



# SINGLE REED DOCTOR

*Our guest single reed doctor answers questions sent in by readers. Please send your questions – or further responses to advice given – to [editor@cassgb.org](mailto:editor@cassgb.org)*

**Q:** I haven't played 'live' with my teacher or in an ensemble for nearly 12 months and I'm worried that my intonation is suffering. Any suggestions?

**A:** Thank you for bringing up this important aspect of our playing.

We often prioritise the sound of an instrument or mouthpiece but overlook the importance of intonation, which is an essential aspect of any player's musical development.

Good intonation allows us to play with others in harmony. The ongoing Covid situation means there is little opportunity to play together. Zoom lessons are a good alternative to face-to-face lessons but present problems with latency, or time lag, making it nearly impossible to play along with your tutor during lessons. If you've tried to play with multiple players at the same time, perhaps as part of a virtual rehearsal, you'll be aware that things can quickly descend into chaos!

But even when practising alone there are certain things we can do to keep our intonation in check. In addition to the suggestions below, an accompanying video with more thoughts and demonstrations is available on my YouTube channel – search 'ARCS Presents'.

You may be lucky enough to have a piano or keyboard at home, and even possibly someone to accompany you. Checking your intonation or tuning with the piano is always a useful exercise for us wind players.

If you have any duets or ensemble music, record one or more parts of pieces and try playing along with the recording. Remember to give yourself a bar or more of regular beats as a count in at the start. Most smartphones have built-in recording apps, such as 'Voice Memos' on the iPhone, or you can download others such as 'TwistedWave'. Many others are available on Android and iOS.

The internet is a great resource. One of my favourite YouTube channels is 'Earsspasm', the home of the fabulous bass clarinetist Michael Lowenstern. He has made videos on everything from clarinet technique and instrument hygiene to multi-tracked performances and play-along tracks, including duets of various difficulties. You can download the parts and hit play to be Lowenstern's duet partner. There's also a tuning

note and metronome to help keep you in time. Visit [www.youtube.com/earsspasm](http://www.youtube.com/earsspasm) and click on the playlists tab.

Use a tuning machine or tuning app on your smart device. My personal favourite for everyday use is 'Cleartune', available on both Android and iOS. It's cheap and offers a wide variety of options, including a useful tone generator.

After selecting equal temperament and the pitch, usually 440-441 Hz in the UK, play a variety of notes to check your instrument's overall tuning. As a general rule, most clarinets will tend to be a little sharper in the throat notes from F (first space on the staff) to B flat (third line). This is deliberate in the manufacture so once the instrument is warmed up players can pull the barrel or mouthpiece out by 1-3mm, which should then make the instrument more in tune with itself. Lower notes take longer to get up to pitch on both clarinets and saxophones.

The 'Cleartune' app also has a tone generator that can sound a note at any chosen pitch and register, which can help you discover how to better tune intervals. For example, set the tone generator to concert C and then play a minor third above it on your instrument (concert E flat). Don't forget we all play transposing instruments.

For an interval of a minor third to 'sound' right you'll find the third should be played around 15% flat. This is known as 'just intonation'. Try either pulling out the barrel or mouthpiece a few millimetres or add some extra fingers (usually with the right hand). You can also control your embouchure and air speed to make the interval sound right.

If you search online for 'equal temperament vs just intonation' you will find various charts showing how interval sizes differ between the two tuning systems. To learn more about how equal temperament evolved, a good explanation by composer and broadcaster Howard Goodall is available on YouTube – search 'Big Bangs 2 Equal Temperament'.

Here's a final little game; when playing a piece you know well, stop on any note and sing or hum the pitch of the next note. You may well surprise yourself at the difference and how quickly this can improve your intonation and sense of pitch.

Many years ago, my good friend and teacher, John Fuest, former principal clarinet of the Royal Liverpool Philharmonic Orchestra, enthusiastically showed one of the first tuning machines to conductor Sir Charles Groves, who commented, 'Well John, that's marvellous, but it's no substitute for a good pair of ears is it?' ■

*Andrew Roberts has been a professional freelance clarinetist for over 40 years and now runs his company ARCS offering bespoke work on clarinets ([www.theclarinet.co.uk](http://www.theclarinet.co.uk)). He previously served as chairman of CASSGB and has written for Clarinet & Saxophone on many subjects over the last 20 years.*