

MEDICINE

# Artificial Fever Reduces High Blood Pressure

## Induced By Certain Chemicals or By Triple Typhoid Vaccine, It Will Reduce Pressure But Is Not Cure

**F**EVER artificially induced by certain chemicals or by triple typhoid vaccine will significantly reduce blood pressure, particularly in patients suffering with high blood pressure, Dr. Herbert Chasis, Dr. William Goldring and Dr. Homer W. Smith, of New York University College of Medicine, announced at the meeting of the American Heart Association in Atlantic City.

Repeated doses of the fever-inducing substance will keep the blood pressure at lower levels, even when the fever itself is kept from developing by first giving amidopyrin. The treatment, however, cannot be called a "cure" since it does not correct the fundamental process that causes the high blood pressure, the New York physicians found.

The substances used besides the triple typhoid vaccine were a kind of sugar called inulin and tyrosinase, the enzyme that blackens potatoes which had previously been reported as a blood pressure reducing chemical. None of these caused any harm so far as could be observed, but they must be used cautiously. This was shown by the alarming experience with one patient whose blood circulation was slowed down so far that she became unconscious following treatment with the triple typhoid vaccine.

The blood pressure lowering effect of the fever-inducing substances, the New York doctors believe, is the result of an "adverse" reaction of weakness on the part of the heart and blood vessels.

The practical value of the results of the treatment was not the discovery of a new remedy for high blood pressure but the new light thrown on the action of other remedies that might at first seem to be effective in treatment of this condition. They may owe their apparent effectiveness as high blood pressure remedies, it now appears, to the fact that they are contaminated with common bacteria related to the typhoid fever group of germs. These germs and substances from them may cause fever and may also reduce blood pressure. The chances for blood pressure reducing remedies becoming contaminated with

these germs are plentiful. The New York doctors point out that such contamination must be ruled out before the remedies themselves can be credited with reducing blood pressure.

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## More Common in Women

**H**IGH blood pressure, one of the unsolved medical problems today, is more common in women but more serious in men, Dr. R. L. King, Dr. Thomas Carlile and Dr. J. M. Blackford, of the Mason Clinic, Seattle, told members of the American Heart Association.

Among 794 patients found to have high blood pressure in general examinations given between 1924 and 1930, the

women predominated in a ratio of 3:2. However, twice as many women as men were living 10 to 16 years later.

Of the total group followed up 10 to 16 years later, 128 or a little over one-fourth, were still living, with 353 dead. Fourteen lived 15 years or longer after their high blood pressure was first noted.

Heart failure caused twice as many deaths in this group as any other single cause. Heart enlargement may occur in high blood pressure patients in a relatively short time, the Seattle doctors observed. This depends for the most part on how high the blood pressure is and how long it remains high.

The influence of high blood pressure on the expectation of life is "striking," they said. Men 40 to 45 years old, with a life expectancy normally of about another 25 years, lived only about five years longer.

The seriousness of the outlook for high blood pressure patients, the Seattle doctors said, is, in general, influenced by the height of the blood pressure, advancing age, and the presence of signs of progressing changes in the blood vessels, especially in the brain, heart and kidneys.

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### 1942 DUCK STAMPS GO ON SALE JULY 1

*This year's Duck Stamp design, by the well-known wildlife artist A. Lassell Ripley, features the American widgeon. A pair are shown in typical habitat surroundings, with a second drake about to alight on the water. These stamps, which go on sale July 1 at all first and second class postoffices, are much in demand by collectors as well as by hunters, who must show them on their licenses if they are gunning for migratory waterfowl. Ninety per cent of all money raised by their sale, added to other funds, goes toward the purchase of land for new wildfowl refuges.*

## Cause of Fainting Traced

CAUSE of the undue fatigue, shortness of breath, dizziness, fainting and even distress or pain around the heart in patients with varicose veins of the legs is the pooling of the blood in the varicose veins, Dr. Earle M. Chapman and Dr. Erling Asmussen, of Massachusetts General Hospital and the Harvard Fatigue Laboratory, announced.

"In the aged and in those with known heart disease, the added burden from varicose veins may be enough to provoke severe symptoms," the Boston doctors stated.

Wearing elastic stockings or an operation to cut off the blood supply to the varicose veins relieves the symptoms.

