

## ENVIRONMENT

### Coal dust and lung disease

Exertional dyspnea, a form of shortness of breath, is a common complaint of disabled workers over 40. It is believed that inhaling coal dust causes this disorder among miners.

But according to Dr. William D. Englis of Louisville, Ky., coal dust inhalation does not cause lung disease manifested by dyspnea—at least not in the samples he studied.

Dr. Englis compared 300 Kentucky male coal miners applying for Workmen's Compensation benefits because of shortness of breath with 400 non-miners applying for Social Security disability for the same reason.

Dyspnea was more prevalent in the Social Security applicants (43 percent) than in the coal miners (22 percent).

On the other hand, pneumoconiosis, an irritation of the lung tissue, was as expected more prevalent among miners than among non-miners. The proportion was 20 percent among miners, compared with one percent among the Social Security applicants.

## EXERCISE DURING PREGNANCY

### Reduced oxygen to the fetus

The later months of pregnancy are unsafe for excessive exercising, a California scientist believes after experimenting with lambs.

Mothers-to-be, especially those with medical or obstetrical complications, are warned that lack of oxygen to the fetus caused by exertion can produce severe malnourishment.

Speaking at the American Heart Association meeting in Dallas, Dr. George C. Emmanouilides, of the University of California at Los Angeles and Harbor General Hospital in Torrance, said that mild to moderate maternal exercise in the early stages of pregnancy may not affect the unborn baby. But later on, when the fetus outgrows its placental reserves, excessive exercise can be hazardous.

In the experiment, pregnant ewes were exercised on a treadmill for 30 to 45-minute sessions; the results showed oxygen to the fetus to be reduced as much as 30 percent.

## HIGH BLOOD PRESSURE

### Children can be affected

Overweight and inherited factors are believed to contribute to previously unexplained high blood pressure in children as young as four years of age.

Dr. Sol Londe of Washington University School of Medicine in St. Louis told an American Heart Association meeting in Dallas, Tex., that thorough laboratory and clinical evaluation of 40 children with unexplained hypertension, called idiopathic or essential because the cause is unknown, indicated genetic predisposition or overweight in 14 of them.

Forty healthy children of the same age span—four to 18—served as controls. But only five of the normal youngsters had a father or mother with a his-

tory of high blood pressure, and only six were overweight the St. Louis researchers reported.

The real cause of hypertension in persons of any age has not yet been found. A diseased kidney is believed to cause the condition in some patients, but removal of the abnormal organ has not been followed by a fall in blood pressure, so the case has not been proved. Malignant hypertension without treatment can kill a patient in two years.

## ALCOHOLISM

### Hospitals should treat alcoholics

Present hospital facilities can be adapted to function efficiently in the care of the alcoholic patient, if administrators and physicians will change their attitudes.

Dr. Alexander Ruggie says the hospital emergency room, with a change in social attitudes and training, could be an excellent resource for care of alcoholic patients. Dr. Ruggie is medical director at the Lutheran General Hospital, Park Ridge, Ill., which is affiliated with an alcoholic treatment unit.

He notes that social attitudes have significantly limited the service given to alcoholics and that many hospitals still deny them admission. This situation is gradually changing, says Dr. Ruggie, because of the official acceptance of alcoholism as an illness and a major health problem by health organizations.

Special training is needed to equip not only physicians but nurses and social workers for alcoholic care, he stresses.

## INFECTIONS

### Vaccine protects burn victims

Before penicillin was in common use, strep infections killed a large number of severely burned patients. More recently, staph infections became the worst enemy, when some strains developed an immunity to penicillin. Then better penicillin-based antibiotics put down the staph germs, and their place as the prime killer went to bacteria called pseudomonas. These have become increasingly prevalent, and continue to be a major problem. The vast majority of patients who have a well-established colony of pseudomonas in their bodies die.

Now, after 12 years of effort by many researchers, vaccine against pseudomonas—which also attack the elderly, chronically ill, premature infants and leukemia victims—has been announced. It should be available commercially soon.

Such a vaccine, administered as soon after the burning as possible, would raise the body's antibody production, allowing it to fight off the pseudomonas. (There is already in existence a quite effective dressing to kill such bacteria on the wounds themselves.)

Dr. Kenneth E. Schemmer of the University of Cincinnati reported to the American College of Surgeons that in a trial of 100 patients, all badly burned, none who were treated with the vaccine developed pseudomonas infection. Only three got infections of any kind.

In another group, with 20 to 96 percent of their bodies covered by burns, but without vaccine, 18 percent died of pseudomonas.