

Fast fingers

Strong, hammer-like finger action is sometimes needed for extra articulation, but in general use it makes the fingers heavy and clumsy. What is important is the *speed* of the finger action. Sometimes fingers have to move slowly, but there are two reasons why fast fingers are often necessary.

First, the louder the volume, the wider the string vibrates; the wider the string vibrates, the faster the finger must drop on to the string.

Second, fast passages *feel slower* with fast fingers. The faster a finger drops on to a note, the later the dropping can start. So a fast passage, played with 'late' fingers all dropping very quickly 'at the last possible moment', feels slower than when played (at the same tempo) with slower-moving fingers, because there is a longer wait between each action.

About timing lifting and dropping

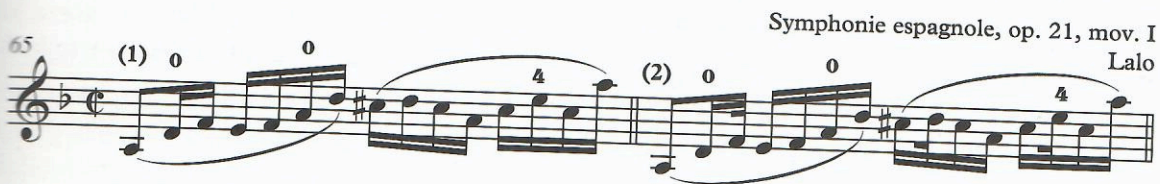
To play rhythmically evenly, you have to raise and drop the fingers *unevenly*.

Dropping a finger: the finger moves towards the string, and then the new note is played.

Lifting a finger: the new note is played as the finger moves away from the string.

Therefore the finger must begin to drop *before* the new note is required, and must be lifted *when* the new note is required.

In this example from Lalo, the second bar shows how the passage comes out unevenly if the lift-off is not left until the moment the new note is required.



The difference in timing between lifting and dropping is one of the reasons why it is often best to move the fingers as late as possible, and then to move them very quickly. As well as improving clarity, giving the player a sense of extra time, and making it possible to play with a large tone, moving the fingers quickly at the last possible moment makes it easier to play with fine rhythm.

Practice method

A simple practice technique to equalise notes that 'drop out' is to play them longer and louder than the surrounding notes.¹



¹ See *Drop-outs*, page 168

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Lift-off

Exercise 1

- To play the up-bows, use a very short spiccato near to the point. Make the strokes sound like the left-hand pizzicato.
- For the purposes of the exercise, pluck using only the finger, pulling it back from the base joint, with no hand movement.
- Tempo: slow, medium and fast

Repeat the same pattern on the G string. Position the elbow more to the left for plucking the E string, and more to the right for plucking the G string.

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Exercise 2

Lifting off from high positions to the open string needs the fastest finger action to avoid 'fuzz' in the sound as the finger leaves the string. It is possible to avoid 'fuzz' by lifting the finger with a slight plucking movement (as in cello playing), but the point of the exercise is to lift the finger as fast as possible without plucking, and then to use the same lift-off speed in the lower position.

- Play strongly near the bridge: the louder the volume, the faster the finger has to lift.
- In the high position, lift the finger very fast so that the open string speaks immediately. Remember the feeling of the fast lift-off, and then use the same lift-off speed in first position.
- To make the exercise as effective as possible, lift the fingers vertically, without any sideways plucking. Keep the bow sustained, without playing a slight *diminuendo* before each lift-off.

Play the same sequence on each string.

Gradually increasing speed

Exercise 1

The wider the string vibrates (i.e., the louder the volume), the faster the fingers have to touch or leave the string.

Begin *pp*, dropping and raising the fingers slowly.

As the volume increases *wait longer and longer* before dropping or raising, moving the finger faster and faster.

Whatever the dynamic or speed of finger movement, the sound should always be pure, without any 'fuzz' as the finger touches or leaves the string. Playing *mf* or *ff*, listen to the 'ping' as the finger is dropped or raised.

See page 41 for a description of the soundpoints.

Play on each string.

Exercise 2

Play with the metronome at $\text{♩} = 60$ to make sure that only the speed of the finger changes, not the tempo.

Raise and drop the finger so slowly that it keeps moving without stopping – i.e., it begins to drop on the beat, moves down so slowly that it touches the string exactly on the next beat, and immediately begins to rise again. This will cause 'cracking' and 'fuzz' in the notes when the finger does not stop the string properly.

Increase the speed of the finger movement little by little so that, after dropping or lifting, you wait longer and longer for the next beat. The purity of the notes will gradually improve.

Finally play with such a fast finger movement that the finger is stationary most of the time – either up and waiting to go down, or down and waiting to go up.

Play on each string using the following fingerings: 01, 02, 03, 04 12, 13, 14 23, 24 34.

Slow tempo, fast fingers

Exercise 1

- Play *f* near the bridge with a sustained, even tone.
- Move the fingers as *late* and as *quickly* as possible, while playing at a very slow tempo.
- Each note should start with a 'ping' as the finger is dropped or raised. Lift the fingers *higher than usual* so that the finger has to move very fast.
- Use whole bows so that the bow speed is very fast, making the string vibrate as widely as possible.
- Place the lower fingers on the string before lifting a higher finger.¹

Play the same sequence on each string.

Practice method

Play through any moderate-to-fast passage (or whole piece at a time) at a very slow tempo, while dropping and lifting the fingers very quickly. Wait until the last possible moment before moving each finger – keep the finger still for so long that waiting just another instant would cause the note to be late; then lift or drop extremely quickly. (Fingers that are prepared on the string should still be placed rather than dropped fast.)

Exercise 2

In this exercise the 'tempo' of the fingers is slow because they move only on each beat; but the speed of the finger movement, from one pair of notes to another, has to be fast to co-ordinate with the bow.

- Play as fast as possible so that the fingers have to move very quickly to get to their next positions in time. Start at $\text{♩} = 92$. Repeat the exercise at $\text{♩} = 120$, and then at $\text{♩} = 144$.
- There should be no extra sounds when changing fingers. Move so quickly that (1) the open strings are never touched by the bow, and (2) there is no 'fuzz' at the beginning of a group caused by bowing a not-completely-stopped string.
- For the purposes of the exercise, lift each pair of fingers and place them on the next string – do not hold fingers down on two strings at once.
- At first keep the fingers close to the strings. Later, lift them higher and higher so that you have to move them faster and faster.

¹ See *Finger preparation*, page 130