

# Getting Buzzed: The Dangers of Electromagnetic Fields

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*In 1982, a doctor in Madrid observed malformed and aborted chicks from eggs which had been exposed to low frequency radiation.<sup>1</sup> In 1983, a Swedish study found fewer normal pregnancies due to congenital malformations among the families of high voltage switchyard workers.<sup>2</sup> In 1990, Time Magazine, the Wall Street Journal, Business Week, and popular computer publications ran articles exploring the concerns and hazards of living in an electronic age.<sup>3</sup> In 1993, the Wall Street Journal reported that the real estate resale value of homes decreased by as much as 30% if homes were exposed to high electromagnetic fields (like those of power lines and electrical substations).<sup>4</sup> In 2002, Italian scientists watched in amazement as isolated leukemia cells exposed to radio waves replicated rapidly.<sup>5</sup> In 2003, over 170 British police officers reported suffering from deafness, migraines and nausea induced by using their “new improved” radio systems.<sup>6</sup> In 2004, a landmark study showed that men who regularly carry their mobile phones near the groin on their belts or in a pocket, could experience a sperm count reduced by as much as 30 percent.<sup>7</sup> And as recently as March 2005, a federal appeals court ruled that cell phone makers could be sued in state court over claims that wireless equipment emits unsafe levels of radiation leading potentially to brain tumors.<sup>8</sup>*

## The “Buzz”

Would it surprise you to know that there’s a health offender present everywhere you go: your office, the supermarket, your children’s school, and even your bedroom? That it bombards and affects you not only while you’re awake, but while you sleep? That things as seemingly ordinary as electric razors and hairdryers may actually be contributing to chronic disease and ill health? What scientists and medical professionals have recently dubbed “electropollution” has been present in the world for several decades now and yet its dangers are only recently being taken seriously. What we are talking about here are *electromagnetic fields* (EMFs), and the *electromagnetic radiation* (EMR) they create.

You’re probably aware that we live in a polluted, toxic world. If we are honest enough to admit it, we can see how we have inadvertently dirtied the air, tainted the water and loaded the earth with contaminants. Try as we might, it is physically impossible at this time to distance ourselves from our species’ collective waste products. Many of us have awakened into action, striving to live organically and urging our governments to help us guard and clean up our ailing Mother Earth. But an unseen, unnoticed, and unforgiving adversary is dogging our steps. EMFs are only recently becoming recognized for what they are: a ubiquitous form of pollution to which we unthinkingly continue to contribute on a daily basis, and which may very well have dire consequences.

*“...electromagnetic pollution may be the most significant form of pollution human activity has produced this century, all the more dangerous because it is invisible and insensible.”*

~ Dr. Andrew Weil, *Spontaneous Healing*, pg. 133.

In technical terms, an EMF is “the field of force associated with electric charge in motion, having both electric and magnetic components and containing a definite amount of electromagnetic energy.”<sup>9</sup> Translation: Any time you use electricity (e.g., plug in an appliance and/or turn it on, start an engine, flip a light switch, use a telephone or cellphone), you are creating a field of combined electricity and magnetism. Naturally, these fields occur in a wide range of frequencies and strengths. At the high there is cosmic radiation (the energy that the stars and celestial bodies exude) and at the low end is household electricity. Throw into the equation the microwaves with which we cook, the satellite transmissions we use to watch TV, and the radio waves our cell phones use, and we have a wide array of EMFs buzzing all around us, all the time. In case you’re wondering, many sources of EMFs are natural; even the Earth gives off enough of a magnetic charge to point our compasses north. And actually, if all we had to worry about were the natural sources of EMFs, this article wouldn’t be necessary.

### **When Experience Speaks**

Doubt and skepticism are natural and helpful, especially in matters that concern your health. If you think about it, your own experience can probably attest to the effects of EMFs on the body.

For example, you’ve probably experienced the headache, drowsiness, “fogginess” and general fatigue that so often accompany work at a computer. Thinking back, can you remember having to “take a break” from reading a book, or meditating or watching a sunrise because of similar symptoms? Probably not. And *that* is the EMF difference.

