

# Vibroacoustic Therapy

## Certification Course Chapter Three

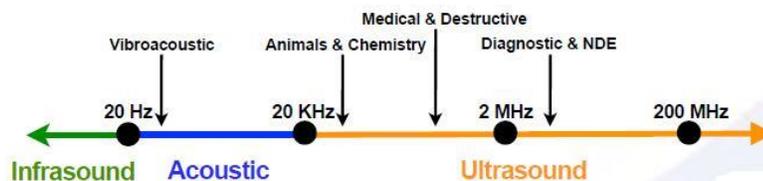
In this chapter, we will learn how to determine which pure frequency program is likely to work best for your client's particular issues.

While the following from Sound Oasis is an accurate representation of how and why VAT works on a physical level, it is not only the frequencies of the sound waves that make vibroacoustic therapy so valuable. "The process of healing with sound works because of its ability to calm the mind, by suspending much of the normal day to day conscious activity. During a relaxed state, one is able to access the deep realms of consciousness, which allows the subconscious part of the mind to activate and re-energize (harmonize) disruptive conditions. Conversely disruptive, disharmonious sound can disorganize thought processes and create a tense, disharmonic state in the body." (quote from Lauren Garfield-O'Brien, R.N. in the Bio-Resonance Therapy manual)

### Why is Vibroacoustic Therapy so effective?

Vibroacoustic Therapy is clinically proven to provide therapeutic health and wellness results. It works because:

1. *Sound penetrates deeper.* It provides massage therapy to muscles and joints that hand/mechanical massage can not reach. For comparison purposes, ultrasound is a well known and accepted sound technology for viewing tissue inside a body and it operates at 20 KHz + (see below graph).
2. *Vibroacoustic Therapy frequencies correspond to key brainwave activities.* Vibroacoustic Therapy functions at 20 Hz to 100 Hz, the same frequency range that the body's energy channels operate at. We can bring these energy channels into healthy alignment with Vibroacoustic Therapy.
3. *Vibroacoustic Therapy provides sensual stimulation.* Like hand/mechanical massage, Vibroacoustic Therapy aids circulation, relaxes muscles and feels good.



The mind-body connection that is established and enhanced by the experience of receiving VAT is nearly as important as the choice of frequency programs. It is for this reason that Vibracoustic Therapy International stresses that therapists take the time to go through relaxation techniques with clients, and to take the time to learn what kind of experience, if any, the client has with meditation, yoga or other mind/body modalities. This will help with determining the right frequency and whether or not to add music to the mix, And, in the patient-intake portion of the course (Chapter Four), we will go over some techniques to help the client establish that connection.

This is particularly true with clients suffering from Alzheimer's, Parkinson's, patients, children and adults with autism, and those with a large emotional component to their illness or condition.

That said, it is still important to choose the right frequency or range of frequencies. Over 40 years of work by Olav Skille (Norway), Dr. Heidi Ahonen (Canada), Dr. Jeffrey Thompson (USA) and various other scientists, nurses and researchers have shown that there is a particular range of frequencies that work to alleviate particular conditions.

In 1992, a research program at NIH Clinical Center included vibroacoustics. The results were astounding and are available in the research materials included with this course. These studies referenced include 15,000 patients with results for autism, pain, anxiety, chemotherapy symptoms, cerebral palsy and invasive medical procedures on infants.

As a result of all of this research, it has been determined that the main frequency area for vibroacoustic therapy lies between 30 Hz and 120 Hz. For some conditions, however, frequencies above and under this range can be used.

Determining exact frequencies that are beneficial for specific conditions has been a challenge and is definitely a work in progress. But it is about much more than just the specific physical condition you are treating; you must also consider the clients' individual circumstances.

Before deciding which frequency to use get a good handle on the ongoing sonic influences in a client's life. Do they live right near a highway? Do they work in a job with lots of noise? Do they travel on airplanes frequently? All of those activities create a resonance in the body, and it is important to be aware of them when deciding how often, and what frequency you use for their individual concerns. Additionally, every time a client comes in, he or she can be more or less receptive to a frequency that was beneficial in a previous session. Physical and emotional stressors like traffic or an argument can affect responses to both pure frequency programs and to the music that you may choose to accompany them.

Some therapists use muscle testing, or kinesiology, to help determine the best program to use for any particular session, and that will be covered later in the course. Generally speaking, though, the following conditions have been shown to be positively affected by the frequencies indicated. In these recommendations are also references to categories of music that work best in these situations. See the Music Appendix to determine how to meet the category.

## **Abdominal pains**

Reduction of pains from colic or constipation/obstipation: 35 Hz to 45 Hz

Relief from constipation can be almost immediate, especially if the client has just a bit of warm water before getting on the system. For a baby with severe colic, it's recommended that the mother or father lie on the lounge with the baby on his/her stomach. The relief is often instant.

**Ankylosing spondylitis** (AS is a form of spondyloarthritis, a chronic, inflammatory arthritis where immune mechanisms are thought to have a key role. It mainly affects joints in the spine and the sacroiliac joint in the pelvis, and can cause eventual fusion of the spine.)

Clients usually expect reduction of the symptoms from stiff muscles in neck/shoulder/back.

Choice of frequencies; mainly 40 Hz area, but 60 Hz area is also effective.

Choice of music: Client's choice. Optimal time for therapy session: In the afternoon.

Results: Many clients experience reduced morning stiffness and feel it is easier to "get started" in the morning with tasks like getting dressed.

Regular therapy sessions 1 - 2 times/week may give general improvement which lasts for a longer period of time until the condition stabilizes.

Important: During the active phases of this disease (which recur at intervals), the client may feel increased pain. The recommendation is to stop therapy until the inflammation is over.

## **Asthma**

The basic frequency for lung massage is 50 Hz. It has been noticed that the effect will be better when multi-frequency programs are used. In these cases, the main frequency area should be within the 50 Hz- area. Included in this course is a variable frequency program ranging between 40 and 75 hz – it is more effective than just the 50 or 52 hz recommended by some researchers.

