

**First International Symposium on Adverse Health Effects from Wind Turbines
The Global Wind Industry and Adverse Health Effects: Loss of Social Justice?
Picton, Prince Edward County, Ontario, Canada
October 29-31, 2010**

**Session II
What Clinicians Need To Know**

Abstract and bio reproduced from the Symposium Program

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Alec Salt, Ph.D. Cochlear Physiology, M.Sc., B.Sc., Biology –

INFRASOUND: YOUR EARS HEAR IT BUT THEY DON'T TELL YOUR BRAIN

Abstract: The ear is far more complex than a microphone. It actively amplifies high frequency sounds, so you hear them better, and likely works to actively cancel out infrasonic sounds, so that you don't hear them. So, it is wrong to regard the ear as insensitive to infrasound. Indeed, measured electrical responses from the ear with infrasound can be larger than those for sounds in the acoustic range and these responses may alter function in a variety of ways. They may also be transmitted to the brain by subconscious pathways that do not represent "hearing", but affect some people in other ways, such as by causing the sensation of "fullness" or perhaps disturbing sleep. It is therefore physiologically possible that prolonged exposure to the moderate levels of infrasound generated by wind turbines could have detrimental effects on people, mediated by unheard physiological changes in the ear.

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Bio: Dr. Salt is a researcher with the Department of Otolaryngology at Washington University in St Louis. He gained a Ph.D. in cochlear physiology at the University of Birmingham, UK in 1977 and performed post doctoral studies at the University of Southampton, UK and the National Institute of Environmental Health Sciences, USA before taking an academic position at Washington University in 1984. He is currently a Professor of Otolaryngology. His research has been funded by NIH for over 20 years and has focused on how inner ear function depends on the fluids of the ear that bathe the sensory cells.