

ASBESTOSIS

1. FIRST DESCRIBED IN 1899 IN LONDON
2. 1930's - ASBESTOSIS SHOWN TO BE A MAJOR CAUSE OF
DISABILITY IN WORKERS IN ASBESTOS TEXTILE INDUSTRY
3. LATENT PERIOD OF 10 - 20 YEARS
4. SYMPTOMS & SIGNS
 - A. EARLY
 - A) SHORTNESS OF BREATH
 - B) CHEST PAIN
 - B. LATER
 - C) BASAL RALES
 - D) CLUBBING OF FINGERS
 - E) X-RAY CHANGES
 - F) ABNORMAL LUNG FUNCTION

DUP 1005305

PLEURAL THICKENING

1. OCCURS EARLY
2. MAY BE ONLY CHANGE
3. NOT A FEATURE OF OTHER KINDS OF PNEUMOCONIOSIS
4. MAY BECOME CALCIFIED
 - A. RARELY OCCURS IN LESS THAN 20 YEARS AFTER FIRST EXPOSURE
 - B. FEATURE OF ANTHOPHYLLITE EXPOSURE
 - C. EXPOSURES NOT ALWAYS OCCUPATIONAL

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ASBESTOS BODIES (FERRUGINOUS BODIES)

1. FIBERS COATED WITH AN IRON-CONTAINING PROTEIN WHICH GIVES A CHARACTERISTIC GOLDEN BROWN BEADING ALONG THE LENGTH OF THE FIBER
2. THICKENED AT EACH END TO FORM A CHARACTERISTIC DUMBBELL APPEARANCE
3. ASBESTOS BODIES IN LUNG OR SPUTUM NOT PATHOGNOMONIC OF ASBESTOSIS
4. LUNGS FROM URBAN AREAS CONTAIN TYPICAL ASBESTOS BODIES IN SMALL NUMBERS
5. OTHER MINERAL FIBERS CAN BECOME COATED IN THE SAME WAY

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THEORIES OF PATHOGENESIS OF ASBESTOSIS

1. ORIGINAL THEORY OF PHYSICAL IRRITATION
2. SOLUBILITY THEORY
3. AUTOIMMUNE THEORY
4. STAGNATION OF PHAGOCYTES THEORY

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BRONCHIOGENIC CANCER

1. 1930's - ASSOCIATION BETWEEN ASBESTOSIS AND BRONCHIAL CANCER WAS DISCOVERED, ESPECIALLY IN ASBESTOS TEXTILE WORKERS
2. ASSOCIATION APPEARS TO BE WITH ASBESTOSIS RATHER THAN SIMPLY EXPOSURE TO ASBESTOS DUST
3. CIGARETTE SMOKING IS AN IMPORTANT ADDITIONAL AND POSSIBLY SYNERGISTIC FACTOR
4. LATENT PERIOD OF 20 - 30 YEARS

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MESOTHELIOMA

1. DIFFUSE CANCER SPREADING OVER SURFACE OF LUNGS (PLEURA)
AND ABDOMINAL ORGANS (PERITONEUM)
2. ASSOCIATED PARTICULARLY WITH CROCIDOLITE EXPOSURE
3. ASBESTOSIS IS OFTEN ABSENT
4. LATENT PERIOD OF 40 YEARS
5. SMOKING HAS NOT BEEN SHOWN TO BE A CONTRIBUTORY
FACTOR
6. EXPOSURES NOT ALWAYS OCCUPATIONAL

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DU 050947

CARCINOGENIC BEHAVIOR OF ASBESTOS
(POSSIBLE MECHANISMS)

1. METAL COMPLEXES FOUND IN ASBESTOS NATURALLY - Fe,
Cr, Ni
2. OILS ASSOCIATED WITH ASBESTOS
 - A. NATURALLY OCCURRING
 - B. JUTE OIL FROM SACKS
 - C. EMULSIONS ADDED FOR PROCESSING
3. AS A COCARCINOGEN
4. PROLONGED RESIDENCE IN TISSUE OF CHEMICALLY-INERT
MATERIAL - OPPENHEIMER EFFECT

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