

Neurophone® FAQ'S

Q: How long should I use the Neurophone® when starting out and for regular sessions?

A: Individual results vary and we encourage Neurophone® users to experiment, an average suggested application would be 15 minute sessions in the beginning and gradually extending to longer sessions, depending on your level of comfort. Some Neurophone® customers claim to apply the Neurophone® for extended time including sleeping with the Neurophone® active throughout the night.

Q: What can I expect to feel when I use the Neurophone?

A: The Neurophone® is an experimental device and Flantech does not make any claims regarding any benefit. We do, however, receive a significant amount of feedback and testimonials from Neurophone® users, indicating reports of greater coherence of thought, greater ability to focus one's attention, a sense of well being, increased memory retention, accelerated learning, more restful sleep and an ability to achieve a deeper relaxation.

Q: How does the Neurophone® work on our body?

A: The Neurophone uses the ultrasonic signal to stimulate a small organ in the inner ear called saccule at the same special frequency that the brain uses to encode and decode data. The mechanism of its operation extends beyond a simple stimulation. The saccule contains small nerve endings called macula and a small tissue cap (otolith) which contains calcium carbonate ('sand like') particles called otoconia. When your head tilts, the small particles (otoconia) shift within the otolith and stimulate the small hair-like nerve endings of the macula. This stimulation is what tells your brain through the parasympathetic nervous system that you are not fully standing erect. This intricate system is your virtual gravity detection system. If you are out of our normal gravitational environment, i.e.: underwater, you may have a difficult time orienting yourself to the environment and may not know which way is up. What has been recently discovered is that the saccule organ is used by mammals as a sense organ. Dolphins, dogs, etc. use this organ to aid in communication, particularly hearing. The ultrasonic signal produced by the Neurophone® is specialized for the frequency that the brain used to process information, The result is the direct communication from the vestibulocochlear nerve with the brain communication centers. The information is directly encoded to the brain, without the 'distraction' of other noises heard through the ears.

Q: What is “Pink Noise?”

A: Pink Noise is an expression of all frequencies being heard simultaneously. It is not random, or white noise, but rather has been specifically engineered and is described as a “water like” sound such as a trickling waterfall in the distance, and has been scientifically proven to aid in relaxation, stress reduction, balancing the hemispheres of the brain and the reduction of the effects of tinnitus.

Pink noise is also used in industrial areas and offices to mask out undesirable noise and create a more soothing atmosphere, which in turn has been shown to lead to increased productivity. Both of the new Neurophone® models, the GPF1011-DSP and the Golden Ration Series have an integrated pink noise generator built in to them.

Q: I have been profoundly deaf for 26 years; will the Neurophone® allow me to hear again?

A: We can not make any medical claims nor do we endorse the use of the Neurophone® to help people who have any kind of hearing disorder. The Neurophone® is an ultrasonic neural stimulator and as such is purely an experimental device. We do offer a 30-day trial period, and we will gladly refund the purchase price less the shipping as long as the neurophone is returned in re-saleable condition.

Q: When I use the Neurophone® I feel a tingling sensation from the transducers, somewhat like an electrical shock, is this normal?

A: A small number of our Neurophone® customers have reported feeling a tingling sensation when they first apply the Neurophone®. Some individuals are a more sensitive to the ultrasonic energy than others; the ultrasonic energy causes a vibration to be transferred into the skin, After applying the Neurophone® for a few sessions this sensation will disappear. The Neurophone® is CE certified (#04553.023.03) and there is no danger of receiving an electrical shock, as there is not enough voltage present at the transducers.

Q: How many sets of transducers can I operate at the same time?

A: The Neurophone® will operate up to two sets of transducers simultaneously.

Q: What is the Neurophone® warranty?

A: We offer a one-year warranty for parts and labor.

Q: What do the letters DSP mean?

A: The neurophone DSP utilizes a microprocessor to process the signals produced by the Neurophone® and the acronym specifically means: Digital Signal Processing.

