



# HBM

## Draper Sensory Method

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HBM is a non-profit organization, utilizing the 'Draper Sensory Method'(DSM) to help people who struggle with mental challenges or neurological disorders. We have had excellent results on PTSD, ADHD, Bipolar, anxiety, depression, Autism, stress, learning difficulties etc. Draper Sensory Method is a unique cutting edge technique based on 22 years of studying neurophysiology in combination with kinesiology and sensory integration.




Based on knowledge of what happens chemically in the brain, when you are stressed or traumatized, the founder of HBM Terry Draper, found a way to reverse this process.

### Everybody with mental/neurological challenges have 2 things in common

- 1 They are stressed, living in "fight or flight" survival mode creating high Cortisol levels, which causes neuropathways to shut down to the frontal cortex, where all your executive decisions are being made. This limits memory, focus and rational thinking.
- 2 Chemically imbalanced. Lacking the feel good hormones, which makes us function well

Draper sensory Method is simply doing two things. Neutralizing all stress in the body and balancing the chemistry in the brain. The brain will then open up the closed neuropathways and the chemistry of the brain balances. The brain start producing all the feel good hormones(Dopamine, Serotonin, Gaba, Oxytocin, Acetylcholine) in the right amount again and people can sleep, trust, be happy, regulate appetite, learn, remember, relax etc again.

### The gamechangers of this technique are:

-  Speed. It works really fast. Neutralizing of stress takes 2-4 min. Mental challenges such as PTSD can be gone in as little as 5 hours of sessions
-  People come all the way. It is not just a symptom repair. DSM goes to the root of the problem and changes that. With no stress and balanced chemistry in the brain, the brain repairs even physical damage.
-  Bypasses choice. As it is physical impact on the brain, you do not have to believe in it for it to work. We have had young criminals there with nothing but resistance – it still worked.

In 2017 Terry Draper was the only one who could do this technique. Now we have started getting it out in the world, by educating Certified practitioners from different countries and we are very pleased to see the same excellent results out there. We have for years been working with scientists from Colorado State University. Over 7000 sessions have been conducted at the ranch in Colorado. All with good results.

### The Goal

Our goal is to get HBM out in the world to help hundreds of thousands of people who suffers. We are now in dialog with the military in Europe and in USA to make an effort with PTSD and all the high suicide rate in veterans.

HANNE STIGAARD,  
HBM, Director of International expansion





# HBM

## Draper Sensory Method

HBM works with a unique method, Draper Sensory Method. This Method revolves around:

- ☞ The principles of neurophysiology. The study of the brain and spinal cord
- ☞ Kinesiology. The study of the body, movements and how the movements affect the brain.
- ☞ And Sensory integration. Turning an input to a usable functional output.

Draper Sensory Method is a number of very specific movements conducted on horseback while the horse is moving. This therapy gets people with Mental illness out of it in as little as 5 hours of sessions and it significantly improves the functioning level of people with neurological disorders.

Only 5-10% of horses can do the very specific movement that this technique requires and it simple doesn't work if the movement and frequence is not perfect. Draper Sensory Method cannot be compared to equine therapy.

Terry Draper, the founder of Horseback Miracles, found out that there is a common theme for everybody with Mental illness and neurological disorders - they are all at a very high stress level and there is imbalance in the brain chemistry.

The high stress level makes parts of the brain harder to access. Amygdala is activated by stress and becomes overactive in long term stress. This makes the brain shut off neuropathways to the frontal cortex and other parts of the brain. This is a natural process, which works just fine in a short time frame. The brain gets the input that it needs to allocate as much energy as possible to the most urgent topic at the moment, taking energy from other and less urgent processes. When the stress goes away, the brain re-opens the closed neuropathways. The problems occur when the stress is there for a longer period of time.

With limited access to the frontal cortex, it is hard to focus, reason and remember. The frontal cortex is where all your rational thinking is going on and it is where all you executive decisions are made. You start forgetting things, being less rational, not sleeping so well and having issues with perception, mood etc. In this state, the benefit from talk therapy etc. will be limited, as there is limited access to parts of the brain. How can one benefit from therapy, when there is limited access to the frontal cortex where the rational thinking is?

Another problem with a high Cortizol level is the impact, that it has on all the feel good hormones as they are inversely proportional. High level of Cortizol leeds to low levels of feel good hormones, such as Dopamin, Gaba, Oxotoxin, Serotonin and Acetylcholine. These are the hormones that makes us feel good, be happy, sleep well at night, trust others, be calm, focus, support cognitive skills etc.

