

139 Peer Reviewed Studies Showing Biological Effects From Microwave Non- Thermal Exposures Jan 2012 to June 2014			
Auditory dysfunction	2	Apoptosis (Cell Death)	18
Blood Brain Barrier Permeability Changes	3	Breast Cancer	1
Brain Developmental Issues/Changes / Neurological degeneration	8	Biochemical changes	37
Behavioural Modification/ Cognitive Function Impairment	14	Brain Tumours	8
Calcium Influx / Efflux	3	Cell Irregularities/ Cell Damage / Morphological changes	27
Circadian Rhythm Disruption	4	Cellular Stress	2
DNA Damage/ Mutagenic / Genotoxic	32	Altered Enzyme Activity/Protein Damage / Altered Protein Levels	31
EEG changes	3	Effects Mitochondrial	4
Endocrine/ Serotonin/ Hormone effects	2	Fatigue	2
Altered Gene Expression	16	Altered Glucose Metabolism	1
Headaches	5	Heart Rate Variability	2
Inflammation	5	Insomnia	3
Miscarriage/ Spontaneous Abortion (pregnancy)	2	Mast Cell Degranulation	1
Memory Retention/ Impairment issues	9	Oxidative Stress/ ROS/ Super Oxides, Free Radicals, Lipid Peroxidation	50
Impaired / Reduced Healing	1	Sperm Effects/ Viability/ Motility/ Damage/ Testicular morphology changes	20
Speech impairment	2	Sleep Performance Issues	5
Tinnitus	1	Tumour Promoter	5

**Below are links to 139 studies in the last 2 years that show a biological effect from exposure to microwave radiation. Prepared by Victor Leach.**

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- <http://www.ncbi.nlm.nih.gov/pubmed/26511840?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26476436?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26472053?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26216313?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26442304?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26396966?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26391347?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26401913?dopt=Abstract>
- <http://www.ncbi.nlm.nih.gov/pubmed/26383594?dopt=Abstract>

<http://www.ncbi.nlm.nih.gov/pubmed/26242041?dopt=Abstract>  
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<http://www.ncbi.nlm.nih.gov/pubmed/25918601?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/25985826?dopt=Abstract>  
<http://www.scopemed.org/fulltextpdf.php?mno=181637>  
<http://www.ncbi.nlm.nih.gov/pubmed/25836770?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/25672490>  
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<http://www.ncbi.nlm.nih.gov/pubmed/25598203?dopt=Abstract>  
<http://www.sciencedirect.com/science/article/pii/S0006291X15003988>  
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<http://www.ncbi.nlm.nih.gov/pubmed/25529971?dopt=Abstract>  
[http://link.springer.com/referenceworkentry/10.1007/978-3-642-30018-9\\_210](http://link.springer.com/referenceworkentry/10.1007/978-3-642-30018-9_210)  
<http://www.emf-portal.de/viewer.php?l=e&aid=23921>  
<http://www.emf-portal.de/viewer.php?l=e&aid=26267>  
<http://www.ncbi.nlm.nih.gov/pubmed/25456509?dopt=Abstract>  
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<http://www.ncbi.nlm.nih.gov/pubmed/23852905?dopt=Abstract>  
<http://www.emf-portal.de/viewer.php?l=e&aid=21674>  
<http://www.ncbi.nlm.nih.gov/pubmed/23301880?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/23949848?dopt=Abstract%20%20%20%20%255bOS>  
<http://www.emf-portal.de/viewer.php?l=e&aid=23338>  
<http://www.ncbi.nlm.nih.gov/pubmed/23999516?dopt=Abstract>  
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<http://www.emf-portal.de/viewer.php?l=e&aid=22134>  
<http://www.ncbi.nlm.nih.gov/pubmed/23320614?dopt=Abstract>  
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<http://www.ncbi.nlm.nih.gov/pubmed/26396154?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24460421?dopt=Abstract>  
<http://www.sciencedirect.com/science/article/pii/S1382668915300594>  
<http://www.ncbi.nlm.nih.gov/pubmed/26268881>  
<http://www.ncbi.nlm.nih.gov/pubmed/25731700?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/25775055?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/25734762?dopt=Abstract>  
[http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6349101&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs\\_all](http://ieeexplore.ieee.org/xpl/login.jsp?tp=&arnumber=6349101&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs_all)  
<http://www.ncbi.nlm.nih.gov/pubmed/25649190?dopt=Abstract>  
<http://www.emf-portal.de/viewer.php?l=e&aid=26267>  
<http://www.ncbi.nlm.nih.gov/pubmed/24844368>  
<http://www.ncbi.nlm.nih.gov/pubmed/24839928?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24792079?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/23994945>  
<http://www.ncbi.nlm.nih.gov/pubmed/24460416?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24101576?dopt=Abstract>  
<http://www.tandfonline.com/doi/abs/10.3109/15368378.2013.776437#.VrFOg8dtBOI>  
<http://www.ncbi.nlm.nih.gov/pubmed/22112647>  
<http://www.ncbi.nlm.nih.gov/pubmed/26474271?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/26444199?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/26396971?dopt=Abstract>  
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<http://www.ncbi.nlm.nih.gov/pubmed/25738972?dopt=Abstract>

<http://www.ncbi.nlm.nih.gov/pubmed/25464686?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24982785?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/25115529?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24816517?dopt=Abstract>  
<http://www.emf-portal.de/viewer.php?aid=25324&l=e>  
<http://www.ncbi.nlm.nih.gov/pubmed/24700791?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/23975478?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/23095687?dopt=Abstract>  
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<http://www.ncbi.nlm.nih.gov/pubmed/23317269>  
<http://www.ncbi.nlm.nih.gov/pubmed/23877578?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/21716201>  
<http://www.sciencedirect.com/science/article/pii/S0160412014001354>  
<http://www.sciencedirect.com/science/article/pii/S0160412014001354>  
<http://www.ncbi.nlm.nih.gov/pubmed/23722985?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4178273/>  
<http://www.ncbi.nlm.nih.gov/pubmed/25325361?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/24394730?dopt=Abstract>  
<http://www.ncbi.nlm.nih.gov/pubmed/26368042>