The truth is, however, that human-made EMFs are on the rise and have been over the last 50 years to the point that health professionals all over the globe are beginning to consider them a serious threat. What’s all the fuss? First, some numbers: “The United States is wired with 500,000 miles of high-voltage power lines. Industry, government and the military depend on 250,000 microwave relay links. Airliners see and are seen via radar. 9,000,000 broadcasting transmitters and microwave relay stations, and 30,000,000 CB radios flood our airways. Industry employs 35,000,000 electromagnetic devices.”<sup>10</sup> Second, recognize that as a result, “a typical

American now gets a daily dosage of electromagnetic radiation up to 200 million times more intense than what his ancestors took in from the sun, stars, and other natural sources.”<sup>11</sup> Finally, add in these details:

- The World Health Organization (WHO) recognizes that “electromagnetic fields are present everywhere in our environment but are invisible to the eye,” and that “it is not disputed that electromagnetic fields above certain levels can trigger biological effects.”<sup>12</sup>
- In 1990, before it recanted under pressure from the utility, military and computer industries, the United States Environmental Protection Agency (EPA) recommended that EMFs be classified as a Class B carcinogen and warned that “there is reason for concern” and advised “prudent avoidance” of EMFs.<sup>13</sup>
- Two studies (one from Italy and another from the USSR) reported the harmful effects of EMFs on the cardiovascular system, the peripheral nervous system and the body’s white blood cell count.<sup>14</sup>
- Back in the 1970s, Drs. Andrew Marino and Robert Becker, two scientists working with the U.S. government, studied the bio-effects of EMFs on rats and mice and found stunted growth and decreased fertility within three generations.<sup>15</sup>
- In 1982 the New England Journal of Medicine published a statistical study carried out by the State of Washington on workers subjected to extremely low EMFs which

- showed a significantly higher than average incidence of acute myeloid leukemia; the Lancet published similar findings in a study of workers in Los Angeles.<sup>16</sup>
- In 1984, farmers in New York reported in a television news documentary that their hens living underneath power-lines laid, as it were, “scrambled eggs.”<sup>17</sup>
  - The 1986 July/August issue of “American Health” included a report about a study by the Maryland Department of Health and Hygiene which found an unusually high percentage of electricians, electronics engineers and utility repairmen among 951 men who died of brain tumors.<sup>18</sup>
  - In 1988 the Kaiser Permanente Medical Care Program did a study of over 1,500 California women who worked 20 hours or more per week with video display terminals (i.e., computer monitors), and found that they stood an 80 percent greater chance of miscarrying than women who did similar work without the terminals.<sup>19</sup>
  - Even extremely low levels of EMFs cause “altered calcium ion flux in many cell types including brain and heart...reduced melatonin in animals and humans...effects on animal embryogenesis and development...and effects on human performance and psychophysiology.”<sup>20</sup>
  - “Double-blinded, randomized controlled trials have shown that humans exhibit a range of responses to low-level [electromagnetic] stressors such as the ambient [EMFs] emitted by computers and other equipment or home appliances. This includes profound symptoms such as spastic muscles, regional muscle weakness, headaches, and fatigue...changes in [human] behavior, changes in the excitability of nerves, altered neurotransmitter and neurohormone levels, reproductive and developmental changes, altered gene expression, changes in membrane transport of nutrients and ions, changes in cell growth rate, and disruption of biologic rhythms.”<sup>21</sup>

When you put all these pieces together, the resulting picture is not a pleasant one. No one knows yet the extent to which EMFs can harm us, though studies are consistently finding a wide and disturbing range of illnesses and diseases which are directly related to EMF exposure and radiation. Research is mounting and as it does, very real fears escalate.

One of the greatest concerns at present is simply that EMFs put added stress on our already overly-burdened bodies. Conventional and complementary medical practitioners alike agree that stress is destructive and a major contributor to disease today. Hans Selye, MD, PhD, DSc, the father of stress-health research at the American Stress Institute, states that 80% of illness in high-tech societies is stress related, 43% of adults suffer from adverse health related to stress, and 75 – 90% of doctor visits are stress related.<sup>22</sup> In fact, Dr. Selye links stress to all manner of diseases and ailments from heart disease to mental, emotional and immune problems.

