
BASICS

Speeding up vibrato

The faster the vibrato, the narrower it needs to be. It is easy to illustrate this by swinging the bow from side to side like a pendulum. Clearly, the wider the movement the longer it takes to travel from one side to the other. To move it very quickly you have to keep the movement very narrow, as little as a few centimetres.

A wide and slow vibrato, or a fast and narrow vibrato, are natural combinations of speed and width; but at times you can also use a slow, narrow vibrato (less energy) or a wider, faster vibrato (more energy), as well as all the different degrees in between.

If you have any difficulty speeding up your vibrato, the width is the first area to consider. It is nearly always possible to make it narrower.

The difference between arm and hand vibrato

Players who use an arm vibrato sometimes find it difficult to vibrate fast enough.

The difference between hand and arm vibrato often used to be described (wrongly) as follows. In hand vibrato the forearm remains entirely motionless, the hand moving at the wrist to perform the rapid backwards-and-forwards vibrato motion; in arm vibrato there is no movement whatsoever at the wrist, all the vibrato coming instead from a rapid backwards-and-forwards motion of the forearm.

Imagine splints on either side of the wrist. Use two pencils (Fig. A). However, if you make an arm vibrato like that, by 'swinging' the forearm from the elbow and with no movement at the wrist, the movement tends to be too wide and slow because the lever used to produce the movement – the forearm and hand combined – is too large.

A more practical arm vibrato uses the forearm to create a sympathetic shaking in the hand, so that there is indeed a movement of the hand at the wrist in arm vibrato. The 'motor' remains in the forearm and upper arm – there is no active movement by the hand – but there is a visible 'passive' movement of the hand at the wrist. Prove this by means of a simple experiment:

While vibrating with a fast, relaxed, free arm vibrato, it is possible for someone to grip your arm just below the wrist (at the watch-strap), without the vibrato in the hand stopping:

Place your fingers lightly around the student's forearm, at an exact point just below the wrist (Fig. B).

At first let the student play, say, third finger D on the A string with arm vibrato. Then hold their forearm more tightly and try to prevent them from vibrating.

If the mechanism of the student's arm vibrato is correct, you will not be able to prevent the vibrato. Although the vibrato has an impulse coming from somewhere just above the elbow, the movement of the forearm is very slight or invisible, while leading to a larger, passive, 'swinging' in the hand.

Speeding up with the metronome

Speeding up vibrato with the metronome is a straightforward way to develop a faster vibrato. The following is the single best exercise both for making the vibrato faster and for being able to vibrate at any speed. It is also excellent for developing one of the key elements of vibrato: the slight release of the string during the backward movement of the finger.

- Begin at 60 (one, two and four vibrato 'pings' on each beat), and then 63, 66, 72 etc. up to 120.
- With each increase in speed make sure that you make the vibrato correspondingly narrower.



A: Imagining 'splints' that prevent any movement of the hand during arm vibrato – this is the way *not* to vibrate



B. It is still possible to vibrate, using an arm vibrato, with someone trying to stop you

BASICS

(1) (2)
F B F B
(3) (4)
F F F F F F F F

- (1) Vibrate forward to the in-tune note on each beat. Play four beats on the down-bow, and four beats on the up-bow.

The notes shown as harmonics represent rolling the finger backwards, flattening the note and slightly releasing the string (so that the note no longer sounds pure), before coming back up into the note on the next beat.

- (2) Vibrate forward to the in-tune note twice on each beat.

- (3) Each semiquaver represents one vibrato 'ping'. The crotchets represent the note played without vibrato.

Play forward–forward–forward–forward, then forward-and-stop on the in-tune note, i.e. play ping-ping-ping-ping-ping, ping-ping-ping-ping, etc.

- (4) Play continuous vibrato without stopping.

Play 'ping-ping-ping-ping' on each beat without stopping.

As an extra stage before you play (4), or as a separate exercise, try making up various rhythms in the vibrato before playing the regular groups of four without stopping. For example:

F F F F F F F F

If you practise the exercise for just one or two minutes as part of the daily warm-up, it does not take long before control, speed and ease all improve noticeably.

Start from nothing

The first thing that many children do when they first try to vibrate is to tighten the hand. To counter this, they should start in an exaggerated state of relaxation and work up from there, gradually introducing more muscle tone until there is just the right amount:

- Place a finger on the surface of the string, as though playing a harmonic.
- Make your hand go completely limp and soft. Let go of every muscle in the hand and fingers so that there is no muscular activity whatsoever. Also release the wrist, forearm, upper arm and shoulder.
- Keeping the hand feeling limp and 'jelly-like', begin to vibrate the finger on the string.
- At first, allow the finger to be far too loose and wobbly. It doesn't matter if the fingertip slips on the surface of the string and the pitch of the note keeps changing.
- Begin to allow the muscles in the hands and fingers to work more, so that gradually the vibrato becomes more stable and focused – but strive at the same time to keep the floppy, loose feeling in the hand and fingers.
- Finally arrive at a point where the finger stops the string properly, and the vibrato is focused on the pitch of the in-tune note, but the entire hand is still relaxed and free.