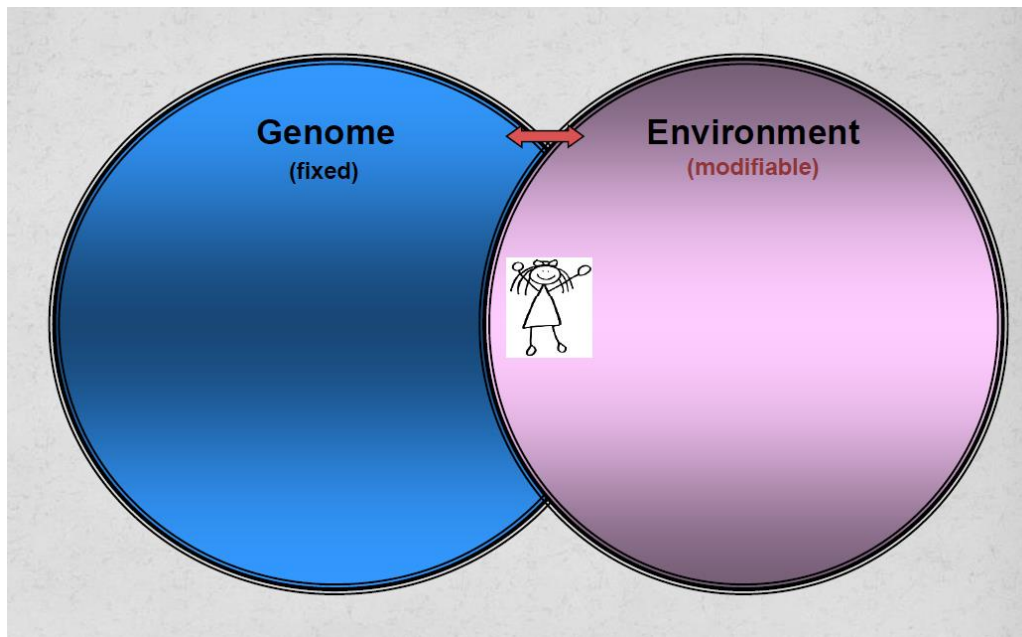


Exploring causes and management of EHS

Virtually all human diseases result from the interaction of genetic susceptibility and modifiable environmental factors.



Centers for Disease Control
Office of Genomics and Disease Prevention: Centers for Disease Control and Prevention.
Department of Health and Human Services.
Gene-Environment Interaction Fact Sheet. 2000.



Exploring causes and management of EHS

70-90% of disease is primarily related to environmental determinants

Various primary toxic exposures within the environment:

- **chemical**
- **electrical**
- **pathogens**
- **psychological**

Rappaport SM, Smith MT. Epidemiology. Environment and disease risks. Science 2010;330:460-1.



Exploring causes and management of EHS

Over 1500 patients with EMF sensitivity have been found (William Rea, 2013)

- **Often EMF Sensitivity is preceded by the chemical sensitivity problem.**

Dr William Rea, Phoenix, October 2013

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016



Exploring causes and management of EHS

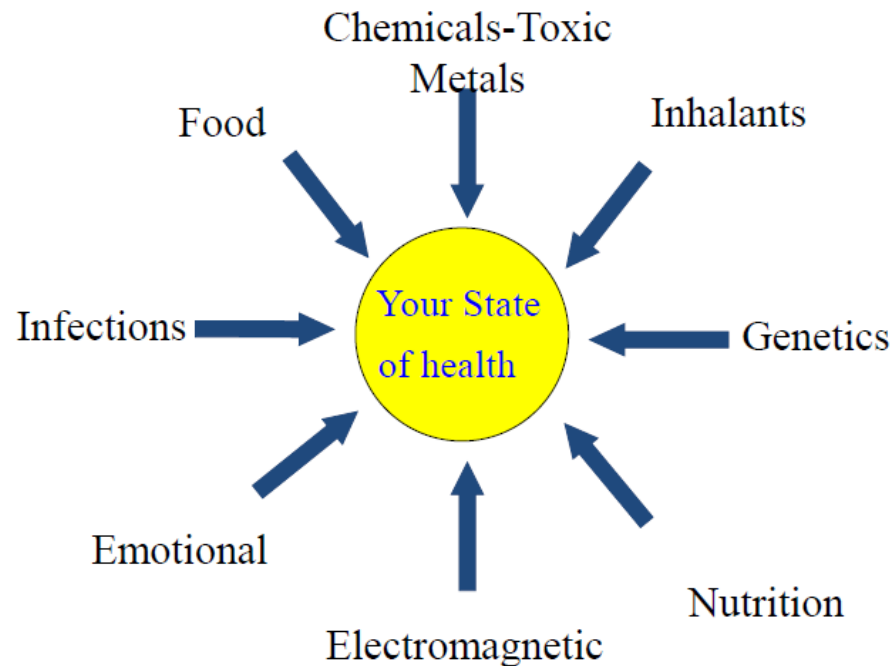
- There seems to be a **high correlation between EMF Sensitivity and metal sensitivity (85%)** with zinc, copper, chrome, cobalt, stainless steel, titanium or its alloy, including molybdenum, manganese, magnesium sensitivity and nickle **in 200 patients**.
- **Pesticide exposure** appears to be **the initiator in 80 % of the patients** seen.
- In addition, **food and chemical sensitivity** is a process **in 90 % of the patient's breath, blood, hair and urine**.
- **EMF Sensitivity exists and must be considered** in the history *when diagnosing the chemically sensitive and food sensitive patient*.

