



Radio Frequency (RF); The Real Reason People Don't Sleep Well Anymore

First let's enlighten you to the prime reason we need sleep (not available through any text-book that I know of, or taught in medical school because its just too simple and makes too much sense of it).

Only during the deepest state of sleep called Delta-rhythm (not rapid-eye-movement aka REM) do brain, heart, respiration and organ systems slow to sufficient extent that there is excess [ATP](#) (body's universal energy) available to pool inside the cells. This pooled energy, upon reaching threshold, "triggers" physiological and neurological repair, hormone synthesis, immune function and memory consolidation. Insufficient ATP pooling, insufficient nighttime repair, hormone production, memory. Very simple.

"When the solution is simple, God is answering." ~ Albert Einstein ~

Sleep scientists have studied sleep in fruit flies' for years in an attempt to figure out why humans need sleep. Maybe they'll learn something useful with all the money they spend. The primary reason we need **Delta-rhythm sleep** is stated above. Not enough Delta stage sleep (2 hours minimum, 3-4 hours optimum) and there is simply not enough pooled energy to perform sufficient restore/repair processes; or they shut down altogether. The result is a body that breaks down quickly and ages prematurely both mentally and physically.

You see, cells' [mitochondria](#) create ATP (the fuel that fires ALL cellular process) through a process called [cellular respiration](#) 24 hours per day; and you're body consumes nearly all of it to maintain consciousness, movement and physiological processes. Even during rapid-eye-movement / REM states of sleep, body's energy requirement is still too high to allow for sufficient pooling of ATP required for the triggering of these nighttime physiological processes. Learn how to synthesize [moreATP](#).

Inadequate Delta-rhythm sleep reduces immune function and provides a chink in your armor that allows diseases of all etiologies to begin manifesting. According to researcher [Dr. Eve Van Cauter](#) complete lack of Delta-rhythm for as little as 3 nights (in most cases by night 5) caused healthy college students' glucose profiles to look pre-diabetic; and leptin (the satiation hormone) levels to drop significantly causing hunger and higher caloric intake. When your mom told you to go to bed because you needed your sleep, she knew what she was talking about. These days however, going to bed is no guarantee you're going to sleep, or sleep well enough to repair.

Now, the primary reason you don't sleep well anymore.

In a nutshell, there is an increasingly dense, invisible soup of information carrying radio frequency - radiofrequency (RF) electromagnetic fields literally broadcast through our bodies by the telecommunications industry twenty four hours per day, 7 days per week.

It isn't stress of modern life, finances or evolution. Plain and simple, it is propagating RF pollution and the denser the field (either closer to a cell mast or in midst of more and more cell masts) the worse your sleep and overall wellbeing. Studies that fail to show immediate results are not designed well or looking for the right effects. See issues below.

- Published studies testing reaction time or thought process due to exposure;
 - fail to show detrimental effects
 - wireless signals are tuning you UP; so, these neurological functions should be expected to remain same or improve due to your neurological system being tweaked UP by the modulated signals
 - keeping in mind that talking over the phone will cause lack of concentration, these studies do not have the person engaged in a conversation
- Published studies testing sleep quality assume that taking a person out of modern day life (already exposed to these fields on a daily basis and who's sleep is probably already affected to one degree or another);
 - fail to show detrimental sleep effects
 - because they are trying to compare sleep shielded from wireless (when they've been exposed all day already for years) and then introducing wireless signals into the shielded area; and trying to find an IMMEDIATE effect.
 - study parameters usually faulted ([as in this study](#))
 - [this proposed study](#) is the best designed study but the population was not given a handset for use nor was the study over a long enough period of time.

Sound about right as to Radio Frequency and sleep? If so, you can stop reading now and return to our [EarthPulseTechnologies homepage](#) to find out how you can revert your mature cells back to developmental, ward of cancer and other diseases, and **double or perhaps triple your lifespan**; or you may continue reading below for more evidence that RF is destroying your sleep; and your health at the sub-cellular level.

Let's start where there is a plethora of agreeing research; that's with DNA damage due to RF exposure (we're going to skip brain cancer altogether) then we'll get back to sleep. Our point here, is that you can't expect "controlled" laboratory experiments on your average human being. They're sleep patterns are already screwed up. **DNA changes due to telecommunications signals should be enough to convince you.** This is an area where effects are ROUTINELY found. So, it should make sense to you that other effects like cancer, brain cancer, autism and POOR SLEEP would occur eventually due to cumulative DNA damage regardless of ability to reliably measure it.

Gen Physiol Biophys. 2010 Mar;29(1):59-66.

[The effect of radiofrequency radiation on DNA and lipid damage in non-pregnant and pregnant rabbits and their newborns.](#) & Cell Biochem Biophys. 2010;56(1):39-47. & see also;

[The Influence of 1800 MHz GSM-like signals on hepatic oxidative DNA and lipid damage in nonpregnant, pregnant, and newly born rabbits.](#) Guler G, Tomruk A, Ozgur E, Seyhan N.

