Using Biofeedback to Uncover Food Sensitive Persons

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If the brain had a tongue it would surely speak to us of our body's condition. Unfortunately, it doesn't talk to us in our language but rather, communicates in the only manner possible. It gives us signs and symptoms.

For instance. If we eat strawberries and break out in large red blotches, then it is assumed the body is allergic to strawberries. If eating a wheat product causes depression or other side effects, it could be assumed we have a brain sensitivity to this ingredient.

This, then, is the language of the brain. However, we are getting further and further from an ability to read the body's signs and symptoms. More and more we depend on governing monopolies to protect our welfare. Our food is inspected by government agencies, our cars are safety checked, our roads lined for guidance and our doctors are ever ready to supply whatever pill they deem necessary to ease our every concern.

Truly, humans have gotten away from the basics of life. We've become a sterilized nation less and less capable of governing our own welfare. We are almost solely dependant on outside saving forces. Even the body-signs grandmothers once used to monitor our physical well-being have been passed over for the more convenient means of: 'The Band Aid Treatment' that temporarily eases the discomfort but leaves the root cause unanswered.

However, we still retain the basic emotions of our ancestors, the brain-language possibilities of our forefathers. And, reading many of these 'brain-expressions' can be done simply and quickly, particularly food sensitive types, using the Biofeedback system!

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After keeping records of four hundred and twenty two patients subjected to this test, there is evidence to suggest the Biofeedback method worthy of consideration for discovering those persons suffering as the result of food sensitivity.

In 1924, an Austrian psychiatrist, Hans Berger, discovered strange electrical signals coming from his son's brain. They were weak, but clearly detectable when Berger passed two small pieces of silver foil that were attached to a galvanometer, over the scalp of his fifteen year old son. Furthermore, these signals followed a regular rhythm — he called them the "Alpha Rhythm". Their regularity was actually visible when recorded by the galvanometer's oscillations on a roll of paper. Later, working with other people, he noted that the rhythm broke whenever his subjects concentrated on different problems, ideas or subjects. Not only did people's brains emit signals but they were directly related to their state of mind.

No one paid much attention to Berger's discovery at the time. A decade later, however, there was a flurry of excitement when the eminent English physiologist, Lord Adrian, announced he had confirmed Berger's findings.

But, with the limited technology available to researchers in the 1930s, the signals from the billions of cells in the brain proved almost impossible to unscramble. Their voltage was so tiny — only a few hundred-thousandths of a volt — and, even worse, the squiggles of the brain-wave records all looked alike, at least in healthy people. So, interest in Electroencephalograms gradually waned and, little by little, the EEG pioneers turned to medical applications. However, they did occasionally use the waves to pinpoint brain tumours, injuries and other abnormalities; developing techniques that were of great value to surgeons, but learning little about

the activity of normal brains or the meaning of their mysterious electrical signals.

So, it is understandable that many of those early pioneers who persisted in trying to crack the language of the brain, only to reach a seemingly dead end, wished sincerely they had been born a few decades later.

Nevertheless, they were right! The brain does speak a language of its own, and what it says reveals the inner state of man; and these messages are continuous. They never stop. Back and forth they travel, night or day, unconscious or not, they are flowing to and from the brain.

Too long we've remained much like illiterate primitives when faced with the complex language of the brain. Now, at least, we know an alphabet exists, and scientists have begun to decipher some key words.

Today, with training, we can achieve surprising control over the body. For instance: Achieve a state oblivious to pain, be exceptionally alert, or fall into a creative reverie at will, all without drugs. All by knowing the mind's language and, speaking to it in the appropriate manner. One's positive attitude seems to have meaningful payback. There has emerged the undeniable evidence that the human mind can be trained to play an important part both in preventing disease and in overcoming it when it occurs. Norman Cousins learned to laugh his pain away. Others have said to themselves: In every way, day by day, I'm getting better and better.' And, they often do seem to improve for no reason other than their attitude.

One only needs concentration coupled with precise information on what's going on in the brain at the time it occurs. Then, one can have the kind of self control that people have always dreamed about but seldom attained. This possibility is simplified by using Biofeedback as the monitoring vehicle.

