

STATEMENTS OF THE TRAVELERS INSURANCE COMPANY,  
FILED IN THE UNITED STATES DISTRICT COURT FOR  
THE EASTERN DISTRICT OF PENNSYLVANIA, ON  
JULY 14, 1981

Medical and scientific evidence has established  
that serious lung diseases can become known and obvious to a  
worker many years after the worker is exposed to asbestos  
products; indeed, the exposure to asbestos products may  
occur twenty years or more prior to the condition of  
asbestosis being diagnosed.

... an insult to the body occurs at the first  
inhalation of asbestos and although changes take place  
thereafter, it is not until the disease is relatively  
advanced that a firm diagnosis of asbestosis can be made.

Asbestosis is a non-malignant disease resulting  
from the inhalation of asbestos fibers of a certain length  
over a considerable period of time causing a bodily reaction  
that may eventually impair the function of the lungs. The  
body has several defense mechanisms that exclude from the  
functional areas of the lungs most of the foreign matter  
inhaled. It also has a mechanism for removing such matter  
that passes these defenses. Asbestos fibers of a certain  
length, however, cannot be removed and become embedded in  
the lung tissue in the areas where the alveoli are found and  
where the transfer of gases in and out of the blood takes  
place. Being unable to remove these minute particles of  
foreign matter, the body copes by walling off the particles.  
The walling off is done by a proliferation of fibrous cells  
that eventually produce a dense scar-like material in the  
functional area of the lungs. This process takes about six  
(6) months and is irreversible. Each repetition of  
inhalation and reaction adds a tiny deposit of scar-like  
tissue in this critical area.

The accumulation of scar-like tissue decreases the  
functional volume of the lungs, stiffens the passage ways,  
and impedes the transfer of gases in and out of the blood.

If the process continues, the functional capacity of the lungs becomes inadequate to support normal activities and may eventually be unable to support life.

Asbestosis progresses slowly as a disease. Damage begins with the initial insult, and scar-like tissues builds up over many years before symptoms become noticeable or a diagnosis can be made. In the majority of cases symptoms do not appear until more than twenty (20) years after initial exposure. The intensity and duration of each insult as well as the frequency of repetition combine with numerous individual characteristics to determine which persons who are exposed sustain noticeable lung damage, when functional impairment becomes noticeable, and what symptoms such a person finally demonstrates. Even if after a period of exposure, no additional asbestos fibers are inhaled, tissue change may nonetheless continue and be unnoticed for decades. Since the effects of tissue changes are cumulative, an exposed person's condition is the product of an unknowable sequence of insults arranged randomly or in groups along a continuum that stretches from as long as 50 years to less than six months prior to manifestation. Additional factors such as variations in ventilation, moisture in the air, and an exposed person's health at the time of any exposure combine to make it impossible to determine which exposure to asbestos caused injury or to determine when such a person becomes "diseased".

A second asbestos-caused disease, mesothelioma, is a malignant condition of cells lining the chest wall resulting in a tumor. This disease is rare except in persons who have been exposed to asbestos. The relationship between asbestos and mesothelioma is not well understood, and relatively small exposures over a period of a few years have been associated with this condition. The growth of a tumor generally follows a latent period of over 20 years during which there need not be any additional exposure. Diagnosis is possible within a short time of the beginning of tumor growth. Death follows diagnosis by less than two years in most cases. As with asbestosis it is virtually impossible to determine which exposure or exposures to asbestos cause the disease.