Gazi Universitesi Tıp Fakültesi Biyofizik AbD, Dekanlık Binası 5. Kat 06510 Besevler, Ankara 06500, Turkey.

Brain Res. 2010 Jan 22;1311:189-96. Epub 2009 Oct 30.

[Exposure to 1800 MHz radiofrequency radiation induces oxidative damage to mitochondrial DNA in primary cultured neurons.](#) Xu S, Zhou Z, Zhang L, Yu Z, Zhang W, Wang Y, Wang X, Li M, Chen Y, Chen C, He M, Zhang G, Zhong M.

Department of Occupational Health, Third Military Medical University, No 30 Gaotanyan Street, Shapingba District, Chongqing 400038, People's Republic of China.

Reprod Biol Endocrinol. 2009 Oct 22;7:114.

[Pathophysiology of cell phone radiation: oxidative stress and carcinogenesis with focus on male](#)

[reproductive system.](#)

Desai NR, Kesari KK, Agarwal A. Center for Reproductive Medicine, Glickman Urological and Kidney Institute and Obstetrics and Gynecology and Women's Health Institute, Cleveland Clinic, Cleveland, Ohio, USA.

in the introduction..."its well established in the literature that these effects occur" (emph.add)

Mutat Res. 2010 Jan;695(1-2):16-21. Epub 2009 Oct 13.

[Impact of 1.8-GHz radiofrequency radiation \(RFR\) on DNA damage and repair induced by doxorubicin in human B-cell lymphoblastoid cells.](#) Zhijian C, Xiaoxue L, Yezhen L, Shijie C, Lifan J, Jianlin L, Deqiang L, Jiliang H.

Zhejiang University, Medical College, Institute of Environmental Medicine, Yu Hang Tang Road, 388, Hangzhou 310058, Zhejiang, People's Republic of China.

Pathophysiology. 2009 Aug;16(2-3):89-102. Epub 2009 Mar 13.

[Genotoxic effects of radiofrequency electromagnetic fields.](#) Ruediger HW.

Division of Occupational Medicine, Medical University of Vienna, Waehringer Guertel 18-20, Berggasse 4/33, 1090 Vienna, Austria.

Pathophysiology. 2009 Aug;16(2-3):71-8. Epub 2009 Mar 5.

[Electromagnetic fields stress living cells.](#) Blank M, Goodman R.

Department of Physiology, Columbia University, New York, NY, USA.

This tests RF and extremely low frequency (ELF) => power frequency 60 Hz ELF fields

And here's a composite link of early DNA / chromosomal damage known to be caused by the first round of research into possible harmful effects of RF prior to the disinformation cabal launched by the wireless telecommunications industry that killed the research for 20 years. Now with people developing brain cancer at alarming rates, the warning bells are going off; add skyrocketing autism and cancer of all types and you shouldn't be able to concentrate due to all the noise. [check the RF composite here.](#)

We'll leave it up to you to decide; but ponder this. It is rather clear that DNA and chromosomes in tissues exposed to radio frequency fields has less ability to repair itself in proportion to the damage. With today's wireless exposure we're talking 24/7 exposure at relatively low levels but for when holding a handset or placing it against the head. This is of course unless you believe the disinformation tossed at you by the telecommunications industry.

It doesn't take more than a reasonable leap-of-faith to recognize exposure to radiofrequency fields is causing debilitation of repair at the genetic level, and that is why we're seeing explosion in cancer, autism (keeping in mind the added MMR vaccine effects) and sleep disturbances.

Likewise, you have genetic material in your [pineal gland](#) where melatonin is synthesized, and over the course of 2 decades of RF propagating RF fields and exposure, there is no doubt in the author's mind that poor sleep and RF exposure is intimately connected.

Why radio frequency (RF) is the biggest threat to sleep and overall health.

For years, power frequency 50 / 60 Hz (Hz = cycles per second) alternating current electric fields have had only a slightly detrimental impact on our sleep (as in most cases these electric fields hug the walls and ceilings of our dwelling spaces). Today however, the minor threat from our electrical wiring has been FAR overshadowed by information carrying radio frequency (RF) electromagnetic fields (EMF) that are having PROFOUNDLY deleterious impact on sleep quality and sleep duration, as well as body's power generation and communication systems.

This RF comes to us via the cellular telephone networks, home wireless phones (how many readers have cordless phones in their bedroom?) and exposure to wireless computer networks. Poor sleep, the disappearance of bee's and sparrows are the proverbial canary(ies)-in-the-coal-mine. Nature has reached the tipping point. Skyrocketing cancer rates can't all be due to poor food and air-pollution. Besides, the Soviets proved microwaves caused cancer and weaponized it seemingly first,

demonstrating it on their barrage on the US embassy in a [well publicized story](#) back in the 1970's when Time magazine and US media had (some) ethics to reported news (not smoke and mirrors).

