TABLE 18.—*Summary of Injection Experiments by Intraperitoneal Technic*

Dosage: Each animal * received a single intraperitoneal injection of 2 cc. of a 10 per cent dust suspension. Total amount of dust injected was 0.2 Gm.

Mineral	Size of Dust Particles	Guinea Pigs Used	Maximum Survival After Injection, Mo.	Results
Chrysotile (Thetford)	3 microns and less (ball milled 216 hr.)	15	36	No fibrosis or asbestosis bodies. Dust particles ingested by phagocytes, chiefly multinucleated variety. Six mo. after injection fibrous elements of dust appear to have dissolved leaving only the insoluble magnetite, a contaminant. No reaction in surrounding fat or areolar tissue. No transporting of dust to regional lymph nodes. Observations made at intervals from 1 to 36 mo. after injection.
Chrysotile (Thetford)	Long fiber (through 100 mesh)	4	2	Definite fibrous reaction produced, delicate and nonhyaline. Atypical asbestosis bodies developed, but all were unusually small. No evidence of extra long fibers seen. Observations only at 2 mo.
Amosite	3 microns and less (ground in agate mortar)	9	12	Infection interfered with interpretation. Dust reaction appeared to be of inert type and limited to phagocytosis with a moderate tendency to lymphocytic infiltration. Observations at 1, 4, 8 and 12 mo.
Crocidolite	3 microns and less; also some long spicules (ground in agate mortar)	7	12	Dust foci consisted only of large mononuclear and giant phagocytes surrounded by a minimum amount of cellular connective tissue. The injected dust contained not only fine material that in grinding had been mashed into irregular plates but also many long spicules 10 microns or more in length. No asbestosis bodies seen, although the longer spicules appeared slightly swollen and greenish. Observations at 1, 4, 8 and 12 mo.
Anthophyllite	3 microns and less (ball milled 1,400 hr.)	5	25	Essentially inert foreign body reaction. In early animals (1, 4 and 8 mo.) focus of monocytes and small giant cells and a little central necrosis. In the 4 mo. animal there was also slight peripheral fibrosis. At 12 and 25 mo., nonprogressive mass of monocytes and giant cells; no fibrosis.
Anthophyllite (originally labeled talc)	Mostly 3 microns and less; some fibers 30 microns or more long (ground in agate mortar)	5	12	Reaction, which consisted of very large giant cells surrounded by a variable number of lymphocytes, was much heavier to these unintentionally long fibers than to the fine dust in the experiment above. There was more or less proliferation of fibroblasts producing cellular connective tissue visible in areas where the quantity of foreign particles was not so great that it obscured the reaction. Observations at 1, 4, 8 and 12 mo.
Tremolite (soda-iron)	3 microns and less (ball milled 15 hr.)	5	12	Inert type of response never progressing beyond the stage of very slight lymphocytic reaction about masses of dust-filled phagocytes. No fibrosis. Observations at 1, 4, 8 and 12 mo.
Tremolite (soda)	3 microns and less (ball milled 48 hr.)	5	18	Inert nonprogressive foreign body type of reaction. No fibrosis. Observations at 1, 4, 8, 12 and 18 mo.
Anthophyllite	100 microns and less	5	12	Distinct early fibrosis produced by anthophyllite and fibrous pyrophyllite with subsequent regression; crystalline pyrophyllite inert throughout. At 1 mo., giant cells about long thick splinters; at 4 mo., definite fibrosis replacing giant cells of anthophyllite and fibrous pyrophyllite reaction; at 8 mo., fibrosis which started at 4 mo. had decreased, especially with fibrous pyrophyllite. At 12 mo., reaction to all three dusts consisted of foreign body giant cells with lymphocytes but without necrosis or fibrosis. No asbestosis bodies.
Pyrophyllite (fibrous)	100 microns and less	5	12	
Pyrophyllite (crystalline)	100 microns and less	5	12	

* Each animal receiving long fiber chrysotile was given an injection of 2 cc. of a 0.5 per cent dust suspension.