Where electropollution is concerned, the most aggravating forms of stressors are the kinds that reach us in pulses, such as from the use of cellular phones and other appliances that are routinely turned off and on. Prolonged bombardment by these “pulsing” stressors upsets normal functioning and disturbs mental and physical performance. A currently held “rainbarrel” concept of stress proposes that the effects of low-level EMFs “accumulate like drops of water in a barrel, leading to exhaustion, premature aging, poor performance, minor illness, and eventually chronic disease.”<sup>23</sup>

### **Stressing the Effects of Stress**

According to the American Stress Institute:

- 43% of all adults suffer adverse health effects as a result of stress.
- 75% – 90% of all visits to primary-care physicians are for stress-related complaints or disorders.
- Stress has been linked to all leading causes of death, including heart disease, cancer, lung ailments, accidents, and suicides.
- Stress is responsible for more than half of all workdays lost annually (absenteeism).
- Stress is implicated in gastrointestinal, skin, neurologic, emotional, cardiovascular, and immune disturbances, ranging from the common cold to arthritis, cancer, and autoimmune deficiency syndrome.
- Approximately 80% of the health problems in technologically advanced societies are considered to be stress-related, making stress the greatest threat to the health and well-being of our civilization.

From: Rubik, Dr. Beverly, *Sympathetic Resonance Technology™: Scientific Foundation and Summary of Biologic and Clinical Studies*, The Journal of Alternative and Complementary Medicine, Vol. 8, No. 6, 2002, pg. 824.

Now ask yourself this: Do you live in a world in which you or others near you are constantly turning things off and on? This list includes just about everything: the television, cell phones, computers, fans, air conditioning, lights, washers, toasters, radios...on and on. If you're an adult living in an urban region, chances are your own "rainbarrel" is already overflowing.

### **The Body Electric**

Time for a short science lesson. Did you know that the human body is surrounded by a field of electrical energy? Scientists at the National Institutes of Health (NIH) call this the *human biofield*. Additionally, inside the body, nerve impulses deliver electrical impulses throughout the nervous system, the brain has a constantly

active and complex electrical component and even the heart has its own electrical activity. All of this is fine and good and set to run optimally without our needing to monitor it. The problem, however, is that these natural bio-energies are easily disrupted by EMFs.<sup>24</sup>

Scientists have proven repeatedly that when EMFs interact with the body and its bio-energies, there are physical, quantifiable *bio-effects* that can ultimately manifest as a variety of conditions including: fatigue, anxiety, emotional highs and lows, depression, headaches, migraines, allergies, hormonal imbalances, arthritis, hyperactivity, short attention span, frequent colds, and increased susceptibility to recurring illness and infection.<sup>25</sup> Additionally, research strongly indicates a connection between EMF exposure and certain types of cancer, as well as greater risk of miscarriage.<sup>26</sup>

Is this news to you? There are several reasons why this knowledge is only recently coming to light. As with all other kinds of pollution, those in positions of high power and financial gain have much to lose if people start suspecting EMFs as possible causes of illness, disease, and ultimately, death. Power companies, the entertainment industry, communication networks, the military, and even the medical industry all rely very heavily on electricity, radio waves, radiation and other forms of EMFs. The truth is, our civilization is irreversibly dependent on electronics – that's just a fact – and abolition of electromagnetic radiation is simply impossible, let alone impractical.

### **EMF Offenders**

In the home, a number of familiar appliances create EMF hazards that may also interfere with your health and wellbeing. These include:

- Electric blankets
- Heating pads
- Hand-held massagers
- Electric clock radios
- Computers and computer monitors
- Televisions
- Microwave ovens
- Cell phones
- Hairdryers
- Stereo systems
- Air conditioners
- Fluorescent lights
- Answering machines
- Blenders
- Coffee makers
- Toasters
- And more...

Another problem is that the immediate effects of EMFs are often subtle. While the dangers of EMF radiation are most notable when high power frequencies are involved – such as nuclear radiation – low frequency EMFs are much more common in our culture. Unfortunately, the effects of such low frequency EMFs are also cumulative (the “rainbarrel”), meaning that people may experience diseases brought on by EMFs only after decades of electromagnetic field saturation has “built up” in the body, lowering its vitality and wreaking havoc on cells, tissues, membranes and bio-electric components.

