

## PHYSIOLOGY

# Sex Hormone Unique To Man Discovered By Chemist

## Scientists Suspect This Hormone, Estriol, Has Some Special Important Function in Human Beings

THE EXISTENCE of a potent sex hormone which is uniquely characteristic of human beings was reported to the symposium held in connection with the 50th anniversary celebration of the University of Chicago by Dr. Edward A. Doisy, professor of biological chemistry at St. Louis University.

As a creator by chemistry of the rare sex hormones, Dr. Doisy has already synthesized two of the ten or more which are now known.

The sex hormone found only in human beings is known as estriol. It is found to be a vital factor in the normal sex life of women. Although there is no certain knowledge yet, scientists strongly suspect that estriol has some special, important function in human beings. Dr. Doisy said:

"Although the physiological significance of these estrogens (female sex hormones) is baffling, one cannot help wondering whether the estriol which has been found only in human beings may not have some special function in that species."

The profound effect of the sex hormones in men and in women is widely known to medical science. The big mystery to science is what happens to these potent chemicals in the human body. The same is true of the disappearance of injected sex hormones in experimental animals.

Women produce some 4,000 international units of sex hormones daily but this is not nearly as large as it sounds, for the international unit is very small. Actually daily production is only one seventy-thousandth of an ounce. During pregnancy the excretion of sex hormone increases 1,000 fold, Dr. Doisy said, and is indicative of the accelerated sex life during the process of having babies. What intrigues medical science is the possibility of tracking down the mystery of this 1,000-fold increase in hormone production in the human body. One answer might be that the body greatly increases its ability to manufacture, or synthesize, the hormone during pregnancy. Or the answer might be that the production stays the same but that

there is greatly diminished rate of destruction of the hormone by the body. Either condition, or both, might account for the observed facts. Only by continuing research will the answer finally be known.

On the same program, sponsored jointly by the American Association for the Advancement of Science, Dr. Allen T. Kenyon, assistant professor of medicine at the University of Chicago, said that injections of the female sex hormone estradiol will produce the same effects in men as does the male hormone testosterone.

Dr. J. S. L. Browne, lecturer in medicine at McGill University, said that an inadequate formation of progesterone, a female sex hormone, may be responsible

for some still births and is associated with some form of sterility in women. Since progesterone is now available in synthetic form injections of this hormone may now overcome such conditions.

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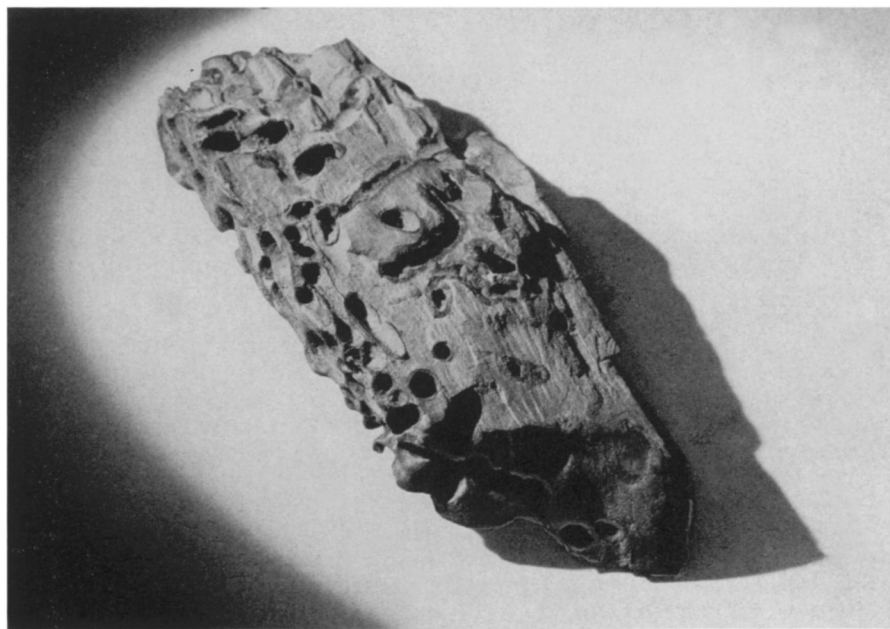
## MEDICINE

## Cancer and Fluorescence Of Tear Glands Linked

ULTRAVIOLET rays have shown Yale University School of Medicine investigators a possible connection between a mysterious fluorescence of tear glands and susceptibility to cancer.

Placing the Harderian glands of mice—which correspond to the lacrimal or tear glands of human beings—under a "black light" lamp that produces ultraviolet rays, they found that these organs of cancer-susceptible mice gave off a remarkable red glow. Those from strains of mice resistant to the disease, through generations of breeding, remained colorless.

Dr. Leonell C. Strong, research associate in anatomy, was examining mice for enzyme activity with Frank H. J.



**PETRIFIED WORM HOLES**

*Petrified wood is common enough, but petrified wood with wormholes in it is a great rarity. This specimen was picked up in Ransom County, North Dakota, by Prof. J. A. Munro of North Dakota Agricultural College. The holes, at first taken to be the work of wood-boring beetle larvae, were identified by scientists at the Harvard University biological laboratories as the burrows of boring mollusks, similar to the present-day teredo or shipworm and probably over 100 million years old. The wood therefore must either have drifted down some prehistoric river into the sea, or else have been part of a tree sunk by a submerging coast. The grain and other structures indicate that it came from a tree closely related to the modern redwood.*