



# SOUND HEALING

## Focus and Get Motivated with Binaural Beats

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**F**ocus and motivation are both important for success in the workplace. The question is, which comes first: focus or motivation? It's probably easier to feel motivated when you reach a state of strong mental focus. This can be hard to reach when we live in a world full of distractions. Although all brain waves are always present, as we change mental states and activities our brain begins to emphasize one or two of the five brain wave states. Brain waves come in five main types, alpha, beta, theta, and delta and gamma.<sup>1</sup> We use beta brain waves to focus. You are in beta when studying, working, or doing tasks that require intense mental focus.<sup>2</sup> One new technological solution is to use beta binaural beats (BB) to support brain focus.


How can listening to beta BB help you focus? BB are a sound technology that influences the brainwaves that the brain produces in response to sound.<sup>3</sup> BB consist of two slightly different sound frequencies, one in each ear. BB are not actual sounds; rather they are an illusion that exist only in your head when you

listen to them through stereo headphones. BB are produced when the brain responds to the difference between the two sound frequencies by producing a third frequency. BB come in five types: gamma, beta, alpha, theta, and delta—or a blend of two or three of these brainwaves. You can choose to listen to the BB frequency that matches your desired state, in this case beta.

How do we know that BB have a real effect? The effect is measured using electroencephalography (EEG) to gather moment-to-moment feedback showing changes in brain waves.<sup>4</sup> Research shows that listening to beta BB (14 Hz) supports mental focus and learning.<sup>5</sup> Brain analysis using EEG showed that attention and concentration were enhanced when listening to beta BB.<sup>6</sup> In tests of mental focus, beta BB supported participants in making more correct decisions.<sup>7</sup> Another study showed that listening to beta BB reduced short attention span and mind wandering by 21%.<sup>8</sup> Motivation is related to excitement and mental focus.<sup>9</sup> EEG measurements show that excitement and mental

focus are associated with the highest occurrence of brain beta waves.<sup>10</sup>

The research described above shows that you can use beta BB to focus and stay motivated. Listen to beta BB before or during an activity you would like to focus on. The beta BB will support your intention to concentrate and stay on task. Since you cannot hear BB (they should play silently beneath music), choose music that you like. Music alone can put you in a relaxed state, so choose music that works for you. BB are only effective by playing a different tone in each ear, so be sure to use headphones or earbuds (but not while driving please!). Use over-the-ear headphones if possible since they give you a fuller sound. Always listen to BB for at least ten minutes since it takes at least that long for your brain neurons to start firing at the same rate as the BB.

I also prefer to use BB from research based binaural beats companies, rather than BB of unknown origin that are flooding Youtube, Spotify and other channels. To that end I created my own app in which I feature songs with my lab tested formulas. If you have a favorite app that you use, check the research section of the app to make sure they have tested their formulas in the lab. If you're unsure, email Sound Medicine® for a review of any research. Stay tuned to future issues of this column, where we will next show you how to use BB to support your goals of calm focus and reset/rejuvenate. 

## References

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