Additionally, what we are exposed to today are hundreds of thousands of sources of EMFs, all overlapping and creating incredibly unsafe fields of electromagnetic radiation. Try this: Turn on both your computer and your cell phone. Then, dial your own home phone number on your cell phone and while it’s connecting, place it under or next to your computer monitor. What you’ll notice is that your monitor’s picture jumps and scrolls. This is the result of EMFs overlapping and creating a disturbance recognizable only because your monitor is so sensitive to it. Even so, this same phenomenon occurs repeatedly to your body when subjected to any number of EMF sources. For example, you are preparing for your day in the bathroom. The lights are on, you’re blow drying your hair or using an electric shaver, and listening to the clock radio you’ve turned up behind you. Or, perhaps you’re in the kitchen, microwaving your dinner, running the dishwasher, using the electric can opener and watching television all at once while the refrigerator hums beside you. These are very common activities for the average American and each is a situation in which, all the while, your body is bathed in low frequency EMFs. No one knows how long it will take for this kind of low-level EMF barrage to manifest in your body, but the chances are your body has already been negatively affected.

Researchers continue to uncover the wide range of abnormal and harmful bio-effects that EMFs produce, and as a result, the question of how to respond only looms larger and more imperative: In an age and world like our own, what can we do?

### **An Energetic Response**

I’m not going to suggest that we do away with electricity and all electricity-powered appliances and conveniences. At this point in our civilization, that would not only be laughable but illogical and to a very real extent, impossible. On the other hand, just as with all other kinds of pollution, I do not advocate that we simply sit idly by, silent and still victims of this unintended abuse against ourselves. That said, let me suggest two things that we *can* do in this particular situation.

**1. Choose Wisely.** In his book *Spontaneous Healing*, Dr. Andrew Weil, one of America’s leading and most respected authorities in the area of complementary and alternative medicine gives several helpful ideas for avoiding EMFs. His suggestions include protecting yourself from higher frequency radiation by not working in an environment which exposes you to it (uranium mining, radiology, power plant maintenance); by not living near sources of it natural or otherwise (such as a nuclear waste disposal site); and by not letting doctors or dentists X-ray you without good reason.<sup>27</sup> In the home, you would do best to avoid electric blankets and heating pads, since they generate large electrical fields and are right next to the body. Electric clock

radios are considered dangerous for the same reason. Try putting them as far across the room as possible from your bed.

Dr. Joseph Mercola, another widely known and respected osteopathic doctor and holistic health practitioner recommends: “Don’t sit close to your TV set. Distance yourself at least 6 feet away.”<sup>28</sup> Additionally, he recommends that all appliances (e.g., computers, TVs, refrigerators) be placed against an outside wall, to keep from creating an EMF in an adjoining room.<sup>29</sup>

**2. Shield Yourself.** In response to the EMF threat, several companies have come up with products that they claim can shield or otherwise protect you from EMFs. Having looked into several of them myself, I am keenly aware that some of them seem a bit more questionable than others. Some products claim to actually absorb EMFs before your body does. (I ask, where do they go? Do they build up cumulatively and if so is there a “release valve” of sorts? And is it safe to have that many absorbed EMFs that close to your body?) Other products are designed to deflect EMFs, thereby eliminating your risk altogether. And still other products claim to emit their own array of frequencies which then somehow neutralize the EMFs coming at you. I even found several sets of products that are designed by telepathic or spiritual healers who have purportedly figured out how to imbue their products with protective, EMF-specific subtle or spiritual energies. (One source even suggested that as an added bonus, any time a newly-occurring bacteria or virus is found, product “enhancements” are sent energetically from afar. Now *that’s* customer service!)

All this to say, before you empty your bank account and load yourself down with supposedly high-tech gadgets and the high hopes they inspire, check in with your inner critic. It’s only fair to admit that where EMFs are concerned, there is a huge market for junk-science schemes and inventions that have more to do with money than public health. When looking into products that are touted as EMF protection devices, be sure you ask the sensible questions: Is there any research and science behind it? Who endorses it? Is there quantifiable evidence to support its efficacy?

