

SURGEON GENERAL'S REPORT ON ENVIRONMENTAL TOBACCO SMOKE

Commentary Review by Dr. Thomas G. Keens ~ June 28, 2006

There has been considerable reaction in the SIDS Community to the recent Surgeon General's Report on Environmental Tobacco Smoke (ETS) because of the statement that ETS is a cause of SIDS. I have read the relevant section of *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, Chapter 5, pages 180-194, which specifically deals with the SIDS risk from environmental tobacco smoke exposure. My analysis of the document which is available to the public at http://www.cdc.gov/Tobacco/sgr/sgr_2006/index.htm appears below, for your interest.

Chapter 5 deals with Reproductive and Developmental Effects from Exposure to Secondhand Smoke. The 14 pages dealing with SIDS provide a comprehensive review of epidemiological studies, which look at the risks of SIDS when mothers, fathers, or others smoke cigarettes in the home after the baby is born. Some studies are better at quantifying the specific exposure to babies than others (for example, some measure cotinine [a metabolite of nicotine exposure, and thus a common marker of actual cigarette smoke absorbed]; others quantitate exposure in the baby's bedroom; etc.). Nearly all studies have an odds ratio greater than one, indicating that exposure of the infant to environmental tobacco smoke is associated with an increased risk for SIDS. Of course, we have known this.

Then, on pages 193-194, the author summarizes the significance of the results. The argument goes something like this: multiple epidemiological studies, some "case controlled", consistently show an increased risk of SIDS with environmental tobacco smoke exposure. Some studies show a dose response relationship; that is, the more the smoke exposure or the more cigarette smokers in the home (inferred increased infant exposure) the higher the SIDS risk. The authors conclude that these correlations indicate "a level of risk that is almost certainly causal". On page 194, the Report has a "Conclusion", which states: "The evidence is sufficient to infer a causal relationship between exposure to secondhand smoke and sudden infant death syndrome." It is interesting that the conclusion is worded this way, because in the remainder of the document, when SIDS is mentioned, the statement is more along the lines that "environmental tobacco smoke exposure increases the risk for SIDS".

So, the press release accurately reflects the conclusion stated on page 194. In this case, "cause" is inferred from epidemiological relationships. There is no claim that biological studies have now demonstrated a cause for SIDS that we did not previously know. Obviously, many infants who die from SIDS were not exposed to environmental tobacco smoke, and so it is difficult to see that is a cause (it would not satisfy Koch's postulates).

With respect to your question about what to do about this, I do not think you are going to get the Surgeon General's Report changed. I am not sure to what extent an attempt to influence the media on this issue is worthwhile, though I can understand the reaction to this and the desire to do so. At the very least, we should probably try to educate the SIDS community, and other interested parties, that the Surgeon General's Report documents the known increased SIDS risk from infant exposure to environmental tobacco smoke. We join the Surgeon General in urging that infants not be exposed to environmental tobacco smoke, and that women be educated to try to avoid cigarette smoking during pregnancy when possible. I am open to other opinions, and I am certainly happy to help in any way that I can.

Thank you. I hope this helps.

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