

## PSYCHIATRY

# Brain Waves Show Tendency To Epilepsy Is Inherited

## Carbon Dioxide Plays Important Part in Problem— High Amount in Grand Mal Patients, Low in Petit Mal

**B**RAIN wave studies show that a tendency to epilepsy can be inherited from one's parents, even though the latter do not themselves have epilepsy.

This answer to the age-old question of whether it is safe for epileptics to marry and have children was given in an announcement by Drs. William G. Lennox and F. A. Gibbs and Mrs. E. L. Gibbs, of Boston City Hospital, at the meeting of the American Psychiatric Association in Chicago.

Solution of the problem of epilepsy is not impossible in an age of electricity, they said.

Brain wave patterns characteristic of epilepsy were found in over half of a group of parents of epileptics. Abnormal brain wave patterns were seen 10 times oftener among the parents of the epileptics than among members of a control group who were not closely related to an epileptic. In 92 per cent. of the families in which records were obtained of both parents, at least one of the parents had a definitely abnormal brain wave record.

"We believe that a disordered rhythm of brain waves is inheritable," the investigators stated, "and that the parent who shows this disorder, though free himself of the symptoms, is a carrier of the disorder."

"Hereditary traits seem discouragingly indelible," they added, "yet a hereditary problem which is electrical cannot be considered insoluble by our boasted age of electricity."

"The physico-chemical elements which combine to cause an electrical discharge are known and what is more important, certain alterations in these elements suppress the abnormal rhythms and the attending seizures."

Carbon dioxide, the gas that leaves your lungs with every breath you exhale, may be the key to the solution of the epilepsy problem. It seems to play the most important role in the electrical disturbances associated with epilepsy, the Boston investigators said. The concentration of carbon dioxide is abnormally high in patients subject to severe

convulsions or fits, their chemical studies showed. It is abnormally low in patients suffering from transient loss of consciousness in the "petit mal" type of epilepsy.

The regulation of carbon dioxide in the blood in the arteries is regulated by the act of breathing, it was explained, but this does not explain the presence of carbon dioxide in blood leaving the brain nor the opposite measurements obtained in severe convulsions and petit mal seizures. It may take a long time to work out the relation between carbon dioxide and epilepsy and to apply it to solution of the problem but the investigators pointed out that "at least we seem to be on a path which leads somewhere."

## Football For Epilepsy

**L**EARNING to play football and baseball as a means of overcoming epilepsy is a novel idea which may nevertheless be successful. Cases in which a rigorous program of physical education

helped epileptics recover to the point where one lad became captain of high school football and baseball teams were reported by Drs. Temple Fay and Michael Scott, of Temple University, Philadelphia.

The idea back of this treatment was the psychiatrists' belief that an undersized heart was responsible for the epileptic seizures in nearly one-third of the patients they studied. The athletic program treatment was designed to develop "athlete's heart." The undersized heart, it was explained, might be temporarily unable to supply sufficient nourishment to the brain, causing temporary "starvation." The epileptic fits were believed to result from this condition.

## New Drug For Epilepsy

**M**ORE than 60 per cent. of a group of 250 epileptics have been completely free from seizures or fits during the two years they have been treated with a new drug, known as dilantin, Drs. H. Houston Merritt and Tracy J. Putnam, of Boston City Hospital, reported. Another 13 per cent. were greatly relieved.

These patients had been having the severe convulsions of grand mal epilepsy. Patients suffering from petit mal epilepsy were completely relieved of attacks in 38 per cent. of the cases and another 20 per cent. of these were greatly improved.

The usefulness of the new drug, dis-



"AS IT WAS IN THE BEGINNING"

Primitive fishes of the Devonian sea that once covered what is now western New York, as restored at the Buffalo Museum of Science. A big-finned shark has his eye on a group of small relatives of the modern gar, which are dodging among the tentacles of a group of crinoids, to avoid him. On the bottom, an armored pre-fish form and two lungfish.

covered in the course of a systematic trial of over 100 chemicals, was first announced by the Boston doctors last year. Its chemical name is sodium diphenyl hydantoinate. The drug is relatively non-toxic, few patients showing any inability to take it. It has the advantage over other drugs used in epilepsy of not being a sedative, so that patients taking it are not prone to sleepiness.

