



## MERIDIAN INSTITUTE NEWS

RESEARCHING THE SPIRIT-MIND-BODY CONNECTION

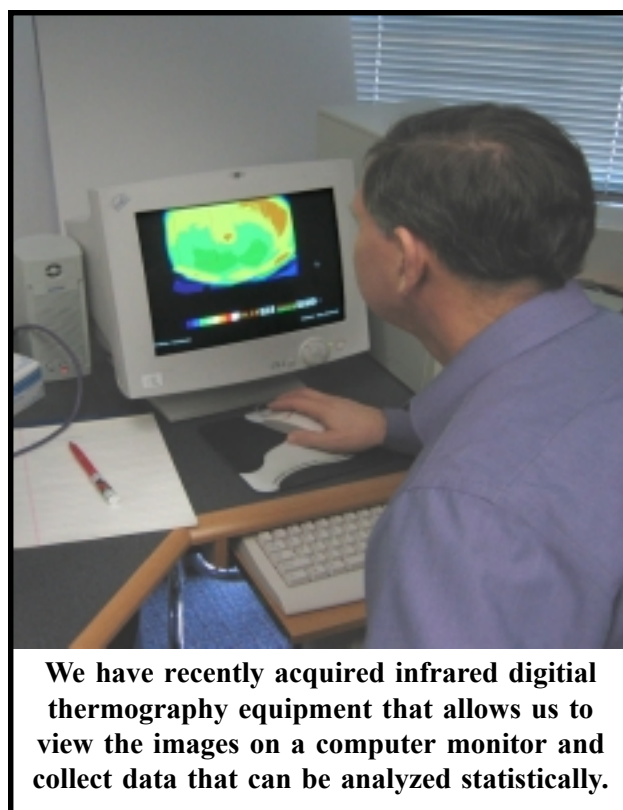
### The Next Step in Epilepsy Research

We have recently made some important progress in researching the Edgar Cayce information on epilepsy. In over two hundred readings Cayce discussed the causes and treatment of epilepsy, most often citing problems in the peripheral nervous system as a primary cause of epilepsy. Specifically, aberrant nerve impulses coming from the abdomen to the head were frequently noted as triggering seizures in the brain.

The pathology in the abdomen was linked to a unique pattern of thermal variation on the surface of the skin. Cayce stated that, "From EVERY condition that is of true epileptic nature there will be found a cold spot or area between the lacteal duct and the caecum." (567-4) The lacteal duct and caecum are on the right side of the abdomen just below the last rib and extending down to the point of the hip. This statement represents a very straightforward hypothesis that can be tested using modern thermographic equipment.

We have collected some preliminary data on abdominal thermographic patterns using liquid crystal thermography. We discussed this preliminary stage of our epilepsy research program in a previous issue of this newsletter (Vol. 4, No. 5). The data is promising, but limited from a scientific standpoint because the technique only yields colored Polaroid pictures that do not lend themselves to the type of statistical analysis required for scientific proof.

We have recently obtained a more sophisticated infrared camera that yields color images and statistical data (See photo). Although this equipment is currently on lease, due to the generosity of a private donor, we will be purchasing an even more modern model for use in the next phase of our epilepsy research program.



**We have recently acquired infrared digital thermography equipment that allows us to view the images on a computer monitor and collect data that can be analyzed statistically.**

#### The Abdominal Brain

The obvious question that arises in researching this Cayce hypothesis on epilepsy is, "How can a cold spot on the abdomen have anything to do with seizures in the brain?" In reviewing the historical and modern literature, we believe that we have uncovered some important clues to understanding Cayce's model.

Approximately one third of the body's nervous system is located in the gut. It is called the enteric nervous system or "gut brain." We have also seen it referred to as the "abdominal brain" in the historical medical literature. Edgar Cayce called it the "solar

plexus brain.”