### Queue the “Q”

Well, what I’m going to suggest is that I have discovered a product that I believe is not only worth looking into, but experiencing firsthand. (In fact, I’m wearing it as I type right now.)

It’s called the “Q-Link” and it consists of a pendant and cord or chain that you wear around your neck up to 24 hours a day. In a nutshell, wearing the Q-Link pendant will “tune up your biofield through a resonant effect that harmonizes your [personal] energy.”<sup>30</sup> You can think of the Q-Link like a tuning fork, which helps remind your biofield of its optimal functioning state. “Worldly stress causes the biofield to become more chaotic and incoherent. The Q-Link reverses this process, ensuring efficiency, harmony, and balance.”<sup>31</sup>

#### **View the Q**

Visit these websites to watch some short but highly informative and thought-provoking movies about the Q-Link:

<http://www.electronichealing.co.uk/products/qlink.htm>

[http://www.electronichealing.co.uk/products/qlink\\_press\\_coverage.htm](http://www.electronichealing.co.uk/products/qlink_press_coverage.htm)

The science behind the Q-Link is impressive: many researchers and doctors from several universities and institutions from three different countries have verified its effectiveness with

numerous statistical and double-blind studies using FDA licensed equipment. Over 250,000 people wear the Q-Link, including a sizeable number of world-class athletes and a host of medical professionals, including Deepak Chopra, MD.<sup>32</sup> Among the many proven results that can be expected when using a Q-Link are lower stress, lower blood pressure, better oxygenation of blood cells, increased vitality, better sleep, increased focus and mental clarity, reduction or cessation of “jet lag,” mood stabilization, higher productivity, quicker post-exercise recovery, and improved performance for athletes.<sup>33</sup>

**Ken Wilber**, a leader in transpersonal psychology and theory and author of 17 books explains that “Q-Link is a technology that amplifies and clarifies the body’s energies. By reducing the noise in any energy field, this technology strengthens and purifies the body’s own energies. This technology has been scientifically demonstrated to enhance the body’s ability to protect itself from harmful environmental radiation and thus it helps to remove harmful influences on the organism’s health and well being.”

~ 21<sup>st</sup> Century Health Breakthroughs: New Discoveries from the Next Generation of Health Science, Spring 2003, Vol. 2, No. 1, pg. 8.

There’s a lot of hype about the Q-Link; you may have seen it in advertisements before. Before you chalk up its touted abilities to the “placebo effect,” let me assure you that according to the research I have done (including a lengthy review of several scientific studies surrounding Q-Link technology from the *Journal of Alternative and Complementary Medicine*), the power of the Q-Link resides in its innovative and proprietary technology. Q-Link pendants house something called Sympathetic Resonance Technology™, or SRT. The theory behind SRT is that it interacts at the level of the human biofield by reinforcing particular frequencies that help moderate the body’s response to stress. Its inventors suggest that when you wear a Q-Link pendant (with its built-in SRT component) over the sternum, it exhibits maximum

protective effects. This is due to the fact that “the heart is the single most important contributor to the biofield in terms of steady-state rhythms, and it exhibits the largest field strength of all the emitters of the body.”<sup>34</sup> In fact, the biofield emissions from the heart can be registered throughout and around the entire body.

In short, when you put on a Q-Link pendant, the SRT technology boosts the strength of your body’s unique biofield, thereby enhancing your body’s ability to resist the kind of stress that EMFs produce. The results, as illustrated in numerous professional and clinical studies can manifest as: better sleep, cessation of headaches, better bowel elimination, fewer sugar cravings, a more centered feeling, less digestive sensitivity, increased energy, reduction in light-headedness, cleared congestion of throat and lungs, lowered inflammation, improved muscle strength, improved athletic performance and endurance, and an overall feeling of good health.<sup>35</sup>

If this sounds too good to be true, I understand. You’re right to be listening to that “inner critic” I referred to earlier. If you need more information than what is presented here, I encourage you to do some research of your own. Find all the information you can on the Q-Link and then make an informed decision. My bet is that you’ll soon be ordering one yourself...

