

# Applications of Sound Oasis VTS-1000

With Specific Conditions



Developed in  
conjunction with world  
renowned sleep expert

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Professional  
Quality Sound



# INSOMNIA

## 1 Recommended programs

The basic application is the "Sleep" program. However, insomnia is often related to excessive stress, tension, and worry. Therefore, it is also recommended that the "Relax" and "Stress Relief" programs be used as well.

## 2 Recommended time of day

The "Sleep" program should be used an hour or so before bedtime. The optimal treatment would be to use the "Relax" program for 30 minutes about 4 hours before bedtime. Then use the "Stress Relief" program for 30 minutes about 2 hours before bedtime. And then the "Sleep" program for at least 30 minutes within an hour before bedtime.

## 3 Recommended use time (duration)

Use time is somewhat related to the effect perceived. If the person gets very sleepy after 15 minutes then that is the best time. But clinically we find that 30 minutes is about the effective time for programs.

## 4 Recommended Volume of the music (sound)

The volume setting for the music in the upper speakers is a personal choice and whether the head is leaning on the VTS-1000. Typically the volume level can be very low on the number scale – around 2 is fine. Since there are brain-wave entrainment features in the music, the volume should provide clear audibility.

## 5 Recommended level of Intensity (vibration)

The Intensity level varies somewhat from program to program. As a basic rule, the intensity level does not need to be very strong. For the Sleep and Relax tracks an intensity between 5 – 10 is usually comfortable and functionally acceptable. For the Stress Relief tracks an intensity level between 10 – 15 is ideal. However, a user can adjust these to suit their desired sensation.

## 6 Correct use (frequency)

It is recommended that the vibration (intensity) part of the VTS-1000 treatment not be used for more than 60 minutes at a time. The music (volume) can be used independently for as long as desired. It is generally better to use the programs multiple times a day for 30 minutes at a time than to use for prolonged periods.

## 7 More recommendations or precautions

For all the programs, close eyes and intentionally and consciously listen to the music.



# FIBROMYALGIA



1



## Recommended programs

The basic program for Fibromyalgia is "Energize." The vibration in this track features 40Hz which is the effective frequency for pain. In addition, if the person suffers from insomnia they may also use the "Sleep" program before bedtime but should not use the "Stress Relief" program.

2



## Recommended time of day

Any time of the day is acceptable for this therapy, but it may be best to be as consistent as possible with the time – that is, if at 8:00 in the morning, try to regularly use that time.

3



## Recommended use time (duration)

The "Energize" program if used for 30 minutes provides 10 minutes of 40Hz stimulation. About 20 minutes of 40Hz stimulation has been shown effective with Fibromyalgia. So, using the "Energize" program for 60 minutes a day (can be in two 30 minutes sessions) is suitable use.

4



## Recommended Volume of the music (sound)

The volume setting for the music in the upper speakers is a personal choice and whether the head is leaning on the VTS-1000. Typically the volume level can be very low on the number scale – around 2 is fine. Since there are brainwave entrainment features in the music, the volume should provide clear audibility.

5



## Recommended level of Intensity (vibration)

The "Intensity" level should be set between 10- 15 as is comfortable for the user. The effectiveness of this treatment depends primarily on the vibration but making the intensity stronger does not necessarily make it better. If the intensity level causes discomfort because of the sensitivity from Fibromyalgia, the level can be reduced to what is tolerable. This may increase as days go by.

6



## Correct use (frequency)

It is recommended that your VTS-1000 be used at least 5 times a week. When Fibromyalgia symptoms improve, frequency may be reduced somewhat. For example, after pain level is reduced, use may be reduced to every other day.

7



## More recommendations or precautions

It should be noted that Sound Oasis provides a specific therapy track (VTS Research Study 2) that is used in medical studies with Fibromyalgia. This track can be downloaded for use with the VTS-1000. This track runs for 30 minutes. The intensity level should be set so that vibration feels about the same as Energize set at 10-15, and the volume should be set so that the hum in the upper speakers (a 40Hz isochronous sound) is clearly audible.



# PARKINSON'S DISEASE

1



## Recommended programs

There are two basic programs for Parkinson's – the "Energize" program that delivers 40Hz stimulation, and the "Sleep" track 1 and Relax track 2 that deliver 33Hz stimulation. Both frequencies have been used for positive effect in research studies. For "Energize" use all three tracks in the program. For "Relax" or "Sleep" click to the specific track and repeat that track.

2



## Recommended time of day

Any time of the day is acceptable for this treatment, but it may be best to be as consistent as possible with the time – that is, if at 8:00 in the morning, try to regularly use that time. The treatment may be used several times a day if needed to help reduce symptoms.

