

An Independent Review Board Certified Clinical Study The First One of Its Kind

After Tom Blue, owner of a research company and Executive Director of the American Academy of Private Physicians noticed significant positive results from using Blushield with his wife and son, he proposed studying the health effects of Blushield devices on a larger scale. Connected with a large network of doctors a pilot study was conducted.

The study emphasises that the **Blushield devices, “appear to be a reasonable component of a comprehensive EMF mitigation strategy to minimise RF exposure”**.

The study paper concluded that Blushield devices appear to be **feasible, safe, and associated with improvements** in:

- **cognitive function**
- **sleep**
- **heart rate variability**
- **blood glucose**
- **immune response**
- **voltage-gated calcium channel gene normalization**

and overall reported self-reported health among 25 relatively healthy adults, including general practitioners and physical therapists who worked in the health and wellness industry. All participants reported compliance with the EMF mitigation device throughout the course of the study and no adverse events were reported.

TruDiagnostic, the largest, private epigenetic database in the world, provided the epigenetic data analysis that provided the genome-wide DNA methylation assessment. DNA methylation is an incredibly important epigenetic health marker. Epigenetics refer to the study of genes, activating or silencing (commonly through methylation), in response to changing environmental factors. TruDiagnostic measures the actual expression of your DNA. DNA methylation is now seen as a better marker of disease risk and health span than telomere length.

With 30+ clinical trials currently underway, TruDiagnostic has collaborations with renowned academic institutions such as Duke University, Harvard University, Yale University, Cornell University, University of California San Francisco, University of Pennsylvania, Ohio State University, and more.

SHORT SUMMARY OF STUDY compiled by **BLUSHIELD AUSTRALIA**

The enhanced with PHI Premium Ultra referred to the in study is now called the Ultimate U2 Ultra. We note that the Premium Ultra was only used at home and not in the participants workplace where much higher EMF exposure occur. The Blushield Premium Portable or Tesla Gold plug-in models, were used in workplaces for this study. These models are not as strong as the Ultra and are not the newer enhanced models we provide today.

The following information supports that Blushield, as well as other benefits, can assist in mitigating the damaging effects on the EMF target area – the VGCCs - in the body.

COGNITIVE FUNCTION

BLUSHIELD Results

The CNS Vital Signs (CNS - Central Nervous System) test is a full neurocognitive assessment, recording performance in areas of cognitive function, including memory, executive function and processing speed. **Statistically positive results were found in the areas of composite memory, cognitive flexibility, executive function, and process speed.**

EMF Explanation

Electromagnetic field exposure has been definitely linked to impairments in cognitive function, and the mechanism of harm theorized as overactivation of the voltage-gated calcium channels (VGCCs). In-depth cognitive function effects information is explained in *The BioInitiative Report* at <https://bioinitiative.org/>

HEART RATE VARIABILITY (HRV) and SLEEP

BLUSHIELD Results

The study participants saw **impressive improvements in their HRV, average and lowest resting heart rate, body temperature and deep sleep, all reaching statistical significance.**

**** Average deep sleep time - the RESTORATIVE SLEEP CYCLE - increased by 9 minutes per 90 minute cycle before using Blushield to 99 minutes during Blushield use.****

EMF Explanation

'Variability' refers to our heart's ability to respond immediately to the demands of our environment, by speeding up or slowing down the heart rate as needed. The body's ease in changing the speed of the heart instantaneously is strongly linked to our overall health and vitality. Professor Magda Havas of Trent University, Canada, has also shown that radiation from DECT phones can cause an instant change in heart rate and rhythm in some exposed individuals.

BLOOD GLUCOSE

BLUSHIELD Results

All of the participants had glucose levels within a healthy range at the beginning of the study, yet **a statistically significant reduction in blood glucose was found during the study.** The study may have been more dramatic if diabetics and prediabetics had been included in the study.