The abdominal brain exchanges information with the cerebral brain via the vagus nerve. About seventy percent of the nerve impulses that are transmitted along the vagus go from the abdomen to the brain. Thus the abdomen is a significant source of nerve impulses to the brain. We believe that impulses traveling along the vagus nerve from the abdomen to the head could be the source of seizures in some epilepsy patients. The technical term for such seizures is “visceral reflex epilepsy.”

### **Visceral Reflex Epilepsy**

The next stage of our epilepsy research program will explore the plausibility of the concept of visceral reflex epilepsy. The specific aim of the project is to compare abdominal thermographic data to patient history data of epilepsy patients with various forms of epilepsy to determine whether our preliminary findings are valid and can be translated into innovative clinical interventions.

Reflex epilepsy includes a group of epileptic syndromes in which seizures are induced by a stimulus. The stimulus may be simple (e.g., visual, somatosensory, olfactory, auditory) or complex (e.g., eating, thinking, reading). Most cases of documented reflex epilepsy are diagnosed because the triggering stimulus is easily identified. The hypothesis that we are testing in our project is based on the premise of a broader conceptualization of reflex epilepsy to include visceral stimuli that are not as obvious as typical reflex seizure precipitants.

Visceral symptoms that precede seizures (premonitions) or occur during the early stages of the seizure itself (aura) are common and suggest autonomic nervous system (ANS) involvement at some level. Although it is usually assumed that ANS involvement is an effect of primary central nervous system (CNS) pathology, some researchers have suggested that ANS involvement may have etiological significance. Thus, visceral symptoms may be associated with underlying visceral processes that act as precipitating factors in some cases of epilepsy. Abdominal epilepsy is diagnosed when the visceral symptoms predominate. Perhaps abdominal pathophysiology is more widespread in epilepsy than is generally conceived.

As mentioned above, the vagus nerve is a primary neural pathway between the viscera and the brain. The use of vagus nerve stimulation treatment

for epilepsy may be indicative of interruption of the reflex pathway between the viscera and brain.

### **Research Methodology**

Epilepsy patients will be recruited and matched with normal controls for evaluation of abdominal thermographic patterns. The epilepsy patients will also complete symptom inventories intended to assess the presence and severity of abdominal symptoms. Thermography of the surface of the abdomen will be performed using an infrared camera. Digital imaging software will be used to quantify the temperature patterns as a measure of autonomic vasomotor activity in terms of average temperatures in selected areas, and of temperature differentials. There will be intra-individual comparisons of the left and right sides of the abdomen, correlated with the side of the focus for partial seizures, as well as a comparison of the epileptics with the controls. The project involves no treatment intervention.

### **“You Will Be Undefeatable”**

Epilepsy research is a high priority for us. One of the motivations for this emphasis comes from another quote from the Cayce readings, “... study on that called epilepsy - for THREE YEARS! And you will be undefeatable!” (254-82) You can see why we are so excited about this project. Stay tuned for more in the months ahead!

## **RESEARCH REPORT**

### **CASTOR OIL PACK STUDY REPORT**

Meridian Institute recently completed a pilot study on abdominal castor oil packs. The specific aim of the research project was to evaluate the effect of castor oil packs over the right side of the abdomen on laboratory measures designed to assess the liver’s detoxification capability. It was intended as a small trial to collect preliminary data.

Castor oil has a long tradition of use in folklore medicine. In the early 20<sup>th</sup> century, Edgar Cayce recommended castor oil packs as an external application over the right side of the abdomen for a variety of conditions. These were intended to help increase eliminations, stimulate the liver and gallbladder, and dissolve adhesions.

