

Histamine degradation

Oxidation (extracellular)
Methylation (intracellular)

Mast and dendritic cell markers:

Histamine
Chymase
Tryptase

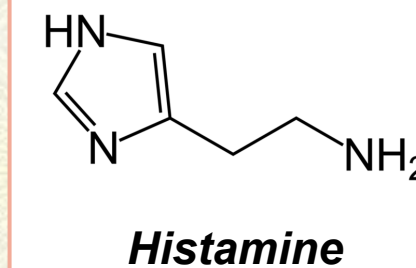
Intracellular histamine is higher when methylation is poor. Methylation is taxed by EMF stresses in the body. Any EMF will tend to raise histamine levels.

Pfeiffer site: Scroll down to histamine

See map: Methylation, Glutathione, EMF

How are mast cells affected by EMF?

- May degranulate
- May increase in number
- May migrate to surface during exposure



What do mast cells do in our bodies?

Studies

Human skin increase

Increase in rat skin, thyroid

Calcium signals in mast cells

Mast cell catecholamine changes

Signal transduction, DNA changes

Sensitivity of lymph node labrocytes

Disappearance of Langerhans cells

MW increases skin IgE production

Increased MCs one week after exposure

Increase of MCs in rat brain parenchyma

Increase degranulated MCs in rat thyroid

TV in humans causes increase, migration of MCs

EMF plus endocrine-disrupting atrazine, mast cells

Screen dermatitis and related MC effects in humans

Enhancement of allergic skin wheal response, MW

Other links

EMF, EHS, mast cells

Skin exposure to EMF

Mast Cells and Autism

Histamine release doubles

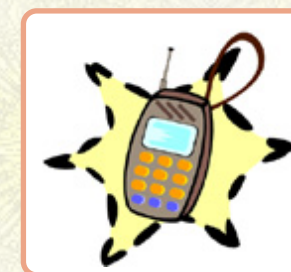
Mast cells, Histamine, EHS

★ See map: Histamine Allergies

Mast cells in normal humans, TVs, PCs

BioInitiative Report: (Immune Chapter)

★ Allergic Reactions Enhanced by Cell Phone Use



**EMF AND THE
THE MAST CELL RESPONSE:
LEARNING FROM

DR. OLLE JOHANSSON
AND OTHERS...**

Cellphone allergies

Allergic to your cellphone?

Cellphones and skin rashes

Cellphone contact dermatitis

Rash, allergic to cellphone nickel

Home: Oscillatorium
Newest version: this map
Date of this update: 01-10-16

"Mystery in the Skin"
Interview with Dr. Johansson

Disturbance of Immune System,
Dr. Johansson

EHS Workshop, WHO, 2006
Includes Dr. Johansson on Mast Cells

Autism and EMF?
Dr. Herbert and C. Sage mention mast cell research



CELLPHONE DERMATITIS
Even when turned off, the substances out of which cellphones are made may be irritants.

SCREEN DERMATITIS
Some of the symptoms of screen dermatitis are itching, pain, redness and bumpy rash.

★ Map: Belpomme Panel for EHS, MCS
Histamine levels high, inflammatory

Mast cells are similar to basophils. Both cell types are created in the bone marrow, although it is believed they come from different precursor cells. The basophils enter the blood stream, whereas the mast cells migrate to the rest of the body -- particularly to connective tissue at areas where the body meets the environment such as skin, lungs, digestive tract, etc.

They contain granules of histamine and other substances which are involved in a number of physiologic responses when released into the tissues.

These include:
histamine mediated allergies
inflammation
healing
defense against pathogens



Studies, discussed in the BioInitiative Report Chapter on the Immune System, have found that non-ionizing electromagnetic fields have an impact on mast cell number, movement, degranulation, and symptoms produced.