

## RESPONSES OF TOBACCO INDUSTRY WITNESSES TO QUESTIONS ON WHETHER SMOKING CAUSES LUNG CANCER OR OTHER DISEASES

From OSHA hearing on the proposed indoor air rule that started in Sept 1994. Prepared by Stanton Glantz.

---

Page 10643

MS. SHERMAN: Do you believe active smoking causes lung cancer?

DR. [Philip] WITORSCH: I think active smoking is a risk factor for lung cancer. I don't think you can reach a causal conclusion in that sense.

---

Page 10985

MS. SHERMAN: Do you believe that active smoking causes lung cancer in humans?

DR. NEWELL: I believe that smoking as such has a high risk factor for causing cancer in humans. As a causation aspect that has not been demonstrated to my satisfaction.

---

Page 5201

MS. SHERMAN: Getting back to my original question, do you believe that active smoking causes lung cancer?

DR. IDLE: I think it's very strongly associated with lung cancer, in the same way that a number of other factors are. I've worked on a number of genes, for example, that myself and many others believe are risk factors in lung cancer, and they come out with the same sort of odds ratio in association with lung cancer, as does smoking versus non-smoking, i.e., around about ten.

---

Page 5682-5683, 5685

MS. SHERMAN: Do you believe that cigarette smoking causes cancer?

DR. ASHFORD: I am not prepared to accept the conventional interpretation of the relationship between smoking and lung cancer. I've seen too many anomalies in terms of data in which I have faith.

MS. SHERMAN: So in other words, then, you would not agree with the U.S. Surgeon General's report linking the two.

DR. ASHFORD: Yes. I'm an agnostic about this. I don't know the answer. I don't think that they know the answer either but that's another matter.

---

Page 6089-6091

MS. SHERMAN: Do you believe that active smoking causes lung cancer?

DR. [Raphael] WITORSCH: I'm going to give you a response that you're not going to be satisfied with because it's going to go back to the old multi-factorial.

JUDGE VITTONI: Just give the response, doctor.

DR. WITORSCH: Okay. I believe that it is a risk factor for lung cancer.

MS. SHERMAN: As I said to Dr. LeVois, is this a semantic problem between a layman and a scientist...

DR. WITORSCH: No.

MS. SHERMAN: What is, in your understanding, the difference between causation and risk factor?

DR. WITORSCH: If you can tell me the cause of cancer, I'll give you a Nobel Prize, and if you follow the literature on a daily basis, the mechanisms behind the cause of cancer and the theories are changing every day.

The latest theory, for example -- I'm not going to belabor it -- relates to a certain gene transformation that determines whether a cell lives or dies, so you have mechanisms that we don't know.

I would interpret cancer as a multifactorial phenomenon where numerous factors can

increase the probability of cancer happening. If the conditions are optimal, the incidents of cancer will occur. And it's not a crap shoot, don't get me wrong. But for example, there are people who smoke for 50 years, five packs a day, and never get lung cancer.

I think as a risk factor it would increase the probability of lung cancer if a person has a genetic predisposition, if their dietary situation is appropriate...

An example of that is two things that came in the literature recently which are very interesting. One was a series of papers in Europe which show that housing pet birds increased the incidence of lung cancer six-fold. I know one paper authored by Holtz, but I understand there are others, that seem to show the same thing. That's one component that has really never been examined.

It's also my understanding there was a paper published last year which showed that high fat diets are an increased risk of lung cancer as well.

---

Page 6695

MR. McNEELY: Dr. Layard, **do you think that active smoking causes cancer?**

DR. LAYARD: I believe that active smoking is a risk factor for cancer. Smokers are more likely to get cancer than non-smokers. I do not use the word cause because it means different things to different people. There are various interpretations of the term cause and I think that it is best in this context to use the language that I have used and that's what I do. This, after all, is a probabalistic exercise, we're talking about statistics here.