## Hormones Change Moods

**A** NEW field for success in the treatment of mental disorders and glandular irregularities has been opened by a discovery announced by Drs. Theresa Benedick of Chicago and Boris Rubenstein of Cleveland at the meeting in Chicago of the American Psychoanalytic Association. The production of powerful hormones by the body's glands can be traced by psychoanalysis, these doctors find.

Their studies were limited to female sex hormone production. By psychoanalysis Dr. Benedick was able to tell from the changes in feeling and mood of the women studied just when production of one female hormone stopped and production of the other female hormone started. Her findings tallied exactly on the calendar with findings from physiological tests made by Dr. Rubenstein.

At the time when these tests showed that the sex-stimulating hormone, estrin, was being produced, psychoanalysis showed the women were interested in the opposite sex and in their conflicts over men. As production of this hormone ceased the women's feelings and moods changed. With beginning of the production of progesterin, the pregnancy hormone, the women's interests and feel-

ings, as revealed by psychoanalysis, were centered on themselves.

Glands, through their hormones, influence feelings and behavior, scientists have long known. More exact and specific knowledge of this important subject should be possible through further studies like those reported, which combine scientific measurements of feelings with measurements of chemical activity within the glands. Such studies might show doctors when to treat mental and behavior disorders with gland products, when to treat glandular irregularities with psychiatric measures, and when to combine both methods of treatment.

## Madness Pushes Into War

**"W**ARS and threats of wars" show how greatly mental hygiene is needed today in the management of public affairs and for the guidance of those charged with responsibility for the conduct of nations, Dr. Richard H. Hutchings, of Utica, N. Y., declared in his presidential address before the American Psychiatric Association meeting in Chicago.

"The evils which afflict the deviated personalities set in high places soon are found to have permeated the body politic," Dr. Hutchings asserted, "and make evident the thin veneer which separates modern man from the tom-tom beating savage of an earlier day."

Referring apparently to Hitler, although he did not mention any name, Dr. Hutchings said, "the schizoid mystic who retires to the mountain top to commune with the elemental forces within his own personality returns upon occasion with renewed catexes of anal-sadistic impulse, to bring about reactions which afflict whole nationalities and alter the form and direction of cultural progress."

Americans, Dr. Hutchings indicated, also need to practice mental hygiene.

"We cannot," he said, "with good grace point an accusing finger at our neighbors across the seas until something more is done about the obvious deficiencies in crime prevention and law enforcement in our own large cities. The contribution which psychiatry could make to the prevention of delinquency and crime has not been sufficiently tested."

The example of the few psychiatric clinics we have in connection with criminal and children's courts and courts of domestic relations has not received the public support and financial backing such undertakings deserve, he declared.

Hospitals for mental sickness are

# RADIO

Dr. A. Allan Bates, manager of the chemical and metallurgical department of the Westinghouse Electric and Manufacturing Company, will be the guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Monday, May 29, 5:45 EDST, 4:45 EST, 3:45 CST, 2:45 MST, 1:45 PST. Listen in on your local station. Listen in each Monday.

suffering from "overpopularity", Dr. Hutchings observed, pointing out that they are becoming increasingly homes for the aged. Since this trend will continue with the increase in the number of aged in the population and the increase in cures of mental illness in younger persons, Dr. Hutchings suggested the problem might be solved by putting "harmless ambulant seniles" in boarding homes. This would effect a great saving in the cost of care for these mentally afflicted old people and the success of such care, Dr. Hutchings pointed out, has been shown by the use of this method in Belgium.

## Interview Better Than Jail

**A**N INTERVIEW with a psychiatrist is more effective and more economical than the usual short term jail sentence for misdemeanors such as traffic violations, wife-beating and drunkenness, Dr. Lowell S. Selling, psychiatrist to the Recorder's Court of Detroit, declared.

In fact, short term sentences are ineffective for drunkards, wife-beaters and other misdemeanors of the type who regularly appear before the courts, Dr. Selling said. The offender usually lapses back into his old habits immediately upon release.

"The experience of going to court, possibly with accompanying newspaper publicity and being required to make restitution for damage that they have done often causes a desirable change in attitude toward their traffic behavior," Dr. Selling said of another group of offenders. "The same change in attitude has been produced just as well by a lengthy interview in the clinic. The patient has to miss a day or two from work, his mechanisms are gone into thoroughly and he becomes aware of the significance of his offense so that we have concluded from the small number of repeaters who have returned that even if they were sent only for diagnosis, the examination is therapeutically effective."

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