# EMF's, the Thyroid Gland, and Cancer

By Craig B Sommers ND, CN

### Effects of electromagnetic radiation exposure on stress-related behaviors and stress hormones in male wistar rats.

Mahdavi SM, Sahraei H, Yaghmaei P, Tavakoli H.

Biomol Ther (Seoul). 2014 Nov;22(6):570-6. doi: 10.4062/biomolther.2014.054. Epub 2014 Nov 30.

This study demonstrated that electromagnetic waves may alter cognitive and non-cognitive behaviours.

Plasma ACTH (adrenocorticotropic hormone) concentration increased.

ACTH is a hormone that is often produced in response to biological stress

#### Effects of melatonin on Wi-Fi-induced oxidative stress in lens of rats.

Tök L, Nazıroğlu M, Doğan S, Kahya MC, Tök O.

Indian J Ophthalmol. 2014 Jan;62(1):12-5. doi: 10.4103/0301-4738.126166.

Conclusion- Glutathione peroxidase activity was significantly lower in Wi-Fi group than in the control groups

There were oxidative toxic effects after just one hour of Wi-Fi exposure on the lens of the eye in the animals exposed.

## Effects of exposure to a mobile phone on sexual behavior in adult male rabbit: an observational study.

Salama N, Kishimoto T, Kanayama HO, Kagawa S.

Int J Impot Res. 2010 Mar-Apr;22(2):127-33. doi: 10.1038/ijir.2009.57. Epub 2009 Nov 26.

Retraction in: Int J Impot Res. 2012 Jul-Aug;24(4):170.

Conclusion- pulsed radiofrequency emitted by a conventional mobile phone which was kept on a standby position could affect the sexual behaviour of the rabbit in a negative way.

The effect of electromagnetic radiation in the mobile phone range on the behaviour of the rat.

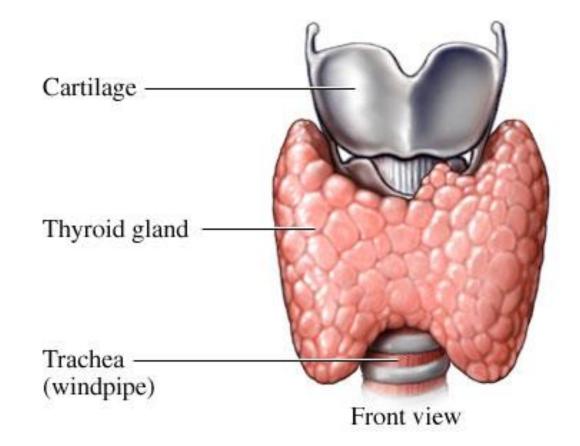
Daniels WM, Pitout IL, Afullo TJ, Mabandla MV.

Metab Brain Dis. 2009 Dec;24(4):629-41. doi: 10.1007/s11011-009-9164-3. Epub 2009 Oct 13.

Conclusion- The findings suggested that EMR exposure may lead to abnormal brain functioning in rats.

A recent study published in the *Journal of Experimental Biology* showed that EMF exposure impacts both the structure and function of the thyroid.

For example, animals exposed to cell phone radiation produce lower levels of thyroid hormone, a marker of hypothyroidism.



The World Health Organization labelled the EMF emitting from mobile phones a class 2B carcinogen in May 2011.

#### International Agency for Research on Cancer



PRESS RELEASE N° 208

31 May 2011

#### IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as <u>possibly carcinogenic to humans (Group 2B)</u>, based on an increased risk for <u>glioma</u>, a malignant type of brain cancer<sup>1</sup>, associated with wireless phone use.

#### Background

Over the last few years, there has been mounting concern about the possibility of adverse health effects resulting from exposure to radiofrequency electromagnetic fields, such as those emitted by wireless communication devices. The number of mobile phone subscriptions is estimated at <u>5 billion globally</u>.

From May 24–31 2011, a Working Group of 31 scientists from 14 countries has been meeting at IARC in Lyon, France, to assess the potential carcinogenic hazards from exposure to radiofrequency electromagnetic fields. These assessments will be published as Volume 102 of the IARC Monographs, which will be the fifth volume in this series to focus on physical agents, after Volume 55 (Solar Radiation), Volume 75 and Volume 78 on ionizing radiation (X-rays, gamma-rays, neutrons, radio-nuclides), and Volume 80 on non-ionizing radiation (extremely low-frequency electromagnetic fields).

The IARC Monograph Working Group discussed the possibility that these exposures might induce long-term health effects, in particular an increased risk for cancer. This has relevance for public health, particularly for users of mobile phones, as the number of users is large and growing, particularly among young adults and children.