The imbalance of these neurochemicals also origins from a faulty Vestibular System. The vestibular system is the control system of neurochemicals in the brain. The Vestibular System can be faulty from various reasons, such as loud noises like explosions, the sense of powerlessness, ear infections, physical impact and stress. When the vestibular system is faulty, the production of chemicals are not controlled and balanced properly.

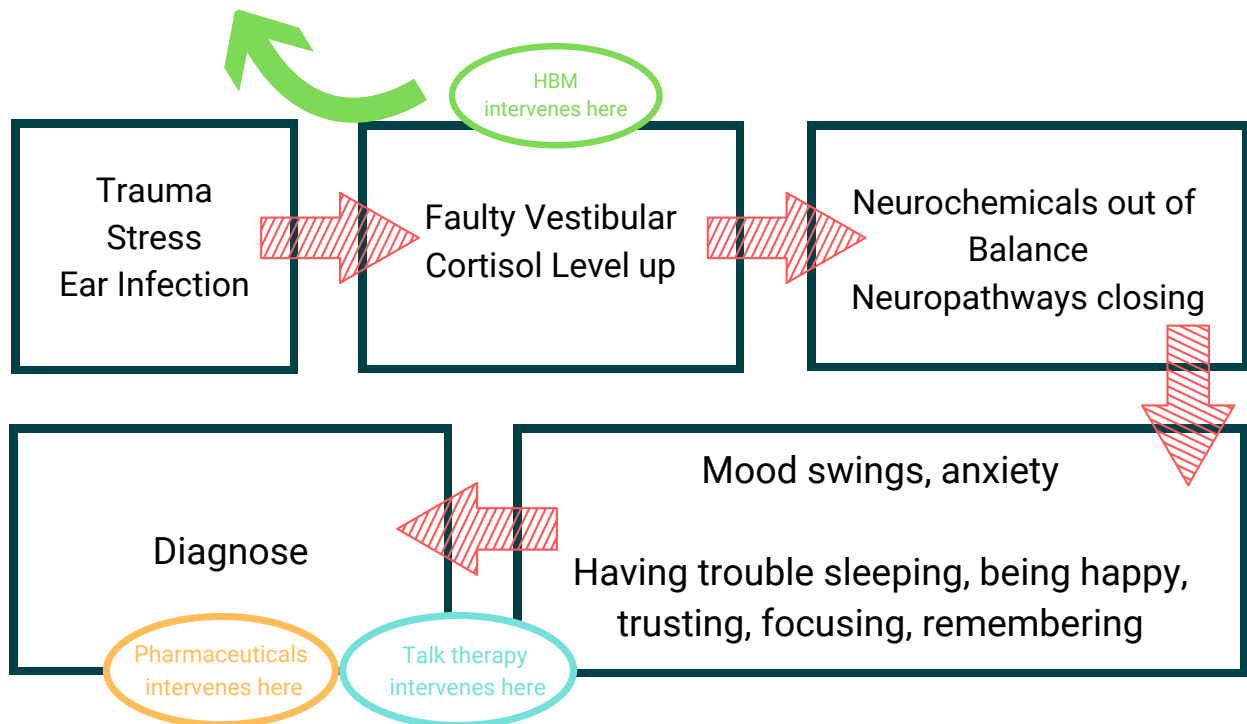
The Vestibular System is the access point of treating menthal illness as well as the key to balance the chemistry of the brain. When the vestibular system is intact, the chemistry of the brain balances quickly.



# HBM

## The Draper Technique

Healthy Happy Person



The brain is capable of repairing even physical damage, when the neurochemicals are balanced and there is no stress.

With chemical imbalances and stress, you do not function well. You are at flight and fight mode, you are not feeling good and you cannot focus, reason and remember.

Re-balancing the neurochemicals and neutralizing all stress is where people are often powerless today and they remain stuck in stress and imbalance. Lots of people with stress and PTSD never really recover.

HBM and Draper Sensory Method neutralizes all stress and targets and repairs the vestibular system. When the vestibular system is working correctly, the neurochemicals will balance and the brain will be capable of repairing even physical damage in the brain.

So instead of trying to fix the symptoms, HBM goes to the core of the problem and repairs what caused the problems. This is totally unique and a really cutting edge technique.

### Psychological study of HBM, The Draper Technique

In 2009 Kate DeRoche Ph.D. and Megan Stone B.S., both from Colorado State University, conducted an evaluation of HBM, The Draper Technique using "Cohen's coefficient testing" (.2 is no change, .5 is average and .7 or .8 is excellent)

In 9 categories HBM's lowest score was .8 and the highest 2.4.