As for me, I’m certainly sticking with it. I haven’t had a computer-induced headache once since I put my Q-Link on a full year ago. And in my case, as often as I’m sitting here in my line of work, that’s quite significant.

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<sup>1</sup> <http://www.bewisepolarize.com/man-made%20emf%20sources.htm>

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- <sup>2</sup> Ibid.
- <sup>3</sup> [http://www.mercola.com/article/emf/emf\\_dangers.htm](http://www.mercola.com/article/emf/emf_dangers.htm)
- <sup>4</sup> <http://www.lessemf.com/emf-news.html>
- <sup>5</sup> <http://www.grn.es/electropolucio/angles14.htm>
- <sup>6</sup> <http://www.rfsafe.com/article446.html>
- <sup>7</sup> <http://www.emf-health.com/reports-menandmobiles.htm>
- <sup>8</sup> <http://www.emf-health.com/reports-lawsuits.htm>
- <sup>9</sup> <http://www.answers.com/electromagnetic%20field>
- <sup>10</sup> <http://www.bewisepolarize.com/radiation%20harmful.htm>
- <sup>11</sup> Ibid.
- <sup>12</sup> <http://www.who.int/peh-emf/about/WhatisEMF/en>
- <sup>13</sup> [http://www.mercola.com/cgi/ph/article/emf/emf\\_dangers.htm](http://www.mercola.com/cgi/ph/article/emf/emf_dangers.htm)
- <sup>14</sup> <http://www.bewisepolarize.com/man-made%20emf%20sources.htm>
- <sup>15</sup> Ibid.
- <sup>16</sup> Ibid.
- <sup>17</sup> Ibid.
- <sup>18</sup> <http://www.bewisepolarize.com/radiation%20harmful.htm>
- <sup>19</sup> Ibid.
- <sup>20</sup> Rubik, Dr. Beverly, *Sympathetic Resonance Technology™: Scientific Foundation and Summary of Biologic and Clinical Studies*, The Journal of Alternative and Complementary Medicine, Vol. 8, No. 6, 2002, pg. 825.
- <sup>21</sup> Ibid.
- <sup>22</sup> *21<sup>st</sup> Century Health Breakthroughs: New Discoveries from the Next Generation of Health Science*, Spring 2003, Vol. 2, No. 1, pg. 1.
- <sup>23</sup> Rubik, Dr. Beverly, *Sympathetic Resonance Technology™: Scientific Foundation and Summary of Biologic and Clinical Studies*, The Journal of Alternative and Complementary Medicine, Vol. 8, No. 6, 2002, pg. 824.
- <sup>24</sup> Ibid., pg. 3.
- <sup>25</sup> Goldberg, Burton. *Alternative Medicine: The Definitive Guide*, ©2002, pp. 211-212.
- <sup>26</sup> Ibid.
- <sup>27</sup> Weil, Dr. Andrew. *Spontaneous Healing*, ©1995, pg. 168.
- <sup>28</sup> [http://www.mercola.com/cgi/pf/article/emf/emf\\_dangers.htm](http://www.mercola.com/cgi/pf/article/emf/emf_dangers.htm)
- <sup>29</sup> Ibid.
- <sup>30</sup> [http://clarus.com/p\\_how\\_works.shtml](http://clarus.com/p_how_works.shtml)
- <sup>31</sup> Ibid.
- <sup>32</sup> *21<sup>st</sup> Century Health Breakthroughs: New Discoveries from the Next Generation of Health Science*, Spring 2003, Vol. 2, No. 1, pg. 16.
- <sup>33</sup> *21<sup>st</sup> Century Health Breakthroughs: New Discoveries from the Next Generation of Health Science*, Spring 2003, Vol. 2, No. 1.
- <sup>34</sup> Rubik, Dr. Beverly, *Sympathetic Resonance Technology™: Scientific Foundation and Summary of Biologic and Clinical Studies*, The Journal of Alternative and Complementary Medicine, Vol. 8, No. 6, 2002, pg. 828.
- <sup>35</sup> Rubik, Dr. Beverly, *Sympathetic Resonance Technology™: Scientific Foundation and Summary of Biologic and Clinical Studies*, The Journal of Alternative and Complementary Medicine, Vol. 8, No. 6, 2002.