

LITERATURE REVIEW, BOOK CHAPTER COMBINED HEALTH EFFECTS OF EMF AND OTHER AGENTS

WHAT HAPPENS WHEN OUR BODIES ARE BURDENED
BY ENDOGENOUS AND EXOGENOUS TOXINS,
AND THEN ARE EXPOSED
TO ARTIFICIAL NON-IONIZING ELECTROMAGNETIC FIELDS (EMF)?

More oxidative and nitrosative by-products are created
Detoxification mechanisms may be overwhelmed and fail
Microbes may become more pathogenic
Our immune systems may become overwhelmed
Electronic instruments may expose us to both EMF and toxic chemicals
Membrane disruption by EMF allows toxins to penetrate tissues more easily
Some toxic molecules become charged, "stickier", more difficult to remove
The body is forced to ration nutrients, methyl groups, and more
Toxic heavy metals may release from amalgams and be inspired
Toxic heavy metals may increase sensitivity to EMF
Repair from chemical and/or EMF injury is slowed by toxic burden, deficiencies

EMF MAY **REDUCE** THE ABILITY OF
CELLS TO **REPAIR** AFTER TOXIC INJURY.

Decreased DNA repair
Decreased tissue repair
★ EMF may denature repair proteins



ELECTRIC FIELDS AT POWER
LINE FREQUENCIES **CHARGE**
POLLUTANTS AND INCREASE
LOCAL TOXIC ENVIRONMENT.

Genetic damage
Up and down-regulation
Interactions may matter most
3G, Cytochrome P450, free radicals
Hepatic oxidation altered by static fields
EMF enhances susceptibility, DNA damage, oxidation

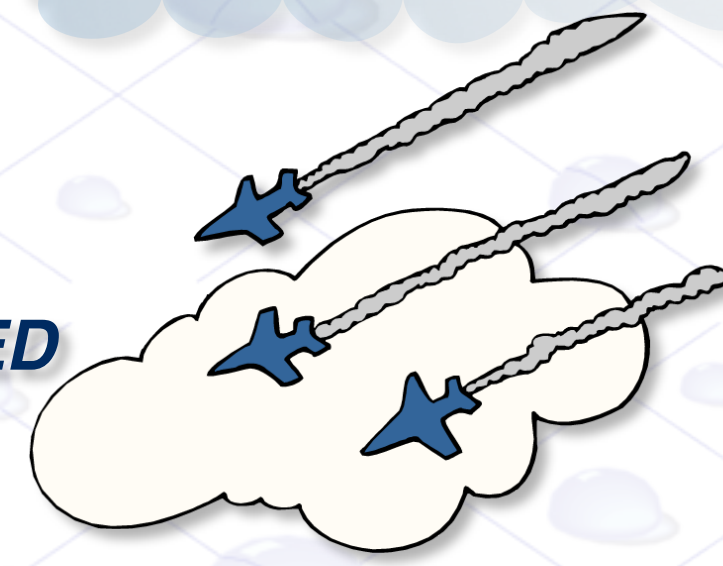
Melatonin depletion
Oxidation in the liver
Antioxidant depletion
EMF and oxidative stress
Fluoride, EMF, melatonin
Increased POPs in EHS patients
★ Glutamate more toxic with RF exposure
★ Oxidants more injury with EMF treatment

OXIDANTS, ORGANIC **POLLUTANTS**,
MAY **BIO-ACCUMULATE** OR CREATE
MORE INJURY AS ANTIOXIDANTS
ARE DEPLETED BY EMF.

**COMPUTERS EMIT BOTH EMF AND
CHEMICALS (VOCs)** WHICH MAY AFFECT
US SEPARATELY OR IN COMBINATION.
NEW HOUSES ALSO HAVE BOTH.

Houses, VOCs, EMFs
Chemicals found in phones
Book on EMF and toxic emissions
Companies trying to remove toxins

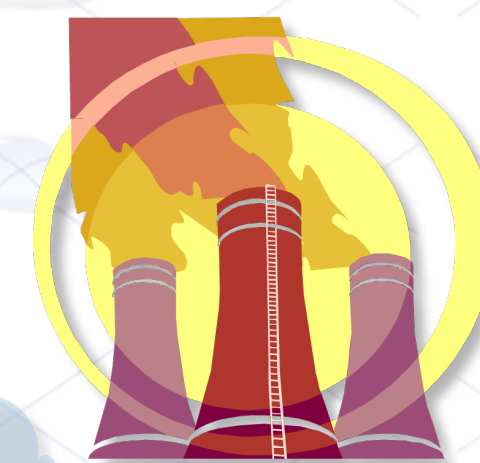
DR.ZACH BUSH REPAIR OF EXTRACELLULAR MATRIX FACTORS LEADING TO EHS



MERCURY ELIMINATION FROM BODY TISSUES
MAY BE **LIMITED** IN THE PRESENCE OF EMF.
METAL BODY BURDEN MAY INCREASE EMF
SENSITIVITY. EMF MAY CAUSE METALS TO
RELEASE FROM DENTAL RESTORATIONS.



