
♩ = 60

F B F B F B F B F B F B F B F B F B

F B F B F F B F B F

F F F F Forward-and-stop F F F F Forward-and-stop F F F F Forward-and-stop F F F F Forward-and-stop

Practise on long, sustained notes, with the metronome, always playing four beats on the down-bow and four beats on the up-bow. Begin slowly at 60. Then repeat at 66, 72, 80, etc., up to about 108.

- 1 One vibrato per beat (bars 1-2).
- 2 Two vibratos per beat (bars 3-4).
- 3 Four vibratos on the first beat, and then stop the finger, in tune, on the second beat (bars 5-6).

Play forward, forward, forward, forward, forward-and-stop on the in-tune note.

Play a few notes on each string with each finger, in low, middle and high positions. Also play double stops.

## Vibrato accents

Usually you have to guard against one hand being influenced by what the other hand is doing. Here, that problem can be turned into an advantage: to speed up vibrato let the left hand be affected by the right, so that the attack in the bow helps to give a 'kick' to the beginning of the vibrato.

**Bow** Fast-slow, heavy-light.

**Vibrato** Fast-slow, wide-narrow.

sfz sfz sfz sfz sfz sfz sfz sfz

Play a few notes on each string with each finger, in low, middle and high positions.

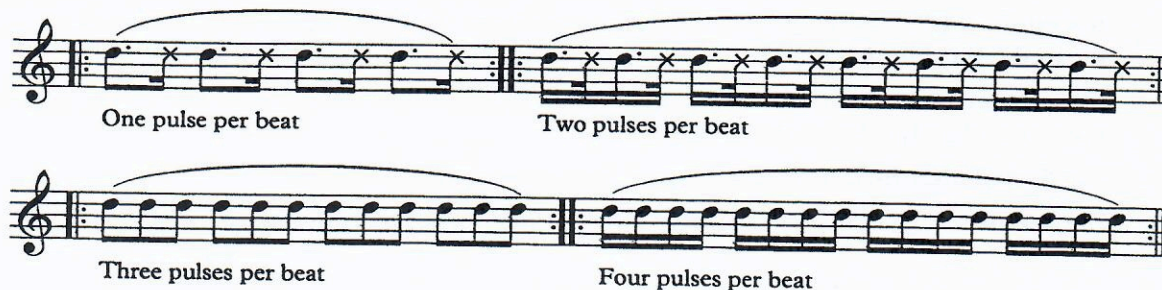


## Changing speed without changing width

The easiest way to increase vibrato speed is to make it narrower. But in this exercise, in order to isolate the elements, the width remains the same while the speed changes.

The dotted eighth-note = the forward, in-tune pitch of the vibrato.

The x-note = the backward movement which releases the string and hardly sounds.



Play continuous whole bows, down- and up-bow, on one note.

- Play four metronome beats on each bow. Start at 60, then repeat at 66, 72, 80, etc., up to about 108.
- At each metronome speed, play one vibrato to a beat, and then 2, 3 and 4 vibratos.
- At each metronome speed, first play the 1, 2, 3 and 4 vibratos with a very narrow vibrato, then with a medium, and finally a wide vibrato.
- Make sure that you increase only the number of vibratos per beat, and that the width of vibrato – whether narrow, medium or wide – stays the same.

Also play the exercise in reverse order to decrease speed, or jump from one number of pulses to another, e.g., 4, 3, 4, 2, 3, 1, etc.

Play a few notes on each string with each finger, in low, middle and high positions.

## Width

## Dividing semitones

This exercise sensitises the ear and the finger to the slightest variation in pitch, making it easier to play with the narrowest, purest vibrato which sounds like BBBBBBBB, CCCCCCCC,

etc. – in other words, sounding like one pitch which throbs rather than a wide sliding of the pitch between the note itself and the same note flattened. It is also an excellent intonation exercise: after playing a 64th or 128th of a tone, a semitone seems a huge distance.

Play each stage completely without vibrato.

- 1 In third position on the A string, play E–D–E. Play firmly, with separate bows. Tune both notes to the open strings.
- 2 Measuring exactly halfway between the D–E, play a ‘tempered’ D<sup>#</sup>: play E–D<sup>#</sup>–E.
- 3 Measuring exactly halfway between the D<sup>#</sup>–E, play a quarter-tone: play E–D<sup>#</sup> plus a quarter-tone–E.
- 4 Now only using one finger (rock slightly up or down to find the pitches), play E – then the note an eighth-tone lower – then the E again.
- 5 Continue halving through the 16th, 32nd, 64th and 128th of a tone. Always play E, then the fraction of a tone below, and then the E again. Continually check the E to make sure that it is always in tune with the open string.