Very simply, no matter where you live in the world, RF pollution has more than likely drowned-out the natural ultra-low-frequency (ULF) and bottom end extremely-low-frequency (ELF) electromagnetic fields that humans (and animals) have evolved within and relied upon for eons to live long, healthy and stress-free lives. Add noise from power frequency and the dangers should be quite evident. We were "designed" or alternatively evolved so that NATURAL electromagnetic fields such as the [Schumann resonance](#) helped "tune" mind (and body) to maintain physiological repair mechanisms and psychological well being. However, RF de-tunes and robs body of energy at the mitochondrial level and subsequently reduces healthy cell homeostasis.

You see, natural electromagnetic fields are for the most part, very-very low frequency. To call them extremely low frequency (ELF) is really not very accurate as it's a fairly wide frequency band. When we talk of "natural" electromagnetic fields we're talking about the very bottom-end of the ELF spectrum. Technically ELF is 3 Hz - 300 Hz, so we'll incorrectly call it very-very low to include the ultra low frequency (ULF or up to 3 Hz) and those ELF frequencies between 3 Hz and 14.1 Hz (the second "recognized" peak of [Schumann resonance](#) -notice the spectrum below 7.8 Hz-corresponding with deep sleep - notice also the amplitude of 60 Hz being more than that of 7.8 Hz). 15 Hz is documented in [dozens of animal studies](#) to cause behavioral modification (stress) and above 20 Hz to result in stress hormone production. Stress hormone production like cortisol is very bad.

Provided you read the links above regarding ATP and the mitochondria please take a minute to read the conclusions (last few lines) of these two studies linking cell phone exposure to [oxidative damage](#) to mitochondrial DNA (mtDNA). Keep in mind oxidative damage is main contributing factor to cellular [apoptosis](#) or the cell death signal...[Apoptosis induced by radiofrequency fields...Exposure to 1800 MHz radiofrequency radiation induces oxidative damage to mitochondrial DNA.](#)

Now, check what happens to the damage when a very small "electronic noise" signal is placed beneath the same RF signals...[Electromagnetic noise inhibits radiofrequency radiation-induced DNA damage and reactive oxygen species](#). This doesn't explain how Sleep on Command™ tunes you to sleep, but does go a long way toward showing that extremely small amplitude electromagnetic signals have extremely profound affect upon body and *does* explain how lying in our Sleep on Command™ field helps protect you from RF while you sleep.

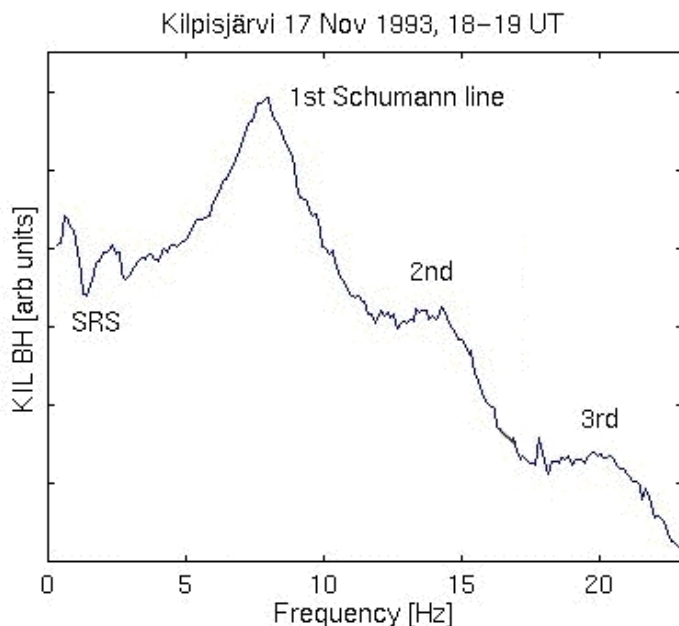
The body trying to "hear" the beneficial NATURAL Schumann and Earth-based electromagnetic fields within propagating RF is analogous to attempting to hear a flute solo surrounded by a platoon of air horns (especially while laying in bed at night trying to quiet the mind for sleep). We surround you in a close source of ULF and very-very low ELF fields that literally "tunes" you to sleep.

The relationship between the earth's geomagnetic fields and sleep, maintenance and repair mechanisms.

W.O. Schumann a German physicist, discovered in 1952 that there is a resonant cavity between the earth's surface and the ionosphere containing a frequency modulated electromagnetic field in the spectrum from below 1 Hz to more than 100 Hz. Notice in the graph below that the dominant frequencies of these "Schumann Waves" is below 14 Hz. Notice below the distinct peaks in the Delta range heretofore mistakenly not "recognized" Schumann frequencies.

