

How To Get the Most Out of Your Metronome

Most of us use our metronomes regularly (or know we should!) and for most musicians, one of the primary uses of the metronome is to learn how to play with a steady pulse. However, we've all had the experience of practicing regularly with the metronome, only to find that we still rush or drag when we play without one. There is a good reason for this: **your brain works in a fundamentally different way when the metronome is on versus when it's off.**

In a study by Rao et al. (1997), non-musicians tapped to a metronome and then continued tapping at the same tempo after the metronome was turned off while researchers looked at their brain activity.¹ They found that entire areas of the brain that were silent while the metronome was on became very active when the metronome was turned off. Specifically, the supplementary motor area (SMA), the putamen (put.), and the thalamus (thal.) are only activated when the metronome is off (see Figure 1). These areas together make the **sensorimotor loop** and are important for the *internal, self-timing* of movements. It makes sense they would be active only when the metronome is off because metronome provides an *external* source to help time movements.

What this means for musicians is that when we practice with the metronome, our brains are doing something fundamentally different than they will have to do in performance when we don't have a metronome. So in the practice room, we have to make sure to practice what our **brains** must do when we're in a performance situation, not just what our bodies will have to do.

Armed with this new information, here is a step-by-step guide to using your metronome to help improve your sense of pulse.

1. Make sure you can play the passage exactly with the metronome clicking on each beat.

2. Play the passage with the metronome clicking offbeats only. To make it sound like it's clicking on the offbeat, turn on your metronome and tap offbeats with your hand. Then count out loud with your hand (NOT with the metronome). When you stop counting and tapping, it should sound like the metronome is off the beat. This step makes you more responsible for feeling the beat.

3. Have the metronome click every other beat. So, if you're in 4/4, it should only click on 1 and 3.

4. Have the metronome click on the downbeat only.

5. Have the metronome click only on every other downbeat.

6. Continue to move the clicks further and further apart. I use the metronome app Tempo by Frozen Ape because you can manually turn off the sound on any beats you want. So, if I put the metronome in 12/4 and turn off the sound for everything but the downbeat, that is like it is clicking every third downbeat in 4/4 or every fourth downbeat in 3/4.

7. Use a random beat generator. There is a great app called TimeGuru in which you can tell it to randomly silence a certain percentage of the beats. It is very challenging to play with 75% of the beats randomly missing and then line up precisely with the metronome when it does decide to click. This is the ultimate test for steadiness of pulse.

This process will gradually make your brain increasingly responsible for generating the beat itself, while still having something objective to check in with. It's a great challenge, a lot of fun, and will dramatically improve your sense of pulse!

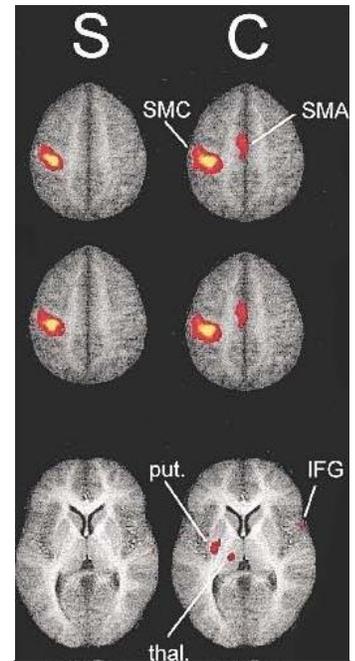


Figure 1. S=Synchronize with the metronome, C=Continue tapping.



Violist **Molly Gebrian** has distinguished herself as an outstanding performer, teacher, and scholar throughout the US and Europe. Her principal teachers include Peter Slowik, Carol Rodland, James Dunham, and Garth Knox. Molly completed her DMA in viola performance at Rice University and she also holds graduate degrees from the New England Conservatory of Music, and Bachelors degrees from Oberlin College, in both viola performance and neuroscience. She has published papers in the *Journal of the American Viola Society* and *Frontiers in Psychology* and remains active in music/brain research. She currently teaches at the University of Wisconsin-Eau Claire.

¹ Rao, S.M., et al., (1997). "Distributed neural systems underlying the timing of movements." *The Journal of Neuroscience* 17(14): 5528-5535.