Q: Do the Neurophone® batteries develop a memory like Ni-Cad batteries?

A: The Neurophone® utilizes Nickel Metal Hydride (NiMH) batteries, which are resistant to memory characteristics.

Q: Can I place the transducers any where on my body and still realize benefit from the Neurophone®?

A: It is our belief that the greatest benefit is derived when the transducers are placed around the frontal portion of the head and temple area. We have had reports from customers who have had positive results when placing the transducers on the neck, arms and even the lower extremities such as legs.

Q: How do I use the Neurophone® for learning languages?

A: There are several ways people use it for language training:

1. Listening to pink noise as you read the lessons.
2. Playing language CD's through the Neurophone®.
3. Playing the CD's through the Neurophone® and having a set of headphones hooked up to the CD player, using the supplied audio splitter.
4. Listening to pink noise through the Neurophone® while listening to language tapes through regular speakers.
5. Playing CD's through the Neurophone while you sleep.
6. And finally, the example of a customer who gained fluency in Hungarian by playing language CD's through the Neurophone® while he read something else entirely!

Q: When I play a CD through the Neurophone®, it doesn't sound the way I'm used to hearing it. Is something wrong?

A: No, there is nothing wrong. The ultrasonic translation of sound is perceived slightly different than traditional audible, audio signals. Some people still prefer to listen to it the way they're used to. When you want to listen with headphones as well, use the splitter at the OUT connector on your CD or cassette player. Plug the headphone in one side, and the 3 foot cord in the other side, connecting that 3 foot cord to the INPUT of the Neurophone®, then the transducers to the OUTPUT as your would with normal use. That

way you are covering all the frequencies and will be more accustomed to the traditional "hearing it with your ears." Never plug headphones directly into the Neurophone®, as it may damage the headphones. Many users like the pink noise option and listen to that through the Neurophone while they read, meditate, or listen to learning tapes through regular speakers.

Q: Can it be listened to alone or do I need to add music?

A: You don't need music; many Neurophone® users just simply like the pink noise best. Listening to music is not the primary purpose of the Neurophone. The Neurophone® is designed as a neuropathic ultrasonic stimulator, to allow the user to perceive things in a way that ears are unable to provide. When you connect a music or audio CD the information is basically bypassing your normal processing mechanisms. It is not designed as a headphone set for your ears. We do provide a splitter so that if you want to audibly listen to the CD you can connect both the Neurophone® and a set of headphones to the CD player.

Q: When I'm wearing the Neurophone, others who are near me can hear it too. How's that?

A: The sound others are hearing is actually sound bouncing off your skin created by reflected ultrasonic energy, essentially turning your skin into a speaker. The goal is to practice with turning the Gain down until you can still perceive it but you don't "hear" any of the reflected sound. Also when using an external CD player, adjust the CD volume higher till it is clearer through the Neurophone®. With the Gain turned down the information is still going in to your brain, but you won't hear it though your ears. Use the Gain control to find the level you are comfortable with.

Q: If I can hear some sound through my ears, does that mean it isn't transmitting ultrasonically?

A: If you connect the Neurophone to a spectrum analyzer or an oscilloscope you will find it does transmit ultrasonic sound at 40 kHz, beyond what our ears can hear, but in the range that our brains can still perceive. But with the Gain turned all the way up, some audible sound can also be heard through your ears. You are hearing a reverberation through your skin.

Q: Do you sell CD's for use with the Neurophone®?

A: We currently don't, but Tools For Wellness (www.toolsforwellness.com) has a large selection of learning and personal growth CD's available.

Q: Is the Neurophone® stereo?

A: The current Neurophone® design is monaural. The left and right stereo signals are combined to R+L.

Q: Isn't the Neurophone just an audio amplifier with little speakers?

A: No, the Neurophone is not simply an audio amplifier with mechanical transducers. The circuitry involves using modulated 40 kHz ultrasonic signal through piezoelectric transducers.

Q: Can I use my Binaural Beats CDs with the Neurophone®?