Dr William Rea, Phoenix, October 2013

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016

Exploring causes and management of EHS

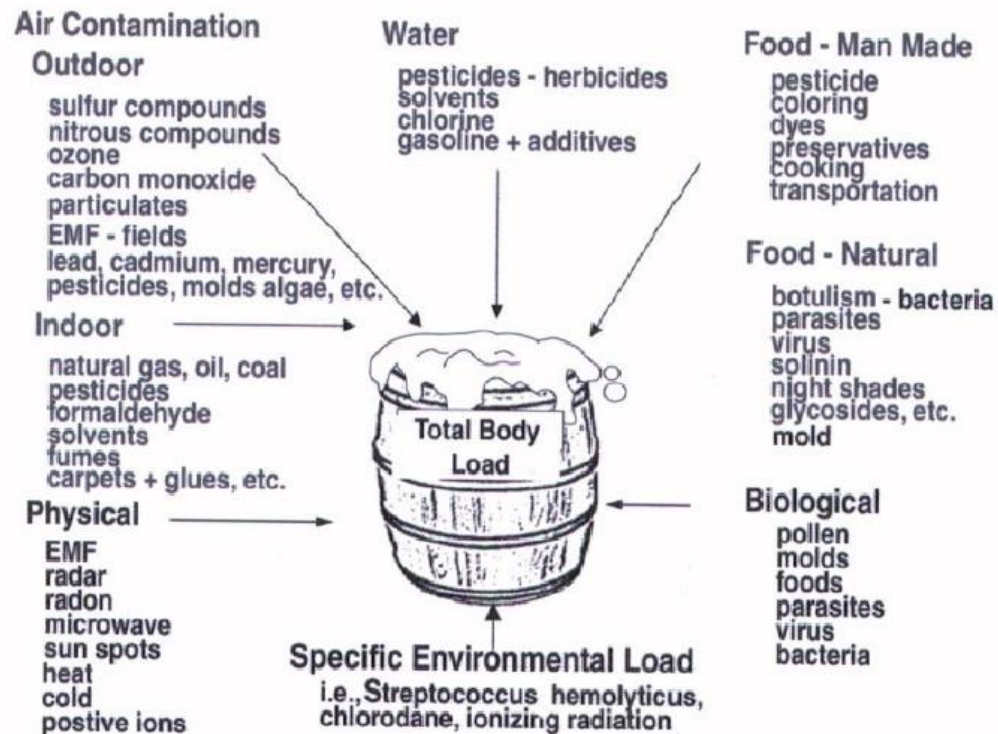
The Total Load Effect depends upon



Reversibility of CHR Degenerative Disease and Hypersensitivity Volume 1 -WJ Rea-K Patel

Exploring causes and management of EHS

Total Environmental Load



Reversibility of Chronic Degenerative Disease and Chemical sensitivity Volume 1 -WJ Rea-K Patel



Exploring causes and management of EHS

The Human Body is an electrical machine
- thus potentially responsive to aberrant electrical signals

Dr Stephen Genuis, Albuquerque, October 2014

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016



Exploring causes and management of EHS

Adverse **non-ionizing EMR** has the **potential to induce cell stress & damage**

- **Inflicts specific damage on various intracellular components**
- **Molecular vibrations from EMR may induce free radical formation and alter the structure of some protein molecules**
- **May be disturbing the influx and efflux of various elements including calcium ions**

Result: Disturbed cellular physiology!

