

Symptoms Resulting from Exposure to Radiofrequency/Microwave Radiation from Smart Meters

In February 2013, the expert testimony² of Richard H. Conrad, Ph.D.³, and many other experts worldwide, was submitted to the Maine Public Utilities Commission when the Commission was considering the future of Smart Meters in that state. Dr. Conrad reported the results of a survey of 210 individuals who had experienced symptoms resulting from exposure to Smart Meters.

What the survey does and does not tell us

The survey does not address the frequency of occurrence of symptoms in the general population when exposed to Smart Meters. So the survey does not tell us how likely it is that a person in the general population will experience symptoms after exposure to Smart Meters. But the survey does tell us what types of symptoms *are* being experienced by those who *do become* symptomatic after exposure to Smart Meters.

Individuals who reported previous symptoms that worsened to severe

Appendix 2 (appended) of Dr. Conrad's report shows the number of persons, out of the 210, who reported

...previous symptoms that worsened to severe intensity (from either mild or moderate intensity) following smart meter exposure.⁴

Individuals who reported new symptoms

Appendix 3 (appended) of Dr. Conrad's report shows the number of individuals, out of the 210, who reported symptoms that were new, that is,

¹ Ronald M. Powell holds a Ph.D. in Applied Physics from Harvard University and has worked for the Executive Office of the President, the National Science Foundation, and the National Institute of Standards and Technology.

² Richard H. Conrad, Ph.D., Exhibit D – Smart Meter Health Effects Survey and Report, 2013 (<http://www.mainecoalitiontostopsmartmeters.org/wp-content/uploads/2013/02/Exhibit-D-Smart-Meter-Health-Effects-Report-w-AppendicesV3-1-9Reduced-Appendices.pdf>). Appendix 2 is on page 59. Appendix 3 is on page 60. Additional information, including the author's qualifications, can be found here: Pre-Filed Testimony of Richard Conrad, Ph.D., MPUC Docket No. 2011-00262, February 2013 (<http://www.mainecoalitiontostopsmartmeters.org/wp-content/uploads/2013/01/Exhibit-9-Conrad-Web.pdf>).

³ Richard H. Conrad holds a Ph.D. in Biochemistry from Johns Hopkins University and conducted postdoctoral research at the Institute of Molecular Biophysics of Florida State University and in the Department of Biochemistry of Cornell University.

⁴ See the first reference in footnote 2, Exhibit D – Smart Meter Health Effects Survey and Report, page 3.

...symptoms suffered for the first time in their lives, symptoms they had never experienced before smart meters⁵

and that were either severe or moderate in intensity after exposure to Smart Meters. A copy of

Causality

Because the symptoms in both Appendix 2 and Appendix 3 can have causes other than exposure to Smart Meters, the survey included an extensive list of questions designed to determine whether Smart Meters were the cause. Only individuals whose answers were persuasive of a causal connection were included in the survey results.

Symptoms versus biological effects more broadly

Symptoms, as that term is used here, are biological effects that can be sensed. But an absence of symptoms does not mean an absence of biological effects. Many of the biological effects associated with exposure to radiofrequency/microwave radiation either cannot be sensed at all, such as a loss of male fertility, or cannot be sensed until an advanced state of disease has been reached, such as cancer. A broad range of biological effects, both those that can be sensed and those that cannot be sensed, have been researched extensively by the international biomedical research community. The findings are described in detail in three comprehensive reviews and summaries of the published research literature.^{6,7,8}

⁵ See the first reference in footnote 2, Exhibit D – Smart Meter Health Effects Survey and Report, page 3.