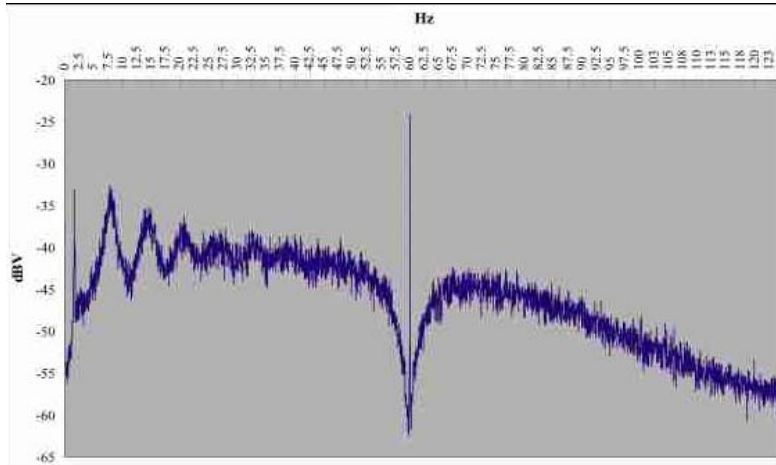
The Russian Space Agency discovered that Schumann-wave generators in space craft (formerly void of

fluctuating magnetic fields) improved the health and well being of astronauts on extended space voyages; especially effects upon bone density. N.A.S.A. included them in the design of the Space Station to fend off osteoporosis, muscle wasting and other effects of zero gravity during extended Station missions because it works. Studies show astounding anti-osteoporosis/bone wasting effects, yet the technology is sidelined for this purpose. See this paper that explains why it shouldn't be albeit nationalized healthcare programs designed to push pharmaceuticals propelling their users into a "death-spiral" that lasts for years requiring more and more medications to cope with the effects of the previous ones. All prescription meds debilitate the mitochondria. Find me one that doesn't. I'd like to hear about it and then I'll update this paragraph.



We are describing a very narrow healthy frequency band where frequencies above 15 Hz have been shown in dozens of *frequency specific* animal studies to cause negative behavioral modification; above 20 Hz to cause stress hormone production. You'll notice that the highest amplitude peak in the graph is **7.8 Hz and is what most people mistakenly believe is "THE" Schumann resonance**. In reality Schumann resonance is a SPECTRUM of frequencies with the majority of its amplitude below 15 Hz, and with peaks at 14.1 Hz, 20.3 Hz, and higher.

The graph at right is what Schumann spectrum looks like when not shielded from 60 Hz electrical wiring. Notice again the peaks in Delta-rhythm and that the amplitude of the 60 Hz wiring is far above any other frequencies.



What is remarkable is these fields overlay the [stress-free human EEG](#) almost perfectly. **Notice again the peaks at about 1.5 Hz and 2.5 Hz within the Delta rhythm band** (these are included in Sleep on Command™ sleep-mode programs). These low

frequencies are what used to naturally help provide a fairly strong signal to "entrain" to during the nighttime, that particularly helped us to achieve Delta rhythm sleep. Now, you can visualize the analogy of hearing the flute solo withing the platoon of air-horns.

Equally important, the mitochondria ([cell's power plants](#)) respond particularly well to frequencies falling within this narrow frequency band (especially 10 Hz) and are debilitated (or worse by RF.) You may read the peer-reviewed research on [the homepage](#) that may have lead you here, but we'll save you the effort and list the most important ones immediately below. We've used 9.6 Hz since inception in 2001 and is our primary use frequency for sleep, recovery and longevity.

Research during 5 decades (much of it in former Soviet Union) conclusively showed that a 10 Hz field produced the most exceptional healing and tissue regenerating effects in several dozen peer

reviewed publications. In [2003 NASA](#) discovered a 10 Hz field turned gene sequences (over 300 individual genes) for maturation -OFF- and for developmental -ON-. Further, it found a four fold increase in rate of neural tissue regeneration. It is also the frequency (9.6 HZ) of our RECOVER-MODE program I sleep in every night. RECOVER is used nightly by 25% of our clients.

In [2007 James Tong](#) found 10 Hz TRIPLED nerve synapse energy and DOUBLED mitochondrial density at nerve synapses. In the linked chart (which may be enlarged by clicking on it) compare unstimulated control mitochondria (white circles) with 10 Hz stimulated (black circles) in upper and lower segments.

In [1989 David Hood](#) found chronic (30+ days) 10 Hz stimulation increased two critical enzymes of cell respiration, citrate synthase and cytochrome c oxidase by factors of 3x. This would be consistent with our finding of [improved oxygen metabolism](#) by frequencies utilized by our Sleep on Command™ device.

