

PHYSIOLOGY

# Diabetic Patients Can Eat Sugar if Fats Are Eliminated

Success of Unorthodox Treatment of Cases Reported By Canadian Physician at Meeting of Chemical Society

**D**IABETIC patients can safely be given sugar and starchy foods to eat, if fats are carefully eliminated from their diet.

This method of handling diabetes cases, unorthodox according to prevailing medical views, has been successfully used by Dr. I. M. Rabinowitch, of Montreal General Hospital, who spoke before the meeting of the American Chemical Society at Buffalo, N. Y. His paper was part of a symposium on "Some Clinical Aspects of Endocrine Therapy."

There is no cure for diabetes, in the real sense of the word, Dr. Rabinowitch emphasized. All that modern methods of treatment do is arrest the disease and prolong the patient's life, sometimes for many years. Even since the discovery of insulin, it has been found that a properly adjusted diet alone is sufficient in the majority of cases.

In the cases treated by Dr. Rabinowitch, the patients were allowed sugars and starches enough to satisfy energy requirements, but only enough, and insulin injections were given only when specially needed, and then often in reduced dosages.

Physiological evidence has been advanced by Dr. E. V. McCollum, one of the pioneers of insulin research, that the breakdown products of fats are more harmful to the body tissues than are those of sugar, and that they are re-

sponsible for some of the symptoms of diabetes. It would seem logical, therefore, to change the standard diet for diabetics by cutting out fats and allowing them carbohydrates. Subscribing to this view, Dr. Rabinowitch made his clinical tests, with the success which he described.

At the general meeting of the Society, its president, Prof. Moses Gomberg of the University of Michigan, attacked one of the knottiest problems that trouble chemists, both theoretical and applied. His address was on "Valence Variation and Atomic Structure."

## Puzzling About Atom

For years chemists have been puzzling why one atom of a given element will sometimes combine with one of another, but at other times will join hands with two, three or more. This, Prof. Gomberg said, remained a mystery until the coming of modern physical chemistry, with its compound atom made up of a number of electrons and protons.

It is in the electrons of the outer "shell" of the atom that the combining power resides, and according to the number and disposition of the "valence electrons" there is usually only one that has a hand free to join a neighboring atomic dance—the atom will be mono-, bi- or polyvalent.

In the course of the meetings it became evident that a small boy holding

a burning-glass in the sun until he gets a smoking hole through a piece of paper—or the sleeve of his best Sunday shirt—is using, on an elementary scale, one of the newest tools of chemical research. For chemists have been catching sun-power with concentrating concave mirrors and raising samples of materials to be analyzed to intense heat, almost like that of the sun's surface itself, by this adaptation of the toys they themselves used when they were boys. Dr. Robert B. Sosman, industrial chemist of Kearney, N. J., told of this, among other new and powerful tools used by the chemist to wrest vivid secrets from dumb inanimate matter and thus to make it more responsive to his will and more useful to the world.

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ANTHROPOLOGY

## Scientists Gather at Anthropology Laboratory

**P**ROMINENT scientists from all parts of the United States assembled at Santa Fe last week for a conference of archaeologists and ethnologists, the first to be held at the new Laboratory of Anthropology which has just been formally opened.

The laboratory, located in the heart of the region richest in archaeological discoveries and possibilities, is expected to aid greatly in increasing knowledge of the American Indian both as an assembling place for scientists and as a well equipped work shop to which new material can be quickly taken.

Students doing research work on the ancient and modern tribes will have here one of the finest collections of Indian pottery, blankets, silverwork and other artifacts, both old and new, ever assembled in the United States.

Among the scientists attending the



AMERICA'S FIRST LABORATORY FOR THE STUDY OF MANKIND

opening of the Laboratory and the conference were Dr. S. G. Morley, fresh from work in Yucatan, Dean Byron Cummings, who has been conducting excavations in Arizona, and Earl Morris with his early Basket Maker specimens.

The new laboratory at Santa Fe is to consist of a series of separate units, three of which are already complete.

#### Holds 38 Rooms

The first unit contains a total of 38 rooms, including a lecture and conference room comfortably seating 200 persons, three medium-sized exhibit rooms, a reading room, a stack room with stacks for 8,000 volumes, two general offices and eight studies. These rooms are all on the upper floor.

The lower floor is larger than the main floor. In it are placed two large exhibit rooms, two vaults, a large storage and work space for general anthropological work, a shipping room, a preparatory room, photographic studios, equipment storage rooms, the heating plant, and a four-room apartment for the custodian of the building.

The second unit contains garage space for ten cars and a large general workroom. The director's residence is the third unit. The director is Jesse Nusbaum, formerly superintendent of Mesa Verde National Park and now departmental archaeologist for the Department of the Interior. The laboratory is endowed by John D. Rockefeller, Jr.

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#### CHILD STUDY

### White Babies Mature More Rapidly Than do Negroes

**N**EGRO INFANTS develop somewhat more slowly than do white babies, it is indicated by a study of infants of both races made in the city of Tallahassee, Fla., by Myrtle B. McGraw, of Columbia University. This finding contradicts the popular notion that the Negro develops more rapidly in infancy and early childhood but attains his maximum development earlier than does the white child. The study is reported in a current issue of *Genetic Psychology Monographs*.

The babies tested were selected at random from the infant population of Tallahassee by the somewhat humorous method of going about from house to house "watching for diapers on the line, or any other known insignia of an infant in the home," and by making "pick-ups" in the local ten-cent store.

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ZOOLOGY

## Two-Headed Turtle Debates Which Mouth to Feed First

**T**WO heads fighting spiritedly for food for a single stomach is the strange sight provided by a two-headed turtle belonging to U. S. Parker, who lives near Gainesville, Fla. The double-headed creature was found in a Florida swamp.

The two heads of the Florida turtle are perfectly well developed and normal in appearance. The two heads see, hear, eat, drink, sleep, breathe and move independently. Both eat voraciously. The turtle has also two necks and two sets of front feet. The rest of the body consists of a common carapace or shell, two hind feet and one tail. X-rays made by University of Florida scientists have shown the turtle has a common stomach.

A fly or a cricket always becomes a bone of contention between the two head parts. The first head to seize the inviting morsel becomes at once involved in a stubborn tug of war with its other self, which ends only when the two heads tear the fly or cricket in two.

Neither is there much cooperation between the two heads in the matter of locomotion, which as a matter of fact becomes a sort of running fight, as each head has its own idea where it wants to go and objects strenuously to the other's idea. The turtle therefore moves in a series of jerks from right to left and vice versa as first one head and then the other proves to be the better self.

A stalk of grass or any similar obstacle stops the two-headed turtle like a stone wall because the two heads are so contrary. One head always chooses the right course and the other the left. The result is that the "Siamese twins" find themselves straddling the obstacle and unable to advance. Both heads being equal in strength the tug of war continues until the turtle is exhausted.

In water, however, the two heads cooperate. One head often can be seen under the water in exploration for food while the other rides the surface inhaling air for the common lung.

#### Temperaments Differ

The temperaments of the two heads also seem to be different. The right head is apparently the bolder and has more initiative, because it is the right head that is first to emerge from the carapace after an alarm has sent both heads into hiding. The right head also makes the first pass at food.

O. C. Van Hyning, curator of the Florida State Museum who examined the strange animal, said of it:

"I have collected and studied reptiles in the field in Florida for 15 years and have never seen a similar example of this species; however, from its healthy appearance, and the ease with which it is fed, I see no reason why it should not live and prosper."

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