Results: Problems of excretion of lung secretes may be eased, expectorates from lung walls can be reduced, or will be coughed up more easily. Breathing difficulties may be eased, but note that VAT cannot eliminate asthma or COPD.

The client usually feels relief during the first treatment session. We recommend that the treatment series start with 5 - 10 sessions in 5 - 10 days. When the client is "saturated" it may be possible to increase the intervals. The spacing must be adjusted to the individual. When attacks of breathing difficulties arise, the intervals must be tightened again.

It is recommended that patients who are limited in activities or who are dependent on oxygen due to their breathing difficulties have vibroacoustic equipment in their homes for immediate use when the breathing problems increase. There is no limit to how many times per day an asthmatic client can use the equipment when self-administration of treatment is recommended. The client's individual situation must be the deciding factor.

## **Aphasia**

Teams of physiotherapists and speech therapists have reported stimulation of linguistic functions in aphasic clients. They are more receptive for traditional speech therapy when this therapy is given in combination with VAT. The combination therapy can be given during the second half of the VAT session or immediately following the session.

Frequencies: Multi-frequency with great variation. Our recommendation is to start with 40 hz to aid in relaxation and then move into the higher frequencies such as 68 to 80 hz. Because music can be of great benefit here, it is important to ensure there is no discordance created as a result of beats in the music clashing with frequency program.

Choice of music: Stimulating music of category 2 or 3.

Results: Sensory stimulation has positive influence on brain functions. Vibroacoustic stimulation may stimulate the language center in the brains of clients who have impaired language functions. Clients with reduced muscular sensitivity and/or muscle spasms following a brain stroke may experience increased sensitivity or reduction of spasms during/after the therapy session. (See also: Spasticity)

## **Autism**

While 40 HZ is a good all-around frequency for calming, with autism it is important to have music in the mix. In fact, the choice of music is of greater importance than the choice of frequencies. The therapy must start with instrumental music without special melodic structure. From there you can gradually introduce compositions with clear melodic themes, which can eventually be substituted with vocal music.

The music and vibrations are basically a diversion for the attention of the client, while the therapist works to get the client used to increased skin contact/stimulation. The strategic goal is to gradually decrease the amplitude of sound coming from the equipment, hoping that the client/therapist relationship can be increased independently of the sonar diversions.

Results: Autistic clients may be so absorbed of the vibrations from the bed/chair that they permit more skin contact/skin stimulation than was possible without vibroacoustics. There is speculation that the contact training during vibroacoustic therapy may be transferred to situations where the music gradually can be withdrawn.

## **Bed-sores**

Pressure ulcers respond very well to Vibroacoustic therapy.

Choice of frequency: 35 Hz - 43 Hz.

Choice of music: Any music can be used, but preferably category 3 and 2.

One session every day for 1 - 2 months may be necessary. If the bed sores are on the back side of the body, have the client lying face down on the bed during the treatment.

NB: All other treatment procedures, ointments, salves etc. must be used as usual during the period Vibroacoustic therapy is given.

Results: The ulcerations slowly start to heal from the edges of the ulcer. The therapy should continue until the ulcer is completely healed. To stop treatment when improvement starts to be evident may result in a reversal of the healing process.

While ulcers of the legs resulting from diabetes may in some instances be treated successfully with VAT, note that under no circumstances is VAT to be recommended as a treatment for diabetes. There has been no research indicating it has any positive effect on the disease. See the note under Diabetes.

## **Brain stroke**

See also: Aphasia, Spasticity, Cerebral Palsy, Coma

The main strategy is to give as much sensory stimulation as possible. Generally, the clients are also going through physiotherapy, and it is best if VAT can be administered before and after a PT session, especially early in the recovery/rehabilitation phase.

Choice of frequency: We've had great success with 86 hz for some clients, but in some cases, it can cause a sensation of "firing" in the nerves, so start very low and work up in intensity level. Generally, a varied use of music and frequencies, both single-frequency and multi-frequency programs, is the best approach.

Choice of music: That which was known and enjoyed by the client before the stroke is well-suited for this special use.

Results: Great variance depending on the severity of the stroke and the mental state of the client. However, in nearly all instances there is improvement in muscle tone and the perception of a better quality of life.

## **Cerebral Palsy**

Reduction of muscular tension/spasms in Cerebral Palsy is one of the most outstanding effects of vibroacoustic therapy.

Choice of frequency: 40 Hz and 60 Hz

Choice of music: Client favorites.

Vibroacoustic therapy can be used alone, or in combination with traditional physiotherapy. If the client is already working with a physiotherapist, it's good to coordinate as much as possible with the therapist, and if possible, have the VAT before the PT session.

Results: Sometimes, the spasms are actually reduced during the therapy session, sometimes it happens later on. Clients often report a more positive outlook and feeling of well-being, both mental and physical along with increased mobility and joint flexibility.

## **Circulatory problems**

For reduced blood supply to the extremities with symptoms including cold hands/feet, leg ulcers or pain in muscles which receive too little oxygen.

Choice of frequency: between 35 Hz and 50 Hz although higher may also be used.

Choice of music: Client favorites.

Results: The client often experiences that cold hands/feet will warm up during the therapy session or shortly afterwards. The feeling of warmth may last several days. Violet legs may turn pink during a therapy session, and long-term improvement in circulation may result after regular treatment over an extended period.

While diabetic neuropathy and attendant loss of circulation may be treated successfully with VAT, note that under no circumstances is VAT to be recommended as a treatment for diabetes. See the note under Diabetes.

## **Colic pains**

Choice of frequencies: The most effective areas seem to be 40 Hz - 45 Hz and 50 Hz - 56 Hz.

Choice of music: Music of all 3 categories can be used as long as it is relaxing. The use of children's songs is appropriate for tiny sufferers.

Results: Once the child experiences relief, it's not necessary to continue a full session and long-term treatment is not necessary. Long term treatment is normally not necessary, and relief usually comes within a few minutes.

Another treatment is not necessary until a new painful episode appears.

## Coma

There have been several trials in which comatose patients have been treated with Vibroacoustic therapy. Researchers have given the patients fairly loud music/vibrations for about 10 minutes and then suddenly turned the music/vibrations off. This "negative sound shock" gives very strong sensory impressions, and appears to have a stimulating effect on the patient.

