



Reset and Rejuvenate with Binaural Beats

Elizabeth W. Krasnoff, PhD

If you are a caregiver, most likely you are immersed in the needs of one or more other persons. When they need more energy or strength than they can supply on their own, you step in and give from your own well. You may do it willingly and with grace, but it can also leave you needing a reset. How can you feel rejuvenated when you have so little time or opportunity to do so? Try using binaural beats (BB) sound technology. BB can support your intention to reset your own brainwave patterns for happiness and rejuvenation.

How do BB work? BB are a sound technology that influences the way the brain responds to sound.¹ BB are not real sounds; rather BB are a specific type of sound 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 sound. While this sound is an illusion that exists only in the listener's brain, the brain does respond to the illusion by changing brainwave frequencies that also cause changes in the way the listener feels. BB come in five types: gamma, beta, alpha, theta, and delta. You can choose to listen to the BB frequency that matches your desired state, in this case a combination of alpha and theta.

Some BB listeners users use alpha BB to enter a happier brainwave state. This practice of using BB as a type of "digital drug" is occurring worldwide.² The mere fact that BB are being used to change emotional states challenges broadly held assumptions about how a drug can be defined. Can a sound experience that changes the way we feel be considered a drug?

If you are exhausted by caregiving duties, try using BB to change your own brainwave patterns. Alpha brainwaves are correlated to the brain chemicals related to happiness. A person wishing to reach the alpha state can support their intention by listening to alpha BB.³ Theta BB have been shown to relieve anxiety since they cause deep relaxation. That is why it is called the “trance brainwave” frequency.⁴ A study by Szabó et al. also showed that theta BB were capable of inducing a trance state of consciousness.⁵ Using a combination of frequencies such as alpha and theta BB may be more effective for achieving desired effects than listening to one BB frequency alone.⁶

The research discussed above shows that you may use alpha and theta BB to reset and rejuvenate. Since you cannot hear BB (they are played silently beneath music), choose music that you like. Music alone can put you in a relaxed state, so choose music that works for you. Since BB work by playing a different tone in each ear, use headphones or earbuds (please, not while driving!). Choose over-the-ear headphones if possible since they provide a fuller frequency of sound. Always listen to BB for at least ten minutes since research suggests that it takes at least that long for brain neurons to start firing at the same rate as the BB. The final and most important choice is how to incorporate this technology into your daily schedule. Whether you use BB while meditating, resting or walking, all you have to do is listen to the music. This technology is easy and accessible.

Thank you for tuning into our binaural beats column, where we have shown you how to use BB to support your goals of sleep, relaxation and focus, and a number of other correlated states of consciousness. €

Want to stay connected? Visit Elizabeth at www.sound-medicine.com. Sign up for the newsletter and receive a free binaural beats creativity track. For the full immersive Sound Medicine® experience, [download our app](#) and receive a free two-week trial.

References

1. Jirakittayakorn, N., & Wongsawat, Y. (2017). “Brain responses to a 6-Hz binaural beat: effects on general theta rhythm and frontal midline theta activity.” *Frontiers in Neuroscience*, 11, 365. <https://doi.org/10.3389/fnhum.2018.00387>
2. Barratt, M. J., Maddox, A., Smith, N., Davis, J. L., Goold, L., Winstock, A. R., & Ferris, J. A. (2022). Who uses digital drugs? An international survey of ‘binaural beat’ consumers. *Drug and Alcohol Review*, 41(5), 1126-1130. DOI: 10.1111/dar.13464
3. Gupta, A., Ramdinmawii, E., & Mittal, V. K. (2016). Significance of alpha brainwaves in meditation examined from the study of binaural beats. 2016 International Conference on Signal Processing and Communication (ICSC) (pp. 484-489). doi: 10.1109/ICSPCom.2016.7980629
4. Jirakittayakorn & Wongsawat, “Brain responses to a 6-Hz binaural beat: effects on general theta rhythm and frontal midline theta activity,” 365.
5. Szabo et al., 2015 Szabó, G., Drótos, G., & Szabó, C. (2015). “Az elvárások és a hanginger szerepe a binaurális ütemek hallgatása során átélt szubjektív élményekre. [The effects of the expectation and sound stimuli on the subjective experiences of binaural beat listening].” *Magyar Pszichológiai Szemle*, 70(4), 769–785. <https://doi.org/10.1556/0016.2015.70.4.4>
6. Garcia-Argibay, M., Santed, M. A., & Reales, J. M. (2019). “Efficacy of binaural auditory beats in cognition, anxiety, and pain perception: A meta-analysis.” *Psychological Research*, 83(2), 357-372 <https://doi.org/10.1007/s00426-018-1066-8>