

ENDOCRINOLOGY

Third Sex Increasing

Members of third sex, or "neutral gender," are those who have reached an average age of 60. Proper sex hormone treatment brings an "amazing resurgence."

► "A THIRD sex exists and is rapidly multiplying in our society today," Dr. William H. Masters of Washington University School of Medicine, St. Louis, Mo., declared at the Third Congress of the International Association of Gerontology in London.

The third sex Dr. Masters described is not made up of persons whose efforts to change their sex have been much in the news lately.

Members of the third sex, or "neutral gender," are "former members of both male and female sexes who have reached an average age of 60 years," Dr. Masters stated.

These people, he finds, can be greatly helped by proper sex hormone treatment. They cannot be rejuvenated to the extent of being able again to father and bear children. However, with the treatment tried by Dr. Masters and associates, there is "usually an amazing resurgence of physical strength and mental processes."

The treatment consists in giving both male and female sex hormones in a 20-to-1 ratio of male over female hormone. Those who were previously female will not, with this ratio, suffer breast tenderness nor vaginal bleeding and they will not grow beards and develop deep voices.

The former male components of the neutral gender will not develop breasts, lose protein, as in muscles, nor will they suffer

the "frankly dangerous" blood vessel dilation that comes from unopposed male hormone replacement in aged men.

Using a basic medicine for members of the neutral gender without regard to previous sex has a number of advantages. Among them is the fact that pharmaceutical houses can mass produce the medicine, making it cheaper for the individual than having to take two or three kinds of hormone preparations to get the desired effect.

The time to start the 20-to-1 hormone preparation must still be determined for each individual. The change to the neutral gender can be determined easily enough in women. In men it is more difficult but, Dr. Masters pointed out, the "slipping male is becoming increasingly easy to demonstrate" as doctors concentrate on evaluating personality on a psychosomatic basis.

"Puberty-to-grave sex steroid support" is the phrase Dr. Masters uses for his treatment of the third sex.

Other hormones, he says, are not needed because only the male and female hormones, or steroids, are produced in significantly less quantities as persons grow old. Apparently the organs that produce these, the ovaries and testes, have not enough reserve to last throughout the increasingly long human lifespan.

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MEDICINE

Diabetic Blood Vessels

► TO CHECK blood vessel hardening which is a too frequent and serious complication of diabetes, doctors should try giving a number of chemicals extracted from the pancreas in addition to its anti-diabetes insulin.

This idea for controlling diabetic artery disease was announced by Dr. Joseph B. Wolfe of Valley Forge Heart Institute and Hospital, Fairview Village, Pa., and the Wolfe Clinic, Philadelphia, at the meeting of the Third International Congress of Gerontology in London.

The method, Dr. Wolfe reported, may retard and in some instances prevent the blood vessel trouble that often leads to loss of eyesight, kidney trouble, or gangrene and loss of limb.

When giving other extracts from animal pancreas, Dr. Wolfe also finds he can control the diabetes with less insulin. The other extracts he uses are Desympatone, Lipolysin, Glucon, a "tropic" substance and

a "complicated, not yet understood anti-neuritic fraction."

"While the value of insulin as a vital therapeutic agent in diabetes must not be underestimated, from the point of view of atherosclerosis and protection of the blood vessels, we have found it desirable to use as little insulin as possible," Dr. Wolfe said.

"Insulin seems to have the effect of diminishing certain substances in the blood known as 'phospholipids,' which have the function of transporting cholesterol in solution through the blood stream. When 'phospholipids' are diminished, and their ratio to cholesterol becomes smaller, larger quantities of those fatty substances tend to precipitate in the blood vessels—a step in the development of atherosclerosis.

"In a large number of patients whom we have treated by adding pancreatic extracts to their indicated dosage of insulin, the progress of atherosclerosis and deterioration of the arterial walls seem to have been re-

tarded. Common symptoms arising from circulatory interference are relieved in many patients.

"Moreover, the diabetic treated with pancreatic extracts seems to remain stabilized. The blood sugar remains controlled with the use of smaller amounts of insulin. In more instances than are seen in controlled groups, remissions have occurred without using insulin at all for varied intervals."

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STATISTICS

Few Fatal Injuries in Competitive Athletics

► FATAL INJURIES are relatively few among the millions of Americans who participate in competitive athletics.

Only 11 deaths resulting from competitive athletics in the two years 1951-52 occurred among the several million males aged 10 to 29 who are among policyholders of the Metropolitan Life Insurance Co. This is less than one in every 300 accidental fatalities of all types in the records.

Baseball and softball account for four of the deaths in sports, golf for three, basketball for two, and football and track, one death each.

Records in New York City show an average of three deaths a year from athletic games, or approximately 100 over more than three decades.

Football accounted for 94 deaths in the United States during the five-year period 1949-53. During the same period, at least 29 men sustained fatal injuries in boxing. In professional major league baseball, there has not been a fatality from injuries on the field since 1920.

The national toll of those who suffer fractures, sprains, strains, cuts and concussions mounts to tens of thousands annually, however.

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PHYSIOLOGY

Sunburn Effect Indirect On Skin Blood Vessels

► THE ULTRAVIOLET light in sunshine that causes sunburn goes only skin deep.

Experiments carried out by Dr. M. W. Partington of the London Hospital, England, upon "six normal female subjects aged 19 to 23" are reported in *Nature* (July 17). They show that the ultraviolet wavelengths responsible for the dilation of blood vessels that reddens the skin act primarily on the epidermis and not directly on the blood vessels.

An antihistamine was used to screen the ultraviolet rays from the blood vessels. Skin treated this way and untreated skin acted quite the same way, thus showing that the sunburn effect upon blood vessels is indirect rather than direct.

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Half of the world's trucks are in the United States.