Another approach is to make recordings for the patients which include well-known music, both with and without lyrics, with great variations of frequency span between the separate musical pieces.

For mentally handicapped clients with congenital brain damage, the "negative shock" approach combined with strongly rhythmical and stimulating music has shown to be positive in some instances. In these cases, facial expression should be monitored closely because sometimes there is a response when the music is turned off.

Choice of frequencies: Low frequencies with high frequencies for contrast effect.

Choice of music: Category 3 or 2 with contrasts between relaxation and lively music.

Results: Look for reactions in the client. "Startle" effect and changes in facial expressions, or changes in the client's position may signify that the "message" has "gone through" the barrier of consciousness.

**CAUTION:** Using VAT for this purpose must only be done by highly qualified and experienced therapists, and only in cooperation with the client's primary physician.

## Constipation

Elderly institutionalized patients with impaired bowel function often experience spontaneous relief as have private, younger users. If VAT is being administered specifically for this purpose, be sure to have the client drink room temperature or slightly warm water before and after treatment, and that a bathroom facility is nearby.

Choice of frequencies: Low frequencies: between 35 Hz and 45 Hz

Choice of music: Client's

Results: Relief can be expected during the same day or the day after the treatment session(s).

Two sessions per day may be necessary initially. If the natural processes start working again, the use of enemas and medications can be reduced considerably.

## **Cystic fibrosis**

The same treatment procedure as with **asthma**. As the client usually does not have sudden attacks of breathing difficulties, followed by anxiety, anxiolytic therapy usually is not necessary. It is therefore not necessary to treat the client as often as may be the case for a chronic asthmatic client. In some cases, clients with Cystic Fibrosis have received 2 - 3 sessions per week, and there has been reported improvement in general conditions and reduction of the frequency of lung infections.

## **Diabetes**

**NB:** Diabetes itself is NOT to be treated with Vibroacoustic equipment!

Diabetic clients who use Vibroacoustic equipment for other reasons like circulatory problems or ulcers on the legs must be made aware that some diabetics have reported tendencies towards insulin "feeling" during or shortly after a session in the chair. The therapist must inform diabetic clients of this possibility, and counter measures (fructose and/or milk available) must be taken.

## **Emphysema, COPD**

In studies where VAT was used in addition to traditional physiotherapy, there have been instance of symptom relief in clients with pulmonary emphysema.

Choice of frequency: same as those for asthma: in this course is a variable frequency program ranging between 40 and 75 hz – it is more effective than just the 50 or 52 hz recommended by some researchers.

Choice of music: Category 1 or 2.

Results: While breathing may be easier, phlegm may also loosen up, so be sure client is in a position to expectorate.

## **Fibromyalgia**

Vibroacoustic therapy may be very effective, although there are conflicting reports, based in part on the emotional attachment some clients have to the condition. When VAT has been successful, the subjective feeling of pain, tiredness and discomfort has been reduced. When the client has been "saturated" with several sessions over a period of days, pain may be alleviated for as long as 4 months.

Some fibromyalgia clients respond best when they are treated in two sessions following immediately after one another.

Choice of frequency: The first session must be a single-frequency program between 35 Hz and 45 Hz. The second session should include multiple frequencies, as many as 6 or 7, from 30 to 86 hz.

Choice of music: The choice of music is very important. For session number 1, music from category 1 is preferred. For session no. 2, use relaxation music in category 2 or 3.

Frequency of treatment sessions: Reports vary, but clients who are able to take two double sessions per day for one week, one session in the morning, and another in the late afternoon, have best results.

It is not unusual for pain to actually increase in the beginning, but the experience of pain will be more definable and may be located to special parts of the body. This increase usually disappears during the next session, and the pain may move to other parts of the body.

When the client has completed a series, which may include “chasing the pain”, a break from VAT is given until the client reports the return of pain. The client should be advised to return before the pain becomes too severe as less time is needed to treat the pain if it is addressed before it becomes too serious. Fibromyalgia patients should also be counseled to pay close attention to the signals from the body, and relax into whatever happens so as not to add stresses to the condition.

Many clients have difficulty being able to completely relax at first. While the temptation is there to stress the importance of relaxation, it is sometimes counter-productive to focus on it too much. It is stressing to be reminded how important it is to relax!

Other clients feel the sound penetration of their muscle shield threatening, and will reject the therapist's choice of music or frequencies or find the music unendurable etc. Accept the client's reactions. Vibroacoustic therapy is not the correct choice of therapy in all situations, and negative reactions from a client may be signs of a well-honed defense. In such cases, the best course of action is to terminate therapy until the client is ready.

Results: can vary from total rejection to complete elimination of pain. Mostly the clients experience reduced pain and increased muscle flexibility.

Some clients may find that the therapy is unpleasant and want to reject the whole approach, using any argument for their rejection. If this happens, first, check to be sure that the rejection of the therapy is not due to overexposure. (See “Overexposure”)

If that is not the reason, it could be that the client simply has too much of his or her personality vested in the image of being a person with an illness. In that case, any eventual success of therapy may threaten their personality image. They feel threatened by the effect of the therapy.

Do not push the therapy, or try to persuade clients to continue.

The clients who accept the therapy usually feel physical and mental relaxation, reduction of pain (even if they initially may increase) and improved sleep. This will result in an improved quality of life.

Repetition of therapy should be made at intervals adapted to the client's needs. No permanent improvement has been reported.

## Hangover

Users of Vibroacoustic equipment have reported effective reduction of hangover symptoms.

Choice of frequencies: 40 Hz +/- 10 %

Choice of music: Category 1 or 2

Results: Reduction of headache, muscular discomfort and muscle tensions.

## Headache

While some literature supports the use of vibroacoustic therapy for headaches, even migraines, this is an area where there is still much conjecture. One thing is certain – it's essential to differentiate between "pure" headache, from reduced blood supply to the brain, tension headache or migraine.