Play a few notes on each string with each finger, in low, middle and high positions.

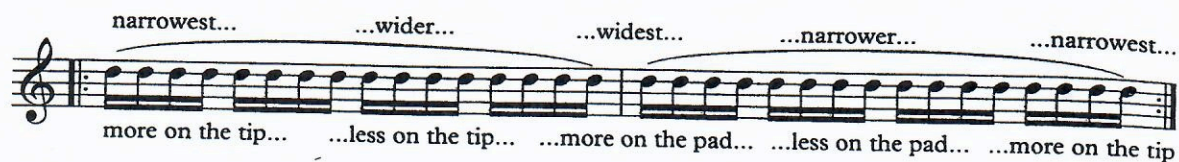
### Variation

- 1 Play D–E.
- 2 Play equal semitones: D–D<sup>#</sup>–E.
- 3 Play four equal quarter-tones: D–D plus a quarter-tone–D<sup>#</sup>–D<sup>#</sup> plus a quarter-tone–E.
- 4 Play eight eighths, and so on as far as possible.



## Fingertip and pad

Vibrato is narrower when the finger is placed very upright on the string, so that the tip of the finger stops the string. Placing the finger flatter, so that more of the pad touches the string, produces a wider vibrato. In this exercise, change the vibrato from very narrow to very wide, and then back to very narrow again. Use only the different parts of the fingertip and pad to make the different vibratos – do not use extra hand or arm movements.



- 1 Play continuous whole bows, down and up, on one note.
- 2 Begin with a narrow vibrato, playing with the finger vertical on the fingertip.
- 3 Very gradually flatten the finger so that you use more and more of the pad. Do not let the pitch of the note waver – the only change should be that the vibrato gradually becomes wider.
- 4 Continue to widen the vibrato to the maximum; then gradually narrow it to the minimum by moving back on to the fingertip.

Play a few notes on each string with each finger, in low, middle and high positions.

## Changing width without changing speed

Play continuous whole bows, down and up, on one note. Play four beats on each bow.

- Play four vibratos to a beat (like vibrato 'sixteenth-notes'). Vibrate with the metronome at 60, then repeat at 66, 72, 80, etc., up to about 100.
- At each metronome speed begin with the narrowest possible vibrato. Very gradually widen it, little by little, to the widest possible vibrato. Then gradually narrow it down to the smallest again.
- Always play four vibratos on each beat, so that the vibrato speed does not change whatever the change of width.



Play a few notes on each string with each finger, in low, middle and high positions.

## Practice method: 'Pulsing'

Sonata no. 3 in D minor, op. 108, mov. II  
Brahms



Each note below represents one vibrato 'pulse'. Keep the bow smooth, making the pulsing or 'throbbing' with the vibrato only. Vibrate each finger 'forward-forward-forward-forward' to the in-tune note.

Begin with two pulses on each sixteenth-note (semiquaver), and go on with four pulses on each sixteenth-note:





Continuous vibrato

### Moving fingers in slow motion

In this exercise keep the hand vibrating without stopping, using a normal hand or arm vibrato. Lower and raise each finger very, very slowly. Because the hand is vibrating, the finger also 'vibrates' as it slowly nears or leaves the string.

#### Dropping fingers

- As the finger gets closer to the string, each forward movement of the vibrato begins to make the finger touch the string. At first this produces a broken, distorted sound, and then gradually the new note is fully stopped. Make this stage – between the finger just beginning to touch the string and it fully stopping the string – as long as possible by lowering the finger very slowly. Keep vibrating without stopping as the finger nears, begins to stop, and fully stops, the string.

#### Lifting fingers

- Lift the finger off very, very slowly, vibrating all the time. As the finger begins to release the string there is an in-between stage where each backward movement of the vibrato causes the sound to break, and then finally the finger is completely clear of the string. Make this stage, between the finger stopping the string and being completely clear of the string, as long as possible by lifting the finger very slowly.
- When descending from, say, second finger to first finger, make sure that the lower finger is already on the string. Both fingers vibrate together as the upper finger slowly lifts.

