

MEDICINE

# Permanent Recovery From Diabetes Through Insulin

## Chief Value of Experiment With Cats Is in Showing Importance of Early and Thorough Treatment

**A**PPARENTLY permanent recovery from diabetes—what the layman would term a cure—has been achieved by insulin treatment of cats, Dr. F. D. W. Lukens and Dr. F. C. Dohan, of the George S. Cox Medical Research Institute, University of Pennsylvania report. (*Science*, Sept. 6)

For human diabetic patients, the chief value of the research at present is that it shows that diabetes should be treated as early and as thoroughly as possible, Dr. Dohan explained.

Generally, diabetic patients must go on taking insulin every day in order to stay well. The diabetic cats, however, stayed well and gained weight for three months following the stopping of all insulin. One important factor that may have accounted for the permanent recoveries of the cats is that the insulin treatment was started very soon after the diabetes started.

There is as yet no evidence, Dr. Dohan said that human patients will recover from diabetes permanently after insulin

treatment, but it is possible and even probable that the disease can be kept from progressing or getting worse if the patient gets good treatment early.

The permanence of the recovery of the cats was shown not only by lack of symptoms of diabetes but also by the normal condition of the insulin-producing glands of the cats when examined at the end of the three-month period without insulin. Before treatment with insulin, these glands in the pancreas showed marked degeneration of a kind called hydropic. They were swollen with water. But during the insulin treatment they recovered sufficiently to take over the job of once more producing enough insulin for the cat's needs.

When the insulin-producing glands degenerate in a different way, drying and disappearing instead of swelling with water, recovery cannot be expected to take place. Perhaps, although this is not yet proved, the watery degeneration changes to the other type when the diabetes is not treated early.

*Science News Letter, September 21, 1940*

PHYSIOLOGY

# New Enzyme in Blood May Aid Against Addiction

**T**HE SCIENTIFIC fight against drug addiction has been aided by the discovery of a hitherto unknown chemical agent in the blood.

Discovery of the chemical agent, an enzyme or ferment called an esterase, was made by Dr. C. I. Wright, of the National Institute of Health (*Science*, Sept. 13).

This esterase chemically blitzkriegs heroin and certain other morphine compounds, breaking them down into the morphine and other chemicals from which they were made.

Scientists have been trying, in their attack on drug addiction, to build up a non-habit-forming chemical which could be used as a substitute for morphine and

other habit-forming narcotic drugs. Dr. Wright's discovery of the new enzyme and also of the reason for heroin being more powerful than morphine are expected to aid this attack on drug addiction.

Some animals apparently have more of the new enzyme, or a different one, in their blood than others, because blood serum from some of the animals affected heroin and other morphine compounds differently.

Human blood serum has less ability to blitzkrieg heroin into morphine than rabbit blood. Whether the blood of a morphine or heroin addict differs in this respect from the blood of non-addicts has not yet been determined.

Heroin is a more powerful drug than morphine. The difference in potency, Dr. Wright believes from his studies, is due to heroin being more soluble than morphine and thus getting into the blood and perhaps other tissues more quickly and in higher concentration than morphine does, although when it gets into the blood, it is changed into morphine and acts as morphine does.

*Science News Letter, September 21, 1940*

ETHNOLOGY

## Classic Book on Folkways Exposes Nazi Fallacies

**W**HILE Europe's dictators strive to impose new patterns of living on the civilized world, the birth centennial of a great American teacher who analyzed human customs to the core is being memorialized.

If he were alive, Prof. William Graham Sumner would be 100 years old on Oct. 30. But his famous book, *Folkways*, which is being reissued in a centennial edition, takes stock of Nazi ideas almost as though it were written in 1940, instead of 1906.

The German warning that American gold will turn valueless, and that the world will have to trade by barter, is a long step backward toward the Stone Age. So Prof. Sumner's explanations of how even primitives evolved money make clear. Money he casually refers to as "another primitive device." Even before the idea of money was evolved, men solved problems of property and trade by evolving money itself.

As for the Nazi doctrines of Aryan superiority, the science of society had a name for it back in 1906.

"Ethnocentrism," wrote Prof. Sumner, "is the technical name for this view of things in which one's own group is the center of everything and all others are scaled and rated with reference to it."

There has been plenty of ethnocentrism in the world. Carib Indians declared, "We alone are the people." Greenland Eskimos thought they were giving a European the highest praise by saying he was as good as a Greenlander.

Prof. Sumner in 1909 wrote: "The Germans have become nervous; they struggle feverishly for success and pre-eminence. . . . Germany now has great ambition for the first place among nations."

*Science News Letter, September 21, 1940*

White cotton hose, made according to designs worked out by government textile experts, are being tried out in service by hospital nurses.