- **Migraine** – IMPORTANT – start very low in volume, for both the frequencies and any music, although I recommend no music for this condition. Be sure to stay with the client and keep the lighting very dim. No scents should be in the room at all.

Choice of frequency: High frequencies, usually over 80 Hz

Choice of music: Category 1 or 2, although I do not recommend any music.

Result: The chance of improving the condition is better the earlier the client is able to come for therapy when an attack is coming. Some clients may feel nauseous (check against overexposure symptoms) during treatment. Nausea will pass soon after the session is over. Symptoms may disappear during the session, but the effect may also be delayed 1/2 - 1 hour after end of session. There usually will be some muscular tenderness in the neck/shoulder region left when the headache has disappeared.

NB: Migraine needs different frequencies than tension headache.

- **Tension headache** Generally, use the same frequencies as for neck/shoulder pains (68 hz), or frequencies for increasing blood circulation (35 to 50 hz)

Results: If there will be a positive effect of the therapy session, this will be evident during the session or within 1/2 hour after the session has ended.

When the client is suffering from tension headache, it is important to give one or more series of 5 sessions each in order to try to reduce the cause of the condition which reduces the blood-flow to the brain. However, as long as the situation leading to stress is held constant, the client must be prepared to take regular sessions of therapy in order to improve the general quality of life.

## **Immune system**

Some clients who have prolonged courses of VAT therapy and who have a history of frequent pneumonia and/or bronchitis have noticed a considerable reduction in the number of times they have serious issues. Also, the more common colds and flu seem to be less likely to take hold and if they are experienced, the attacks are less severe than usual. While there is no direct causal link, or any frequency program suggested, it could be that general reduction in stress, healthier sleep habits and better quality of life with less pain may lead to a stronger immune system.

## **Insomnia**

Patients easily fall asleep during treatment, and they report that after treatment they have less trouble falling asleep at normal time, and the duration of sleep is longer than they normally experience. This has led to the specific use of VAT as therapy for insomnia.

Treatment for insomnia has best effect when it is carried out in the late afternoon. The client is asked to "listen to the body" and go to bed as soon as he/she feels tired or feels like lying down.

Choice of frequencies: Multiple frequencies, ranging from 30 to 48 hz.

Choice of music: Category 1 or 2. (Some receptive clients also may sleep during music of category 3)

Result of therapy: Some clients fall asleep already during the therapy session. Most persons feel tired as the evening comes, and may fall asleep earlier than usual, and sleep longer than usual. The aim is to increase the span between falling asleep and waking up. Repeated therapy sessions may lead to considerable increase of sleep.

Some clients have been able to reduce the use of sleeping pills as a result of a series of 5 therapy sessions.

## **Kidney stones**

**While it is absolutely essential you do not recommend VAT over allopathic medicine** for treatment of this serious condition, there have been cases reported where there has been a positive effect on clients who have had kidney stone troubles. The pains increased during the therapy sessions, and they felt that the stones were "shook loose".

Choice of frequency: In the reported cases, 93 Hz was used.

Choice of music: Probably of secondary importance - any of the 3 categories may be used.

Results: Clients who responded positively were advised to drink as much as possible, and received therapy twice daily until the pains disappeared and the stones were passed.

**WARNING** again: this is not to be recommended as a substitute for medical intervention.

## **Low back pains**

Acute back pains because of sprained muscles or muscle cramps are relieved by daily treatments for 2 - 5 days.

Choice of frequencies: 52 Hz +/- 10 %

Choice of music: All 3 categories may be used.

Results: If Vibroacoustic therapy is effective, it will show noticeable improvement after the first or second session. Therapy is to be continued until the pain has stopped. Pains coming from muscular tension from many different causes may be reduced by treatments 2 - 3 times per week for up to 4 weeks.

## **Lumbago (NB: NOT from slipped invertebrate discs – this is contra-indicated. Do not treat!)**

Acute pains because of muscular over-use or cramps are usually effectively reduced by daily therapy sessions. Therapy stops when pains have disappeared - usually within a week. Pains because of continuous muscular stress will usually be reduced by sessions 2 - 3 times/week over several weeks.

Choice of frequency: Pains in the lumbar region are often reduced by use of frequencies around 50 Hz. When therapy lasts over several weeks, it is advisable also to include frequencies in the 40 Hz and 60 Hz area.

Choice of music: Any of the 3 categories may be used.

Results: Acute pains may disappear after the first session, but most pains in the lumbar region are a result of long-standing injuries or poor posture or too much sitting/standing or other constant pressures. That means that, to have long-lasting relief, at least 5 sessions within a period of two weeks is recommended, and then once a week thereafter for 8 or 9 treatments total.

If pain can be traced to improper posture in a work environment, recommend the client seek help from a specialist in ergonomics. Human resources departments in larger companies often contract these types of specialists because the long-term effect on workers can be devastating if they are working with incorrect posture in a poorly designed work space.

## **Menstrual pains**

Pains and tensions due to the menstrual cycle can be alleviated with most success if the therapy is administered every day during the week before expected onset of menstrual bleeding and once a week during the middle phase.

Choice of frequency: 52 Hz

Choice of music: Category 1 or 2.

Results: Both physical and mental discomfort and tensions respond favorably to treatment. The clients must be made aware of the possibility that the bleeding may be stronger, but the duration may be shorter than usual.

Continuous treatment over 3 - 5 cycles may produce effects of longer duration. Irregular menstruations have been regulated, and PMS symptoms have been reduced. Clients who have had long-term treatment periods report that the effect has been notable for over 1 1/2 years after last therapy session.

For clients with endometriosis – this can be a serious condition that is exacerbated by emotional upsets. Kate Kunkel has treated several clients with endometriosis, and the treatment is started with 52 hz, but at the end of each session, a few minutes of 40 hz is added. Also very important is the music – sometimes we end with a guided meditation that has been very helpful.

### **Multiple sclerosis**

Reduction of rigidity and considerable palliative effect have been reported.

Choice of frequency: The 40 Hz area seems to be most effective, but it is recommended to alternate with multi frequency therapy programs.

Choice of music: All 3 categories can be used. The choice is dependent of the general situation of the client.