Since Dr. Berger's tentative proddings into this 'Brain-Language' field in 1924, many have pioneered. Later efforts were greatly enhanced, it must be pointed out, by modern electronic technology that's made very precise and accurate instruments possible. One of these early pioneers was Dr. Barbara B. Brown of the VA Hospital in Sepulveda, California and Dr. Lester Fehmi, of the State University of New York at Stony Brook, contributed immensely to the advancement and acceptance of Biofeedback as a viable, modern diagnostic tool enhancing many areas of medicine.

A person suffering depression, anxiety, feeling generally miserable and perhaps even hostile, is not very willing to wait several days for an analysis of a substance that might be causing emotional problems. However, this would be what the patient would have to do if he were to go on a Five Day Challenge Test, the means used today for deciphering a person's food allergy as proposed by Dr. Mandell.

Distraught patients too often use the eating route to relieve the symptoms. They revel in the ecstasy of gorging themselves on their favourite food. Unfortunately, this is often the very one causing their troubles. So the need for a quick, simple testing for food allergies is obvious.

Native Indian persons near the Queen Charlotte Islands off the west coast of B.C. provided the impetus for finding the answer. These Native people told of their method used for generations for testing of a food substance to ascertain if it was edible.

The suspect food was brought before the Shaman or Native Medicine Man. He, amid numerous ceremonies, would place a small amount of the suspect ingredient under his tongue. He then waited for a reaction. A feeling like the hair on the back of his neck was standing up. A sensation of prickli-ness or something crawling over his skin. A flush to his face and neck and/or whether his heart beat increased dramatically. If any of these sensations or all of them occurred, he condemned the substance as being unfit for his people to eat.

It was not necessary for the Shaman to endure a five day fast to accomplish this feat. To realize this, made it only a small step to apply the Biofeedback principles to an emotionally disturbed patient for monitoring of food sensitivity. After all, this instrument was designed to read the brain reaction to outside stimulii.

The cost of a Biofeedback instrument varies somewhat, depending on the type, company it is purchased from and the

sophistication involved in its circuitry. On the average, they cost in the neighbourhood of a thousand dollars.

Connecting a Biofeedback to the patient is per the manufacturer's instructions. Briefly, to repeat them here: An electrode is placed over the occipital region of the skull, another over the center of the forehead and the remaining one is clipped to the ear, a benign site for reference. The controls are initially set to their least sensitive position, gradually moving them back until there is some meter movement or, until the needle is centered except where the patient inserts thoughts to alter its position. But, it should always come back to center zero. It should be mentioned in passing that, a Myosone or muscle tension monitor along with a Galvanometer connected to the fingers might be connected in conjunction with the Brain Wave Monitor.

The Myosone is connected to the head by placing one electrode over the left side of the forehead and another on the right. Another is placed just above the nose. This will often cause the patient some trepidation because of all the wires but, a simple explanation usually assures them all is in their best interests.

The Galvanometer merely has two finger pieces placed over the third and little finger of either hand.

These two instruments, the Myosone and Galvanometer will measure the amount of physical energy being exerted by the body's acceptance or rejection of a substance.

Both these instruments are set to a mean-level setting before starting the tests, just the same as is done with the Brain Wave Monitor.

The Biofeedback reacts to any brain activity by being fed a small electrical charge from the area of the brain to a point of pick up where the electrodes attach. Once a level has been established it is only a matter of the patient placing a small portion of food under the tongue. The act of opening the mouth will cause a slight deflection in the meter's movement but, this should be ignored. Consider only the more dramatic excursion of the needle. If the gauge indicates a greater deflection from one substance than all the others tested, it could be considered a suspect ingredient.

After the instruments are set up, the patient settled down and co-operative, place a food particle under the tongue. Wait for a few seconds for the brain and instruments to register. Do not let the patient swallow the ingredients. Rather, have her/ him spit it out when the reading is complete. Wash the mouth out with clean water and spew this out also. Then, allow the patient to re-settle, the needles to stabilize on the Biofeedback machine and all is ready for testing the next substance.

Brainwaves are minute electrical fluctuations caused by the electrochemical activity of some 20 billion neuronal cells within the brain. This ceaseless activity varies with changes in emotions, feelings and sensory perceptions. It is generally agreed now that four patterns of activity exist and each can be correlated with subjective states and emotional experiences that are classified according to their frequency content and are denoted by Greek letters: Delta, Theta, Alpha and Beta.

Delta activity, the lowest frequency brainwave, is generally observed during deep, dreamless sleep.

Theta signals usually reflect the influence of thought more than feeling.

Alpha is associated with states of pleasant relaxation and tranquility.