# HBM

## Draper Sensory Method

### EEG

HBM is now working with EEGs.

The equipment is Cognionics "Quick 20" head-set and the software is NeuroGilde developed by Dr. Robert Thatcher.

The neutralizing of stress is showing up on "Phase.Amplitude Cross-frequency-Coupling.

HBM neutralizes stress by altering brainwaves from Beta to Alpha via a process called isochronis. It is a very specific movement of the horse, which induces a vibration and a frequency that has an impact on the brain and quickly alters the brainwave pattern to Alpha.

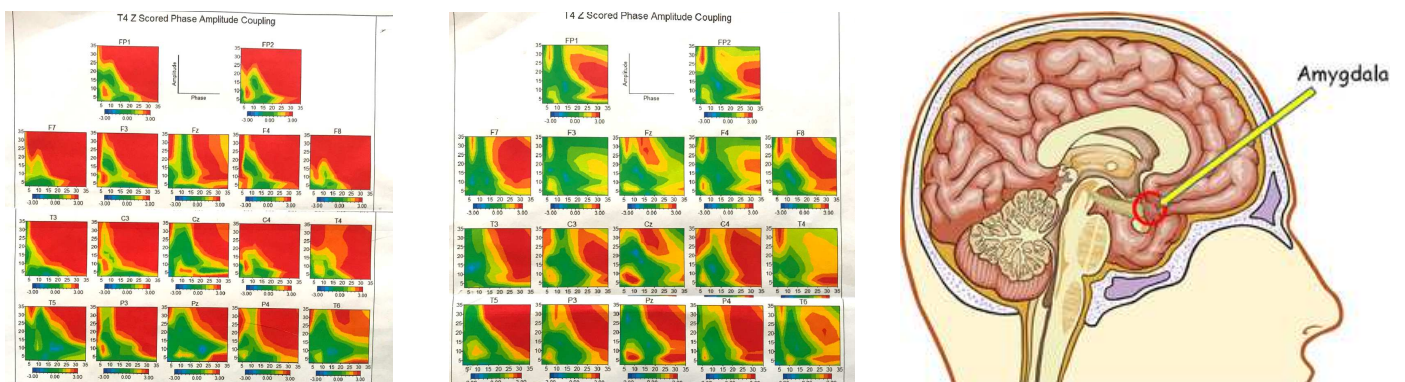
In Alpha state your brain produces huge amounts of serotonin, which makes you feel really well. You sleep well and you are happy.

Stress cannot get to you in alpha state. It is the optimal state for repair and healing for brain and body.

The change of brain wave pattern from Beta to Alpha is the corner stone of changing any kind of mental/neurological challenge. A brain in Beta is stuck in fight & flight mode with limited access to big parts of the brain.

When working with EEG measurements before and after sessions, we have seen big change especially on T3 which is the point right above the ear. Very close to Amygdala. So we are seeing that the area around Amygdala before the session is very active and shows as very red on T3 on the pre-picture. On the second picture, we see T3 way more green, which means not so active any more. These 2 pictures are taken before and after 15 min session of neutralizing stress

We are in the process of getting scientists to look at more measurements and evaluate and describe it in details.



The possibilities with this technique is beyond amazing. It actually takes people out of mental illness for good, it takes people out of addiction and it improves the lives of people with Autism etc. It works even though people is in total resistance to it, as it is a physical impact on the Brain.



# BRADLEY CLARK

## PTSD

Brad Clark is a Vietnam veteran and a Medical Doctor as well.

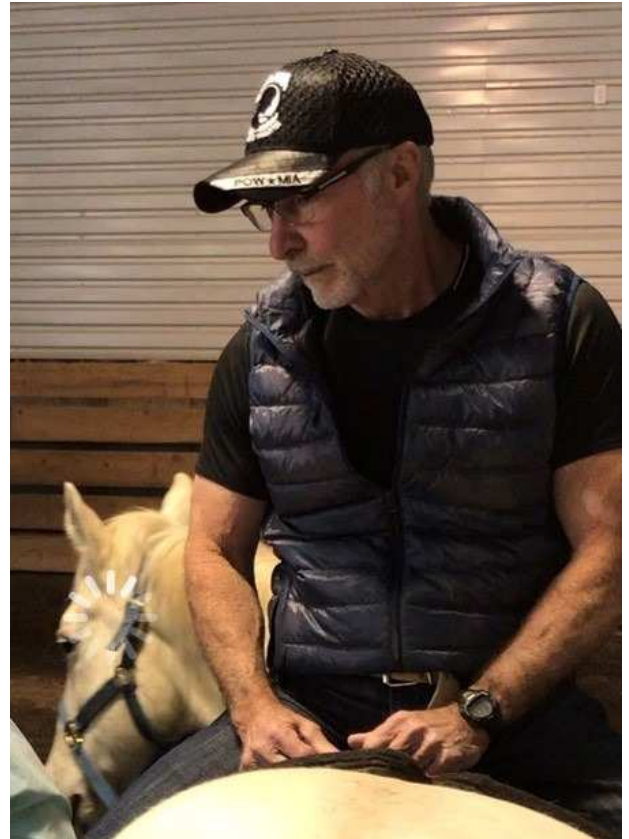
Brad has had severe PTSD for 52 years.

