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## **GROUNDING THE HUMAN BODY TO NEUTRALIZE BIOELECTRICAL STRESS FROM STATIC ELECTRICITY AND EMFs.**

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### **INTRODUCTION**

From the beginning of time, except for the past few generations, humans lived their entire lives primarily in direct physical contact with the earth; therefore, it is assumed that humans throughout evolution were naturally grounded.

In modern times, humans have insulated themselves from contact with the earth by wearing synthetic soled shoes and living in homes that elevate the body above the earth. Consequently, humans are no longer naturally grounded and now the body becomes charged with static electricity and radiated electric fields can now create unnatural weak electric currents with-in the body. [1] This work provides evidence that loss of natural ground allows extraneous electricity to interfere with and stress the normal bioelectrical activities of the body, which thereby interferes with natural health and sleep.

Today everyone is physically stressed, their muscles are tense, back and joint pain are the norm and most do not sleep well. These conditions all relate to excess stimulation of the nervous system and/or interference of the bioelectrical communications between cells.

For instance, muscles only respond to bio-electrical communications from nerves. When these communications are interfered with muscles become tense and remain tight. This leads to fatigue, skeletal problems and pain.

To what extent do EMFs create abnormal electrical activity in/or on the body? In 1995 the National Institute of Environmental Health Sciences [NIEHS] and the US Department of Energy [DOE] stated that common exposure to electric and magnetic fields [EMFs] from household electrical wires now produce unnatural weak electric currents between human cells. In other words 24 hours a day if you live and sleep in a modern home. [1]

These unnatural currents in the body are the direct result of the body being insulated from ground contact. The question is do these currents along with the static electricity created on the body from carpets etc. interfere with normal bioelectrical functions?

An indication is; according to the American Institute of Stress, over 75% of all visits to primary care physicians are now for stress related health conditions. The description of stress is; a state of continuous anxiety and nervousness in which muscles become and remain tensed. Stress is now confirmed to be a

primary contributor to cardiovascular disease, cancer, gastrointestinal, skin, neurological and emotional disorders, and a host of disorders linked to immune system disturbances ranging from the common cold and herpes, to arthritis and AIDS. [2]

In the late 1960s, when humans were first widely diagnosed as being stressed, synthetic soled shoes, carpets and the like had just become popular and the use of electricity and household electrical devices tripled from the previous generation.

Do these unnatural weak electric currents in the body also interfere with sleep? According to the National Sleep Foundation's Sleep-2000 report [3], nearly two thirds of American adults [62%] now suffer from sleep problems. Americans have the most comfortable beds and the most protected sleep environments in the world. Yet, in traditional societies where most humans sleep on animal skins, grass mats or directly on the ground, sleep problems do not exist. [4] As for Americans, most now sleep within 12 inches of electrical wires hidden in the wall at the head of their bed and with electric cords around or near the bed. All of which emanate e-fields throughout the night and create weak electric currents in the body [1].

The fact that the majority of people, with the best health care in human history, now increasingly suffer from poor sleep and stress related health problems suggests that something, largely unknown to the health community and public, is wrong. The dramatic change from the body being naturally grounded to now conducting unnatural weak electric currents between cells is the most likely candidate. Circumstantial evidence is provided by the fact that humans in traditional societies that maintain contact with the earth do not experience the common sleep and stress related health problems of the modern world [4]. Nor do the animals that live in direct contact with the earth.

Evidence that is more conclusive was reported by the NIEHS and the DOE [1] that in some laboratory studies the biological effects of EMFs are:

- Changes in functions of cells and tissue
- Accelerated tumor growth
- Decrease in the hormone melatonin
- Changes in biorhythms
- Alterations of immune system
- Changes in human brain activity and heart rate

The question is; by restoring natural ground to the body and thereby neutralizing these weak electric currents in the body and static electricity on the body, do muscles relax and normal sleep return?

In search of the answer the following test was performed.

## **METHOD AND MATERIALS**

To effectively restore ground contact for an extended period, test subjects slept on dissipative carbon fiber mattress pads placed under their fitted sheets, connected via a ground wire [protected with an inline 1/100 amp fast blow fuse], to a ground rod driven into the earth near their bedroom window. The grounded mattress pads were designed to replicate the ground plane of the earth in the bed.

Sleep disturbances along with chronic muscle and joint pain, which the subjects had been experiencing for at least six months, were recorded to establish a base line.

The test was for a period of 30 days.

### **SELECTION OF PARTICIPANTS**

An advertisement, distributed to ten beauty salons in Ventura County, CA solicited individuals experiencing sleep problems accompanied by tense muscles and/or chronic joint pain to participate in the study. Of the respondents, sixty individuals participated.

Age of subjects was between 23 and 74 years

Male subjects = 22

Female subjects = 38

Declared sleep problems = 100%

Declared chronic muscle or joint pain = 100%

The subjects were randomly divided into two groups. The first group of thirty, slept on carbon fiber mattress pads connected to a dedicated earth ground, just outside their bedroom window. The second control group of thirty, slept on carbon fiber mattress pads but were not connected to an earth ground.

