

# Relaxed Concentration by Ultrasound



## Benefit from the $\alpha$ -State

U

$\alpha$

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Second edition 2014

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## 1. How the brain controls our behaviour and mental capacity

Most of the processes in our brain happen unconsciously. This becomes particularly apparent when we are under great pressure: then we are not able to think clearly, or to remember things (e.g. memory blackout during examinations) and at the same time we are unable to go against our consciousness. On the other hand if we feel relaxed and self-confident, everything falls into place effortlessly.

How we feel and perceive ourselves certainly depends upon our environment. But someone with a positive attitude ("I can do that!"), whose mind is calm and relaxed can take pressure and stress in his or her stride and is therefore able to be more efficient and more ardent.

uSonic supports your self-confidence and therefore helps to achieve the positive prevailing mood which induces the physiological state of relaxed concentration – the best precondition for improved well-being and higher performance in business, school, sports and other areas of life.

## 2. How our brain works

### 2.1. The different energy states of the brain

As you can see in an EEG (electroencephalogram), the activity of our brain is defined by different waves. According to their wavelength, these are characterized by the Greek letters  $\beta$ ,  $\alpha$ ,  $\theta$  and  $\delta$  (Beta, Alpha, Theta and Delta).

Whilst in everyday life the fast possibly even hectic, so called “ $\beta$ -state” is normal, you can use uSonic to get into the slower, calmer “ $\alpha$ -state”. Here the brain activities slow down, you become more receptive and you have the best preconditioning for concentrated working, fast learning and also for well-being, relaxation and a refreshing, deep sleep through the night.

This could explain the carefree nature, ease and astonishing learning aptitude of little children, whose brains are working mainly in the “ $\alpha$ -state” until the age of 6.

#### The different waves:

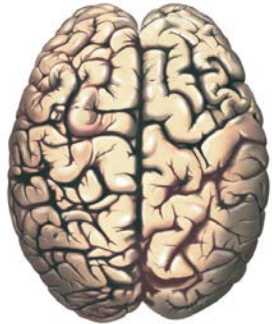
- $\beta$ -waves: The fastest waves  $\geq 14$  Hz (waves per second)  
Situation: daily life, hectic, stress
- $\alpha$ -waves: In the range of 8–13 Hz  
Situation: calm, relaxed, thinking clearly, concentrated, parallel activities possible



- $\theta$ -waves: In the range of 4–8 Hz  
Situation: meditation, extremely calm, extremely concentrated, parallel activities barely possible
- $\delta$ -waves: Below 4 Hz  
Situation: “Zen”, highest achievable degree in meditation, no parallel activities possible

## 2.2. The tasks of the two brain hemispheres

Each hemisphere predominantly handles certain functions. The left hemisphere mainly handles analytical functions including language, calculation and abstraction whereas the right is more involved with pictographic thinking and intuition. Usually they are not active at the same time with equal intensity but alternate in their dominance in a certain rhythm. Our human brain provides its best performance when both hemispheres work synchronously.



### 2.3. How to synchronize both brain hemispheres

The so called “pink noise” which is a broad band full frequency noise, is a strong tranquillizer. It assuages fears and has the special effect of synchronizing the right and left hemisphere which in turn leads to a considerably slower brain activity. Then both hemispheres become equally active which puts the brain into the  $\alpha$ -state (see 2.1.).

## 3. Relaxed concentration

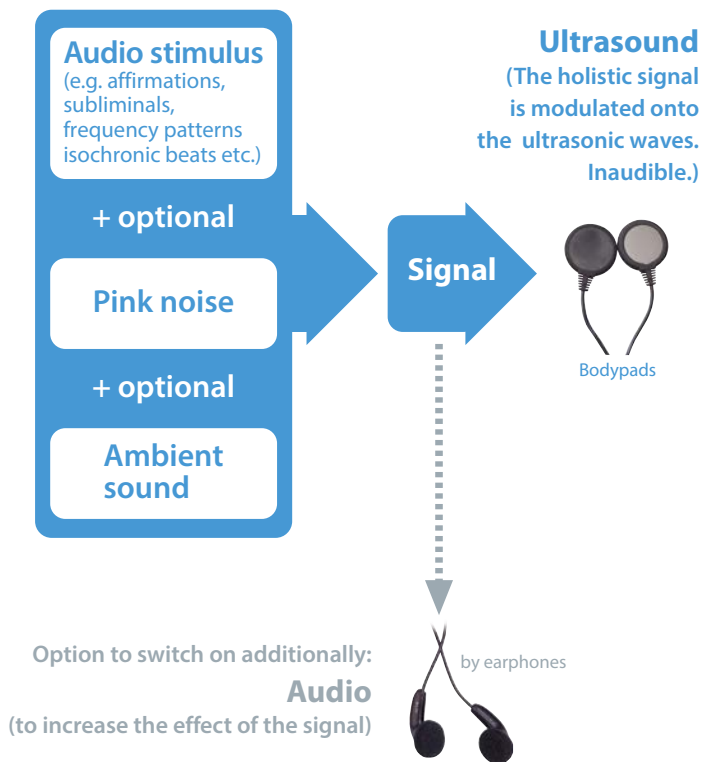
### 3.1. What effect has the ideal energetic state of “relaxed concentration”?