Air quality and power lines
Pollutants cluster under power lines
2000 studies, 3X carcinogenic pollutants
Charged pollutants "stick" more to tissues
Downwind charged pollutants, respiratory deposition
Air surrounding power line ionized, charging pollutants
Electrical fields in the workplace change contaminants, cause illness



POSSIBLE INTERACTIONS OF EMF AND TOXIC CHEMICALS: INSIDE AND OUTSIDE THE BODY

Magnetic nanoparticles
Asphalt that absorbs MW
Learning, EMF, iron overload
Orange Co., autism, MW, iron
Magnetic waste, pollution, Alzheimer's
Gold NPs and EMF separate, combined
★ Nano uptake in RBC increased by MW
Tree antennas, sprayed with nanocapacitors
★ MF, charged magnetic nanoparticles, effects

ENGINEERED **NANOPARTICLES**,
OTHER SUBSTANCES, ARE **AFFECTED**
BY EMF, BY ACCIDENT OR DESIGN.

NASAL MUCOSA DISRUPTED
BY EMF, LESS ABLE TO CLEAR **RF**, adverse effects of nasal mucosa
FOREIGN SUBSTANCES.

DR. WILLIAM REA: STUDY: DIAGNOSIS MCS AND EHS YOUTUBE: MCS AND EHS

EMF and metals in mouth
Mercury detox impaired, 1
Mercury detox impaired, 2
Heavy metals increase EHS
Autism, metals, microwaves
Mercury release and cellphones
★ EMF, amalgam, general health
Simultaneous exposure to EMF, lead
Light and heavy metals, EMF, illness
Increased mercury release with EMF
Case of dizziness from amalgams, EMF
RF, nickel release, orthodontic appliances
Increased Hg release after EMF exposure
Metals in body may serve as micro-antennas
Maternal exposure to EMF, Hg release autism
★ More mercury released from amalgams with WiFi
★ Wireless, braces, earrings, hip replacements, etc.

THE TOXIC **EFFECT OF XENOBIOTIC
SUBSTANCES** MAY BE **ALTERED** IN THE
PRESENCE OF EMF. OUR BODIES MAY
BE FORCED TO RATION NUTRIENTS
AND DETOXIFICATION MOLECULES

DR. MOE MELLON: VIDEO: WTC 1ST RESPONDERS, EMF PLUS TOXINS

THE **TOXIC EFFECT OF
EMF INCREASED IN
THE LEAD BURDEN.**

ADHD in children, mobile phones plus lead
EMF, lead, blood and immune parameters

EMF AS **PROMOTOR OF
CANCER** INITIATED BY
TOXIC SUBSTANCES

Gliomas in Swedish Men

**DAMAGE TO THE BLOOD
BRAIN BARRIER** ALLOWS
TOXINS INTO THE BRAIN.

Barrier damage
Albumin leakage
Increased permeability

RELATED MAPS

Cellular Triage
Multiple-Hit Hypothesis
Methylation, Glutathione, EMF
Environmental Cost of Cellphones

Stress proteins increase
Atrazine, ELF, mast cells
EMF, methylation cycle block
Antioxidants chronically depleted
Adverse combination EMF, nicotine
Membrane damage from EMF plus toxins
EMF tumor promoting with co-carcinogen
Cancer promotion from EMF and chemicals
Combined effects of EMF and other agents
EMF, toxins may contribute to same damage
★ EHS and MCS often overlap, initiator varies
★ Combined effects of agmatine, MF in learning
MW, immune alterations from toluene inhalation
Synergism, EMF, pollutants, breakdown products



PATHOGENS ALSO
RESPOND TO EMF; SOME
RESPOND BY **PRODUCING
MORE TOXIC SUBSTANCES.**

Toxic Mold and EMF
EMFs and Indoor Mold
MMW, antibiotic sensitivity
★ Molds may be a factor in EHS
Microbes respond to EMF "attack"
Video: Molds skyrocket with EMF
EMR mold, yeast growth, evidence
Electromagnetic stimulation of microbes



EM MEDICINE: PARTICLES
CHARGED FOR TARGETED **EFFECTS**
ON RESPIRATORY TISSUES.

Charged particles, different airway affinities

Home: Oscillatorium
Newest version this map
Date of this update: 02-23-18