Results: Physiotherapists and nurses in institutions for MS-patients have reported that the effect on the patients is very positive. MS-patients who have bought equipment for private use find that regular use gives remarkable improvement in life quality - reduction of pain and rigidity. The subjective experience of comfort is considerable.

No long-time effect has been reported. Therapy must therefore continue for an indefinite period of time, as long as the client finds it practical to go on.

### **Muscle cramps**

Vibroacoustic therapy usually has a very good and fast working effect on muscle cramps from various causes.

Choice of frequency: 40 Hz and 60 Hz. (+/- 10 %)

Choice of music: Whatever music which the client finds pleasant, but it is not necessary

Results: The cramps usually dissolve in a few minutes. Some tenderness may remain in the muscle after the cramp is gone. There is usually no need for more than 1 therapy session. It is not necessary to complete a therapy session if the cramps let go before it has come to the end. Let the client decide whether the session should continue or not.

## **Neck/shoulder pains**

Pain caused by occupational myalgia or as a result of stress of various causes, can be considerably relieved by a series of 5 therapy sessions, preferably once a day. Because this condition is so related to stress, choice of music is also very important, and suggestions about meditation or stress reduction techniques should be made.

When the relief remains stable for more than 2 days, the interval between therapy sessions may be increased, until one has found the best "maintenance" intervals for each client.

NB: If the pain appears to come from reduced blood supply to the muscles, it is recommended to include 40 Hz therapy programs as well.

Choice of frequency: 68 Hz (40 Hz)

Choice of music: Preferably category 1 or 2.

Results: Most clients feel reduction of pains and tension after the first or second therapy session.

In some clients the pains may increase initially. The side effects can be treated if the therapist gives the client one multi-frequency session (> 6 frequencies in the area between 40 and 80 Hz, frequencies evenly spaced). This will usually stop the extra pain.

NB: If the increase in pains continues, and local tenderness can be found, this may be a symptom of the presence of a "masked" inflammation which has been revealed. Therapy is to be terminated and the client should see a doctor. If an inflammation can be diagnosed, the condition should be medically treated and cured before the Vibroacoustic therapy is to be resumed.

The effect of the therapy sessions may be of long duration, but the pains will usually return, as the underlying cause of stress will continue. Recommending meditation and stress-reduction techniques is advised and maintenance treatment with VAT is recommended if the client wants to keep the increased life quality stable.

NB: Clients with mental problems must not be treated for muscular tensions unless there has been a preceding consultation with a doctor or physiotherapist who has experience in treating patients with psycho-somatic muscle pains.

Acute neck/shoulder pains (wryneck) may disappear after only one treatment session.

## **Edema**

There has been reported reduction of edema (mainly in the extremities) in elderly and/or institutionalized clients.

Choice of frequencies 40 Hz area, but the use of multi-frequency programs between 38 and 48 Hz are best.

Choice of music: Category 3 or 2, according to the individual taste of the client.

Results: In some cases, a reduction in the condition has been reported.

### **Parkinson's Disease**

Reduction of rigidity and considerable palliative effect have been reported.

Choice of frequency: 30 hz.

Choice of music: Category 2 or 1 are recommended.

Results: Best results have been obtained when the clients have got double treatment sessions (two therapy programs in succession) The client feels less rigid after therapy. In some clients the effect has been observed to last beyond the day of therapy. The clients express satisfaction over the relief they may feel, even if the duration may be short. (See the report on research by Dr. Heidi Ahonen.)

### **Polyarthritis**

There has been reported some relief of symptoms in patients suffering from polyarthritis - especially in the smaller joints in hands and feet.

Choice of frequencies: 35 Hz - 45 Hz.

Choice of music: Category 3 or 2. Let the client choose music category.

Results: The deep massage effect of frequencies in the 40 Hz area have a positive effect on this condition. Decreased pain and increased mobility have been reported. There are no reports yet on the eventual duration of effect.

### **Post-operative conditions**

Reduction of stiffness in scar tissues has been reported both by clients with recent and old operation scars. Multi-frequency programs are preferred in order to reduce stress on one single muscle type.

Choice of frequency: The series 40 Hz - 60 Hz - 80 Hz - 60 Hz - 40 Hz during one therapy session (< 30 minutes) has been effective. When treating a client who has been recently operated (> 1 week after the operation), start with the higher frequencies. When the possibility of provoking internal bleeding has been eliminated, the frequencies in the 40 Hz area can be used.

Choice of music: All 3 categories can be used, but for gymnastic exercises, multi-frequency program with rhythmical music are recommended.

Results: Muscles and sinews are more easily stretched out. Scar tissue feels less stiff and tender.

NB: Be very careful with stretching exercises for patients with very recent operations!

## **Pre-menstrual tension**

Pains and tensions due to the menstrual cycle may be relieved by frequencies around 52 Hz, and the choice of music of category 1 or 2. The therapy should be given every day in the week before expected onset of menstrual bleeding and once a week during the middle phase.

Choice of frequency: 52 Hz

Choice of music: Category 1 or 2.

Results: Both physical discomfort and mental tensions respond favorably to treatment. The clients must be made aware of the possibility that the bleeding may be stronger, but the duration may be shorter than usual.

Continuous treatment over 3 - 5 cycles may produce effects of longer duration. Irregular menstruations have been regulated, and PMT symptoms have been reduced.

Clients who have had long-term treatment periods report that the effect has been notable for over 1 1/2 years after last therapy session.

## **Rett-syndrome**

When treating clients with Rett syndrome. the main purpose of therapy is to obtain a palliative effect. Vibroacoustic therapy should be combined with physiotherapy.

Choice of frequency: Frequencies under 60 Hz

Choice of music: Client's choice

Results: Mental awareness is often heightened while rigidity is reduced. There is often a sense of improved physical and emotional well-being.

## **Rheumatism (Rheumatoid arthritis)**

When the disease is in an acute inflammatory stage, vibroacoustic therapy could be contra-indicated. For pain relief, use very low level of vibration, but stop if the client has an increased sensation of pain.

Choice of frequency: Mainly around 40 Hz, but switch to higher frequencies – a multi-frequency program with 40 hz, 60 hz and 80 hz is optimal.

