

## MEDICINE

# Dateline: AMA, New York

When doctors gather, all medical fields are discussed. Highlights of the annual meeting of the American Medical Association are reported on the following pages.

*At a time when the public is being confronted almost daily with statements and statistics on the dangers of smoking, while cigarette manufacturers work on developing "safer cigarettes," doctors at the AMA meeting learned the results of an extensive study of male smokers.*

► **HEAVY** cigarette smokers die seven to eight years before they normally would if they did not smoke, Drs. E. Cuyler Hammond and Daniel Horn, American Cancer Society, reported at the AMA's New York meeting.

This ominous finding plus the fact cigarette smoking must now be considered an important factor in coronary disease, the nation's number one killer, were included in the final results of a 44-month study of 188,000 men between 50 and 70 years old made by the American Cancer Society.

Smoking definitely does cause lung cancer, Dr. Hammond said, and it is "associated" with coronary artery disease as well as other types of cancer and lung disease.

Lung cancer death rates were 1,000% higher among regular cigarette smokers than among non-smokers.

The most important finding of this final part of the survey was what happens to smokers who decide to quit the habit: If they do, their chances of getting lung cancer drop about in half.

The figures showed light smokers quit the habit or cut down much more than heavy smokers do. Of the regular smokers at the end of the survey, 28% reported using filter tips. Since the survey began, 11,870 have died. Of these, 4,406 had smoked cigarettes regularly. If they had the death rate of non-smokers, only 2,623 would have died.

Coronary artery disease accounted for 52.1% of all the 2,665 "excess deaths" among men with a history of regular cigarette smoking, and other heart and circulatory diseases added another 5.8%.

Death rates from all causes combined rise with the number of cigarettes smoked daily. Compared to non-smokers, the death rate was 34% higher for those who smoke up to half a pack a day, 70% higher for one-half to one pack a day, 96% higher for one to two packs a day, and 123% higher for two or more packs a day.

## Infertility and Diet

► **THERE ARE** no food cures for infertility, Dr. M. Edwards Davis, University of Chicago School of Medicine, reported to the AMA.

Debunking the current fads for various diet supplements to help overcome infertility, Dr. Davis said the average American receives a reasonably good diet and does not benefit from the added vitamins and minerals that are offered as fertility aids.

Fruits and fruit juices have most recently been suggested as the cure for infertility but this claim still lacks sufficient scientific proof to back it up.

Another diet supplement that has been widely heralded is vitamin E. Although it has been shown to work in rodents, proof of its effect in man is on much shakier ground, the gynecologist reported.

But good overall nutrition does play an important role in infertility. Studies of teen-agers who are not concerned with their diets and who put on excess weight during adolescence have shown that their reproductive organs are noticeably delayed in reaching full maturity.

On the other hand, if too much weight is lost, fertility can be seriously lowered or even lost.

Victims of wartime concentration camps who lost one-third of their total weight became completely infertile during the time they were undernourished. When rescued

and properly fed, however, their fertility returned to normal within six months to two years, Dr. Davis said.

Extreme weight loss probably decreases fertility by diminishing the activity of the pituitary, the body's master gland. This gland, in turn, then fails to stimulate the activity of the sex glands as it normally does.

## Heart Cases Re-employed

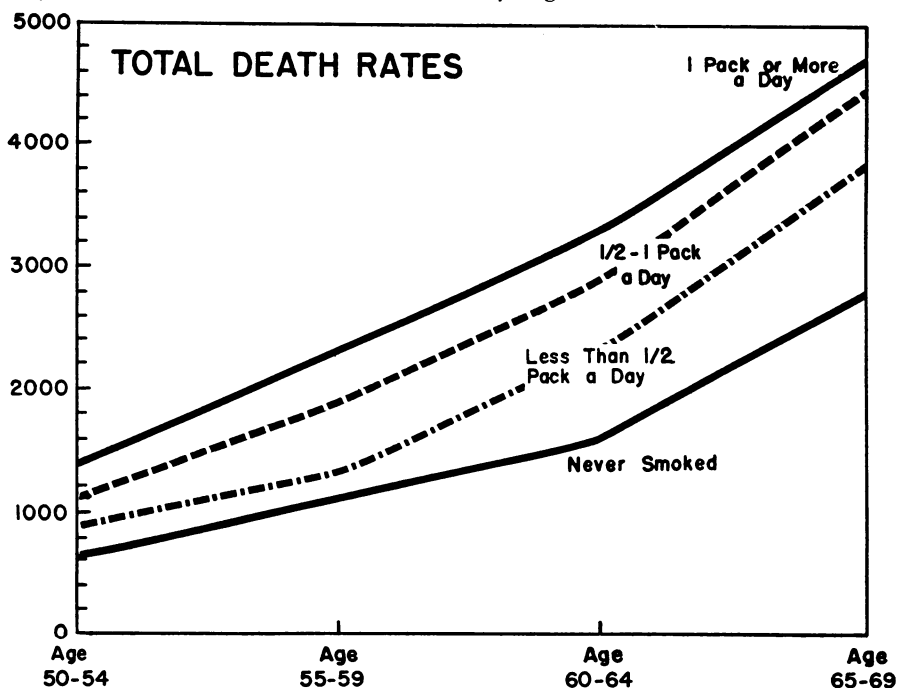
► **THE ENCOURAGING** results of a three-year study of 15,000 employees in medium industry show 95% of heart cases who return to work can go back to their old jobs as they were or with only slight modifications.