These effects are diminished the further away from 10 Hz you get. Once you get to 1 Hz these effects are minimal (though sleep effects are significant). You can read the scientific documentation on 1 Hz signal and sleep in our [Futuristic Sleep-Machine Now Reality](#) piece of 2006. Once you get to 5 Hz or alternatively 15 Hz the regenerating effects diminish to "just" a factor of two. However, you must be cognizant that neurological effects at 15 Hz and above are detrimental.

The Schumann waves encircle the earth horizontal to the ground in a spectrum resembling the graph above, **while** [9.6 Hz resonates from the Earth's molten core](#) perpendicular to the ground. Recent study into the workings of cells' mitochondria find that 10 Hz stimulation (see studies linked above) greatly enhances mitochondrial adaptation to both physical and neurological demands. 10 Hz even promotes mitochondrial replication and trafficking within the cell. 10 Hz tends to have the most profound sports performance enhancement.

It is no coincidence that pulsed magnetic fields at or around 10 Hz have produced BY FAR the best effects in dozens and dozens of published, peer reviewed studies; particularly those published by the Eastern Europeans circa 1970-1990. It should now be recognized that the phenomenal healing effects of 10 Hz are attributable to the mitochondrial response to that very particular frequency.

It is this **Earth's-pulse** that is the primary reason you sleep so well on camping trips. It's not the fresh air and exercise; it's sleeping in touch with Mother-Earth and receiving **Her vital frequency of 9.6 Hz**, which is a "cross-over" frequency from alpha-rhythm down into theta-rhythm. Until recently most camping was done outside of the wireless telecommunications "grid". Now even camping, unless you've got weak signal on your phone, you are well within the grid.

Sleeping close to or in contact with the ground is far better than sleeping at home several feet (or more) above it, with 50/60 Hz electric fields, and full strength radio frequency from telecommunications grid (and in-range wireless networks) permeating your bedroom and living spaces. Pretty bleak picture overall; and why you can expect your sleep to deteriorate even more with time, especially if HD TV broadcasting and large scale Wi-MAX is rolled out in your area.

Earthing or Earth-tethering systems attempt to address this problem and it is admittedly better than nothing. **But for about the same price you can get an Earthing system on steroids....the Sleep on Command™ sleep, longevity and recovery system.**

EMP is foreign to the body and up until the 1980's, AC power frequency (50-60 Hz depending upon your geographic location) and weak TV and radio station broadcasts was all that broadly existed; the body tolerated it fairly well.

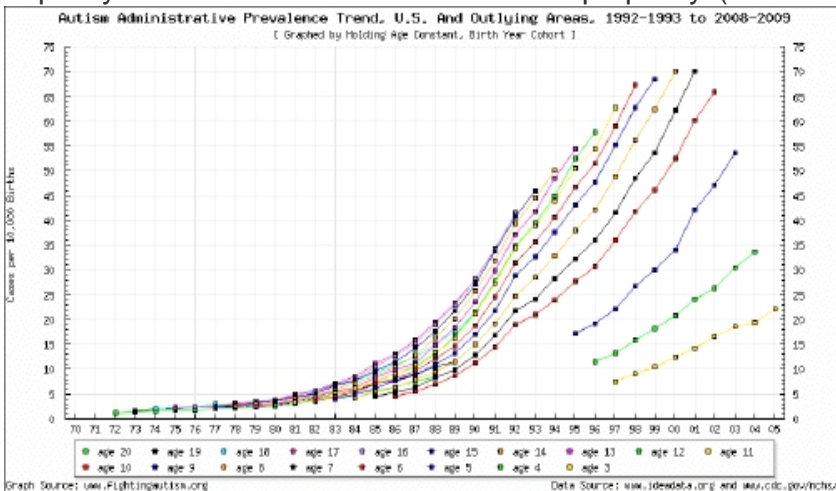
However, EMP broke the tolerance threshold and detrimentally arrived on the scene with the arrival of

home wireless telephones during the 80's (usually everyone had an extension in their bedroom next to their bed), then cellular phone networks arrived in the 90's and cellular now propagates within every urban area in the world with denser and denser layers of information. As stated above, since the cellular telephone roll-out, sleep quality has suffered. Each year as cellular becomes more dense, sleep quality will diminish along with it.

Wireless computer networks permeate our work and school (and in many cases our bedrooms) and with the combination of cellular and wireless networks, our species has reached the tipping point. We are now finding it difficult or impossible to quiet our mind at night and get a good nights sleep. Children diagnosed with ADD/ADHD are known to be poor sleepers.