3



## Recommended use time (duration)

The "Energize" program if used for 30 minutes provides 10 minutes of 40Hz stimulation. About 20 minutes of 40Hz stimulation has been shown effective with Parkinson's. So, using the "Energize" program for 60 minutes a day (can be in two 30 minutes sessions) is suitable treatment. The "Sleep" track 1 and the "Relax" track 2 are consistent stimulation and each track is 5 minutes. Using either track for 20 – 30 minutes is an adequate session.

4



## Recommended Volume of the music (sound)

The volume setting for the music in the upper speakers is a personal choice and whether the head is leaning on the VTS-1000. Typically, the volume level can be very low on the number scale – around 2 is fine. Since there are brainwave entrainment features in the music specifically for Parkinson's, the volume could be set at zero.

5



## Recommended level of Intensity (vibration)

The intensity level varies somewhat from program to program. As a basic rule, the Intensity level does not need to be very strong. For the Sleep and Relax tracks an intensity between 5 – 10 is usually comfortable and functionally acceptable. For the Energize tracks an intensity level between 10 – 15 is ideal. However, a user can adjust these to suit their desired sensation.

6



## Correct use (frequency)

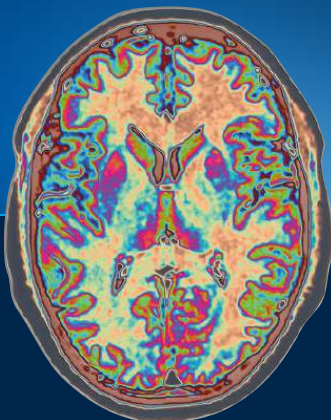
If a short duration is found to affect the symptoms, multiple short sessions can be used. If there is no immediate short-term relief of symptoms, one or more longer sessions (e.g., 30 minutes) should be used per day. It is recommended that the sessions be at least 5 times a week.

7



## More recommendations or precautions

It should be noted that Sound Oasis provides two therapy tracks that feature the frequencies used in medical studies with Parkinson's (VTS Research Study 1 and 3). These tracks can be downloaded for use with the VTS-1000. These tracks run for 30 minutes. The intensity level should be set so that vibration feels about the same as Energize set at 10-15. On these two tracks there is no sound in the upper speakers.



### Links to the two research studies:

#### Parkinson's study using 30 Hz

<https://static1.squarespace.com/static/568969badf40f3987cccc1d9/t/5b8eccbccd836607e64ddb70/1536085181099/Parkinson+study+2009%281%29.pdf>

#### Parkinson study using 40Hz

<https://www.mdpi.com/2227-9032/8/2/113/htm>

# ALZHEIMER'S DISEASE (DEMENTIAS)

1



## Recommended programs

The basic program for Alzheimer's is "Energize." The vibration in this track features 40Hz which is the frequency that deteriorates as a person develops Alzheimer's. In addition, if the person suffers from insomnia they may also use the "Sleep" program before bedtime but **should not** use the "Stress Relief" program.

2



## Recommended time of day

Any time of the day is acceptable for this therapy, but it may be best to be as consistent as possible with the time – that is, if in the morning or afternoon, try to regularly use that time. The sessions may be used several times a day.

3



## Recommended use time (duration)

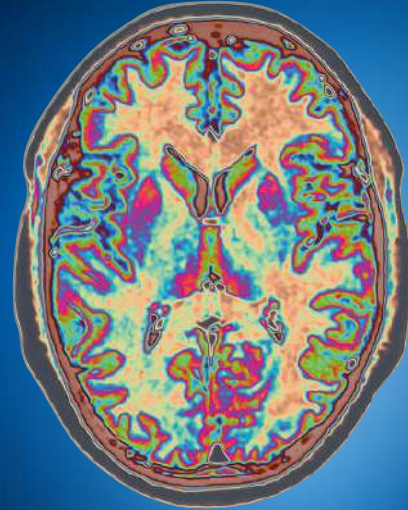
Research studies that have used 40Hz stimulation have found 30 – 60 minutes a day effective. The "Energize" program running for 60 minutes provides 20 minutes of 40Hz stimulation. So using the Energize program for 45 minutes, two times a day is advised. Alternatively, users could download the VTS Research Study 2 track from Sound Oasis and receive 30 minutes of consistent 40Hz therapy.

4



## Recommended Volume of the music (sound)

The music coming through the upper speakers is not the primary effect for Alzheimer's and so, the volume may be turned to zero. Users may engage in other activities while being treated like reading, or talking or watching television.



5



## Recommended level of Intensity (vibration)

The "Intensity" level with the "Energize" program should be set between 10- 15 as is comfortable for the user. The effectiveness of this treatment depends primarily on the vibration but making the intensity stronger does not necessarily make it better.