Only five percent of the heart cases had to return to a completely new type of job, Drs. J. J. Thorpe, assistant medical director, Esso Standard Oil Company, New York, and Neill K. Weaver, Esso refinery medical director, Baton Rouge, La., reported to the AMA.

Out of the 15,000 petroleum industry employees studied, 600 had some type of heart disease, including heart attacks, hardening of the arteries, anginal pains or strokes. In the heart attack group, 76% of those who survived were able to return to work.

Probably the most important finding of the long-range study is the large number of returning workers who are able to go back to essentially the same job.

Another finding is that increasing age was not as constant a factor in work stoppage as had been supposed. Considerably less of the 45 to 49 age group returned to work than did those who were either older or younger.



**DEATH RATE**—The annual death rate per 100,000 population is shown for men with a history of regular smoking only. The rate is by the number of cigarettes smoked per day.

Of the total 600 cases, approximately three-fourths of them had arteriosclerosis or hardening of the arteries. The others had either high blood pressure disease or suffered strokes.

Of those who had angina, or coronary insufficiency, 83% returned to work. Among the congestive heart failure cases, where the heart is pumping insufficient blood, 76% returned to work.

Stroke victims were absent from work an average nine weeks and 47% of these cases eventually returned.

## Sex Hormone Treatment

► THE SUCCESS of a new male-female sex hormone treatment for enlarged prostate glands in men was reported by Drs. Joseph J. Kaufman and Willard E. Goodwin, University of California Medical School, Los Angeles, to the medical association's meeting.

Prostatic enlargement creates painful symptoms, including the inability to urinate. Non-cancerous enlargement is a relatively common condition in elderly men. Occasionally a benign growth may later become cancerous and therefore the condition must be carefully watched.

The preferred treatment for it is removal of the gland, but in many cases surgical removal is either unwanted or unwise because of advanced age.

It is supposed the swollen condition is due to too much of the sex hormone estrogen and not enough androgen. The male hormone testosterone promotes normal and cancerous prostatic growth, while estrogen in some cases directly inhibits the growth of prostatic cancer, the doctors reported.

To test the hormonal imbalance theory, 44 patients with swollen prostate glands were given combined androgen-estrogen injections for six months. Three injections per week were given and the ratio of androgen to estrogen was 20 to one.

The majority of the patients improved after the treatment and in one-third of the cases there seemed to be reduction in the size of the gland. Half of the cases showed cellular changes in the gland structure. The changes, however, were too small and unpredictable to be conclusive at present.

The doctors plan further studies with oral preparations of the hormone combination. They believe this type of medical treatment may give symptomatic relief to the condition.

## Oral Drug for Diabetics

► A DIABETIC drug that can be taken by mouth to replace or supplement insulin injections was revealed to the American Medical Association's annual meeting.

The compound, called DBI for short, has proved to be a potent agent in reducing blood sugar level, Drs. Julius Pomeranze, G. J. Mouratoff and Herley Fujii, New York Medical College and Bird S. Coler Hospital, New York, reported.

DBI, known technically as N'betaphenethylformamidinyliminourea, is active in either mild or severe cases of diabetes.

Sugar tolerance tests suggest part of the drug's action may be due to an increased use of sugar in the outlying areas of the body, Dr. Pomeranze told the American Diabetes Association meeting concurrently with the AMA.

In some cases of diabetes, the new oral drug cannot completely replace insulin, but it can cut down the amount needed. Three severe young diabetic patients had their insulin dosage cut by 25% to 50% while receiving daily amounts of DBI by mouth. All of them had previously required over 50 units of long-acting insulin per day.

DBI has proved to be active in all types of diabetes, and is of "profound interest" academically. Further clinical trials in humans are needed.