The fundamental secret of success is balance. Therefore the  $\alpha$ -state of the brain is the ideal precondition for:

- higher concentration and better performance (e.g. in sports, business and school) Furthermore, athletic effectiveness is increased significantly by economy of movement (e.g. at golf or biathlon).
- a creative prevailing mood (e.g. in meetings)
- a better learning aptitude with ADD/ADHD (Attention Deficit / Hyperactivity / Disorder)
- getting to sleep faster, and having a refreshing, deep sleep through the night
- general improved well-being

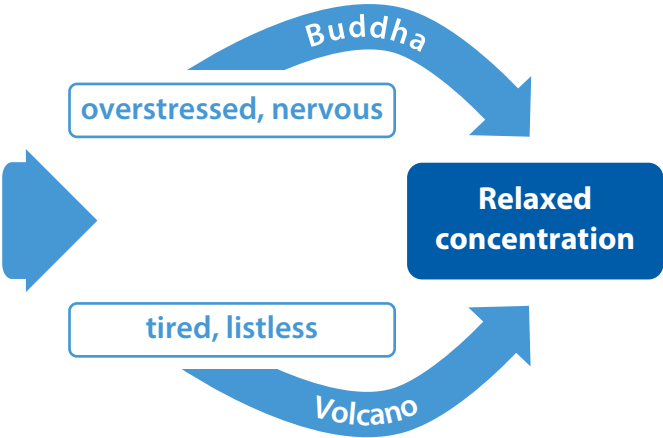


### 3.2. The holistic combination of all of the





components leads to the desired physiological state



Pink noise = adjustable, inaudible  
Audio stimulus = audible; inaudible at subliminals  
Ambient sound = adjustable, audible



### 3.3. How uSonic helps you to reach the $\alpha$ -state

uSonic is a portable system, which can be used anytime and anywhere. The digital technology transmits information even while you are working (on PC, doing your homework, during meetings or tests), or while doing sports or other things.

The ultrasonic waves of the uSonic system in combination with the pink noise help you to reach – quick and easily – the physiological state of relaxed alertness (the  $\alpha$ -state of the brain). This state is characterised by feeling relaxed and – at the same time – wide awake and clear-headed.

The signal is composed of pink noise, subliminal information (so called subliminal affirmations) and ambient sounds.

This holistic signal is modulated onto the uSonic ultrasonic waves which are brought into your body where it reaches the inner ear and hence the subconscious.

The subliminal affirmations are voice recordings which are treated in a special manner and thus are not audible to the ear.

The memory card supplied with the uSonic device contains one audio file that enables you to hear these specific affirmations consciously. Frequency pattern files are a special mix.

The ultrasonic waves generated by the uSonic system are transmitted onto the skin using the body pads (ultrasonic oscillators) and absorbed. This way subliminal messages (like “you are calm, you are relaxed”) are transmitted to the cerebrum by oscillations within

the body. They go unfiltered into the subconscious, without being modified by the conscious. Because the subconscious is independent from the conscious, it is able to absorb information constantly, and so it is possible to use uSonic at the same time as doing other activities or even during sleep.

The ultrasound which uSonic generates is bio-energetic, which is to say a naturally occurring harmless sound, similar to that produced by bats.