A: The binaural beat will still be present at the transducers but not as discreet outputs. There is a binaural effect although it is mixed as an amplitude modulated signal into the transducers.

From our engineer : The Neurophone® does, indeed, produce an amplitude differentiated binaural effect when two or more frequencies are combined which have a close series relationship typically as high as 18 Hz, this is accepted fact and rudimentary electrical engineering. Now, true binaural heterodyning does take place in a discreet stereoscopic manner, which is I believe what you're referring to and that the current model Neurophone® does not incorporate. The Neurophone® does rely on skin conduction as you have stated, this is one of the propagation modalities which are responsible for ultrasonic stimulation. At the end of this document you can find journal article which plainly shows that humans are capable of differentiation of ultrasonic frequencies, this paper was published in "Science" which is a very well known and widely accepted as fact scientific journal....

Q: Even though we all have two saccules (one on each inner ear) is there is no distinction between left and right as in our ears ?

A: It is our understanding that the ultrasonic stimulation of the saccules is not differentiated between right and left since these otolithic organs' primary purpose is to detect changes in gravity and acceleration.

Q: Can I use the Neurophone® with two sets of transducers, from the single output of the device? (As in "neurophonic marriage telepathic counseling!")

A: Yes, the Neurophone® will drive 2 sets of transducers, using the signal splitter we provide with the basic unit, and we have additional transducers available on the web site.

Q: Can I attach a microphone directly to the Neurophone®?

A: No, you would need to have a microphone preamp plugged in between the Neurophone® and a microphone.

Q: Would the Neurophone® interfere with my heart pacemaker ?

A: No. The output of the Neurophone is ultrasonic and therefore there exists NO direct correlation to the electronics of a pacemaker. Also, the Neurophone® has been certified by CE.

Q: How do I use the Neurophone® for meditation?

A: The Neurophone® would be compatible with many forms of meditation. One technique is sitting back in a nice, peaceful environment and listening to the pink noise. Close your eyes and imagine a soft flowing waterfall in a grotto off in the distance. Start with the transducers on your forehead. The goal will be to, over time, reduce the gain (volume) to a point that you can still hear the sounds clearly with the volume all the way down. As with most meditation, the absolute goal will be to be able to focus on both nothing and everything simultaneously.

We suggest starting with this... then working on tapes or sounds, such as playing a CD of natural sounds, like rain, or the ocean waves crashing into a shore...etc.

Q: Could the Neurophone® help me with my school studies?

A: We get numerous reports of success with studies. As an example, the wife of one of our staff members was able to follow a pattern of her exam results during graduate school. She would listen to taped lectures through the Neurophone® while she was relaxing or meditating. Pink noise by itself is relaxing and acts as a 'training mechanism' to develop you saccule's ability to perceive sound.

Q: What results can I expect to feel?

A: Depending on the person, the results and perceived results of the Neurophone® may vary. Generally, most people who use the Neurophone®

Q: Could I probably work on the computer as well as listen to a language course without being distracted?

A: An example concerns one of our distributors who gained proficiency in Hungarian (his wife's language) by playing language CD's through the Neurophone while he read something else entirely. There are many combinations of using CD's, pink noise, and reading to achieve results. Through experimentation you will find the methods you prefer.

Q: How do I know I'm receiving a signal through the transducers?

A: If you think you have lost the signal, hold the stainless steel surfaces of the transducers together, turn the gain all the way to the right and you should audibly hear the Pink Noise or the CD if you have it switched to External.

Q: Can I still hear normally while wearing the Neurophone@? (I want to cancel out the noises in my house.)

A: The Neurophone@ is a personal device, which sends information through the nerves and skin, and bypasses the ears. When wearing it your ears are still able to hear other sounds, although you can use Headphones in conjunction with the Transducers (which are usually held in place on the forehead with a headband) by using the supplied splitter to plug both the Neurophone and a set of headphones into the CD player. While it may help you deal with the stress of the noise around your house, it won't cancel it out in the environment.

The Neurophone@ is an experimental device....so experiment!