Unlike other oral insulin replacements now being studied, DBI is fully active in animals made diabetic by destroying their insulin-producing gland, the pancreas, Dr. Louis Freedman of the U. S. Vitamin Corporation, producers of DBI, reported to the doctors.

It is therefore probable DBI and related compounds can act in the absence of insulin.

The drug still has some unwanted side effects such as nausea and diarrhea, but these show up only when it is given in relatively large doses.

Only limited supplies are now available, Dr. Freedman said, and many more months of human and animal research will be needed for perfecting the drug.

## Fractures Go Undetected

► BROKEN BONES are being left untreated because doctors are depending too much on what their X-ray pictures tell them, Drs. Norman J. Rosenberg and Rudolph S. Reich, Cleveland, Ohio, reported to the American Medical Association meeting in New York.

Even with the new X-ray materials and methods there are many so-called "occult" fractures of bone that do not show up in X-ray examinations, but they are there just the same.

These can occur in almost any bone in the body and cause considerable pain, anxiety, disability and expense. Medically, they are defined as fractures that give clinical signs of their presence, such as pain and immobility, but cannot be demonstrated by X-rays until after healing changes have occurred.

Unfortunately, these healing changes often extend into ligaments and other soft tissues and begin to harden them like bone. This is especially true of occult fractures in the foot and ankle.

Occult fractures have been known to exist for a long time, but instead of this improving treatment, it has only afforded security to the doctor who receives a negative report from the X-ray department and accepts it as conclusive.

The most common occult fractures are those of the radius, the smaller of the two bones in the forearm. These occur many times in children as a result of falling on outstretched arms.

The plaster cast treatment should always be used in these cases but a cast has been so closely associated with the treatment of fractures that doctors are reluctant to apply one without documentary evidence of the break.

"Let us not be in the position of treating the X-ray while we ignore the patient," they advised their fellow physicians.

(Continued on page 382)

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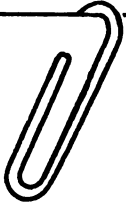
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# Dateline: AMA, New York

(Continued from page 371)

➤ A POTENT eye-drop solution to control glaucoma, an eye disease causing intense pain and blindness if left untreated, was reported by Drs. Irving H. Leopold, David Gold and Paul Gold, Wills Eye Hospital, Philadelphia, to the AMA meeting.

The drug, technically known as phospholine iodide, is effective in many cases of glaucoma not helped with present drugs, and can also reduce the frequency of treatments needed with the older solutions.

Glaucoma is estimated to affect approximately three percent of all adults over 40 years old and results from increased pressure in the fluid circulating in the eye between the cornea and the iris. The pressure increases because the fluid is unable to escape through its normal channels and backs up, causing intense pain and eventual blindness. The new drug reopens these channels by chemical action and allows the pressure to return to normal.

It has been tested in 101 affected eyes and successfully controlled the condition in 73 of them. Although 25 cases were recorded as failures, in 12 of them the pressure was controlled but the drug was discontinued because of bad side effects.

These included brow aches, dimness of vision, an unusual rise in pressure in two cases, and nausea in one.

The phospholine iodide controlled 42 cases that had not been helped with currently used solutions. In those that had been helped before, less frequent applications of the new drug were needed.

The drug is longer lasting than other commonly used ones and is water soluble, which adds to its applicability. Other comparable drugs now used have to be dissolved in peanut oil to retain their potency.

## Headaches and Education

➤ HEADACHES are the price of education, Dr. Henry D. Ogden of Louisiana State University School of Medicine reported to the Medical Association.

In a survey covering over 4,000 individuals from various occupations and backgrounds, 80% of the students questioned reported having headaches. In the next highest category, that of executives, 77% reported having them. Then in descending order came professional people, housewives, clerical workers, salesmen and manual laborers.

Farmers and other agricultural workers were on the low end of the scale, with only 50% of them reporting headaches.

More than half the general population have headaches, with women getting more of them than men, the survey showed. Youngsters evidently have more headaches than oldsters, too, with 78% of those under 20 reporting them, while only 28% of those over 60 reported them.

The figures also showed single persons suffer most, while the widowed suffer the least.

Factors that make a person susceptible to headaches include advanced education, an unmarried state and heredity. Factors that actually trigger off the discomfort may include temperature changes, sex tension, hunger or excessive smoking.

Science News Letter, June 15, 1957

## Do You Know?

A new coating for aircraft windshields has a low electrical resistance and conducts an electric current to heat the glass, melting ice and dissipating fog.

It is estimated the U. S. will have at least 230,000,000 people by 1975.

Yellow fever virus has been progressing northward toward the U. S., averaging 13 miles per month; during 1956 it reached Guatemala.

The peoples of the USSR speak no less than 85 languages.

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