

Science -- and Asbestos -- in the Courtroom

By ACSH Staff — August 12, 2004

A recent [study](#) [1] comparing x-ray analyses of asbestos-related lung damage revealed some troublesome results. An alarming discrepancy was found between conclusions drawn by physicians (certified experts called B-readers) hired by the plaintiff's lawyers and those drawn by unaffiliated physicians who reviewed the same x-rays. The B-readers, certified by the Public Health Service's National Institution for Occupational Safety and Health ([NIOSH](#) [2]), evaluated these chest x-rays for court cases, while the six outside consultants did not know the context from which these x-rays came, nor were they prompted to look specifically for asbestos. The results: the plaintiffs' B-readers reported that 95.9% of 492 chest x-rays had possible asbestos-related lung damage, the unaffiliated doctors found that only 4.5% of them showed possible damage. The enormous discrepancy between evaluations has called into question the system under which scientific evidence is presented in court cases.

Dr. Joseph N. Gitlin, an associate professor of Johns Hopkins Medical Institution and lead author of the study, claimed that while it is possible for two well-trained physicians to differ in diagnosis, it is not common for the discrepancies to be this large. Though the researchers cannot conclude how many asbestos claims made by plaintiffs' doctors were valid, the study highlights the fact that widely discordant scientific interpretations in the courtroom can have large ramifications in these court cases.

The apparent bias involved in these plaintiff suits is a blatant violation of the Daubert Test of Reliability, instituted by the Supreme Court in 1993 in the *Daubert vs. Merrill Dow Pharmaceuticals, Inc.* [ruling](#) [3]. The Federal court's ruling set guidelines regarding the use of scientific evidence in a lawsuit, including the following: the experts must have relevant knowledge and research experience unrelated to and prior to the litigation process; the research must undergo peer review; and objective sources must be used to assert the expert's proper use of scientific methodology. The purpose of this ruling was to ensure reliable evidence by requiring [scientific validity of testimonies](#) [4]. When [cases](#) [5] claiming that silicone breast implants caused systemic health problems were presented to the courts, Daubert guidelines were eventually used to find that these claims were not supported by scientific evidence.

Science is being interpreted in vastly different ways, and the biases revealed in the process, whether conscious or not, are detrimental to our legal system's search for truth and justice. To minimize the taint of bias on scientific evidence in the court system, it is important to consider who is hiring the experts. If doctors are being paid by the plaintiff lawyers, they may be more inclined to diagnose patients in favor of the plaintiff's claim. A small number of B-readers are known for giving very high positive rates for asbestos when interpreting chest x-rays. Plaintiff's lawyers will continue searching for doctors who support their claims whether they are right or wrong. Therefore, to ensure employment, many B-readers may agree with the plaintiff's case, casting aside scientific

objectivity.

The Daubert guidelines for scientific evidence in the federal courtroom must incorporate a review process to lessen the influence of biases in diagnoses. Perhaps a group of scientific experts affiliated with the court could be empowered to serve as a review board, objectively evaluating the evidence presented by plaintiffs' lawyers, and to serve as advisors to judges. The study on asbestos chest x-rays shows the importance of enhancing Daubert standards and incorporating these federal rules in state courtrooms.

Sagine Gousse is a research intern at the American Council on Science and Health.

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[2] <http://www.cdc.gov/niosh/homepage.html>

[3] <http://www.atlanticlegal.org/daubert.html>

[4] http://www.daubertontheweb.com/Chapter_2.htm

[5] <http://www.implantclaims.com/rulings.html>