E-field created charge on their bodies were recorded with an AC voltmeter connected to the earth ground and body contact made with a hand held probe or an EKG electrode patch.

**E-field created charge measured on subject's bodies while lying in their beds were as follows:**

	<b>Test subjects</b>	<b>Control subjects</b>
<b>Less than 1 volt</b>	<b>2</b>	<b>2</b>
<b>1 volts or more</b>	<b>28</b>	<b>28</b>
<b>2 volts or more *</b>	<b>16</b>	<b>15</b>
<b>3 volts or more</b>	<b>8</b>	<b>6</b>
<b>4 volts or more</b>	<b>4</b>	<b>3</b>
<b>5 volts or more</b>	<b>3</b>	<b>2</b>

**\*All subjects averaged 2+ volts on their bodies while lying in their beds.**

**E-field created charge measured on test subject's bodies after grounding: averaged 10 millivolts or less.**

## **RESULTS**

<b>Categories:</b>	<b>Test Subjects*</b>		<b>Control Subjects**</b>	
	<b>Same</b>	<b>Improved</b>	<b>Same</b>	<b>Improved</b>
Time to fall asleep	4=15%	23=85%	20=87%	3=13%
Quality of sleep	2=7%	25=93%	20=87%	3=13%
Wake feeling rested	0=0%	27=100%	20=87%	3=13%
Muscles stiffness & pain	5=18%	22=82%	23=100%	0=0 %
Chronic back and/or joint pain	7=26%	20=74%	23=100%	0=0%
General well-being	6=22%	21=78%	20=87%	3=13%

\*Reports not received from three participants.

\*\*Reports not received from seven participants.

## **DISCUSSION**

The purpose of this work was to provide evidence that when the human body is grounded it is naturally protected from static electricity and radiated electric fields. The meter reading of the grounded subject proved this true. The benefits of grounding the body were expected to relax muscles and improve sleep. This also proved to be true.

Worthy of mention is that several subjects in the study stated they also experienced significant relief from asthmatic and respiratory conditions, rheumatoid arthritis, PMS, sleep apnea and hypertension, while sleeping grounded. These unexpected results indicate that loss of ground contact plays a much larger role in overall health than was anticipated at the start of this study.

## **ADDITIONAL SUPPORT TO THESE FINDINGS**

In the May 1999 NIEH-EMF RAPID report, mention is made that reported biological effects to humans exposed to EMFs, such as changes in melatonin levels cannot be confirmed in animal studies. Therefore, the actual effects to humans are inconclusive. [5]

In the animal studies, sheep exposed to EMFs from a power line were reported to have experienced no change in melatonin levels. The sheep, which walked and slept directly on the ground were naturally grounded throughout the experiment. The fact that melatonin levels remain normal in sheep when grounded, supports these findings that when humans are grounded their sleep improves.

**• Personal note from Roger Coghill, MA Biol. MI Biol. MA Environ Mgt. a leading research scientist and author specialized in the field of Bioelectromagnetics, the science investigating the interaction of electricity with organic life.**

*Yes, I would be prepared to believe that grounding the body will help dispel any extraneous electric fields which could otherwise interfere with the body's own endogenous fields. We have found that these latter are vital for wellbeing, with adverse effects if disturbed. It could also be a way forward for protection against high frequency radiation.*

*Best, Roger Coghill 12/05/99*

• **Comments from Russell Whitten, D.C. Ojai, CA 8/25/00**

*Prompted by the results of a patient, who participated in Mr. Ober's study, I grounded the beds of 35 additional patients over a two-month period. The bed e-field measurements in this group ranged from .3 to 47 volts before grounding. A variety of health benefits occurred in this time. Many of the improvements, such as increased energy and athletic performance, can be attributed to the improved sleep that almost everyone reported. However, in many cases metabolic and hormonal conditions responded as well. Chronic back pain went away in several cases, stiff arthritic joints became more flexible, asthma attacks subsided and PMS symptoms lessened greatly. These indications confirm that e -fields do affect the body.*

**CONCLUSIONS**

The important finding of this study is that the human body when grounded is naturally protected from static electricity and the weak electric currents created in the body by radiated electric fields. The benefits of grounding the body are; sleep significantly improves, muscles relax, chronic back and joint pain subsides and general health improves.

**PRINCIPAL REFERENCES**

1. National Institute of Environmental Health Sciences and the U.S. Department of Energy, Questions and Answers about EMF, electric and magnetic fields associated with use of electric power [1995]
2. American Institute of Stress, [www.stress.org/problems](http://www.stress.org/problems)
3. National Sleep Foundation, [www.sleepfoundation.org/pressarchives](http://www.sleepfoundation.org/pressarchives)
4. Slumbers Unexplored Landscape [1999] Carol M. Worthman, Anthropologist, Emory University Atlanta, GA
5. National Institute of Environmental Health Sciences EMF Rapid Report [May, 1999]

For additional information on this study or for parties interested in performing additional studies related to personal grounding and health, please contact: Clint Ober @ 805- 844-0888 or e-mail [clintober @ prodigy.net](mailto:clintober@prodigy.net)

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