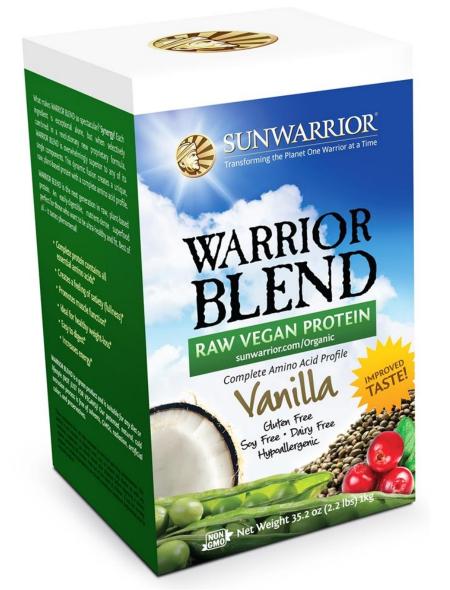
The IARC Monograph Working Group discussed and evaluated the available literature on the following exposure categories involving radiofrequency electromagnetic fields:

- > occupational exposures to radar and to microwaves;
- environmental exposures associated with transmission of signals for radio, television and wireless telecommunication; and
- > personal exposures associated with the use of wireless telephones.

International experts shared the complex task of tackling the exposure data, the studies of cancer in humans, the studies of cancer in experimental animals, and the mechanistic and other relevant data.

- Limit exposure to mobile phones by using a land line when possible.
- Never hold a mobile phone directly up to your head. Speakerphone or air tube headsets work to drastically reduce EMF exposure.
- If you own your own home, ask your power company to change out your 'smart meter' for an analog meter. Smart meters emit much higher levels of EMF then a mobile phone and emit every 20 to 40 seconds, 24/7.
- Turn off WIFI when you sleep. Change out wireless router for a hard wired ethernet router.

Fight EMF exposure by boosting your body's production of the potent detoxifier glutathione to counter EMF's harmful effects.



Warrior Blend raw vegan protein by SUNWARRIOR is an excellent source of glycine, glutamic acid and cysteine from which glutathione is made.

Clinical research has proven that nutritional deficiencies cause DNA damage.

A deficiency of any of the following nutrients, **folate**, **vitamin B6**, **niacin**, **vitamin B12**, **vitamin C**, **vitamin E**, **iron**, or **zinc**, mimics the damage that ionizing radiation does to our DNA. It causes single and double-strand breaks, oxidative lesions, or both. [1]

When essential nutritional elements are missing, the result is DNA replication damage and mutated cells.

Insure that you're getting all the nutrition that your body needs to manufacture healthy DNA. Consume a healthy diet high in raw plants and take a full spectrum multiple. But be sure that it is free of synthetic vitamins. Very few companies make such a product due to its high cost.



SUNWARRIOR's Raw Vitamins and Vitamineral Rush are free of synthetic vitamins and dangerous additives and made from food extracted vitamins.



## Why EMFs Are Felt By Some and Not Others

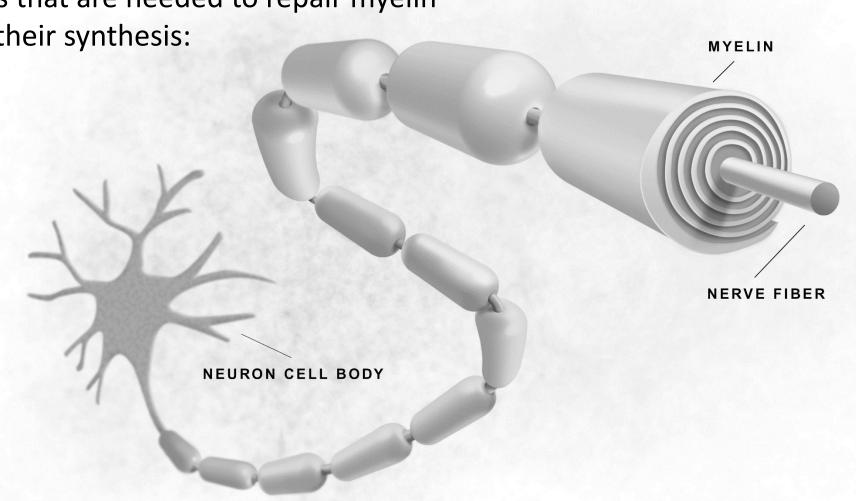
By Craig B Sommers ND, CN

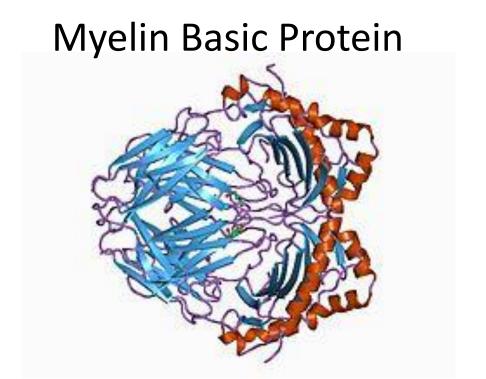
Myelin normally serves as insulation on nerve axons.