Choice of music: Category 2 and 3.

Results: Reduction of muscular pain and stiffness. The palliative effect is good. While clients may return often because of reduction of pain, there are no studies showing that the effect extends beyond the end of a course of treatment.

## **Spastic conditions**

A notable spasmolytic effect has been observed when vibroacoustic therapy is combined with physiotherapy. It is important not to start therapy too intensely. This applies both to movement

patterning and the amplitude used. Start with minimum loudness, and gradually increase amplitude until the desired level has been reached. This may take several therapy sessions. If the amplitude is too strong, it is possible to provoke spasms.

Choice of frequency: around 40 Hz area and extending into 60 Hz area.

Choice of music: It is important to use music which is known to the client, in order to avoid emotional rejection.

Results: Reduction of spasms is evident as the therapy session proceeds. The spasmolytic effect should be used to increase mobility and joint movements in order to prevent or postpone contractures. Passive movement of the client's extremities and spine made by the therapist is usually necessary. The combination of physiotherapy and the effect of vibroacoustic therapy may give the client positive effects on life quality. If the therapy is continued regularly the effect will last longer.

### **Sport injuries** See also: Muscle cramps

Several cases have been treated with positive results. Both acute muscle traumas and post-operative convalescence have shown positive reactions to harmonic frequency sequences which are built on a basic tone in the low frequency area.

Generally, low frequencies are given to the big muscles and we move upwards in frequencies when we are treating smaller muscle masses. That means that the thighs need lower frequencies than the shoulders. It is recommended to use a multi-frequency program in order to avoid too much stress placed on a single type of muscle tissue.

Choice of frequency: From 34 Hz to 68 Hz. Use multi-frequency programs

Choice of music: Category 2 and 3. The individual music preference is important and must be taken into consideration.

Results: Muscles and sinews are more easily stretched after tough muscular efforts.

NB!! NOT to be used during external or internal bleeding.

### **Stress**

See: Circulation, Headache, stress-depression

Relief may be observed after first treatment session. Positive effect is dependent on the right choice of both frequency and music. The choice of music must be made in cooperation with the patient, and the therapist must have a varied choice of relaxing music. At the end of the treatment period various frequencies and activating music are used.

NB: The therapist must be able to discern between endogenous depression and stress-depression. Endogenous depressions are NOT to be treated by therapists who do not have special education in treating mental disorders.

Choice of frequency: Basically: 68 Hz.

Choice of music: Category 1 and 2. Avoid music which is known to the client in order not to evoke associations which have connections with known music. At the end of therapy series, use multi-frequency programs and activating music.

Results: The positive effect is dependent on both choice of music and choice of frequency.

Personal contact with the client is important. It is important to have time for conversation with the client both before and after therapy session.

Clients often start weeping during the session. The therapist must make the client aware of this, and assure him/her that this is a natural reaction which must not be stopped. The emotions which are provoked are "good" emotions, and tears must not make the therapist or the client feel ashamed/uneasy.

The therapist must therefore be trained in work with clients who need to let hidden emotions loose.

If the client feels that the VAT equipment "takes charge" during the session - i.e. that both body and mind feel totally relaxed and "floating" - the result usually is at its maximum. However, it is not everybody who is able to experience this feeling of total, relaxed harmony. The therapist must not let the client feel defeat if this state is not reached. This may increase depression.

Usually it is enough with a series of 5 sessions in 2 weeks before taking a break of 4-5 days, and a new series is begun. The duration of the effects is dependent upon which environmental stress which is placed on the client in everyday life.

85 - 90 % of the clients will have positive experiences from this therapy. The 10 - 15 % who reject this kind of therapy will usually make this clear during the first session. Therapy should be terminated in these cases.

**CAUTION:** The client should be warned against driving a car the first 30 minutes after therapy, because of the increased endorphin level. This may change the reflexes in a dangerous way.

### **Varicose veins**

There have been several reports from patients who experience reduced discomfort from varicose veins.

Choice of frequency: 35 Hz - 42 Hz.

Choice of music: Category 3 or 2.

Results: The veins tend to swell less, and the subjective feeling of pain and pressure is reduced. However, there is no evidence that the condition of the veins can be changed.

## **Whiplash pains**

Whiplash pains must not be treated with vibroacoustic therapy until the situation is stabilized. Therapy must be given in cooperation with doctor or physiotherapist. The painful area is treated indirectly by sound conduction from other parts of the body.

It is very seldom possible to make the original trauma better. However, the secondary pains from muscle tensions coming from the protective use of muscles to stabilize the neck may be treated with success.

Choice of frequency: Recent injury: 68 Hz +/- 10 %

Older trauma and chronic pain: alternate between 40 Hz and 68 Hz (+/- 10 %)

Choice of music: The music choice must be adapted to the mental condition of the client. Clients with secondary depression must be given music chosen to assist in dealing with depression. If the injury was severe, and resulted in continuing physiotherapy, it's best to consult with the physiotherapist if possible.

Results: Primary discomfort will very seldom be affected by Vibroacoustic therapy. Secondary pains, coming from muscular tension, may be effectively treated.

## SUMMARY

Frequency Programs provided in the Vibroacoustic Therapy International Course

30 Hz - Parkinson's Disease, anti-spasmodic

40 Hz - Stimulates blood circulation, reduces spasms, increases sleep, and reduces blood pressure, abdominal massage, sport injuries. General overall frequency that is generally beneficial to everyone.

40-75 – COPD, Lung massage, asthma, bronchiole conditions, Cystic Fibrosis

52 Hz - Low back pains and menstrual cramps

60 Hz - Pain between the shoulder blades.

68 Hz – Stress. Tension in the neck and upper back.

80 Hz – As this is one octave higher than 40 hz, it works better with smaller muscles. This is more effective than lower frequencies for the small muscles of the hands and feet and those in the shoulders.

