

Biofeedback Matters®



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December 2018

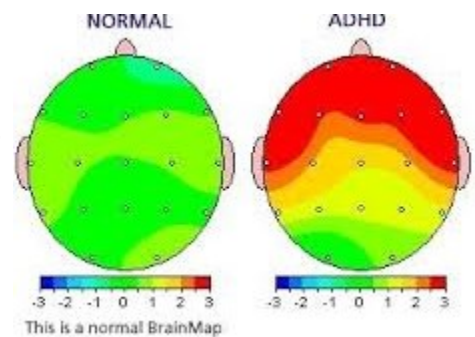
Brain mapping

Volume 6, Issue 3



If you have been using one or two channel simple assessments for a while, it may be time to take a look at what is possible with 19 channel brain mapping equipment.

Neurofeedback we were using stand-alone single channel instruments that were housed in wooden boxes. The feedback consisted of an analog needle meter and audio. That was it. There was no data recording to speak of and no assessment capability. The technology slowly progressed. Eventually Adam Crane, Charles Stroebel, Sam Caldwell, and John Pitchiotino developed the CapScan Prsim-5, a 5-channel system with single channel training and four channel synchrony training capabilities. This allowed for much more advanced training, feedback, and data recording. Since then many systems have emerged. Much of the EEG/Neurofeedback



work has been done with one or two channels partly because that was all the technology allowed.

Now it is possible to record and give feedback on 19 channels at once. The Brainmaster Discovery is one such system that allows this. You can record data using a cap from 19 channels simultaneously. Then you can use software like Dr. Robert Thatcher's Neuroguide to compare the sample to a normative database. This yields data on each site and the relationship between sites including information about amplitude, coherence, dominant frequency and more. It is a tool that can help in identifying ar-

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Why should you consider 19-channel brain



mapping?

Neurofeedback is a technology based intervention. When I got started in EEG/



Brain mapping - continued

**Featured
Product:
Only \$435**



MuscleBan

Wearable Wireless Surface EMG System that works with a smartphone or tablet (Apple or Android).

The MuscleBan gives you the freedom of not needing a laptop or desktop computer while still giving the kind of visual feedback and reporting that a computer gives.

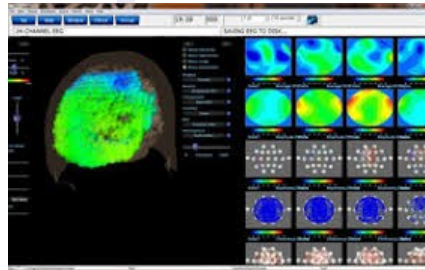
The MuscleBan can be placed on just about any muscle area and can be used for relaxation or rehabilitation applications.



For use in clinic or for sending home with clients. It combines the best of stand alone and computer based systems.

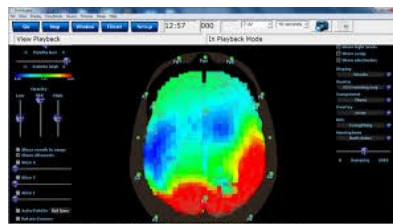
eas of concern, choosing the sites to place sensors for training, and the type of protocol that should be used. It takes time, study, and experience to learn how to do this and how to interpret the information. Tools and consultants are available to help with this. One such tool is the New Mind system that Richard Soutar developed. It does a lot of the work for you that would otherwise take you lots of time, study, and experience to be able to do yourself.

Besides the assessment capabilities there are also exciting and powerful feedback methods that the 19-channel system allows. You can do Z-Score training which compares the current samples and allows training relative to the normative database for a multitude of measures including power, relative power, dominant frequency, coherence. The feedback can be based on a few or hundreds of different conditions being met. You can include from a single site up to all 19.



You can also do s-LORETA training which is a form of three dimensional recording, assessment, and training. It calculates the source of signals recorded from the surface of the scalp so that you can reach specific areas. This can really be powerful.

I am recommending that



you take a look at brain mapping.

When technology moves forward there comes a time that we have to move forward with it. We can choose to do this while we still have a choice or we can wait until we are forced to. You don't still have a rotary phone do you? We still have a choice but I believe that moving forward sooner rather than later will give you an advantage.

There is some evidence that using brain mapping

and normative database guided neurofeedback is superior to traditional protocols. Even practitioners who still use traditional protocols agree that in some complex cases like brain injury and multiple symptoms that would call for conflicting protocols that a brain map can be helpful if not necessary.