Beta, the highest brainwave activity is usually associated with normal, conscious, waking experience. It can be correlated with focused attention such as is required in problem solving or reading.

The Myosone or electromyographic, objectively measures the degree of muscular activity and displays this quantity via a needle, gauge, sound or lights. However, it is used only as a back up to monitor the relaxation state of the patient and to verify the readings of the Brain Wave Monitor.

The Galvanometer, also, is merely further proof of the findings. More than anything, it measures emotional response by amplifying the minute electrical discharges emitted from the fingertips.

One point of interest: It may be better not to show the patient the ingredient to be tested. There seems to be a connection

between the person's likes and dislikes of a substance on the meter's deflection.

With a little practice it will soon become apparent to the operator the amount of meter deflection on the Biofeedback that denotes a food causing an allergy. Some foods, for instance, might slightly alter the meter reading, though not necessarily to an unacceptable level. This substance could be considered appropriate on a rotational basis. That is: Not eaten more than once every seven days.

It's a worthwhile experience to test three different persons: One, normal, suffering no allergies of any sort. Two, a person with a known allergy, let's say, to strawberries. Or, at least someone known to have an allergy that affects the body. And the third person known to be brain sensitive to a certain substance. Perhaps he gets depressed if chocolate is eaten.

With both the Brain Wave Monitor and the Myosone connected to the person free of all allergies, it will be noted there is very little movement in the needles of both instruments. The second person, the one subject to a reaction from strawberries, will show a marked reaction on the Myosone, the instrument measuring the muscle tension. This marked reaction will be most pronounced if the strawberries are swallowed and the meter read after twenty minutes or so. The action of the meter on the Brain Wave Monitoring instrument will show the most activity on the person with the brain sensitivity to chocolate.

This method is useful for learning to read the instruments.

On a day to day basis of testing persons, it is advisable to test for only five to eight substances. The effects seem to wane after this number of ingredients. The normal food stuffs to check for first are: eggs, dairy products, white flour products, sugar, chocolate, coffee, tea and tomatoes. If all these items pass the test then it is on to the next which could be hydrocarbons, soaps, perfumes, etc.

422 persons were tested for food sensitivity using Biofeedback. 80 of these patients showed no particular reaction to the test. 188 patients indicated a slight or moderate reaction to some foods.

154 patients showed a serious sensitivity to certain substances. The 80 patients, or 18.96% of the total persons tested that showed no sensitivity were treated by other means. Something more than just changing their diet.

The 188 persons or, 44.55% of the total patients tested that showed a slight sensitivity to some kinds of foods were put on a rotational diet. That is: they were asked to eat those offending substances only once every eight to ten days.

The 154 or, 36.94% of the total patients tested that indicated a severe sensitivity to specific foods, were given a strict diet along with other measures to hasten a recovery from their symptoms.

Now, let's follow a patient's progress from the first visit through analysis, treatment and after-condition.

We'll choose a typical person who was suffering 'Food Sensitivities' as indicated by the Bio-Feedback Instruments.

Let's call this person Mr. J. K. A fifty one year old married man with a daughter and a young child living with him and his wife.

When I first saw him, I observed a man of about 160 lbs., with a putty-like skin colour, a hostile attitude, nervous, crying, embarrassed, wanting to convey to someone his dire need, expecting in return, sympathy and help.

'I'm fed-up with doctors,' he began, They have no time for us.' He paused, 'How can they be justified giving us only pills for our troubles without even trying to find out why we are in need?'

I further learned that, for the past three years, this man had been repeatedly told by doctors that there was nothing physically wrong with him.

Despite this assurance, he was always tired, unable to sleep an uninterrupted 8 hours of sleep, suffered cramps in the legs and arms, numbness in the left arm and leg and claimed to have stomach ulcers for which he was taking medication and an antacid for this discomfort and the pain of a Hiatus Hernia. His high blood pressure (which he claimed he had) and migraine were controlled with 80 mg of Inderol daily and, to help him sleep, there was available to him, 5 mg of Valium.

He was constipated, lacked a normal appetite, didn't dream, suffered night-sweats and had a constant feeling of 'impending doom'. And, he admitted, his mood-swings were severe.

I talked to him and eventually asked him to cut down on his consumption of cigarettes, white flour products, sugar, bacon and eggs even though no tests had yet been done. To fill the gap these eliminated items left, he could have raw vegetables, fruits, nuts, white meats such as chicken, fish, rabbit and drink plenty of water instead of alcohol.

