

## MEDICINE

# High Blood Pressure

► MEMBERS OF the so-called weaker sex apparently can withstand high blood pressure much better than their husbands, brothers, sons and fathers.

A pilot study showing this was reported by Miss Annie Mary Lyle of the Prudential Insurance Company at the meeting of the Society of Actuaries in Chicago.

The mortality experience among 1,227 Prudential employees with high blood pressures ranging from slight to very marked was carried through a period ranging from six months to 20 years with periodic examinations. Statistics were kept for the group as a whole and for men and women separately.

The women, comprising 40% of the total number examined, showed a death rate much lower than that for men, and also much lower than that which had been anticipated for the women on the basis of normal underwriting procedures used by insurance companies.

"The group available for this study is much too small for the mortality ratios to be relied on for rating purposes and the

female mortality is incredibly low for reasons that are not apparent," Miss Lyle said.

"The difference between the sexes is so great, however, as to indicate that in future investigations, males and females should be studied separately. If a substantial difference is confirmed by an experience sufficiently large to be dependable, more lenient treatment of females with high blood pressure would be in order."

The study also indicated that electrocardiograms are of considerable value in judging high blood pressure cases, but that the X-ray does not appear to contribute anything.

"One is forced to the conclusion that women withstand the stresses of high blood pressure better than men do," Miss Lyle said, commenting on the trend over the 20 years.

Although the women in the group studied had more hypertension of moderate and marked degrees than did the men, on entering the experience, they showed a much lower death rate than did the men.

Science News Letter, June 19, 1954

## BIOPHYSICS

# Broken Bone Mending

► A GEIGER counter check on the blood supply through the thigh bone is expected to help surgeons get better results in repairing broken hips.

The new aid was announced by Dr. H. B. Boyd of the University of Tennessee College of Medicine at the meeting of the American Orthopedic Association in Bretton Woods, N. H.

In about a third of the cases of broken hips involving the head of the femur, or top part of the thigh bone, this part of the bone begins to crumble and die about 12 months to two years later. The condition results from inadequate blood supply to the top of the thigh bone. When this happens, a second operation is needed.

Unfortunately, the surgeon does not know at the time he repairs the broken hip whether the patient is likely to develop this condition, known as aseptic necrosis.

Dr. Boyd and associates believe this difficulty can be overcome by giving the patient a tracer dose of radioactive phosphorus. The largest amount of this will be carried by the blood to the bones.

Using a Geiger counter, the amount in the bone pieces on either side of the break can be measured. If there is as much radioactivity in the head of the bone as in the long part, the surgeon can conclude the blood supply to the top of the bone is sufficient.

If, however, the amount of radioactivity in the top of the bone is five to 10 times less than the amount in the long part, the blood

supply is probably not adequate and the chances are great that the patient will develop aseptic necrosis later. With this as a guide, the surgeon can modify the repair operation to decrease pain, disability and future reconstructive operations.

The test is now being tried on patients, but it will take about two years to determine the accuracy of the method.

Working with Dr. Boyd to develop the test were Drs. Donald B. Zilversmit and R. A. Calandrucchio and Miss Betty Houston, research assistant.

Science News Letter, June 19, 1954



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## PHARMACOLOGY

## Double Drug for High Blood Pressure Marketed

► DOCTORS NOW have a double drug for treating patients with high blood pressure, or hypertension. The double drug combines two anti-hypertension drugs, Serpasil and Apresoline.

Apresoline is a phthalazine derivative. It has given good results in moderate and severe hypertension. Serpasil, derived from the root of an Indian plant, is noted for its quieting effect.

Doctors have been using both drugs, alone and together, for about a year. Results were often better than from either one alone. Now Ciba Pharmaceutical Products, Inc., of Summit, N.J., will market them combined.

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