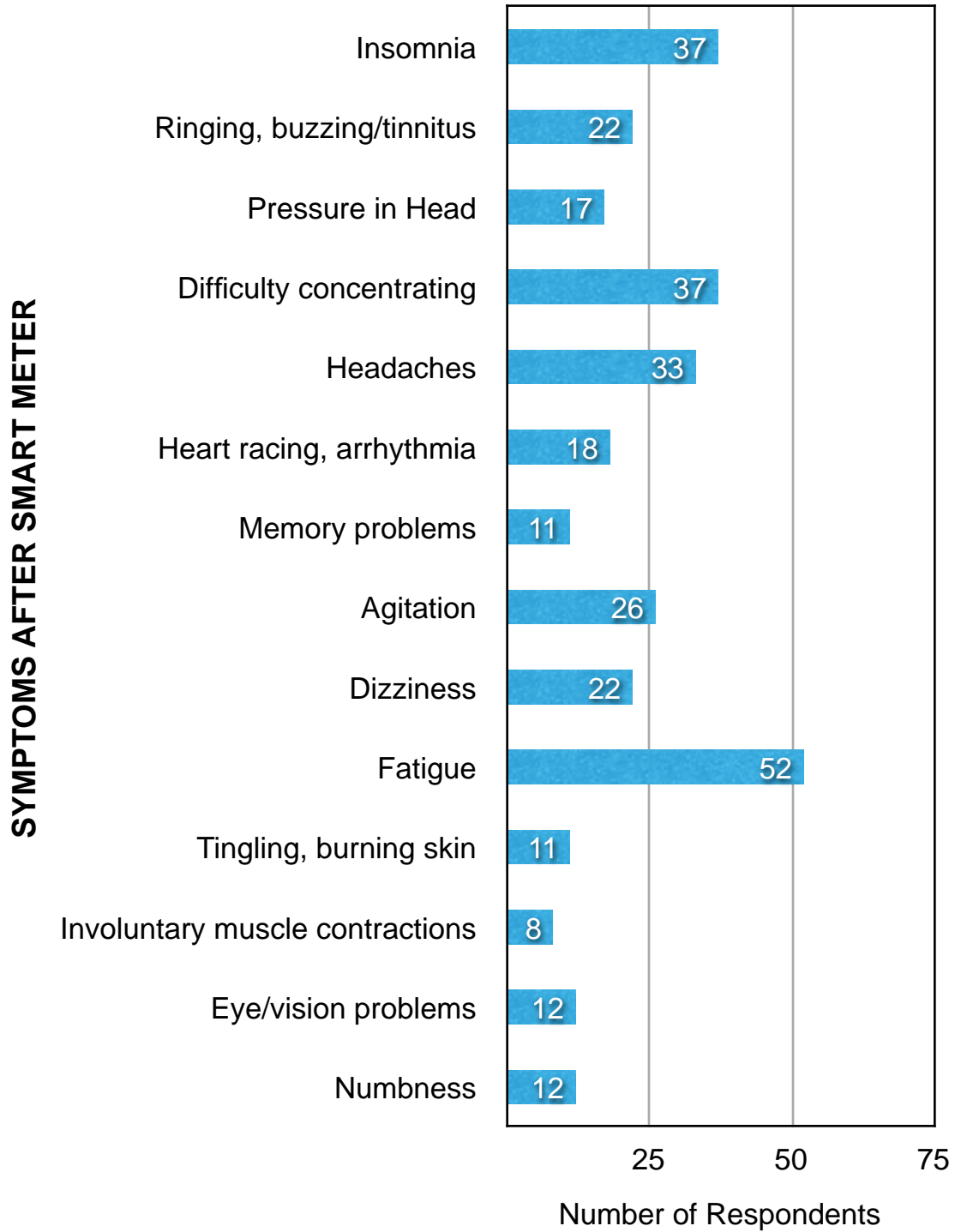
⁶ BioInitiative Working Group, Cindy Sage and David O. Carpenter, M.D., Editors, BioInitiative Report: A Rationale for Biologically-based Public Exposure Standards for Electromagnetic Radiation, December 31, 2012 (<http://www.bioinitiative.org>). This review is 1479 pages long and considered the findings of about 1800 biomedical research publications. This report was prepared by an international body of 29 experts, heavy in Ph.D.s and M.D.s, from 10 countries, including the USA which contributed the largest contingent of experts (10).

⁷ Paul Dart, M.D., Kathleen Cordes, M.D., Andrew Elliott, N.D., James Knackstedt, M.D., Joseph Morgan, M.D., Pamela Wible, M.D., and Stephen Baker (technical advisor), Biological and Health Effects of Microwave Radio Frequency Transmissions, A Review of the Research Literature, A Report to the Staff And Directors of the Eugene Water And Electric Board, June 4, 2013 (<http://apps.fcc.gov/ecfs/comment/view?id=6017465430>). This review is 74 pages long and references the findings of 279 biomedical research publications. Also included on this web site are six files containing viewgraphs of a presentation given to the Eugene Water and Electric Board on this subject.

⁸ Michael Bevington, Electromagnetic Sensitivity and Electromagnetic Hypersensitivity: A Summary, 2013 (<http://www.es-uk.info>). This book is 112 pages long and summarizes the findings of 1828 biomedical research publications. The book describes the symptoms caused by exposure to electromagnetic radiation, the many diseases associated with such exposure, and the relative risk levels associated with specific sources of electromagnetic radiation. Wireless Smart Meters are in the highest of those risk categories.

■ Severe & Worsened

Number of respondents who checked both Severe & Worsened



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