However, before doing anything else, I asked him to begin a twenty four hour fast. He agreed to cut out all foods, cigarettes and alcohol for twenty four hours and to be present in my office at the end of this period.

When I next saw Mr. J. K. he was connected to my three different type Bio-Feedback Instruments. Number one was a Brain-wave Monitor. This entailed a probe positioned over the occipital area of the skull and another between the eyes just above the bridge of the nose on the person's forehead.

Number two instrument was a Galvanometer type with a thermistor probe fastened to the tip of his middle finger on the left hand.

The third was a Myosone, a muscle monitor. A probe was placed on the chest centered over the heart region. The idea here was to see if the muscles of the chest wall reacted to different food substances. I took his pulse, temperature and blood pressure before proceeding. His temperature was normal, his pulse 78 beats per minute and his blood pressure indicated 138/78.

Spread out before us was a small portion of six items: Sugar, milk, coffee, cocoa, white flour product and a soft boiled *egg*. I asked the patient to place a small portion of the sugar under his tongue, to hold it there without swallowing it, then to expel it into a provided receptacle.

In twenty seconds there was a pronounced reaction on all three instruments. His heart-beat increased several beats a minutes, his temperature rose nearly one degree and his blood pressure altered to 134/82.

He spit the sugar out, washed his mouth clear with water.

Following the same procedure the milk indicated a positive reaction, but not nearly as severe as with the sugar. I suggested he use milk and dairy products on a rotational basis. That is, he was to eat a dairy product only once every five days or so. Again he cleared his mouth with water.

We went on with the coffee test. Here, too, there was a marked reaction from the Brainwave Monitor, the Myosone and Galvanometer. I asked him to eliminate coffee from his diet.

Cocoa showed close to the same reading as coffee so this, too, was to be discarded from the system.

Eggs showed a mild meter reading. No problem with this substance as far as I could determine with the Biofeedback Instruments.

White flour product reading was medium to extreme. So, this was to be avoided.

After disconnecting him from all the paraphernalia, I advised him of what I thought my readings were concerning the six ingredients tested. Absolutely avoid sugar products, white flour products, coffee and cocoa; use dairy products only once in a while. Eggs in moderation appeared to be safe.

This patient was very co-operative. He removed all sugar, salt, coffee and alcohol from his premises. Even his wife had to go on the diet with him. 'She wanted to lose weight anyway', he claimed. In every way he followed my every suggestion. He returned at the end of three weeks' involvement but, before that, after only two weeks, he phoned to say how much better he felt. 'Better than in years', he stated. His desire for sweets had almost disappeared and the habit of reaching for vegetable sticks was becoming pleasant for him.

At the end of two months he had a steady job, his marriage stabilized, his mood improved, he was sleeping well, had not suffered a headache, his skin was pink and he displayed a sense of humour; something he did not have before entering this program.

He improved steadily for the balance of the three month period. His weight stabilized at 168 lbs. and, his pulse rate steadied

at 72 and his blood pressure averaged 135/80.

At the end of four months he was reevaluated, again using the Bio-Feedback Instruments. This time, the reaction to the same six ingredients was even more dramatic, particularly the sugar. The reason, I assume, was that his system had been detoxified allowing a greater impact onto the meter's reading.

His diet was modified to include anything he felt like eating except the sugar products, white flour products, coffee and alcohol.

By this time he knew his body well enough to know when something was adversely affecting him. So, when he ate an item not on his regular diet and it exhibited an undesirable reaction, he would know enough to eliminate it from the menu.

Truly, Mr. J. K. has his health under control. His supplements consist of a Super 'B' complex twice a day and a teaspoon of Vitamin 'C' twice a day plus his 1000 mg of Calcium before bedtime.

This is the average experience for those who take themselves seriously. A few love to be sick and would be lonely without their aches and pains. However, these types keep their doctors in a better lifestyle.

Of the 154 persons tested that showed a significant sensitivity to certain ingredients, 80 claimed a remarkable improvement in their health by following the precepts similar to J. K.'s program. 44 said their condition had improved only moderately. 30 claimed no help at all. (Actually, I didn't see most of this number after doing the tests.)

Conclusion

For a fast, non-invasive technique offering an efficient means for finding whether certain persons are sensitive to various ingredients, it would appear that Biofeedback is a reasonable method to use.

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