

## ENDOCRINOLOGY

# New Functions Discovered For Secretions of Adrenal Glands

Extract That Saves Addison's Disease Victims May Also Be Necessary in Vitamin Utilization and Milk Production

**I**MPORTANT new functions of the vital adrenal glands, concerned with vitamin utilization and milk production, were reported by Drs. Frank A. Hartman, J. E. Lockwood and K. A. Brownell of the University of Buffalo to the Federation of American Societies for Experimental Biology.

Members of the Federation have previously heard the Buffalo investigators describe the life-saving cortin which they extracted from the cortex of these two small glands that lie just above the kidneys. Cortin has saved the lives of sufferers from Addison's disease, an ailment in which the adrenal glands are diseased and fail to produce enough cortin themselves for the body's needs. Animals deprived of their adrenal glands quickly die, but their lives may be prolonged indefinitely by administration of cortin.

This week the Buffalo investigators reported experiments suggesting that adrenal cortical extract, possibly cortin itself, helps the body to utilize vitamins C and B<sub>1</sub>. Likewise they have separated from cortical extract a substance that is necessary for the production of milk. They call this new hormone cortilactin.

The discovery of the relation of cortin to vitamin utilization came about when microscopic changes were found in adrenal gland cortex of animals getting too little of certain vitamins in their diets. This suggested that extra demands were being made of the glands to make up for the vitamin deficiency.

When an extract containing cortin was given to guinea pigs on vitamin C deficient diets, the onset of scurvy was delayed, the Buffalo investigators reported. The extract was prepared in such a way that none of the vitamin, which itself prevents scurvy, could have been present. Injection of this extract also delayed the onset of nerve symptoms due to deficiency of vitamin B<sub>1</sub> in the diet.

Apparently this function of the adrenal gland cortex is so important that provision is made for one gland to

produce more of the substance concerned in vitamin utilization in case of injury to the other gland. This extra production on the part of the remaining, healthy gland is continued for about five weeks after disease or injury has put the other out of action.

Discussing the milk-producing hormone, cortilactin, Dr. Hartman and associates explained that cortin alone does not have this action. Mother rats that have no adrenal glands cannot raise litters of young, even with enough cortin to keep the mothers themselves healthy and fat. Cortilactin must be added.

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## ARCHAEOLOGY

## Unusual Features in Ruins At Yellowjacket Canyon

**A**N INDIAN ruin in Yellowjacket Canyon, Colorado, which was sighted by the Spanish friar Escalante when he traveled toward Utah in 1776, has at last been excavated.

For two years, Victor F. Lotrich, a teacher, aided by C. A. Thomas, has been unearthing rooms and relics of this long-burned settlement.

The ruins reveal a number of features unusual in the ancient Southwest, Mr. Lotrich has found. Cliff dwellings and pueblos commonly included several kivas or ceremonial chambers among the living quarters. In this little settlement on the canyon rim there were 12 ceremonial chambers, while only 11 dwelling rooms have been found. One of the kivas is not round or oval as the Indian "churches" usually were, but has hexagonal walls. No other hexagonal kiva has ever been found.

"In the floor of this kiva, beneath the ventilator shaft," said Mr. Lotrich, "was a sealed room containing a burial, but prairie dogs had made nests there and destroyed all specimens, only fragments of unrelated pottery remaining."

Mr. Lotrich has named the site "Square Mug Ruin" after the most re-



## RARITY

*Among the thousands of bowls and similar pieces of pottery found in the Southwest, there are only two or three square pieces. This mug is the latest square container discovered.*

markable object in it. This is a square mug about two and one-half inches tall, decorated handsomely with a bat-wing design in a double triangle. Indian pottery was rounded, almost always. Among the thousands of bowls and other containers found in the Southwest, only two or three square pieces have ever been discovered, Mr. Lotrich said.

Thirty bowls and several large corrugated pots, water jars, dippers and cylindrical mugs have also been found in the ruin. These are pronounced typical of the Mesa Verde type of Indian culture in Colorado.

Remains of several of the old inhabitants have been unearthed. They had heads flattened at the back by binding against a hard cradle-board, in a fashion prevalent in the Southwest long ago. One of the skeletons had upon its right wrist a beautiful string of 52 turquoise beads.

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## VITAL STATISTICS

## Fewer Children Killed By Automobiles

**F**EWER CHILDREN are being killed by automobiles now than any time in the last ten years, statistics of the Metropolitan Life Insurance Company show. The decrease in the number of child automobile deaths began in 1930.

"The year 1932 was the third successive year in which there had been a sizable drop in the death-rate of children from this cause," the company's statisticians report. (Turn Page)