

Testimony of

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BEFORE THE SENATE COMMITTEE ON THE JUDICIARY CONCERNING S. 1125, THE FAIRNESS IN ASBESTOS INJURY RESOLUTION ACT OF 2003

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Mr. Chairman and Members of the Committee: My name is Dr. John Parker. If I may, I would like to provide you a brief statement about my background. I am a board certified internist and pulmonologist and a National Institute for Occupational Safety and Health ("NIOSH") certified B-reader. I am also a professor and the chief of pulmonary and critical care medicine at West Virginia University in Morgantown, West Virginia. In my current position I care for patients at that hospital. I also teach medical students and oversee the pulmonary and critical care department. From 1976 through 1998, I held various positions with the United States Public Health Service, including several positions at NIOSH. Among other things, at NIOSH, I assisted with the administration of NIOSH's B-reader certification program, served as the chief of the clinical investigations branch of respiratory disease studies, and served as the chief of the epidemiological investigations branch of respiratory disease studies. I also conduct research and have published several peer-reviewed articles on the respiratory system, lung disease and chest imaging issues. I also have published articles and made many invited presentations about the ILO classification system, the NIOSH B-reader program, high resolution CT scans and imaging techniques. I was the co-editor of a textbook on occupational lung disease and I have written several book chapters about pulmonary medicine. I generally have not served as an expert witness in the asbestos litigation.

I am appearing before this committee at the invitation of the Chairman of the committee and I hope to help explain some of the medical issues involved with this legislation. I am being compensated for my time at my usual consulting rates.

The Medical Criteria

I wanted to address certain medical aspects of this bill, mainly those involving the nonmalignancy claims. At the outset, let me make clear that I firmly believe that medical science overwhelmingly supports that serious adverse health effects result from significant asbestos exposure. These include lung cancer, and mesothelioma as well as non-malignant disease of the pulmonary parenchyma and pleural. Overall, the proposed medical criteria in this bill will create a fair and medically supportable system to compensate those substantially exposed to and injured by asbestos. While I believe that medical science supports more stringent medical criteria than what are now proposed, the current proposal is a fair compromise. I will address my concerns about some of the shortcomings of the proposed criteria shortly as they result in the possible payment of awards to people who are not sick as a result of an asbestos-related illness. More importantly, this legislation adequately protects the rights of those who are sick by ensuring that they recover, while providing safeguards against spending valuable resources on claims by individuals who are not.

It does this by requiring that a person seeking compensation for a nonmalignancy claim meet several different criteria, including, among others: (1) A detailed occupational and exposure history that also establishes a sufficient latency period; (2) A detailed medical and smoking history; (3) A physical exam by the physician making the diagnosis; (4) An abnormal chest x-ray; (5) Lung and breathing impairment as shown by pulmonary function tests; and (6) A physician's conclusion that the impairment was not more probably the result of other causes. As I will explain, it would be inadequate and medically improper to only require some of these criteria without the others. I'd like to take this opportunity to explain why these criteria work and why each is necessary. You can find a more in-depth explanation in my paper, "Understanding Asbestos-Related Medical Criteria," which I have provided as an attachment.

The first requirement I'd like to discuss is the respiratory history including inquiry about respiratory symptoms. It also includes a detailed work history and exposure history to identify exposure to contaminants including asbestos.

Further the physician needs to obtain a detailed smoking and medical history that includes a thorough review of past medical problems and their most probable cause. This is important because a detailed smoking and medical history helps show whether a person's impairment and lung scarring is the result of asbestos exposure, other exposures or the result of the many other lung disorders which can cause lung scarring and impairment. This is an especially common problem with older patients who often have medical problems that are more likely the cause of impairment and lung scarring than exposure to asbestos.

A physical exam by the diagnosing physician is also critical to the evaluation. The physical exam, for example, may involve determining the presence or absence of inspiratory crackles or clubbing of the digits which may be seen with asbestosis but are not specific to asbestos disease and are present in various other diseases.

The next requirement I'd like to discuss is the chest x-ray. Unquestionably, a chest x-ray is an invaluable tool in diagnosing asbestos-related diseases. This is especially true ever since the International Labor Office (ILO) attempted to standardize the reading of x-rays by setting up a classification system.

The ILO Classification System consists of written guidelines, standard or reference chest x-rays and a specific form for recording interpretations. For asbestosis, important findings include the size and shape of abnormal shadows by using the six letter designations, p, q, r, and s, t, u and the small opacities on a number scale of 0/0, which represents a normal finding, to 3/3, which represents the most severe abnormalities. For pleural diseases, the ILO system classifies abnormalities by the use of letters A, B, or C for increasing thickness or width coupled with a numerical description using 0, 1, 2, or 3. I can also provide more details about the ILO classification system in terms of the different classifications involved since individuals may be classified with only parenchymal markings, only pleural findings or with both or neither.

