

## MEDICINE

## Tendency to Rheumatism May Be Inherited, Physician Says

**A**TENDENCY to arthritis, or rheumatism, to call it by its old-fashioned, popular name, may be inherited, Dr. Ralph Pemberton of Philadelphia, told the American College of Physicians. Success in preventing the disease depends on recognizing this fact. Infection and various other factors are the immediate causes of the disease, bringing on the pain and crippling in persons who have inherited or been born with the tendency to arthritis.

Success in treatment of the disease is highly gratifying, Dr. Pemberton said, and suggests unmistakably the possibility of controlling it. At present, arthritis, because of its disabling effects, surpasses tuberculosis as an economic and sociologic burden. When interest in the problem is great enough both among laymen and physicians, and when facilities for caring for arthritis patients in institutions become adequate, control of the disease will be possible, Dr. Pemberton predicted.

*Science News Letter, May 18, 1935*

## PHYSIOLOGY

## Crossed Legs Give Test For Disease of Blood Vessels

**Y**OUR HEART and your foot move to the same rhythm when you sit with your legs crossed. This natural, almost invisible, swing of the foot has suggested to a Baltimore physician a new test for disease of the blood vessels of the legs. A preliminary report of the new test, devised by Dr. Bertram M. Bernheim of Johns Hopkins Medical School, appeared in the *Journal of the American Medical Association* (March 23).

Dr. Bernheim attaches a short rod to the side of the shoe of the free leg.

The pointed tip of this rod rests lightly against the revolving drum of an instrument that traces the swing of the leg. The less the swing, the more serious is the condition, according to his interpretation. The greater and more regular the swing, the better is the condition.

While Dr. Bernheim is not certain of the cause for this, he suspects that the calf muscles spread according to the amount of blood sent to them and then contract again in a rhythm.

*Science News Letter, May 18, 1935*

## MEDICINE

## Breathing Helium Brings Relief to Asthma Sufferers

**H**ELIUM, light-weight gas that lifts airships, can bring relief to sufferers from asthma, painfully gasping for every breath of air, Dr. Alvin L. Barach, of New York City, reported to the American College of Physicians meeting in Philadelphia.

Inhaling a mixture of eighty per cent. helium and twenty per cent. oxygen brought immediate improvement and re-

lief for the shortness of breath to patients who had not been helped by morphine and could not tolerate adrenalin, usual standby for relief of asthma.

The lightness of helium is what makes it effective, Dr. Barach explained. Helium weighs only one-third as much as ordinary air. Consequently the effort required to move the helium-oxygen mixture in and out of the lungs should be

only one-third that required to breathe ordinary air, Dr. Barach reasoned.

Success in the treatment of asthma patients whose smaller air passages were narrowed and patients having obstructions in the larger airways proved this point. While the dramatic improvement he reported was in patients who had not suffered from asthma for very long, Dr. Barach said this treatment would also help cases of long-standing asthma in which fatigue of the respiratory muscles was a factor. The treatment does not prevent or completely relieve the acute paroxysms of asthma and is not intended to displace adrenalin. Its specific function is related to lessening the effort required for breathing, resting the tired breathing muscles and consequently helping them to recover their ability for normal functioning.

*Science News Letter, May 18, 1935*

## PHYSIOLOGY

## Maternal Instinct Aroused by Hormone

**M**ATERNAL instinct is a matter of gland chemistry. It can be aroused in virgins by daily doses, injected under the skin, of a hormone known as prolactin, Drs. Oscar Riddle, Ernest L. Lahr and Robert W. Bates of the Carnegie Institution of Washington reported at the meeting of the American Physiological Society.

They showed fellow scientists moving pictures of young virgin rats that have been treated with prolactin. These virgins retrieve baby rats and care for them in nests as maternally as if they had borne the offspring themselves. On the same screen appeared normal virgin rats and virgins injected with other hormones. These animals pay no attention to the baby rats and make no effort to give them maternal care.

Prolactin, the hormone that arouses the fundamental maternal instinct, is produced by the powerful and important pituitary gland at the base of the brain. Besides arousing the maternal instinct, prolactin stimulates the production of milk in animals that nurse their young and of crop milk in pigeons.

Prolactin has another remarkable action. When injected into adults, it reduces the size of the male sex glands. The largest dose reduced these glands to about 8 per cent. of their original size, Dr. Riddle and associates reported. A