He was having trouble sleeping and slept only 20 minutes at a time his entire adult life, since he left Vietnam in 1975. His perception of people and situations was off and he was always on guard. I.e. the sound of a helicopter would put him in alert.

Relationships and having people close was not working for Brad and he had severe headaches.

Brad had tried every kind of treatment and therapy that is available out there - nothing worked and he had to stop working as a doctor a long time ago.

The HBM sessions are working, his PTSD is vanishing. He has started sleeping at night. His perception of him and his surroundings is better. He often finds himself in situations where he would normally have exploded or being annoyed or angry and now he can look at the situation and see it for what it is. His head aches are also diminishing.



The funny thing in this story, is that there was an extra bonus, Brad has always been Dyslectic and that also disappeared. Brad's spelling used to be so bad that not even the autocorrect could recognize what he was writing - now he spells just fine





# PERNILLE

## Brain damage

Pernille has been seriously ill with MS for 17 years, since she was 5 years old. She had come very far with different techniques, but there was still quite a lot of damage to the brain. Pernille had absolutely No sense of time and structure, which meant that she had to be instructed in everything. She literally had no clue about when she last time walked the dog or fed the horses. So I would have to wake her every morning and say: "It is morning, we have to go and feed the horses" and the same in the evening.

She didn't have the strength to walk more than 300 meters and she could not shovel horse poo or go with the wheelbarrow, so I took care of that.

Pernille only spoke single words. She hardly ever formed a sentence and she spoke so quietly that it was almost impossible to hear.

We went to Colorado and Pernille had 6 HBM sessions in 3 days and a huge change was there right away. I have not taken care of the horses since. She walks there, takes care of everything and walks back again. She even calls the farrier and the vet. She walks 2-4 kilometers every day and her balance is well enough for her to shovel poo and go with the wheel barrow.

Now she thinks in time and structure. She knows that the horses have to be fed every morning and every evening - that was totally out of reach before

She is talking in long sentences in Danish as well as in English and she has started school again. Pernille spend her childhood mainly in hospitals, so she never got very far in school. She struggled very much with math and the rest of the topics were also at a low level. Now she is finishing her primary school and is doing just fine. She is communicating in clear sentences and loud and clear

Her brain is repairing.





# CHOI

## Autistic, Spastic

Choi is 10 years old. He was born in week 31, 9 weeks early. Choi has cerebral edema due to cerebral hemorrhage, so he is spastic in the right side with right arm and leg very weak.

He is autistic, very little language and not able to express himself, eyes closed almost all the time and not much perception of people and things around him.

Sensibility disturbance, so he could not be touched at all. He would scream if we touched him.

He is in a wheelchair and not capable of holding his own body up, as you can see at the first 2 pictures

Huge mood swings.






The first two pictures are from Day 2 of therapy. Here Choi is not able to hold his own body up, so we had to hold him up or he would lay Down on the horse

He was only doing 'High five' with left hand in the beginning, as right arm is spastic. But he became capable of doing left, right and both hands already after 4 sessions.

As you Can see at the third picture, his core muscles and balance very quickly improved, so he became capable of holding and balancing his body





### Improvements described by the family

-  His right leg became better, so that he now doesn't need as much support when standing and is now training walking
-  Choi's eyes opened more and more. On the horse the eyes were open all the time and also off the horse they became more open
-  He started to perceive his surroundings and react to people and things around him
-  Communication is improving. Starting to say more words and also to reach out and contact you physically, like you can see on picture nr.4.
-  Choi was over sensitive before and couldn't have people touching him - now he allowed touch all over his body



# CHOI (cont)

 He is now more relaxed and his face looks more peaceful. Less and smaller mood swings.

 Better sleep. He used to sleep 2-3 hours and wake up - now he slept all through some nights.

All of this happened on 10 times 20 minutes and the changes continues.

