Electromagnetic Hypersensitivity (EHS). Modified from Clegg et al. (2020).

Emissions from wireless technologies,* just as other environmental exposures, affect some people more than others. Chronic low exposures or one large exposure, can sometimes initiate electromagnetic hypersensitivity (EHS) — also commonly termed electrical sensitivity, electrohypersensitivity or microwave sickness. This can happen to anyone — children and adults. In plain language some people think of EHS as an "allergy", but that is not medically accurate.

COMMON SYMPTOMS of EHS: Symptoms may vary among affected people, but are reproducible for each individual. Some common symptoms include: headaches, cognitive difficulties, sleep problems, dizziness, depression, fatigue, skin rashes, tinnitus, heart problems and flu-like symptoms (7)(8)(13). Adverse effects of emissions from wireless devices range from mild and readily reversible to severe and disabling; and individuals must greatly reduce their exposures to sources of electromagnetic radiation (3)(11)(16). This condition is usually unexpected, and it is difficult to manage because sources of wireless are commonplace. The notion that EHS is merely a "nocebo" response — that it results from suggestion and worry over possible effects of electronic devices — is the opposite of experience. In a study of 40 people, their EHS was only recognized following a period of illness, skepticism and self-experimentation (5).

Tinnitus

Sleep
disruptions

Skin rashes
Dizziness

Dizziness

Meadaches

Heart
Droblems
Depressive
tendencies
Fatigue

Symptoms from: EUROPAEM EMF guideline 2016 for the prevention, diagnosis and treatment of EMF-related health problems and diseases (1).

PREVALENCE: Surveys conducted in several countries between 1998 and 2007 estimated that approximately 3 to 13 percent of the general population experiences symptoms of EHS, related to known exposures (6)(12)(14)(17).

RECOGNITION: EHS is recognized as a disability in the United States under the *Americans With Disabilities Act* (18). Sweden recognizes EHS as a functional impairment (12). In Canada, the condition is included within environmental sensitivities (2)(16). Legal cases for compensation, disability pensions and accommodation in various countries have been successful (4). The ICD (International Classification of Diseases), maintained by the World Health Organization, has codes for health effects caused by non-ionizing radiation (19).

EVIDENCE AND PRACTICES:

- Physicians' organizations' research, experiences, practices and statements over the years are summarized by the European Academy of Environmental Medicine (EUROPAEM) in 2016 (1). Symptoms, and their severity, vary among individuals. The consensus of the EUROPAEM EMF Guideline 2016 for the Prevention, Diagnosis and Treatment of EMF-related Health Problems and Illnesses is that the most important action for treatment and management of EHS is reduction and avoidance of pertinent exposures in locations where significant amounts of time are spent, especially in sleeping areas. Other recommended measures include a combination of healthy lifestyle measures such as nutrition, stress reduction and measures to avoid toxicants and also reduce levels of toxicants sequestered in the body (1).
- A symposium at Toronto's Women's College Hospital (WCH) for medical practitioners in May 2019 announced (15), Toronto doctors treating patients from over-exposure to wireless radiation are hosting a medical conference today on the growing condition of electrical sensitivity. Dr. Riina Bray, Medical Director of the Environmental Health Clinic at WCH, stated, "My clinic has been assessing patients from across Ontario who are sensitive to microwave radiation from their cell phones, WiFi and smart appliances. Their doctors need to know how to detect the symptoms of electrical sensitivity."

HEALTH CANADA: Health Canada recognizes that EHS symptoms are indeed real but claims "numerous scientific studies to date have failed to demonstrate that these health effects are actually associated with EMF exposures. There is no scientific evidence that the symptoms attributed to EHS are caused by exposure to EMF's" (10)(9).

MANITOBA: There are medical professionals in other Canadian provinces who provide assessment, treatment and support for adults and children who experience symptoms with over-exposure to wireless radiation. In Manitoba, the current approach is to treat symptoms, so underlying causes may not be identified.

* Wireless emissions are non-ionizing electromagnetic radiation. Common sources are cell phones, cordless phones, baby monitors, Bluetooth, tablets, laptops, smart meters, Wi-Fi routers and cell tower antennas.

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WEBSITES:

Electrosensitive Society electrosensitivesociety.com	We Are The Evidence wearetheevidence.org	Physicians For Safe Technology mdsafetech.org
Electromagnetic Pollution Illnesses Canada Foundation (EPIC) iexistworld.org	Electrosensitivity UK (ES-UK) es-uk.info	Physicians' Health Initiative for Radiation and Environment (PHIRE) phiremedical.org

CONFERENCES FOR MEDICAL DOCTORS AND HEALTH CARE PROFESSIONALS:

Past: Electromagnetic Fields (EMF) 2019 conference info at emfconference.com

<u>Upcoming</u>: EMF Medical Conference that will offer CME accreditation. The Conference is to teach doctors how to recognize, evaluate, diagnose and treat their patients who are reporting adverse health issues known to be related to EMF exposure. There is also a pre-conference course on EMF, specifically for doctors. Info is at emfconference2021.com.

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