86 Hz - Headache/migraine, stroke, neurological rehabilitation.

*Note: The programs included in this program were designed, developed and created by Kate Kunkel based on her experience and training using specific frequencies. These programs are propriety, and copyrighted, so please do not copy except for use within your own practice (do make backups!)*

*It is suggested that you begin your practice using these frequencies, as they are tested on many clients. However, as you treat more and different kinds of clients, experiment with your own frequency programs. You can start with the guidelines set out in the literature and then fine-tune with feedback from your own clients and expertise as it matures.*

## Appendix One

### Music with Vibroacoustic Therapy

#### Choosing Music

We're used to looking upon music as being something which affects the ear only. Of course that is not the case. We know that, although we hear the sound pressure waves, they primarily have direct effect on muscles, glands and nervous system. It is that body system at which vibroacoustic therapy is mainly aimed.

And, while some vibroacoustic therapists feel that VAT alone is sufficient for most applications, others believe that it is essential to have music engaging and nourishing the mind and soul while low frequency vibrations are affecting the body.

Between you and your client, you will decide whether music is to be combined with the vibrations or not. There is no one best way, except for that which suits your client most. But it is important to make good choices about the music that will be used.

Within the context of vibroacoustic therapy, there are basically three categories of music. All three categories may be found in different musical keys, and it is therefore possible to choose between 36 main alternatives (3 categories - 12 keys) if all possibilities are to be covered once. The supply of music which can be used for therapeutic purposes is practically unlimited. The limiting factor is the capacity to make individually adapted therapy programs. It is therefore necessary to have a wide, standardized, supply of basic therapy software, or to be able to create music on a harp, keyboard or other instrument that is capable of recreating the frequencies indicated.

#### **Category 1.** Music Specially Made for Vat

This category of music is specially made for Vibroacoustic therapy, and is based on one, single, frequency. This frequency is given to the composer, who uses this frequency as the basis for the composition. The composition consists of frequencies chosen from special mathematical relationships with the basic frequency. While it is beyond the scope of this course to teach composition, the following information is provided for those who are willing and/or able to engage in composition of this kind.

The harmonic mathematics are based on the natural scale. When we then reduce the scale of over tones to one octave, we find the following table which is basic for all composition of fractal music. The laws of classical harmony are applied as guidelines for composing the structures of the music. The table can be used for any basic note, or frequency in any octave.

In VAT music we seldom find melodic themes which can be followed by the client, even if the compositions are built over mathematical structures, which are repeated in different magnitudes.

There will also be a clear and marked rhythm. The music therefore has a "floating" character. It is intended that the client has no associations whatsoever to any kind of "known" music.

### **Category 2. Relaxation Music**

This music is any type that is composed for relaxation, but it is augmented with low frequency vibrations underlying the entire program.

Music programs for VAT use should not be used for listening purposes. The reason for this is that the frequencies used are not made for listening only. While it is not common, it is possible for the listener to feel nausea, dizziness and psychophysical uneasiness if the listening goes on for some time. These programs are made for use in vibroacoustic chairs/beds only in order to transfer therapeutic sound vibrations directly to the human body.

### **Category 3. "Normal" Listening Music – Classical, Popular or New Age**

When the therapist is treating conditions, in which

- a) choice of music category is secondary,
- b) the client has very special music preferences which one wishes to please, or,
- c) the therapeutic strategy includes music which is intended to give specific associations, or to give as much sensory, intellectual and emotional stimulation as possible.

The choice of music is very important in category 3. The choice of strategy from the therapist's side, the client's choice of music, or use of music which we know has got some connection with the client's past must be considered when music is to be chosen.

One can use both classical music and popular music, but we mostly avoid the use of vocal music. The music of Steven Halpern, Hemi-Sync recordings from the Monroe Institute, and some of the non-verbal programs from Kelly Howell are excellent options for this purpose.

Exception from the rule of not using vocal music is made for treatment of elderly clients, especially those with dementia, or for stimulating clients with special needs for recognition of words and human contact. In such cases it may be desirable to use music with known melodies and texts.

### **The Science of relaxation**

When we choose music of category 2 or 3 it is important to possess some facts around the choice of music which can be used for specific purposes. While the following may be somewhat subjective, they can be used as guidelines when choosing music to accompany VAT.

The choice of instruments is relevant. The best relaxing effect is found in the harp, then oboe, then piano, cello, violin, clarinet and organ.

Vocals are usually to be avoided in connection with anxiety and relaxation.

The choice of instruments ought to be varied in the different pieces of music.

There must be a pause of around 10 seconds between two pieces of music.

The following keys are preferred: C-major, D-major, Bb-major and F-major.

Piano, harp and guitar can be played solo. The other instruments are better suited in orchestral contexts.

It is important to reduce the higher frequencies and to increase the lower frequencies in the music, in order to obtain a deeper physiological reduction of tensions. Even if we do not work music therapeutically, it is possible within the frames of medical work to exploit the positive effects of music and sound to obtain:

Calmness

Relaxation

Deep relaxation

Psycho-somatic improvement.

In vibroacoustic therapy, music and sound vibrations are used as a physiotherapeutic remedy, in which the physiological characteristics of sound vibrations are important. This effect will come as an additive to the above-mentioned effects of heard music.

In order to understand which physiological parameters one can find in clients with anxiety reactions, and how music can contribute to reduce physical tensions, the following table of the effects of anxiolytic (anti-anxiety) music made by the German doctors Roland Droh and Ralph Spintge is very revealing. These effects are independent of vibroacoustic therapy.

## PHYSIOLOGICAL EFFECTS OF ANXIOLYTIC MUSIC.

Reacting system	Reaction
Heart - circulation	Reduced pulse-frequency. Reduction of arterial blood pressure
Respiration	Reduction of respiration volume. Decreased O <sub>2</sub> consumption, harmonization of respiration rthm.
Inner secretion and metabolism	Reduced basic metabolic processes. Creation of sleep-readiness.
Motor reactions	Reduction of restlessness. Reduced muscle tonus. Muscular tensions dissolve.
Reception and perception	Raised pain-threshold. Increased pain tolerance
Outer secretion	Reduced perspiration

From Spintge/Droh : Anxiolytische Musik in der Operations-vorbereitung. (Musik + Medizin, 2.81)

## BASIC PRINCIPLES FOR VIBROACOUSTIC THERAPY

Vibroacoustic therapy is based on the three universal principles which were defined by Olav Skille and Juliette Alvin, in 1968:

1. Low frequencies can relax.
2. Rhythmical music can invigorate.
3. Loud music can create aggression

and - of course - the opposites of these universals may create the opposite effects.