Examples:

- **Attenuation of insulin secretion can be induced or accentuated by exposure to adverse EMF through distortion of calcium influx in cells.**
- **Alteration of phagocytic activity of lymphocytes may account for changes *in* immunological parameters and for immune system dysfunction.**
- **Impact directly on pineal gland function by interfering with melatonin production and metabolism.**
- **Etc. etc.**

Dr Stephen Genuis, Albuquerque, October 2014

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016



Exploring causes and management of EHS

Sensitivity Related Illness (SRI)

EHS is part of a constellation of one or more sensitivities in a condition that has been referred to as...**Sensitivity Related Illness (SRI).**

Individuals complain of abnormal sensitivity resulting in **signs/symptoms** when exposed to various igniting factors like:

- **Chemicals** (some use the term MCS)
- **Foods** (terms such as food allergies or intolerance)
- **Inhalants** (allergies)
- **Electrical** (EHS)



Exploring causes and management of EHS

SRI (Sensitivity Related Illness) including EHS is the result of adverse environmental exposures:

- **Induction of an Immune Hypersensitivity State as a result of toxicant burden**
- **Mechanism of much contemporary illnesses**

Dr Stephen Genuis, Albuquerque, October 2014

Peter van der Vleuten, Brainport Biotech Solutions
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Exploring causes and management of EHS

Sensitivity Related Illness – Phase 1

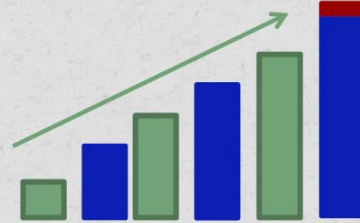
Primary Toxic Insult(s): exposures foreign to the body:

- Adverse persistent chemicals
- Retained
- Ongoing exposure
- Implants
- Dental materials
- Chronic infection
- Mold & mycotoxin

Total Body Burden = Total Load

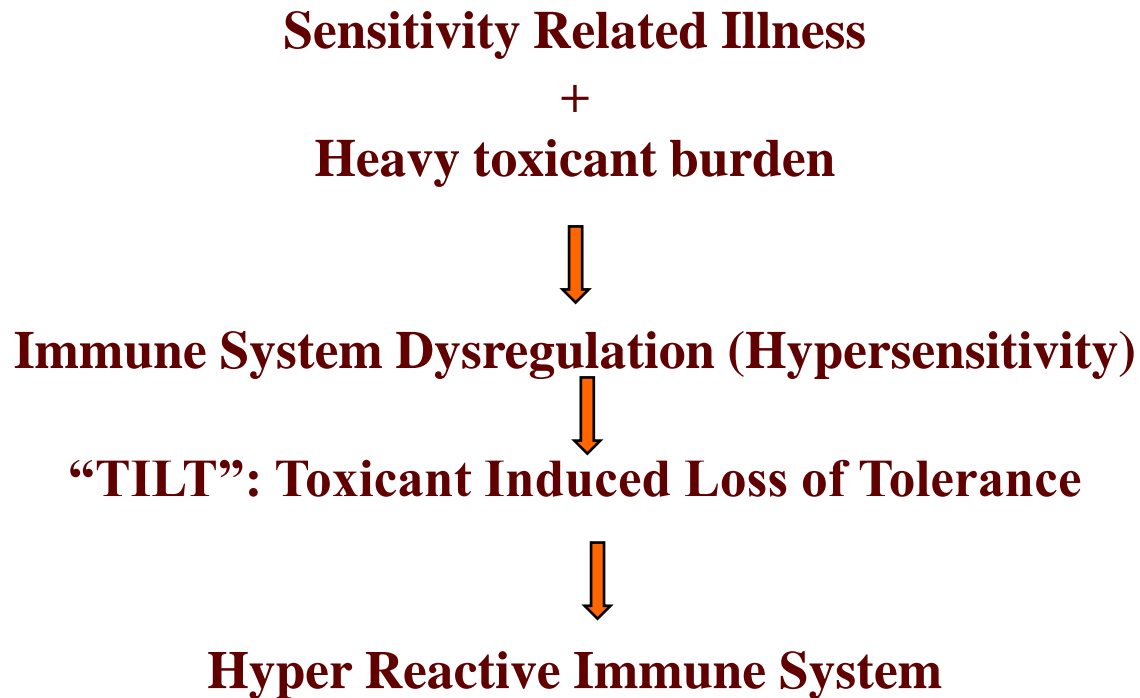
Total Load = Body Burden

- When the burden exceeds a threshold.....phase #2



Toxicant Induced Hypersensitivity

Exploring causes and management of EHS



Miller CS. Are we on the threshold of a new theory of disease? Toxicant-induced loss of tolerance and its relationship to addiction. Toxicol Ind Health 1999;15:284-94.

