# Measurement of Protection from Electromagnetic Radiation with Px Technology

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#### **Abstract**

A pilot study was conducted to evaluate the ability of the Px Technology to remediate negative health effects of electromagnetic radiation (EMR) found in a typical home office setting. For this study, blood pressure, heart rate, blood glucose and Heart Rate Variability (HRV) were used as assessment tools. The Px Technology demonstrated a reduction or reversal of EMR effects utilizing these tests in subjects who responded to the EMR exposure. Results of this pilot study show the efficacy of the Px Technology for protection against the deleterious effects of EMR found in a typical indoor setting. More studies need to be done to further characterize the effects and the efficacy of Px products on humans.

## Introduction

Electromagnetic radiation (EMR) has effects on nearly every system of the body including DNA damage, affecting hormone and neurotransmitter release, increasing blood pressure, blood sugar and cancer. More studies are reporting brain cancer links with EMR exposure. Therefore, it is important to identify tools that protect us from this harmful radiation.

The purpose of this study was to determine the ability of the Px Technology to reduce negative effects of EMR as measured by blood pressure and HRV. Research is ongoing by the author to identify the most valid tests for diagnosis of electro hypersensitivity (EHS), a disease that is becoming more prevalent as EMR exposure increases. Heart Rate Variability is used medically to assess the balance of the autonomic nervous system, which can be affected by stressors. These technologies were chosen to determine if a reversal of the deleterious health effects of EMR by the Px products could be achieved.

#### Discussion

Research has shown that some individuals are more sensitive to EMR. The author has been developing a method to determine the electrical sensitivity of individuals. By using these tests, one can measure a physiological response to EMR exposure and evaluate the effectiveness of protective devices. The subjects that did not respond to these tests are not being affected by EMR, as measured by these tests, but are likely being affected on some level that we currently are not able to measure. The Px Technology could be beneficial to prevent these immeasurable negative health effects.

In this study, four of the ten subjects responded to EMR exposure as measured by HRV and in all of these cases, the Px Technology improved their HRV scores. Surprisingly, in two of the subjects, the HRV score was improved by EMR exposure. A likely explanation for this is that perhaps the body is responding to the EMR and the chronic effects of EMR exposure would lead to deterioration in health as evaluated by HRV. In one subject, the EMR exposure did not create a change in HRV scores but the Px Technology improved the score.

It is important to note that the Px Technology produced an improvement in HRV scores in the presence of EMR. This suggests that the Px Technology can be beneficial for protection from EMR and can be beneficial for health, especially for chronic EMR exposure.

This pilot study only measured acute EMR exposure with the Technology and further studies are recommended to determine the long term effects of the Px Technology with chronic EMR exposure.

#### Conclusions

The results of this study show that applying Px Technology reverses the deleterious effects of EMR exposure, as measured by blood pressure. Furthermore Px Technology improves health, as measured by HRV, in the presence of EMR. Based on this pilot study, Px Technology is recommended for protection from EMR exposure.

Px Technology reversed the increases in BP induced by EMR exposure, which is an important health benefit. In one of the subjects, the BP dropped below baseline, indicating that Px Technology has additional benefits. It would be interesting to assess whether the Px Technology lowers high BP in the absence of EMR.

# Px Technology

A EMR radiation induces a biological incompatibility. The Px products, infused with Px technology, work by re-establishing a coherent bio-field in and around the body, thus allowing the body to resist the negative effects of EMR. The body, after being exposed to the Px wave patterns, becomes resistant to the detrimental effects of EMR, lowering the stress on the body and restoring the body back into bio-coherence.

**Note**. No claim is made by Px of blocking EMR signals that go through the body at the speed of light. Only by continuously counterbalancing the results of the disruption to the bio-coherence of the body induces by the EMR signals be addressed.

