of silicosis. The dust concentration and length of exposure are most important factors. Another influence in reducing the risk of both silicosis and silicotuberculosis is the breaking of the exposure time by intervals of non-dusty work. These pauses prolong the time over which exposure lasts and increases the resistance. -- Cond. from Bull. Hyg.

1163 Occupational Exposure to Hi-Sil and Silene. Report of an 18-Year Study.
E. R. Plunkett and B. J. Dewitt. Arch. Environmental Health 5, 469-472 (Nov. 1962).

The complete health records of 78 men employed in the manufacture and processing of Hi-Sil (hydrated silica pigments) and Silene (calcium silicate) in the period from October, 1941 to December, 1959, have been reviewed. Dust concentration during this period has ranged from 0.01 mg. per cubic foot to 5.77 mg. per cubic foot. No variation in incidence or type of injury sustained by these employees could be found. Injuries involving these compounds behaved no differently than similar injuries from other departments. No recurring illnesses or trends toward specific complaints could be detected in this group. Two men with long-term exposures were subjected to extensive physical examinations and pulmonary function studies and found to be normal. The report on one of these men is included. The x-rays for the group are consistently without change. No evidence of silicosis or other pulmonary disease was found. -- Authors' summary

1164 Silicosis in a Dental Mechanic. C. Ollagnier, et al.
Arch. maladies profess. 23, 385-386 (June 1962). French.

This paper describes very briefly the history of a dental mechanic in whom a bilateral nodular image was found at x-ray examination of the chest. The sputum was negative for tubercle bacilli, but the tuberculin reaction was weakly positive. The mechanic, in one stage of manufacturing artificial teeth, used an alloy of kaolin, silica and aluminum; and the final stages involved sand-casting and polishing. The patient was treated with PAS, isoniazid and streptomycin, and also given prednisone (to eliminate the possibility of sarcoidosis). The radiological image persisted and a provisional diagnosis of silicosis was made, subject to the effects of 6 months further antibiotic treatment. At end of 7 months treatment tomographic examination showed the nodulation to be stationary. Four gastric lavage specimens were sterile. -- Bull. Hyg.

1165 Reaction to Monkey Lung to Siliceous Dusts. G. W. H. Schepers.
Arch. Environmental Health 5, 278-299 (Oct. 1962).

Four monkeys exposed to quartz dust (6.87 mg. per cubic foot) for periods of 12, 18, 24, and 27 months developed progressive pulmonary granulomatosis, vesicular emphysema, interstitial fibrosis, bronchiolar and vascular occlusion, lymph node fibrosis and cor pulmonale. Inhaled Fiberglas-Plastic dust (4.6 mg. per cubic foot) produced in 5 monkeys, extensive peribronchial and perivascular koniophore infiltration without attendant fibrosis or cor pulmonale. In 5 monkeys exposed to amorphous silica (0.43 mg. per cubic foot), the main lesions present at the end of 12 months were pulmonary emphysema, alveolar wall sclerosis, vascular occlusion, and cor pulmonale. While the gravimetric values for these silica exposures were dissimilar, the surface area of the aerosols were almost identical. The tissue reaction to the 3 types of siliceous substances was not proportionate to either the weight, the surface area, the crystallinity, the physical form, or the chemical state of the siliceous particles. Cor pulmonale was attributable to the vascular damage plus emphysema in the monkeys exposed to quartz dust and to emphysema and alveolar wall destruction in the monkeys which lived in the submicron amorphous silica environment. The absence of cor pulmonale, despite the marked perivascular infiltration demonstrable in the monkeys subjected to the particulate Fiberglas-Plastic environment, remains unexplained. -- Author's summary