These universals are a good guide when the therapeutic strategy is to be chosen.

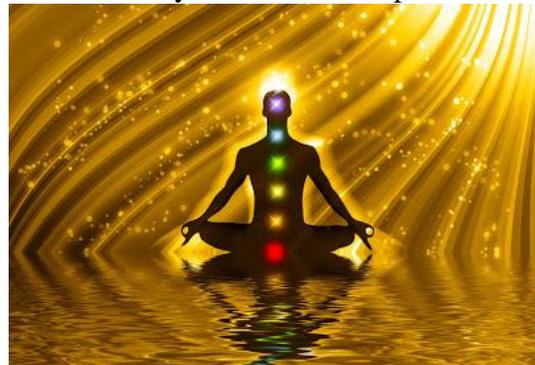
## Meditation & the Science of Brainwaves Technology

Meditation is generally an internal, personal practice and done without any external involvement, except perhaps prayer beads to count prayers, though many practitioners of meditation may rely on external objects such as candle flames as points on which to focus their attention as an aid to the process. Meditation often involves invoking or cultivating a feeling or internal state, such as compassion, or attending to a specific focal point. The term can refer to the state itself, as well as to practices or techniques employed to cultivate the state.

“Meditation brings wisdom; lack of meditation leaves ignorance. Know well what leads you forward and what hold you back, and choose the path that leads to wisdom.” -Buddha

Brainwave technology gives you deep, effortless, enjoyable meditation in minutes: Binaural beats are used to promote brainwave states equivalent to those observed for deep meditation, relaxation, super-learning and deep sleep, as well as other more exotic states of consciousness such as lucid dreaming and OOB. The technology has been known about for a long time, and is completely safe, but it is only in the last 20 years or so that use of binaural beats has become more widespread, in line with the increase in use of digital media generally.

When you sit down to meditate, your brain waves shift and you enter a deeper level of consciousness. You can enhance this experience with the aid of binaural beats, sound patterns that positively help brain activity. Aligning with your current brainwaves, help you enjoy an instantly immerse and resistance-free meditation session.



Binaural Beats are simply sounds or pitches that modify the brainwaves of the brain and have been found to help people experience more consciousness, spirituality, relaxation, and more.

You can release DMT (Dimethyltryptamine is a naturally occurring hallucinogenic substance that is produced by our bodies in our sleep; it is the substance that creates our dreams) and achieve Astral Projection through I-Dosing meditation. For the unfamiliar, I-Dosing is the attempt to achieve a perceived drug "high" from listening with head phones to Binaural Beats music and sounds.

An example of music with binaural beats is that composed by Kelly Howell (Brain Sync) and that included in the Monroe Institute's "Hemi-Sync" programs. Steven Halpern also creates something called "Aural Sync", which is similar.

Binaural beats and the effects they produce on users' brains have been known since 1839 when German physicist Heinrich Wilhelm Dove found that two tones played at slightly different frequencies in each ear makes the listener think they are hearing a quick beat. Ever since the

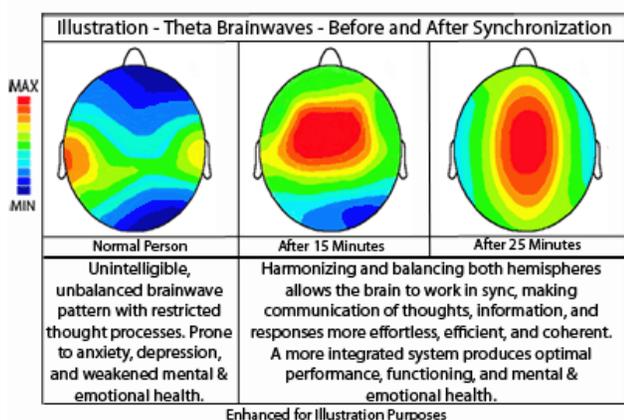
phenomenon was used in clinical settings to research hearing and sleep cycles, to induce various brain wave states, and treat anxiety.

But with advancement of cognitive science right now, it is possible to create binaural beats that actually do much more - namely simulate the effects of variety of known drugs or even create new ones.

There are dozens or more specific styles of meditation practice. People may mean different things when they use the word, 'meditation'. Meditation has been practiced since antiquity as a component of numerous religious traditions, especially, in Western countries, in monastic settings. In the Eastern spiritual traditions such as Hinduism and Buddhism, meditation is more commonly a practice engaged in by many if not most believers.

A 2007 study by the U.S. government found that nearly 9.4% of U.S. adults (over 20 million) had practiced meditation within the past 12 months, up from 7.6% (more than 15 million people) in 2002.

Did you know that meditation is scientifically proven to:



- Overcome stress (University of Massachusetts Medical School, 2003)
- Boost your creativity (ScienceDaily, 2010)
- Improve your sex life and increase your libido (The Journal of Sexual Medicine, 2009)
- Cultivate healthy habits that lead to weight loss (Journal Emotion, 2007)
- Improve digestion and lower blood pressure (Harvard Medical School)
- Decrease your risk of heart attack (The Stroke Journal, 2009)
- Help overcome anxiety, depression, anger and confusion (Psychosomatic Medicine, 2009)

- Decrease perception of pain and improve cognitive processing (Wake Forest University School of Medicine, 2010)
- Increase your focus and attention (University of Wisconsin-Madison, 2007)
- Increase the size of your most important organ – your brain! (Harvard University Gazette, 2006)

By using the Vibroacoustic Therapy devices and programs, individuals often find that they are able to achieve a meditative state much more quickly than they might otherwise be able to.

When using VAT strictly as a way to relax and connect with one's inner self, the vibroacoustic experience may be mixed with binaural beats or other meditative music programs. It is not recommended for most serious physical problems, at least not in the initial therapeutic stages.