Over time myelin becomes damaged and is normally repaired.

At least three substances that are needed to repair myelin require methylation for their synthesis:

- Phosphatidylcholine
- Myelin Basic Protein
- Choline Plasmalogin





When the raw materials are not present, the myelin falls into disrepair. At this point, the myelin no longer provides adequate insulation for the nerve axons.

Electromagnetic currents are induced in the body and are able to penetrate into the nerves because of inadequate insulation.



### Supplements That Can Help!

Non-GMO Lecithin

Plant protein - used to form Myelin Basic Protein

Phosphatidylcholine supplements

# Ten Reasons To Choose Plant Protein Over Whey Protein

By Craig B Sommers ND, CN

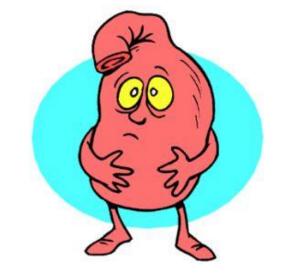
#### 1. Whey protein linked to cancer promotion:

The hormone IGF-1 only occurs in animal protein, one of the best sources being protein from cow's milk. IGF-1 has been shown to promote cancer cell growth in humans.[1] Studies show that decreased levels of IGF-1 lead to decreased growth of existing cancer cells.[1] Dietary interventions and modifications such as vegan diets have been shown to down regulate (make less of) IGF-1 and have been associated with lower risk of cancer.[2] It has been proven that people with exceptionally low levels of IGF-1 (Laron syndrome) are resistant to cancer.[3][4][5][6] IGF-1 does not occur in plant protein and plant protein has not been shown to promote cancer growth.

- [1] Arnaldez F, Helman L (June 2012). "Targeting the insulin growth factor receptor 1". Hematol. Oncol. Clin. North Am. 26 (3): 527–42, vii–viii.doi: 10.1016/j.hoc.2012.01.004. PMC 3334849. PMID 22520978.
- [2] McCarty M (1999). "Vegan proteins may reduce risk of cancer, obesity, and cardiovascular disease by promoting increased glucagon activity". Med. Hypotheses 53 (6): 459–85. <a href="https://doi.org/10.1054/mehy.1999.0784">doi:10.1054/mehy.1999.0784</a>. <a href="https://doi.org/10.1054/mehy.1999.0784">PMID 10687887</a>.
- [3] Gallagher E, LeRoith D (April 2011). "Is growth hormone resistance/IGF-1 reduction good for you?". Cell Metab. 13 (4): 355–6.doi:10.1016/j.cmet.2011.03.003. PMID 21459318.
- [4] Guevara-Aguirre, J; Balasubramanian, P; Guevara-Aguirre, M; Wei, M; Madia, F; Cheng, CW; Hwang, D; Martin-Montalvo, A et al. (2011). "Growth Hormone Receptor Deficiency Is Associated with a Major Reduction in Pro-Aging Signaling, Cancer, and Diabetes in Humans". Science Translational Medicine 3 (70): 70ra13.doi:10.1126/scitranslmed.3001845. PMC 3357623.PMID 21325617.
- [5] Bai, Nina. "Defective Growth Gene in Rare Dwarfism Disorder Stunts Cancer and Diabetes". Scientific American. Retrieved17 February 2011.
- [6] Winerman, Lea. "Study: Dwarfism Gene May Offer Protection From Cancer, Diabetes". PBS. Retrieved 17 February 2011.

#### 2. Whey protein linked to aggravation of acne:

According to studies, healthy male adults may develop acne after the consumption of whey protein. The studies indicate that dairy protein enhances IGF-1 and acne aggravation.[7][8] Plant protein has not been linked to acne.