NIOSH further attempts to standardize the ILO Classification System by administering a quality assurance program for the training, testing and certification of physicians who after passing a strenuous examination of interpreting x-rays can become B-readers. It was this training and testing that I helped oversee at NIOSH. This experience also provided me first hand knowledge of the ILO Classification System and certain issues about interreader variability among NIOSH B-readers.

Although the chest x-ray must remain a component to any medical criteria, over reliance upon it has many flaws. First, any interpretation of an x-ray, even under the ILO Classification System by a certified B-reader, remains inconsistent and subjective. Any interpretation of an x-ray has inter-reader and intra-reader variability. This means that if a B-reader finds an x-ray to have abnormalities consistent with asbestos exposure on Monday, the same B-reader can interpret the same x-ray as completely normal on Tuesday. Also, two B-readers can honestly disagree on the interpretation of an x-ray without either being incorrect. Further, certain B-readers simply generate an inordinate high number of biased interpretations to support or refute compensation claims.

Another problem with relying too heavily on x-ray findings is that an x-ray interpretation is not specific to asbestos exposure. Rather, the abnormalities associated with asbestosis are often the same abnormalities associated with numerous of other ailments.

For these reasons, a chest x-ray alone cannot support a finding of an asbestos-related disease. Also, while computer tomography (CT) may be useful in many cases by adding detail that chest x-rays miss, there is no universally accepted standardized interpretation scheme for CT scans. They are also expensive and introduce additional radiation risk.

The third requirement is demonstration of lung function impairment by pulmonary function tests. When a pulmonary function test is completed and interpreted according to the American Thoracic Society's standards, it is the best way to objectively show whether someone is impaired due to an asbestos-related disease. Asbestos-related diseases cause restrictive lung function because the lungs have diminished size that restricts breathing. Pulmonary function tests include spirometry, lung volumes and diffusing capacity tests.

Lung fibrosis such as asbestosis causes primarily restriction on lung function testing. Chronic tobacco smoke exposure causes expiratory air flow obstruction. Clearly some asbestos exposed workers are also chronic smokers.

The separation of these two functional injuries is rarely difficult as the overwhelming injury from severe fibrosis causes restriction with a reduction or decrease in FVC (forced vital capacity) or TLC. (total lung capacity)

Spirometry tests measure forced vital capacity, which is the amount of air exhaled, and 1-second forced expiratory volume, which is the quantity of air exhaled in one second. Restrictive lung disease is demonstrated when the forced vital capacity is reduced below the lower limit of normal, but the ratio between forced vital capacity and 1-second forced expiratory volume is normal.

Lung volume tests measure the total lung capacity, which is how much air is in the lungs after maximum inhalation.

The total lung capacity is the gold standard for identifying restrictive lung function.

Diffusing capacity tests measure the ability of the lungs to transfer gas from inhaled air to the red blood cells in the pulmonary capillaries. This test is the least helpful of the three. It does not separate restrictive lung diseases from obstructive lung diseases, which are not caused by asbestos.

When using pulmonary function tests, it is important that the test results are determined to be normal or abnormal based upon a statistical determination of the lower limits of normal. The lower limits of normal are the published predicted or reference values adjusted by a statistical confidence interval. The use of arbitrary cut-offs, such as using the criteria of below 80% of the predicted values for FVC and TLC, has no statistical basis and is, therefore, unreliable medically. In fact, using arbitrary cut-offs, such as this 80% cutoff, result in shorter, older people being incorrectly found to have abnormal lung function and younger, taller people being incorrectly found not to have abnormal lung function. Further, use of the 65% cutoff for the ratio between FEV1 to FVC in the medical criteria also is arbitrary and will result in compensating many individuals who are impaired due to smoking-related illnesses or illnesses other than an asbestos related condition. Instead, those criteria that refer to this ratio should state that for the ratio between FEV1 to FVC should be above the lower limit of normal. A ratio under 70% or the lower limit of normal is usually indicative of obstructive (non-asbestos) lung disease.

The final requirement that I would like to discuss is the requirement that a physician conclude that impairment was not more probably the result of other causes. As I've mentioned throughout my testimony, there are many causes for abnormal chest x-ray findings and impairment. In fact, most people who are exposed to asbestos do not suffer from an asbestos-related ailment. This includes anyone who has lived in a city and inevitably was exposed to asbestos. For example, exposure to 25-fiber years/cc lifetime exposure doubles the risk of an asbestos related lung cancer which is the point of epidemiological significance. Such an exposure is significant because it would require an annual exposure at the dose level of 1 f/cc over 25 years. A physician must, as he or she would in any clinical setting, rule out other more probable causes before asbestos is pinpointed.

In closing, I reiterate my opinion that the proposed medical criteria are both fair and medically supportable. I welcome this opportunity to answer any questions that you may have to help explain the medical criteria or anything else of interest.