The decision can also be a marketing one. Some clients will choose a provider who does or works from brain maps. If they have researched neurofeedback they may have read information that says that working from a brain map is more effective. You want to be seen as on the cutting edge by prospective clients and other health care professionals.

We can help you get set up with equipment as well as training. Call now to find out how to get started.

Ask me about FREE webinars on brain mapping.

Order a Discovery Brain Mapping system within 30 days and get free 4-day brain mapping training or \$600 rebate check.

Financing available.



Cold Hands

Do you have clients who say their hands are always cold? What symptoms do they have?

Cold hands are often associated with migraine headaches and anxiety.

Some conditions that can cause a person's hands to be cold are anemia, Buerger's disease, diabetes, lupus, Raynaud's disease, and scleroderma.

How do you work with a client with cold hands?

Do you use temperature biofeedback even though it may be difficult?



Do you avoid temperature

perature and choose a different modality?

Did you know that doing Heart Rate Variability biofeedback using a finger photoplethysmograph sensor may be difficult if you are working with someone who has cold hands. Part of the reason their hands may be cold is that blood circulation to their hands is poor. Less blood = lower temperature.

The plethysmograph sensor relies on blood circulation to detect the HRV signals.

It can be helpful to dig a little deeper than your initial intake took you to find out more about why the person's hands are cold. Are they under chronic stress? Do they smoke? Do they have a high caffeine intake? Ask about coffee, tea, energy drinks, iced coffee, weight loss products, and medications. These substances can cause vasoconstriction which reduces circulations to the hands. This will make the hands colder.

Temperature biofeedback can increase circulation to the hands and increase temperature. The goal is usually between 94-96 degrees Fahrenheit. You may lower the goal if you are dealing with one of the factors that might make it more difficult to raise the temperature.

Diaphragmatic breathing, Autogenic Relaxation, and Guided Imagery including warmth can help a person be more successful with temperature biofeedback.

If a patient is struggling with raising their hand temperature have them look away from the feedback screen for a while. Trying too hard and getting upset that the temperature is not going up only makes it less likely to be successful. The term that is used for how to get your hand temperature to rise is passive volition. It is more an allowing than making the temperature go up. Using the audio feedback instead of visual sometimes works. If the patient still struggles you can help them to cheat a little. I thought this was a mistake but my friend Susan Antelis who is one of our biofeedback instructors showed me the value of this. It allows the patient to sense what their hands being warm actually feels like which can then induce actual warming from within. You can use a space heater, blanket, or just have them put their hand under their armpit or leg to feel the sensation of warmth for a while. This modality works well with migraine headaches, hypertension, asthma, and anxiety. Home devices are available at low cost.



Biofeedback/ Neurofeedback

Seminar Schedule

BCIA Certification

Biofeedback

January 17-19, 2019, Miami, FL

April 12-14, 2019—Hawthorne, NY

June 22-24, 2019 – Houston, TX

July 19-21, 2019 – Hawthorne, NY

Fees: \$1,195

BCIA Certification

Neurofeedback

January 21-23, 2019, Miami, FL

April 26-28, 2019—Hawthorne, NY

July 26-28, 2019 – Hawthorne, NY

Fees: \$995

Health Training Seminars is approved by the American Psychological Association to offer continuing education for psychologists and maintains responsibility for the program.





***"How beautifully leaves grow old.
How full of light and color are their
last days."*** - John Burrows



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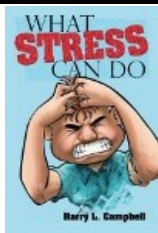
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For even more instant updates and content from us on Social Media:

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ORDERS.

Harry L. Campbell



We really and truly appreciate that you have chosen to do business with us. We know that you always have a choice where you spend your money. Customers like you allow us to do what we enjoy doing year after year. You can expect excellent value and service from us. You deserve that and we want to make sure that you return to us next time you need any of the products or services that we supply.

As you may know, ad-

vertising is expensive and time consuming. Buying ads, exhibiting and conferences, and calling on prospects takes time and in-



vestment that could otherwise be spent providing service to our existing clients. The less we have to spend on acquiring new

clients the more time and resources we can devote to clients like you. We already get a good amount of referrals and we always welcome MORE.

I am asking if you would take a few minutes to send us the names and phone number of just two other psychologists, social workers, or mental health counselors who could use biofeedback in their practice. If they attend training or purchase equipment we will send you \$50 as a token of thanks.