Ashford N, Miller C. Chemical Exposures: Low Levels and High Stakes (2nd ed.) New York: John Wiley and Sons. 1998.



Exploring causes and management of EHS

Addressing the problem:

- I. Prevent further exposure**
- II. Get the stuff out of people already with an internal dose =
clinical detoxification**

Genuis SJ, Sears ME, Schwalfenberg G, Hope J, Bernhoft R (2013) Clinical detoxification: elimination of persistent toxicants from the human body. *TheScientificWorldJournal* 2013: 238347



Exploring causes and management of EHS

Summary

- Exposure to adverse EMFs within the environment is a significant determinant of contemporary morbidity and mortality
- EHS is a bone fide condition increasingly widespread
- Results from toxicant burden to the immune system
- Ignited by exposures to various electrical frequencies
- Symptoms relieved by avoidance of triggering exposures
- Overcome by addressing the total load
- Physicians and the public need to become aware of this challenging issue

Dr Stephen Genuis, Albuquerque, October 2014

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016



Exploring causes and management of EHS

Diagnosis and therapy by ARTAC/ECERI

Reliable disease biomarkers characterizing and identifying electrohypersensitivity and multiple chemical sensitivity as two etiopathogenic aspects of a unique pathological disorder

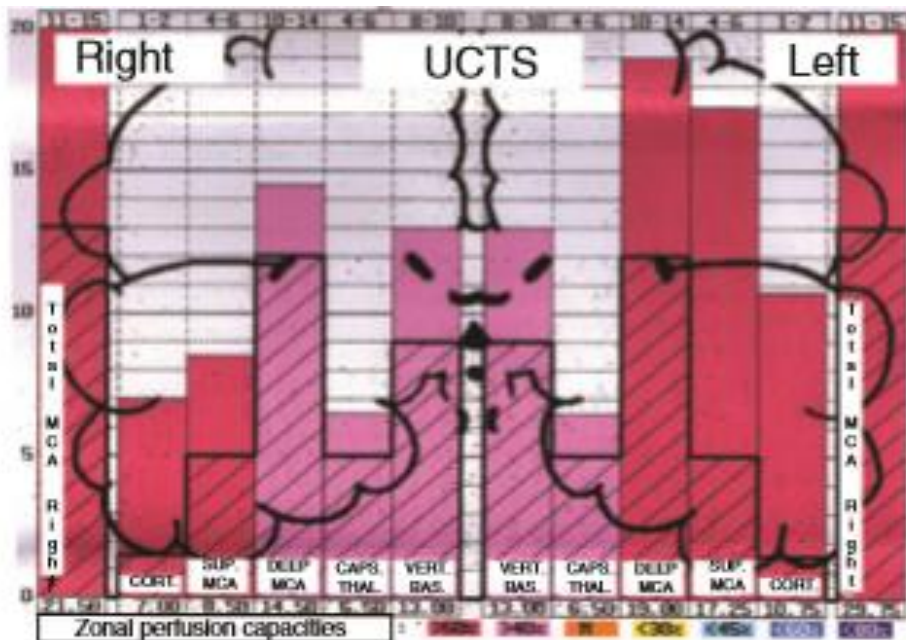
by: Dominique Belpomme, Christine Campagnac and Philippe Irigaray* (Rev Environ Health 2015; 30(4): 251–271)

Dominique Belpomme: Professor in Clinical Oncology at the Paris University René Descartes
Funding President of the Association for Research and Treatments Against Cancer ARTAC