Forget about what RF does to your sleep for the moment and lets consider species survival. **Bee colony collapse disorder and sparrow population decrease is the proverbial canary in the coal mine so far as RF is concerned.**

So is the marked deterioration of sleep quality in adolescent and infantile sleep quality (National Sleep Foundation / Pampers® survey completed in November '05 found that even babies and toddlers under 5 y.o. aren't sleeping nearly as well as they did 2 decades ago). Factor in the increased rate of ADHD and the STEEP increase in autism seen in the chart at right. Notice after a relatively stable 1-4 cases per 10,000 throughout history until 1980, the incidence curve turns straight up just about when the first cellular phone networks opened for business. The "official" incidence of autism is now 1:100, but based on the chart above it was 1:75 10 years ago and that chart-line is awfully steep.



It wouldn't surprise us they "cooked" the official number (like Wall Street) and that it is actually higher than 1:100. Here's the only study done on RF and Autism (back in 2003! when autism was 1 in 500). I'd bet my there are 5 times more cell phone masts or more since 2003.

It's getting worse and worse every day. Remember there's lag time with cancer, Parkinson's, Alzheimer's and the myriad of modern neurological maladies, which means we're seeing cancer rates today that started 5 years ago or more.

A reasonable person could argue steeply increased cancer incidence from 1:100 in the 1960's to 1:3 males and 1:4 females coincides well with the technological "advancements" in telecommunications. So as with ADD / ADHD, Parkinson's, Alzheimer's and the myriad of modern neurological maladies. It is clear all around you. Its not just financial stress driving the average person "crazy". I'll be covering each of these issues and more in monthly issues of **the ElectroMagnetic Times; the good, the bad and the ugly.**

If you don't protect yourself you "simply" aren't being very intelligent. EarthPulse Sleep on Command™ is the most potent form of EMF protection on the planet and helps your body cope during the day with naturally produced, higher levels of healthy energy. Even *if* you sleep great and aren't interested in enhancing physical or mental performance levels, protect yourself at the subcellular level with EarthPulse™.

With our rebate plan and 90 day guarantee, EarthPulse™ won't cost you a thing whether or not it

works. When it works (94% statistical probability) its PRICELESS. It's the best "bet" on planet Earth.

There are very simply, NO safe levels of radiofrequency (RF)

There are NO safe levels of exposure to electromagnetic fields above the frequency of 15 Hz due to their negative effect upon the neurological system. Dozens of peer reviewed research studies (see [frequency specific animal studies](#)) showed animals exposed chronically to frequencies above 15 Hz resulted in detrimental behavioral changes and above 20 Hz stress hormone production. Once nearing power frequency transmission at 50/60 Hz the mitochondria become severely debilitated and cancer likely results over time. **Watch [this video start to finish](#) and you'll recognize just how bad the threat of radiofrequency (RF) is to your health.**

The neurological system is the most sensitive antenna ever devised, and the mitochondria inside every cell of the body including the neurological system may be more sensitive than that. Professor Photios Anninos discovered he could beneficially affect Epilepsy and Parkinson's patients with fields in the PicoTesla range. All you have to know about PicoTesla is that it's about 500 times weaker than Earth's natural magnetic signal. The key here is that Anninos uses a frequency in the 7 Hz - 10 Hz range. Dr. Reuven Sandyk re-proved Anninos discovery through 90+ peer-reviewed studies using 8 Hz frequency in the same PicoTesla range.

RF not only impairs the cells' mitochondria destroying your power generation system, it acutely impairs brain's ability to reach deep, Delta-rhythm sleep where cellular repair occurs most efficiently. It upsets the natural resonation (think of it as de-tuning an engine) of the mitochondria, debilitating the cellular energy pool so even when you do finally get to sleep, the energy "pooling" is minimized.

Under this condition the body lacks sufficient energy required for repair, regeneration, immune function and hormone synthesis. So, you are not only sleeping poorly and suffering from lack of sleep, you are also de-tuning the cellular power-plants and your body deteriorates allowing any number of disease states to take over the cells.

I propose that all disease is related to mitochondria dysfunction due to insufficient daily repair. Trauma repair is directly related to mitochondrial energy production and over 5 decades in dozens of studies, the 10 Hz clinically applied stimulation studies provided the very-best results in all.

Some background on natural EEG rhythms.

Beta frequencies lie above 12 Hz and when you are in active thought process with no stress you're brain-wave signature is predominated by 12 - 14 Hz low-Beta-rhythm. Beta frequencies, 12 to 14 Hz, are "normal" predominant rhythms that occur during concentration. Frequencies above lower-mid-Beta occur when agitated or fearful. If you are in fight-or-flight, then you are in the mid to high-Beta-rhythm brain state.

The mid to high Beta-rhythm brain state is required for human survival and has some physiological benefits, but excessive exposure to these higher brain frequencies (at the expense of frequencies at 14 Hz and below) is not healthy, and cumulatively cause stress related health effects including poor sleep and increased production of stress hormones.