## **Blood Pressure**

Blood pressure (BP) can be increased by a stressor such as EMR and a study demonstrated that employees at radio service stations have an increased arterial BP, in comparison with the control group (Gadzicka, et al., Med Pr. (1997) 48(1):15-24). Another study found that exposure to EMR in radio service workers increases risk for electrographic disturbances by six times (Bortkiewiczm et. al. Med Pr. (1996) 47(3):241-52),

# **Heart Rate Variability**

Heart rate variability (HRV) refers to the beat-to-beat alterations in heart rate. It was developed over 40 years ago and is a quantitative assessment of the relative balance of the two branches of the autonomic nervous system (ANS), which controls most physiological functions. HRV has the ability to evaluate the impact of any intervention or activity and to detect the early signs of pathological development or functional disorders, which may not be revealed by routine physical examination. Therefore, HRV is a useful assessment of the general health of an individual and because it evaluates the ANS, it can be used to quantify the response to a stressor.

The algorithms used by Nerve-Express have been developed and tested for over twenty years in studies involving more than twenty thousand patients. The algorithms generate two values that represent the physical fitness, the level of the functioning of the physiologic systems and the adaptability of the individual.

## **Electromagnetic Radiation**

Electromagnetic Radiation (EMR) is a very dangerous side effect of the exponential increase in technology that we all rely on. Reports of brain cancer resulting from cell phone use are increasing. Therefore, it is important to identify devices that protect from cell phone and other device radiation. Results of the current study indicate that Px Technology reverses the negative effects of EMR exposure, as measured by the blood pressure and improves HRV scores during EMR exposure.

# Methods

The EMR emitted from a typical home or office environment including a computer, monitor, wireless router, DECT cordless phone was measured. The fields before the electronics were turned on were .6 milliGauss (AC magnetic ELF field Triaxial WiFi Sniffer-Trendnet Model EW-439UB detected 1 wireless network Esmog

Ten healthy subjects ranging from age 29 to 75 were tested with the digital BP

meter (Omrion), Nerve Express HRV (www.nerveexpress.com) and blood glucose meter to determine a baseline measurement. They were then exposed to 10 minutes of EMR and retested. The subjects then exposed to the Px Technology and after a 10 minute recovery period in the absence of the EMR, the subjects were re-exposed to the EMR for 10 minutes and retested.

Initial measurements were taken to determine a baseline. Subjects were tested during (blood pressure and HRV) and just following exposure to EMR for 6 minutes. The subjects were given 10 minutes to recover (EMR turned off with Technology on) and retested with EMR turned on after applying Px. Data is presented showing the alterations in the three measures for subjects who responded to the EMR exposure.

#### Results

Of the ten subjects tested, four responded to the EMR with changes in the HRV measurement and the HRV scores were improved with Px Technology. In two of the subjects, the EMR environment increased blood pressure and this negative effect was reversed by Px. One of the subjects reported that they usually get severe headaches when in an environment with wireless routers and they did not get a headache with EMR exposure while using Px.

# **Heart Rate Variability**

Table 1 shows the results of applying Px Technology in the EMR environment on HRV scores, given as the Physical Fitness values. For each subject, the first number represents the functioning level of the physiological systems and the second number indicates the adaptability of the individual.

The lower the values, the healthier the individual and the *ideal value range for an athlete is 1-3/1-3, for general health is 3-9/3-5 and 9-13/5-7 is considered unhealthy.* 

In one subject, EMR exposure induced a negative effect on the HRV score and this was reversed by applying Px. Interestingly, in two of these cases, the "EMR environment" improved the HRV score, while the Px Technology was applied during the EMR exposure further improved the HRV score. Finally, one subject showed no HRV response to the EMR environment, but applying the Px Technology improved the HRV score.

Table 1. The Px Technology Improves the HRV Scores in the Presence of EMR Exposure.

Subject	Baseline	EMR	EMR applying Px
1	11/6	11/7	11/6
2	9/3	9/2	8/2

3	10/4	9/4	9/3
4	8/2	8/2	6/2

## **Blood Pressure**

Table 2 shows the results of the Px Technology on reversing the increase in blood pressure generated by EMR exposure on three subjects. As seen, the two of the subjects showed a significant increase in blood pressure when exposed to EMR that was reversed by the Px Technology. One of the subjects showed a modest increase in BP and the BP was dropped to below baseline, whereas one subject did not return to baseline.

Table 2. Px Technology Reduces the Increase in Blood Pressure (BP) Caused by EMR Exposure.

Subject	Baseline BP	EMR BP	EMR BP applying Px
1	99/64	124/84	105/63
2	112/75	134/89	114/76
3	127/75	141/80	116/81
4	102/41	114/71	109/65