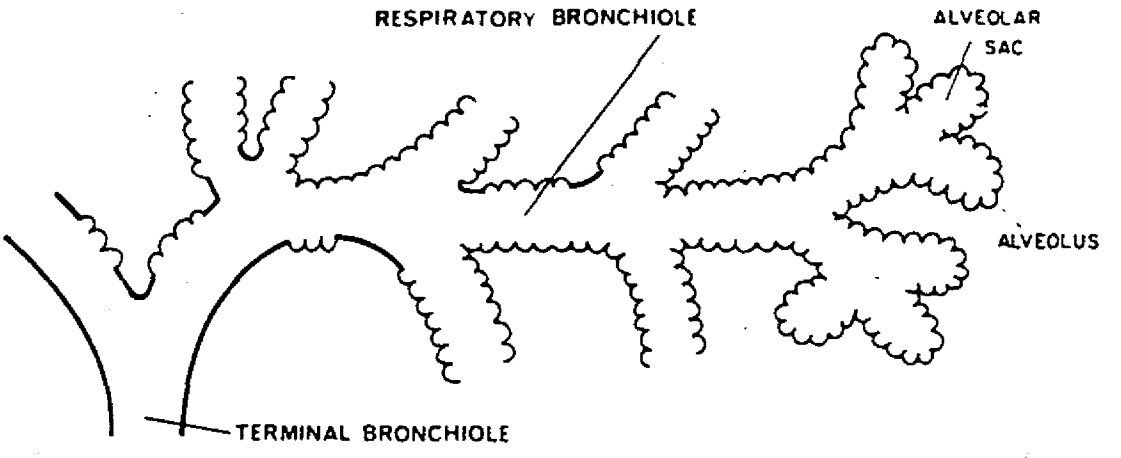
Figure 1
Anatomical Sketch of Air Passageways



It is in the bulb-like structures called the alveoli that the important action takes place as far as our respiratory system is concerned. The alveoli are encapsulated with minute capillaries - blood vessels - and it is here that the oxygen and carbon dioxide are exchanged. There are 750 million alveoli in the normal human lung, and several million could be destroyed without any adverse effect upon a person's normal respiration.

In a sense, the human body has its own "garbage collection" system, which begins with the small hairs in the end of our nose. These are pre-filters - they prevent larger asbestos particles from entering the respiratory system.

Additionally, the inner nasal passageways down into the smallest bronchioles are lined with cilial cells. These whiplike structures along the passageways sweep unwanted particles up from the lower depths of the bronchioles to the passageways of the upper respiratory system so they can be removed by expectoration. Cilial cells are coated with a layer of mucous which captures the dust particles.

ASBESTOS-RELATED DISEASES

Asbestosis is a non-malignant fibrotic lung condition which may be caused by excessive inhalation of asbestos fibers over a long period of time. It is one of several diseases classified as pneumoconioses, such as:

1. Siderosis - caused by inhalation of fumes or dust containing iron particles.
2. Silicosis - caused by inhalation of free silica or quartz dust.
3. Byssinosis - caused by inhalation of cotton fiber dust.
4. Anthracosis - commonly known as black lung disease, caused by inhalation of coal dust.
5. Asbestosis - caused by inhalation of asbestos dust.

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