If you are stuck in a mid to high-Beta brain state then you cannot sleep and you cannot heal or maintain hormonal homeostasis (cortisol levels soar). To maintain robust health, quality of life, bolster immunity and have a positive outlook on life, then deep sleep and avoidance of mid-high Beta-rhythm states are mandatory.

Alpha frequencies lie between 8 and 12 Hz and predominate when you are relaxed, calm, and in a meditative state. Theta frequencies lie between 4 and 8 Hz and predominate during REM (rapid eye

movement) sleep. Theta can predominate when in awakened states under certain circumstances. Some say one experiences dream-like mental imagery and creativity during Theta-rhythm predominance.

States of deep sleep are called Delta-rhythm and lie below 4 Hz. There are strong relationships between hormonal response, healing, and immunity when Delta-rhythm predominates during deep sleep. This is also when energy demand for supporting the body is at its lowest. Heartbeat slows, breathing slows, brain activity is minimal; therefore Delta-rhythm sleep is the only time body can concentrate most of its energy production on its physiological and neurological recovery and maintenance activities.

Notice in the graph above that the most dominant Schumann waves lie under 14 Hz which correlate with low-Beta, Alpha, Theta and Delta brain states -or- active thought process, calm, relaxed, light and then deep sleep respectively. **Notice too that amplitude (signal strength) in Delta-Theta is greater than the Alpha-Beta** in each of the Schumann charts shown or linked to. This is not coincidental correlation; it is the way nature keeps us psychologically and physiologically in balance and able to shut our brains down at night, while remaining relatively stress free and focused during the day.

Entrainment occurs when our mind-body state locks into the rhythm of an external oscillator (like the EarthPulse™). The external oscillator is either undesirable EMP (causing stress and poor sleep) or the beneficial Schumann and geomagnetic field frequencies (which are simply too weak for the body/brain to "hear" through the EMP.

Normally the brain structure called the thalamus controls our brain waves. Either Schumann resonances and geomagnetic fields or EMP are 'picked up' by magnetite-bearing brain tissues in the thalamus and particularly the pineal gland (responsible for [melatonin](#) production our most important anti-oxidant due to its ability to pass the blood-brain barrier - its ability to protect DNA in body and brain - and its affect on the circadian-rhythm). During these intervals ENTRAINMENT occurs, the brain's pacemaker is external: either the Schumann resonances & geomagnetic field (beneficial) or (detrimental) RF and power frequency electric fields. Unfortunately unless outside the grid, the later is the rule.

We were meant to be relaxed and meditative with **natural-magnetic-fields being the pacer**; but increasingly we are not because these natural fields have been lost beneath the higher amplitude of man made high frequency fields.

In November 2006 researchers at the [U of Wisconsin](#) described a method of using 1 Hz (Delta rhythm) transcranial magnetic stimulation to trigger slow way sleep. Earlier the same month the [University of Lubeck, Germany](#) reported that 1 Hz transcranial *electric* stimulation resulted in deeper sleep and improved memory consolidation. In contrast, a study published in -'08 January- through the prestigious [Karolinska Institute](#) and Wayne State University showed cell phone radiation delayed Delta - slow wave- sleep onset. Nighttime EEG recording of subjects exposed to [externally applied Delta rhythm signals](#) show enhanced slow wave sleep throughout the night.

In contrast to our somnogram, the U of WI tested effects of magnetic fields hundreds, if not thousands of times more powerful than ours. Their study had to be shut down because of overheating of the magnetic coil due to the prolonged activation of it.

In several thousand clients we've proven EarthPulse™ promotes sleep with a very weak, near earth-amplitude signal typically generated from under their mattress during the nighttime which overshadows nearly if not all of the RF and power frequency fields.

"I have used the EarthPulse™ pulsed-magnetic sleep-machine to help with my sleep problems and have found it to be remarkably effective in not only creating a more satisfactory nighttime sleep regimen but also improving my daytime alertness. At age 81 one expects some physiologic sleep disturbances mainly in the depth of sleep and also involving more frequent awakenings. This technology restored my sleep pattern to much of its earlier characteristics. I also noted having delightful dreams and having the ability to remember them on awakening. No doubt light sleep was also enhanced. I have used it on several other subjects as well with similar results."

Ron Lawrence, MD, Ph.D, Neurologist ~

"I highly recommend this product. It has solved my problem of waking several times per night."

Dr. Steven Sinatra, Cardiologist-Editor *Heart, Health & Nutrition*

"One formerly sleep-deprived editor has now stopped counting sheep and is eternally grateful for the Z's."

Alternative Medicine Magazine Sept, 2005 pg.121

"You have certainly come up with something that helps me sleep."

