

Do Binaural Beats Increase Focus & Attention? | Dr. Andrew Huberman

If right now someone pulled a fire alarm in this building or if we had a fire in this building my attention would drift It would not be on recording this podcast It would be on something else But would I say that the fire alarm mediates attention I mean fire alarms are not really involved in attention No rather they modulate my attention The noise in the room modulates my attention That's quite a bit different than a tool that I'll provide later and I'll just give you a little hint of now In fact I'll give it to you now which is that 40 Hertz Binal Beats have been shown in a number of peer reviewed studies to increase focus and concentration And if you'd like to access 40 Hertz Binal Beats in order to improve your focus and concentration you can do that You can actually get it at zero cost You can go into the App Store for instance the Apple App Store Uh This is also available for Android phone There's an app called Brain Wave and you can go there you can dial in 40 Hertz and it'll play these Binaural Beats It's been shown in multiple quality peer reviewed studies that playing a pattern of sound waves to one ear do do do do do and the other ear which is slightly offset in frequency meaning not quite the same frequencies So more like do do do do that that combination of frequencies played to the different ears actually get integrated within deep brain centers and can increase focus and concentration in part by increasing levels of the neurochemical dopamine and acetylcholine which we talked about a little bit earlier in this aero model of focus So we'll provide a link to that app I don't have any relationship to that app I should mention Uh But it's an excellent one It's one that I've used for many years There are also additional functions within the app such as for sleep and for other things But the 40 Hertz 40 HZ is the way it reads out 40 Hertz stimulation has been shown to improve focus and concentration Here is my recommendation in the way that I use it I would not use 40 Hertz by normal beats every time I'm doing a bout of work what I tend to do is use it for about five minutes prior to that work and then turn it off and then do the work and I'll talk about other tools to use during that work Whether or not it's reading or math or even just emailing or something where I require a bunch of focus for a while However there are times in which I'm in an area where I'm in a state of mind where I'm feeling very distractible and then I'll keep the 40 hertz spine neuro beats on the entire time I'm doing that bout of

cognitive work I'll also sometimes use the 40 Hertz bin neuro beats prior to a workout in particular weight workouts where I really want to be able to focus on and contract specific muscles So it's a very useful tool again supported by quality peer reviewed science Zero cost available out there not just in the brain wave app but in multiple apps I think many of you will benefit from it Some of you might not experience it immediately as a total dropping into a tunnel of focus in the same way that you might with say uh the sorts of neurochemicals that we'll talk about later like alpha G PC and some of these other things that change neurochemicals directly But nonetheless 40 Hertz by neural beats are a very powerful tool Again zero cost non pharmacologic tool that tap into your own endogenous meaning within you or exists within you physiology in order to increase acetylcholine and some other neurochemicals And they have been shown to work quite well Ok So assuming that you are sleeping well 80% of the nights of your life or at least working on the various protocols and tools to sleep well and sufficiently long 80% of the nights of your life and you are interested in additional tools that are sound based in order to improve your ability to concentrate and focus There are quality peer reviewed studies supporting the idea that white noise or pink noise and believe it or not there is something called pink noise It has to do with the specific frequencies of sound that are in the noise Well white noise and pink noise have been shown to not improve concentration per se but to improve people's ability to transition into concentrated states So I don't tend to use white noise and pink noise while I work But I know a number of people that do I know people that also use what's called brown noise Um The folks I know from the engineering and computer science side get really into these details of white noise pink noise brown noise You can find white noise pink noise or brown noise and listen to it through headphones or in the room There is indeed some data to support the fact that white noise and to some extent pink noise and brown noise can support the release of particular neurochemicals But more data showing that they can amplify the activity of neurons in the so called prefrontal cortex This front area sort of the bumper behind your forehead uh that is directly related to your ability to direct your own focus and remain focused on certain things So you have the option of either using binaural beats before but not during your work That is 40 Hertz by neural beats or 40 Hertz neural beats throughout your attempt to focus You also have the option of not using Boral beats but using white noise pink noise or brown noise Again there are a lot of zero cost apps you can find also white noise pink noise and brown noise on youtube Again these are tools that

really have been shown over and over in humans to allow people to focus with more depth and to decrease the transition time into focus This is a really key point A lot of people are challenged with getting into a mode of focus None of us however should be expected to just sit down and drop directly into a state of focus I think that's completely an unfair request of ourselves I mean for instance you wouldn't expect yourself to go out on the track or go out for a run and not warm up You might jog for a few minutes or even walk before you would jog and then jog before you would run Right I would hope you would do that And if you're doing resistance training I doubt that you go over and load up the bar or the machine with the maximum amount of weight that you can move and then just drop right in that you always do a warm up And I think it's very important to understand mental work focus and concentration as requiring that warm up What is that warm up Well you know what that warm up is that warm up Is the ramping up or the increase of Epinephrine adrenaline acetylcholine and dopamine Right The way that neurochemicals work is we don't just get to flip switches in our brain because we decide to that's a fantasy that's sort of of the the limitless movie or um you know movies and ideas that suddenly you know you're gonna flip a switch on your arm and all of a sudden you're gonna be in a laser focus That is just not the way that your nervous system works There's a gradual dropping into any state whether or not that state is sleep right You go from shallow sleep to deep sleep and then out eventually focus two you go from shallow focus to increasingly deep focus that is in our metaphor of the arrow It's very broad it's pointed at a lot of things and over time as we drop into focus that arrow is narrowing and narrowing and narrowing In fact probably better to to think about it narrowing and then sometimes oscillating and getting wider again You know we might hear something down the hallway or more typically our phone will buzz or we'll think Oh I wonder what so and so is doing or I hadn't contact them about something Your focus is dynamic It is not what we call a step function It's not like you go from unfocused to focus and then you drop into your maximum focus by understanding that it's dynamic By understanding that you are going to be continually going in and out of progressively but varying levels of focus you will greatly release the pressure on yourself to feel focused all the time when you want to be This is very key people who are very good at focusing understand this and understand that they can't expect themselves to just immediately focus and then snap into or out of focus OK So be patient with yourself and also understand that focus is an ability that you can improve your ability to focus

by engaging the neural circuits responsible for focus repeatedly over time through so called neuroplasticity the ability of your nervous system to change in response to experience and that has a couple of different components But put very simply what we repeat gets etched into our nervous system It becomes easier over time And the more emotionally important or vital something feels to us the more likely it is to trigger neuroplasticity We're gonna talk a little bit more about how to increase neural circuits for focus later But right now what you have in hand is the key importance of sleep And I again will direct you to Huberman lab dot com and the neural network newsletter to really work on optimizing your sleep We've also got two auditory sound based tools for improving focus There's 40 Hertz by neural beats used before or during bouts of focus and concentration And if you don't like those or even if you do you might alternate them with or occasionally use white noise pink noise or brown noise also readily available at zero cost