6



## Correct use (frequency)

It is recommended that the treatment be used at least 5 times a week. The positive effects gained from the 40Hz stimulation do tend to decay over time and so consistent (not stopping for more than a few days) is strongly advised.

7



## More recommendations or precautions

It is strongly recommended that the "Stress Relief" program not be used by Alzheimer's patients. The Stress Relief program boosts theta brain waves that may already be too strong in Alzheimer's.

# Sessions to IMPROVE CIRCULATION and DECREASE BLOOD PRESSURE

1



## Recommended programs

All of the VTS-1000 programs can be used and have a positive effect on circulation and blood pressure. The "Relax" program and "Stress Relief" program are specifically recommended.

2



## Recommended time of day

Any time of the day is acceptable for these sessions and can be used multiple times.

3



## Recommended use time (duration)

Using relatively short sessions is advised – between 15 – 30 minutes at a time.

4



## Recommended Volume of the music (sound)

The volume setting for the music in the upper speakers is a personal choice and whether the head is leaning on the VTS-1000. Typically the volume level can be very low on the number scale – around 2 is fine. Since there are brain-wave entrainment features in the music, the volume should provide clear audibility.

5



## Recommended level of Intensity (vibration)

The "Intensity" level should be set so that it is comfortable for the user. The effectiveness of this treatment depends primarily on the vibration but making the intensity stronger does not necessarily make it better. The biological action for this effect is the vibratory stimulation of the blood vessel linings and so the vibration needs to be at a level where it can be clearly felt.

6



## Correct use (frequency)

It is recommended that the sessions be undertaken multiple times a day spaced out by several hours.

7



## More recommendations or precautions

It must be noted that systolic blood pressure can drop as much as 15 points in a 15 minute session so caution must be used.

Please consult your doctor before using the VTS-1000 if you have low blood pressure.



# OTHER FREQUENTLY ASKED QUESTIONS

## 1 Why do some people get dizzy or experience motion sickness from vibroacoustic sessions?

Some people are very sensitive to disturbances of the auditory labyrinth that controls balance. Vibration can be a disturbance that results in a sense of disorientation of balance and motion. In our experience only around 1% of people have this experience with vibroacoustics. The occurrence of the effect can be reduced by decreasing the intensity level of the vibration, by repositioning the person on the VTS-1000 unit so that the vibration source is further from the neck, or by “cushioning” the neck with a pillow to reduce transmission of the vibration to the head.

## 2 What other health conditions can be helped by vibroacoustics?

Since the vibration in vibroacoustic therapy (VAT) affects brainwave function, other mental health conditions seem to be responsive. For example, depression is often seen to be a pre-frontal cortex brain dysregulation. Research has shown VAT to be effective in improving depression. And since it is often associated with general pain and insomnia, the treatments for Fibromyalgia and Insomnia may also alleviate depression.

## 3 Might COVID 19 related cognitive deficits and brain fog be responsive to VAT?

Research is currently underway with the Sound Oasis VTS-1000 to discover the answer to this question. Theoretically, since VAT increases blood circulation, decreases inflammation, and regulates brainwave activity it could have a positive effect.



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sleep expert

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## OTHER FREQUENTLY ASKED QUESTIONS

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4

### Why do you use treatment tracks that do not have music but only vibration?

The use of music, music and vibration, or only vibration depends on what the mechanism is you are trying to activate to make the effect you want.

- a) We can use music only if we want to access the cognitive processes of the brain (memory, learned associations, culture) and have the music calm or energize. This music can also include specific brainwave entrainment strategies that can move brain states toward the desired goal – so to sleep or relaxation.
- b) We can use music with low frequency vibrotactile stimulation when we want to affect both the cognitive processes and the cellular level at the same time. That is, we want to affect the cultural expectations (music sounds sleepy, or music sound relaxing) and also stimulate gamma response in the brain. For example, depression involves several mechanisms – mood and mood responds to cultural music, prefrontal cortex dysregulation and music can regulate that to some extent with binaural rhythmic stimulation, and it involves thalamocortical dysrhythmia at the gamma level. Consequently, the Energize track that provides pleasant music, binaurally detuned and mono entrainment in the high alpha – low beta level, and gamma stimulation with the vibrotactile component addresses the mechanisms of depression.
- c) We use the vibro component only when we are not expecting the cognitive aspect of music to be a significant factor. So for the brain dysregulation in fibromyalgia, or Alzheimers, or Psrkinson's we can use vibro only. And as a treatment it then also makes it more usable for the patient – can be used while watching television, or conversing with others, or at night when it does not bother others, etc.



Here is a paper that may be helpful in explaining the levels of mechanism and the music related applications:

<https://www.frontiersin.org/articles/10.3389/fmed.2018.00255/full>