#### 3. Whey protein linked to flatulence, bloating, cramps, diarrhea, nausea and rumbling stomach:

Seventy-five percent of all African American, Jewish, Mexican American, and Native American adults are lactose intolerant.[9] Both whey concentrate and whey isolate contain lactose.[10] However, whey concentrates contain higher amounts of lactose. Lactose intolerant people will suffer a variety of digestive issues which may include abdominal bloating, cramps, flatulence, diarrhea, nausea, vomiting and a rumbling stomach.[11] Lactose only occurs in dairy protein and does not occur in plant protein

- [7] <u>Dermatology.</u> 2012; 225(3):256-8. doi: 10.1159/000345102. Epub 2012 Dec 13. <a href="http://www.ncbi.nlm.nih.gov/pubmed/23257731">http://www.ncbi.nlm.nih.gov/pubmed/23257731</a>
- [8] Nestle Nutr Workshop Ser Pediatr Program. 2011; 67: 131-45. doi: 10.1159/000325580. E pub 2011 Feb 16. PMID: 21335995 <a href="http://www.ncbi.nlm.nih.gov/pubmed/21335995">http://www.ncbi.nlm.nih.gov/pubmed/21335995</a>
- [9] <u>Lactose Intolerance</u>". Johns Hopkins Health Library. Retrieved 2014-02-18.
- [10] General guidelines for milk allergy". Oregon Health & Science University.
- [11] Lactose Intolerance". National Digestive Diseases Information Clearinghouse (NDDIC). NIDDK. Retrieved 29 November 2011.

#### 4. Whey protein may cause constipation.

Numerous studies concluded that constipation in children can have an allergic pathogenesis to whey and other dairy proteins.[12][13][14] Plant protein has not been linked to constipation.

#### 5. Whey protein can dangerously lower blood sugar.

Whey protein has been shown to lower blood sugar.[15] Caution is advised for people with diabetes or low blood sugar, and in those taking drugs that affect blood sugar. According to Mayo Clinic, blood sugar levels may need to be monitored by a qualified healthcare professional and medication adjustments may be necessary for those consuming whey protein.[16] Plant protein has not been shown to have effects on blood sugar.

<sup>[12]</sup> Davidson, M, Kugler, MM, Baue, CH. Diagnosis and management in children with severe and protracted constipation and obstipation. J PEDIATR. 1963;62:261–275.

<sup>[13]</sup> Lothe, L, Lindberg, T. Cow's milk whey protein elicits symptoms of infantile colic in colicky formula-fed infants: a double-blind, crossover study. Pediatrics. 1989;83:262–266.

<sup>[14]</sup> Abrahamian, FP, Lloyd-Still, JD. Chronic constipation in childhood: a longitudinal study of 186 patients. J Pediatr Gastroenterol Nutr. 1984;3:460–467.

<sup>[15] &</sup>lt;u>J Nutr Biochem.</u> 2014 Jan;25(1):36-43. doi: 10.1016/j.jnutbio.2013.08.012. Epub 2013 Oct 5.

<sup>[16]</sup> http://www.mayoclinic.org/drugs-supplements/whey-protein/safety/hrb-20060532

#### 6. Whey protein may cause abnormal heart rhythms.

According to Mayo Clinic, Whey protein may cause abnormal heart rhythms. [16] Plant protein has not been shown to effect heart rhythms.

#### 7. Whey protein may cause headaches.

According to Mayo Clinic, Whey protein may cause headaches. [16] Plant protein has not been linked to headaches.

#### 8. Whey protein may increase the risk of diabetes.

According to Mayo Clinic, Whey protein may increase the risk of diabetes. [16] Plant protein has not been linked to increased risk of diabetes.

#### 9. Whey protein may increase the risk of bleeding.

According to Mayo Clinic, whey protein may increase the risk of bleeding.[16] Caution is advised in people with bleeding disorders or in those taking drugs that may increase the risk of bleeding. Dosing adjustments may be necessary. Plant protein has not been shown to increase the risk of bleeding.

#### 10. Whey protein may cause drowsiness.

According to Mayo Clinic, drowsiness or sedation may occur when consuming whey protein. They advise using caution if driving or operating heavy machinery. Plant protein has not been linked to drowsiness or sedation.[16]

### Ten Reasons to Choose Plant Protein Over Whey Protein

	WHEY PROTEIN	<b>PLANT PROTEIN</b>
Linked to cancer promotion	YES	NO
Linked to aggravation of acne	YES	NO
Linked to flatulence, bloating, cramps, diarrhea, nausea and rumbling stomach	YES	NO
May cause constipation	YES	NO
Can dangerously lower blood sugar	YES	NO
May cause abnormal heart rhythms	YES	NO
May cause headaches	YES	NO
May increase the risk of diabetes	YES	NO
May increase the risk of bleeding	YES	NO
May cause drowsiness	YES	NO