Glucose and insulin are also strongly affected by the ATP-sensitive potassium channels, so it's possible that the positive effects on blood glucose may be linked to the hypermethylated ATP-sensitive potassium channel complex that the study recorded, as well as the VGCCs.

BLOOD GLUCOSE continued

EMF Explanation

EMF exposure has been shown to be linked to elevated blood glucose, and in some cases, even prediabetes and diabetes. In 2004, Professor Magda Havas and poor power quality expert Dave Stetzer submitted results of their study to the World Health Organisation that showed blood glucose levels can lower when EMF (DE – dirty electricity) exposure is reduced. DE is one of the many types of EMF. Havas and Stetzer reported that:

	Week	DE reading	mmoles/L	units
With DE	1	800	9.4	36
With DE removed	2	13	6.4	9
Reduction	0	98%	32%	75%

Havas stated the above model provides support for two important conclusions: some diabetics may be over-medicating themselves, and some may be diagnosed with diabetes when they are not diabetic at all. In 2008, Havas labelled environmental diabetes 'type 3' diabetes. This refers to a diabetic whose blood sugar level is also affected by an environmental trigger, such as dirty electricity. Havas' studies show that when dirty electricity is reduced in the home of diabetics, symptoms can diminish.

Diabetics with EHS have higher plasma-glucose levels and require more medication when exposed to dirty electricity. (Havas M, Olstad A). Other studies have also shown that in an electrically clean environment: type 1 diabetics require less insulin and type 2 diabetics have lower levels of plasma glucose noted in their personal glycaemia record.

CHANGES in IMMUNE MARKERS

BLUSHIELD Results

The study also found **an increase in monocytes and a decrease in natural killer cells (NK CELLS), both within a healthy range.**

An increase in circulating monocytes could indicate that they are now 'ready and waiting' in their natural form, and not currently in the process of fighting. A decrease in natural killer cells could signify the immune system calming down from a previously chronic overactive state, as the monocytes are not actively signalling a threat that would tell the NK cells to get to work.

EMF Explanation

There is a hypothesis that EMF exposure triggers the immune system, as our bodies perceive the foreign frequency patterns as invaders it needs to attack and defeat. Since there is nothing physically present to attack and destroy, this can result in a chronically elevated immune response, which will eventually deplete the immune system of its power and steal vital resources from other essential processes in the body.

VOLTAGE-GATED CALCIUM CHANNEL (VGCC) GENE NORMALIZATION

BLUSHIELD Results

The study reports that usage of the **Blushield is feasible and revealed improvements in some markers of sleep, cognitive function, and overall health. These improvements may be due in part to suppression of VGCC activity.** In the genome-wide DNA methylation assessment the researchers were able to identify a **key VGCC gene - CACNA1G** – that was hypermethylated (indicating a likely under-expression of that gene), **a quieting of the VGCCs** that are chronically overactive and overstimulated in the constant presence of EMF we experience today.

Besides this CACNA1G gene that was hypermethylated at a level of **statistical significance, four other VGCC-related genes were very near the threshold of significance. 204 total CpG sites were found to be differentially methylated between the before and after measurements, and 94% of those genes were hypermethylated. A considerable number of these sites were connected with the ATP-sensitive potassium channels, which are known to be influenced by EMFs.** (CpG) is short for Cytosine-phosphate-Guanine, which is the most common methylation pathway in the DNA. Could the Blushield positive results on cognitive function be linked to the (VGCCS)? The study paper states this is a valid hypothesis that warrants further exploration. Blushield is the first EMF protection company that they are aware of, to test the effects of our devices on the VGCC genes and find notable improvements.

EMF Explanation

Through a review of the scientific literature and his own meta-analysis, Martin L Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences at Washington State University demonstrated **that one of the primary non-thermal EMF effects is the activation of voltage-gated calcium channels (VGCCs) in the plasma membrane of cells.** In 2013, Pall was presented with a Global Medical Discovery Award for his research.