The reason why the cause for the symptoms had not previously been recognized may have been because the symptoms usually are moderate in nature and seldom lead to actual heart failure.

The Boston doctors investigated the problem after examining a patient who was thought to have angina pectoris or

some other kind of serious heart trouble. Careful examination disclosed no sign of heart disease but when the patient got off the examining table one of the doctors noticed the large varicose veins in her legs enlarging as they filled with blood. He suddenly had the idea that the pooling of the blood in these veins might have caused such a decrease in the amount of blood returned to the heart by the veins that there was a deficiency in blood flowing through the heart's own artery which would cause heart pain. This patient obtained relief by wearing elastic stockings on both legs.

Investigation then revealed that almost one-fifth of the patients with varicose veins, 47 out of 250, complained of undue shortness of breath that was relieved when they lay down. Studies of blood circulation in normal persons and those with varicose veins when changing from recumbent to standing posture confirmed the idea that the pooling of the blood in the varicose veins could interfere with the circulation enough to cause the heart pain and other symptoms.

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resistance or drag offered by the airplane by half. This is a major problem that might make a big difference in the performance of airplanes in the future if it could be solved.

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### AGRICULTURE

## Rice Growing in Florida Promises A Major Crop

RICE growing in the Florida Everglades, started only last year as a small-scale effort to provide cheaper chicken-feed for hard-put poultry farmers, may develop into a new major agricultural industry, making good much or all of the loss of overseas sources of this important grain.

It was all started by J. A. Jamison, superintendent of schools for Martin County. A graduate of the University of Oklahoma, he was raised in the rice country of Arkansas. He has taught school in Oklahoma, Arkansas, Kansas and Florida.

When he came to Florida he saw that chicken raisers were having a hard struggle keeping out of the red, on account of the high cost of purchased feed from the Corn Belt and Argentina.

Rice makes chickens fat and hens lay. Why not grow rice in sub-tropical Florida?

It couldn't be done, he was told, it could never make a head. Finally he decided he would try, anyway. A pond of rice on every chicken man's place might bring millions to vast numbers of impoverished Floridians.

So last year he planted about an eighth of an acre with rice in a pond on waste land near Palm City, whose once flourishing citrus groves had been wiped out in the 1928 hurricane, and had gone back to jungle. The rice sprang up luxuriantly. He got a crop of 50 to 60 bushels to the acre.

This year Mr. Jamison set out 18 acres. He is trying out three varieties of rice. They are all doing well. The growth, knee high, is so thick you could almost walk on it. With luck, it will ripen in July.

With a rice scarcity threatening, Mr. Jamison visualizes thousands of acres in Florida being devoted to the cereal. On a large commercial scale rice would have to be grown where the water could be drawn off at harvest time so that mechanical reapers could get at it.

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### AERONAUTICS

## Three Possible "Surprises" May Upset Aviation Race

### Successful Gas Turbine, Practical Rocket Plane and Wing Structure That Would Prevent Turbulence Forecast

THREE aeronautical developments would upset the present more or less even military aviation race throughout the world—a successful gas turbine engine for airplanes, a practical rocket plane and the realization of an airplane wing structure that would prevent the air becoming turbulent as it flows over it.

Dr. Jerome C. Hunsaker, Massachusetts Institute of Technology aeronautical engineer and chairman of the government National Advisory Committee for Aeronautics, in talking to the Harvard War Institute listed these as the three possible developments that might with some rapidity spring a surprise.

It is known that engineers throughout the world have been working, attempting to achieve these objectives.

A gas turbine would be an escape from the very real task of lubricating ordinary internal combustion engines at very high temperatures, now a limit to efficient

operation. Present engines waste a third of the gasoline's power in heat. Successful gas turbines operating on waste gases from diesel engines and the oil refining process have been perfected and are in use in Switzerland and this country. The gas turbine in the airplane would eliminate the cooling system and also allow operation at 10,000 to 12,000 revolutions per minute instead of the 3,000 of the present engines.

Rocket planes avoid all engines and propellers, the propulsion being given by the kick of the rush of the gases out of an orifice at the rear of the plane. The Italians have already flown a small rocket plane from Milan to Rome. Rocket propulsion would be particularly effective in the high altitudes where the air is rare because the rocket kick doesn't need air to operate.

Making air flow smoothly over an airplane wing so as to maintain its untroubled characteristics might reduce the