In our study, ten subjects (5 experimental and 5 control) participated in the project to test the effect

of castor oil packs on three measures of liver function: processing of caffeine, aspirin, and acetaminophen. The members of the experimental group used castor oil packs (flannel saturated with castor oil and warmed by a heating pad) over the liver for 3 days, 1 hour per day. The members of the control group used dry flannel warmed by a heating pad. Saliva and urine samples were taken to be tested for liver function before and after the 3-day process, and analyzed by the Great Smokies Diagnostic Laboratory. There were no significant differences between the pre and post samples for any of the measures of liver function, nor were there differences between the experimental and control groups. Possible explanations include: (1) no effect of castor oil packs on liver function, (2) low reliability of some of the tests, (3) inadequate exposure to the castor oil packs for an effect to be measured.

A detailed research report of this study is available on the Meridian Institute website at:

<http://www.meridianinstitute.com/reports/castor.html>

## LITERATURE

### MEDITATION FOR IBS

The Relaxation Response Meditation (RRM) program developed by Herbert Benson over twenty-five years ago has been shown to be helpful for irritable bowel syndrome (IBS). Two studies conducted by researchers at the Center for Stress and Anxiety Disorders (State University of New York at Albany) indicate that a six week course of RRM decreases symptoms in both the short- and long-term.

Thirteen of sixteen IBS patients in the initial study completed the six week program after being matched into pairs and randomized to either a six week meditation group or a six week wait list. All subjects assigned to the Wait List were subsequently treated. Patients in the treatment condition were taught the meditation technique and asked to practice it twice a day for 15 minutes. By three month follow-up, significant improvements in flatulence ( $P < 0.01$ ), belching ( $P = 0.02$ ), bloating ( $P = 0.05$ ), and diarrhea ( $P = 0.03$ ) were shown by symptom diary. Constipation approached significance ( $P = 0.07$ ).

Ten of thirteen original subjects also partici-

pated in a one year follow-up study to determine whether the effects of RRM were maintained over a longer term. From pretreatment to one-year follow-up, significant reductions were noted for the symptoms of abdominal pain ( $p = 0.017$ ), diarrhea ( $p = 0.045$ ), flatulence ( $p = 0.030$ ), and bloating ( $p = 0.018$ ). The researchers concluded that RRM is a beneficial treatment for IBS in both the short- and the long-term.

### References

Keefer L, Blanchard EB. The effects of relaxation response meditation on the symptoms of irritable bowel syndrome: results of a controlled treatment study. *Behav Res Ther* 2001 Jul;39(7):801-11.

Keefer L, Blanchard EB. A one year follow-up of relaxation response meditation as a treatment for irritable bowel syndrome. *Behav Res Ther* 2002 May;40(5):541-6.

## CALENDAR

September 19-21, 2003: 8<sup>th</sup> Annual Cayce Health Professionals Symposium, Virginia Beach.

### MERIDIAN INSTITUTE NEEDS YOUR SUPPORT

We welcome your support and participation. Please contribute your knowledge, time and money to Meridian Institute's important research on the Edgar Cayce health readings. Meridian Institute is a non-profit organization. Your donations are tax-deductible.

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**Statement of Purpose:**

The goal of Meridian Institute is to expand the meeting ground between science and spirit by conducting and sponsoring clinical and basic science research. We intend to examine concepts about the body compatible with the premise that we are spiritual beings, and to approach the healing process from this perspective.

The body of information that will be researched and used as a guide for directing our work will be the Edgar Cayce health readings. Now over fifty years old, they provide a coherent and consistent physiology of how the body functions in health and disease. These health readings have never been fully researched in a modern, scientific manner that would provide data acceptable to all healthcare professionals and agencies.

It is our intention to conduct research in a manner acceptable to the modern healthcare community.

**Priorities:**

1.) To conduct and support research that examines physiological, anatomical, and health concepts which help unify the scientific and spiritual world views. This will involve sponsoring clinical and basic research, and engaging in “seed research” through conferences on specific topics and clinical projects incorporating a network of cooperating researchers and clinicians.

2.) To support, sponsor and directly present programs educating health professionals, scientists, and the public regarding these spirit-mind-body connections.

3.) To serve as an information network for researchers and clinicians exploring and applying these concepts and methods.

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