Play the same patterns on the other strings.

#### Pulsing

The dotted eighth-note = the forward, in-tune pitch of the vibrato.

The x-note = the backward movement which releases the string and hardly sounds.

- Play with the metronome, starting at 60. Speed up gradually to about 80.
- First play one vibrato 'pulse' on each beat, then two on each beat, and then four on each beat.
- When moving from a lower note to a higher note (e.g., from the fourth note of the first bar to the fifth note), the finger must drop *in tune* on the higher note and then roll back. In other words, the first vibrato 'pulse' is really simply the beginning of the in-tune note, made by dropping the finger.
- Timing in this exercise is important when moving from a higher note to a lower note (e.g., the last x-note of the first bar going into the first note of the second bar). During the x-note the finger/hand has already moved back, and then *as the finger is lifted* the lower finger has to go forward into the new note.

One pulse per beat



Two pulses per beat

Four pulses per beat

The image shows two musical staves. The top staff is labeled 'Two pulses per beat' and contains a sequence of notes with 'x' marks above them, indicating silent finger movements. The bottom staff is labeled 'Four pulses per beat' and contains a similar sequence of notes with 'x' marks.

Play the same patterns on the other strings.

### Silent raising and dropping

While playing the upper string, silently raise and drop the fingers on the lower string (written as x-notes)

- Vibrate the finger on the upper string continuously, without stopping the vibrato momentarily as you drop or raise the finger on the lower string.
- Also vibrate the silent fingers on the lower string, without stopping the vibrato as the finger touches or leaves the string.

Make the continuous vibrato on the upper note sound the same as if you were not using the fingers on the lower string.

Slow

The image shows three musical staves. The top staff has a treble clef and a key signature of one sharp (F#). It contains a sequence of notes with 'x' marks above them. The middle and bottom staves also contain notes with 'x' marks, illustrating the silent raising and dropping of fingers.

Also play on the G-D and D-A strings.

### Practice method: hold down fingers

Although fast sixteenth-notes (semiquavers) may seem impossible to vibrate, any held-down fingers are, in effect, longer-value notes. By vibrating these fingers, the other fingers naturally vibrate too. (The vibrato must be very slight for the notes not to become 'wobbly', but there is still an important difference between this slight vibrato and no vibrato at all.)

70

Violin Concerto, K218, mov. I  
Mozart

The image shows a musical staff with a treble clef and a key signature of one sharp (F#). It contains a sequence of notes with 'x' marks above them. The notes are grouped into four measures, each with a 'vibrato' instruction below it. The notes are: 3 2 vibrato, 1 vibrato, 3 2 vibrato, 1 vibrato.

1

Sonata no. 1 in G minor, BWV 1001, mov. IV  
J. S. Bach

The image shows a musical staff with a treble clef and a key signature of two flats (Bb, Eb). It contains a sequence of notes with 'x' marks above them. The notes are grouped into four measures, each with a 'vibrato' instruction below it. The notes are: 2 vibrato, 3 vibrato, 1 vibrato, 0 0 2 4 vibrato.



**Equal vibrato on different fingers**

**Comparing fingers**

- Vibrate each finger, one at a time, on the same note.
- Make the vibrato of each finger sound exactly the same as the others (the same width and speed), so that a listener would not be able to tell which finger is being used. It does not matter in what order you use the fingers.

Cover the following possibilities:

- 1 Slow, wide vibrato with each finger.
- 2 Slow, narrow vibrato with each finger.
- 3 Fast, wide vibrato with each finger.
- 4 Fast, narrow vibrato with each finger.

Play all four possibilities in low, middle and high positions, on each string. Examples:

Also play double stops, for example alternating 1-3 and 2-4 in thirds.

**Even pitch**

- Vibrate at exactly the same speed as the spiccato stroke. Use a metronome, starting slowly and gradually speeding up.
- Make the *forward movement of the vibrato* coincide exactly with each spiccato, so that every note has the same pitch. The x-notes represent the backward movement of the vibrato, which should not be heard. The sound should be *the same as if there were no vibrato*, i.e., BBBB BBBB, CCCCCCCC, etc.
- If the pitch changes from note to note, it means that the width of the vibrato movement is not always the same; or else the spiccato is missing the highest pitch of the vibrato.

Play the exercise on each string in low, middle and high positions.