Of all cells in the body, the neurons have the highest densities of VGCCs. The highest density of VGCCs is found in the brain and nervous system and Pall states when the VGCCs are activated in the brain they release neurotransmitters and neuroendocrine hormones. Pall states: hence, the consequences of chronic EMF exposure to the brain include the following: anxiety; depression, autism and Alzheimer's. The heart is also very sensitive to EMF, particularly the pacemaker cells of the heart, as they have the highest density of VGCCs. The heartbeat is controlled by pacemaker cells. A third area with densely populated VGCCs is the reproductive system, particularly the male testes. *5G Risk: The Scientific Perspective*, Martin L Pall PhD

Chronic urinary neurotransmitter changes in residents near a new cell tower erected in Rimbach, Austria, were reported in 2011 (Buchner & Eger). Microwave radiation from the tower was presumed to be the active agent. In 2013 the research of Sam Milham and Dave Stetzer also indicates that EMF exposures act as chronic stressors, causing neurotransmitter changes and disease and that neurotransmitters may be biomarkers of dirty electricity and EMF exposures.

ACCURACY SCORE

The accuracy score of the methylation results was very close to perfect. The perfect score is a "1". This study gave a score of 1.05. Almost perfect, and that is not easy to get. The theoretical goal is to set up a model that shows pure cause and effect. The methylation results seen on the CpG sites, including the voltage-gated calcium channel genes, were almost as pure and accurate as they possibly could have been.

This article is a shortened summary of the Blushield USA summary of the pilot study results available at: <https://www.blushield-us.com/blogs/education/clinical-pilot-study-on-blushield-efficacy-results-are-in>

EMF and 5G

“Putting in tens of millions of 5G antennae without a single biological test of safety has got to be about the stupidest idea anyone has had in the history of the world”.

“I expect we will see crash in human reproduction almost to zero as happened in the Magras and Xenos mouse study which I estimate to occur within about 5 years without any increases in our exposures. Obviously 4G and 5G will make the situation much worse.

Similarly, I expect that the deterioration in brain function that we are already seeing will seal our fate if we fail to act rapidly and vigorously. Our collective brain function may become completely incapable of dealing with such a mega-crisis situation. If we go ahead with 5G, that crash may be almost instantaneous”.

5G Risk: The Scientific Perspective, Martin L Pall PhD

https://www.icnirp.org/cms/upload/consultation_upload/Respondent94

PREVIOUS RESEARCH

Conclusion of the 2009 study on the history of electrification in the USA:

“The inescapable conclusion of these findings is that the twentieth century epidemic of the so called diseases of civilization including cardiovascular disease, cancer and diabetes and suicide was caused by electrification and the unique biological responses we have to it. A large proportion of these diseases may therefore be preventable.”

“The good news is that many of these diseases may be preventable by environmental manipulation, if society chooses to”.

Dirty Electricity: Electrification and The Diseases of Civilization, 2010

Historical evidence that electrification caused the 20th century epidemic of diseases of civilization, 2009

Professor of Medicine Samuel Milham, MD, MPH, Washington State Department of Health, USA

“Rather than being victims of our genes, epigenetic science reveals, that by controlling our environment, we have the power to control our biology and become masters of our fate ...we are also destined to use technology to ensure our survival”.

Spontaneous Evolution: Our Positive Future (And a Way to Get There From Here) Bruce Lipton PhD 2014

Inherent in all EMF is an information component that is the true culprit. This is what the body is responding to. EMF is emitting powered life-destructive information which the body is picking up on and responding to. Being a scalar wave technology, Blushield can override and cancel out the information component effects from EMF that is doing most of the damage. This is the Blushield difference, and it is the massive difference from non-powered devices.

Blushield devices restore the environment ...

**An effective EMF solution today requires being
POWERED, use SCALAR WAVES and incorporate BLUSHIELD Technology**