### 3.4. How to use uSonic / Mode

Please note: Use of ultrasonics usually follows the recommendation of an alternative non-medical practitioner, therapist or coach. Which frequency is to be used normally depends on your particular mood at that moment. uSonic offers two standard fields of applications:

- **Vulcano:** ~88 kHz, stimulating, sustaining your concentration, when you need an energizing impulse, a kick
  - **Buddha:** ~calming, when you need relaxation, a slow down
- (For details of Buddha- and Volcano-mode see 3.5 and 3.6.)

If needed, therapists can choose an individual frequency as of the generation uSonic 700.

Each mode can be combined with the various stimuli (e.g. subliminal programs, isochronic beats, frequency patterns).

The audio files stem from different suppliers. They are available sin-



gle or in packages. Moreover it is also possible to create individual files (e.g. affirmations).

### **How to apply uSonic (also see uSonic device User Manual):**

You can use uSonic in different situations: For example, if you want to do a treatment that your therapist or coach recommended. Or if you want to change your personal situation.

1. Choose one frequency (Buddha or Volcano mode – see 3.5 and 3.6.) respective trust in the presetting that the manufacturer or your therapist or coach set already.
2. Plug in the connector for the body pads into the correct socket
3. Attach the body pads to clean, hairless skin, just as recommended by your coach or therapist (hip bones, arms or temples, or else).
4. Choose the audio file and set the sleeptimer if desired
5. To strengthen the effect – and also for special learning programs like languages – the SL-audio file can be played in parallel over the earphones. In case of subliminal audio files you can hear only the pink noise and the selected ambient (e.g. “nature”).
6. The duration and frequency of your use of uSonic are recommended by your therapist/coach. If you didn't get any introduction you can use uSonic in the morning immediately after waking up and in the evening before falling asleep. A typical session lasts for about 35 minutes.

You will feel the effect (relaxation or higher performance) within minutes – and you also can see it, as the bar on the display of the uSonic device gradually fills up.

A lasting effect, which is reflected in measurably better results (sports, school, business, well-being) can be reached after 2–6 weeks of frequent (ideally daily) application.

To maintain this level of higher performance or improved well-being the application has to be continued frequently (ideally daily) For further details on device operation see the instruction manual of the device.

### **3.5. Ways to calmness (Buddha-Mode, ~ 44 kHz)**

In general the following is recommended:

If you feel tense or tightly wound or even have a mental block (e.g. before a test, facing a business challenge) you should use the Buddha-mode and a subliminal program that calms you down like e.g. “relaxation”. The Buddha-mode combined with the affirmations will put you into the ideal physiological state of “relaxed concentration”. This will help you to e.g. do a good job or e.g. to fall asleep faster and to have a refreshing, undisturbed sleep through the night.

To intensify the effect you can play the subliminal audio file in parallel over the earphones.

If you want to benefit from the uSonic system during a stressful



situation in the daytime, attach the bodypads (e.g. onto the hip bones) and wear the device on your belt. Depending on your circumstances, you can play one of the subliminal programs.

### **3.6. Ways to increase your energy (Volcano-Mode, ~ 88 kHz)**

If you feel tired and listless and you need an energetic impulse or a kick, you should use the volcano mode and one of the subliminal programs e.g. "relaxation". The volcano mode will energise you and get you to the ideal physiological state of "relaxed concentration". The volcano mode will have the same effect on you as the Buddha mode (see. 3.5), but uses a different way to achieve the same target.

### **3.7. Ways to a lasting well-being / better performance**

A few alternative non-medical practitioners, therapists or coaches advise using uSonic for about 35 minutes in bed, ideally every morning immediately after waking up and in the evening before falling asleep.

When using uSonic, find an individual routine which works for you. Others therapists/coaches have their own approved concept and recommend other rhythms.

Please note: Use of ultrasonics usually follows the recommendation of a alternative non-medical practitioner, therapist or coach.

### **Please note for adjustments in the main menu:**

1. To use uSonic for falling asleep,
  - select „Repeat single“ in the menu item playmode in combination with „auto stop = ON“ in the menu item „options“ to turn the device off after playing the audio file once.
  - Or you turn on the sleeptimer, which turns off the device after a defined time (duration in minutes), no matter if the audio file is finished or not.
2. The function RESUME should be turned to „OFF“ and only be activated in a few single cases, for example to listen to language courses or audio books. It allows you to start replaying at the point where you have stopped. But this is not recommended by normal uSonic functions with copy protected memory cards.

**Good success !**

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