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016

Diagnosis and therapy by ARTAC/ECERI

A



B

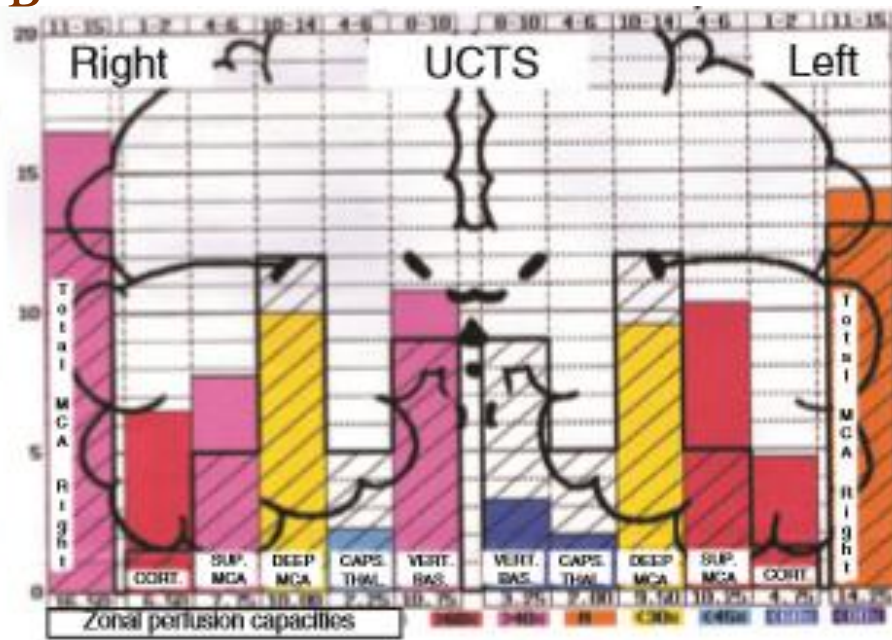


Figure 2: Example of diagrams obtained by using UCTS exploring the global centimetric ultrasound pulsatility in the two temporal lobes of a normal subject (A) and in a EHS self-reporting patient (B).

Dominique Belpomme: Professor in Clinical Oncology at the Paris University René Descartes
Funding President of the Association for Research and Treatments Against Cancer ARTAC

Peter van der Vleuten, Brainport Biotech Solutions
Eindhoven, the Netherlands, 9 September 2016

Diagnosis and therapy by ARTAC/ECERI

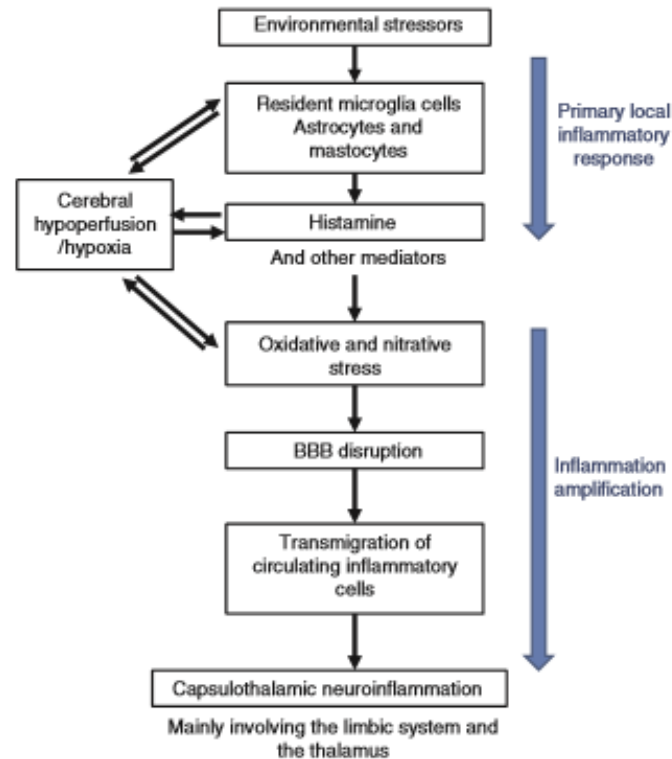


Figure 5: Proposed hypothetic EHS/MCS common pathogenic model based on EHS/MCS induced-neuroinflammation, cerebral hypoperfusion, histamine release, oxidative/nitrosative stress and BBB disruption.

Dominique Belpomme: Professor in Clinical Oncology at the Paris University René Descartes
Funding President of the Association for Research and Treatments Against Cancer ARTAC

Peter van der Vleuten, Brainport Biotech Solutions
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Exploring causes and management of EHS

Possible treatments:

- Prevent exposure to EMR
- Optimized nutrition
- Add minerals, vitamins, anti-oxidants
- Add immune system support



Exploring causes and management of EHS

INFORMATIVE WEBSITE:

www.ehs-mcs.org/en/

Exploring causes and management of EHS