Dr. Robert O. Becker, the Father of Electromedicine

"Nearly all psychological, neurological and physiological disease including aging, is the end result of mitochondrial dysfunction; and NOT the other way around. Since RF has been repeatedly shown to cause mitochondrial distress, I believe it to be the most potentially devastating element of modern life. More so than toxic chemicals, more so than genetically modified foods, more so than drugs and alcohol; because they can be avoided and radiofrequency simply cannot."

Paul F. Becker, Esq.~ EarthPulse™ Developer

So, how do we "re-tune" ourselves to restore our depleted mental and physical energies? Just as vitamins, minerals, and essential fatty acids from food are essential biochemical compounds required for healthy survival, so also do our mitochondria require "geomagnetic vitamins" supplied by the Earth's geomagnetic AND Ionospheric (Schumann) fields. Think of these "geomagnetic vitamins" as a tuning fork that help achieve and maintain optimum efficiency during aerobic and or anaerobic metabolism. These "geomagnetic vitamins" are partially if not fully blocked out by EMP in much the same way as the flute solo is drowned out in the example above.

Our neurological system is made up of miles of neuronal tissues. They act like antennae picking up the entire spectrum of magnetic fields. We were designed to be specifically tuned to Schumann and Earth resonances and we have become slowly (unnoticeable) crippled in the presence of higher frequency electropollution.

The analogy of the frog in a pot of heating water (that could easily jump out) but because

the water is being heated slowly, it stays in the water until it's too late. Or, recharging a dead battery with the wrong type and strength of electricity. If there is a short circuit or the input amperage is too high or too low, or the frequency, or current type (AC vs. DC) is wrong, the entire system breaks down catastrophically.

Much like the battery example above, higher frequency man-made EMP essentially robs our cells' natural ability to generate and stockpile adenosine triphosphate (ATP) the fuel that fires all cellular processes. **The body's control and power generation mechanisms subsequently fail in unison.** On the other hand, feed the body with the correct frequency(s) and miraculous things can happen to sleep, strength, stamina and healing.

EarthPulse Sleep on Command™ produces a spectrum of these “geomagnetic vitamins” from very low-Delta to very low-Beta wave frequencies with special attention paid to the mitochondrial 10 Hz frequency requirements. Once the hockey puck sized electromagnet is placed between the mattress and box spring, you get an 8 hour 'dose' of your geomagnetic vitamins. The sweep back up to Low-Beta in the morning even helps in waking-up.

What you can expect is;

- deeper more restful sleep
- better focus and executive performance
- enhanced daytime energy
- better aerobic capacity
- vastly improved recovery
- more flexibility
- a 10-15% increase in muscular strength within just 14 days
- a 20-30% increase in stamina within just 14 days

Sure it sounds too good to be true, but it's not. **We have ALWAYS sold our device (since 2001) with a 90 day, money-back SATISFACTION guarantee (since Dec. 2008 when upgrading to our current program, returns for refund at only 6% of sales);** and now we include a [\\$100 rebate-per-referral program](#) where you earn \$100 back toward your purchase for every referral you send us for the life of your device.

See also; the [Radiation Poisoning of America](#) article (Oct. '07); long but a good read; an '08 January study about how cell phone radiation delays Delta -slow wave- sleep onset from the prestigious [Karolinska Institute](#). This [new link](#) is one of the most complete articles I've seen on man-made EMF and came out recently. [This link](#) takes you to a very informative BBC television program about WiFi.

EarthPulse Sleep on Command™ is not intended to be recommended as a drug or as a diagnosis for any illness or disease condition; nor as a product to eliminate disease or other medical conditions. The information herein has not been evaluated by U.S. Food and Drug Administration or by any governmental health agency. Magnetic Therapy Bahamas, Ltd.. makes no medical claims as to benefit of our device and methods. Video testimonials/case studies or information found and opinions expressed here or on our web site are never to be construed as medical advice (just good common sense). EarthPulse™ is strictly a performance enhancement tool that is guaranteed to substantially improve sleep and daytime performance whether you are young and athletic or elderly and in failing health; or money back.

About Magnetic Therapy Bahamas Ltd.

Magnetic Therapy Bahamas, Ltd. is a privately held biotechnology and life sciences companies specializing in the field of sleep enhancement, and physical & mental performance enhancement. The patented Sleep on Command™ pulsed magnetic sleep machine helps promote deep sleep, accelerated recovery and enhanced performance. Clients range from 12 year old top ranked Girls

Junior Tennis players to men and woman well into their 90's, from professional golfers, runners and swimmers, to UFC Belt holders, world record holders and military Special Forces. We develop and manufacture in Bangalore, India and has several thousand satisfied clients in more than two dozen countries.

Paul Becker, Esq., CEO and Product Developer

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EarthPulse™ Sleep on Command™ the World's Only Pulsed Magnetic Sleep-Machine

Sleep Your Way to Better Health™, Longevity and Maximum Physical & Mental Performance

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