This is SO much more than what we hoped for and had thought possible

HBM had No experience with spasticity - but it definitely changed Choi's spasticity as well as his autism and other difficulties

We had earlier discussed the possibility of spasticity changing, as any disorder coming from the brain should change when we change the neurochemistry and neutralize all stress – here we saw it for real.







# FREJA

## Learning difficulties

Freja is a 7-year-old girl, who had learning difficulties. When Freja started school, it was clear that she had problems with focusing and especially with reading. She got uncomfortably, got headache and just couldn't do it.

Freja was a quiet and shy girl.

Already after first HBM session, there was progress. The most visible was Freja's physical ability. On the local playground, she showed a huge change right away by running over obstacles and jumping down by herself, where she normally would have required help.

After 4 sessions, Freja's school teacher called and asked what was going on, as they had noticed that Freja could sit still and read up to 4 pages where she used to be uncomfortably and only with great struggle, she could read a couple of sentences.

After 10 sessions Freja has no problems focusing and reading. She doesn't get uncomfortable and she speaks out loud and clear in class and elsewhere. She is confident and happy.

At a meeting at Freja's school half a year after the sessions Freja was still in progress. Her reading difficulties were gone and where she was average in math earlier, Freja was now among the best.

This could have been the start of many years in school with failure and a girl who would have become smaller and smaller and maybe into trouble. Now she is confident and happy and doing great in school.





# BIRDIE

## Autistic, Premature birth

Birdie is born premature and lacked oxygen during birth, as she had the umbilical cord around her neck. She is retarded and very autistic. When Birdie started coming to HBM she had NO language at all and her balance was really bad, so she had to have a lot of help to walk. She was very frustrated, as she couldn't express herself and was constantly screaming and hitting people out of frustration.

She is now walking really well and her communication is getting better and better. From no communication to small sentences. She can talk little sentences and is counting and talking while she is having sessions on the horse.

Birdie is getting good at telling what is going on for her. The other day she hit her toe on a box and she was able to tell that she hurt her toe and that she "hit box". Earlier she would just have screamed and you had no idea what was wrong.

What a change from just screaming and nobody knew what was going on for her. Now she can interact with people and people around her now has a chance to help her, as Birdie can put words to what is going on for her and what she needs.

Her mood swings are not so often and not as big as before.

Birdie even shows a sense of humor now by saying sentences like "Is Terry a girl?" or "Is Hanne a man?" and she will laugh and laugh.

Birdie lives with her grandparents and they have just been on a camping vacation. This was the first vacation ever where the whole family just enjoyed the entire vacation without a single tantrum – just joy and happiness.





# DANIELLE

## Chemo Brain

Testamomial from Danielles mother:

"Danielle was diagnosed with a cancer tumor in her pancreas when she was 3 years in 2003. The tumor caused ataxia and shaking. Danielle received chemo during 4 months and 3 weeks of radiation a year later when the tumor started growing again.

Since then the tumor has not grown, but many other issues have arisen. She has a very strange type of hearing loss in her left ear and it has been determined that a hearing aid is of no use to her. Her balance has always been an issue and she seems to have more muscle weakness than other kids her age. She has had occupational therapy through school for the last 4 years so that she will be able to write legibly. She also has a lot of cognitive problems especially when it comes to Math or problem solving.

This year (2010-2011) she is a fifth grader at Monument Academy. Every year she has had to work incredibly hard to receive mediocre grades and she is on an IEP to get her extra help in many subjects.

In August of 2010 she started having HBM sessions at Horseback Miracles with Terry Draper in Perry Park. She loves horses but is very timid in most things she does. During her first lesson, she was very shaky and could not do a lot of the exercises. By the time she was on her 4th lesson, it was amazing to see the difference. She was much more confident and was able to do more of the exercises without shaking.

It is now a full five months into her lessons and she is able to stand on the horse and walk around the entire arena as well as a complete canter around the arena without Terry holding onto her leg for stability. It is amazing to see such a drastic change in such a short amount of time. We have seen that if she does get sick that it throws her whole body off and she is unable to perform well on some of the things she had mastered before. Once she is well it only takes a short amount of time to get right back where she left off. The other area we have seen great improvement is in her school work. I am no longer spending hours with her going over her Math to help her, just a few minutes here and there. She has received all A's and B's so far in 5th grade and her teachers are amazed by how well she is doing. She still has an IEP and she still needs extra help, but nothing compared to the last few years. Her confidence in school has skyrocketed and we can only hope that with continued lessons that her confidence in other areas will only continue to grow.

Danielle is now almost completely normal. All the challenges she had from the chemo brain is almost gone and she is happy and thriving. A huge relief and a huge change from all the difficulties physically as well as cognitively that she had before the HBM sessions"

