

CONGRATULATIONS
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FROM
PHYSICIAN'S ASSOCIATE
CHIPPER WALLET
CLASS of '73



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Duke Researchers Develop Diagnostic Hypertension Aid

Duke researchers described last week a procedure which could aid in the early diagnosis of hypertension or high blood pressure, a condition which afflicts more than 23 million Americans.

The test offers the possibility of identifying hypertensive persons even before they begin to show the usual symptoms.

The presentation was made at the fall meeting of the American Society for Pharmacology and Experimental Therapeutics at Michigan State University in East Lansing.

The U.S. government recently launched an all-out program to try to prevent the thousands of unnecessary deaths in this country each year from heart failure, stroke or kidney disease as a result of high blood pressure. The condition can be controlled by drugs, but government figures show that at least half of the 23 million people who have high blood pressure don't even know it.

The procedure used by Duke researchers involves measuring the amount of an enzyme called dopamine-B-hydroxylase or DBH in a person's blood and comparing it with the blood DBH level of normal persons.

"One of the exciting things about this test is that we can pick out people that a doctor would have a hard time identifying as hypertensive because the blood pressure is unstable and there may be no other symptoms", said Dr. Saul M. Schanberg, professor of pharmacology and principal investigator on the project.

Schanberg said the test is based on a theory that hypertension is related to an overfunctioning of the sympathetic nervous system. The sympathetic nerves are part of the body's involuntary nervous system and are responsible partially for maintaining blood pressure and heart rate. This occurs through the release of a hormone, noradrenaline, at the nerve ending.

If the amount of this hormone in the

blood stream could be measured easily, doctors would have an accurate method of measuring whether the sympathetic nervous system was overfunctioning. But the hormone is rapidly changed as it circulates through the body, making it hard to determine what level is normal.

But there is another substance released into the bloodstream by the nerves along with the noradrenaline that can be measured—DBH. DBH is an enzyme which catalyzes or helps in the creation of noradrenaline. The enzyme is not rapidly destroyed in the bloodstream, and investigators believed it could be an accurate measure of whether the body's blood pressure control system was functioning properly.

Other investigators had tried in the past to correlate DBH levels with hypertension, but they had found such a wide range of DBH levels in the blood of apparently normal subjects that it was not possible to use the test as a diagnostic tool.

Schanberg and his co-workers, Richard Stone, Norman Kirshner, J. Caulie Gunnels and Roscoe R. Robinson, at first got the same wide range of results as the other investigators. They measured the DBH levels in the blood of 82 apparently healthy subjects between the ages of 22 and 35 and came up with values ranging from two to 100 units of DBH per liter of blood.

But in checking over the data, Schanberg found that the subjects fell principally into two groups. Sixty-two of the subjects—or 76 per cent—had DBH values below 35. Thirteen of the other 20, or 16 per cent, had values over 60.

The researchers then took subjects from the high group and from the low and tested them further. Over a period of a week, the researchers kept records of the subjects' blood DBH levels, blood pressure and the amount of catecholamines (such as noradrenaline) in

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'Chipper Wallet' Is Now a P.A.

Dick Moores isn't a man who lets the times pass him by.

He can't afford to.

As the writer and artist of "Gasoline Alley," which was the first American comic strip in which the characters aged, Moores has to keep current.

That's why, late in 1970, he made a

DO YOU REMEMBER CHIPPER?—After being introduced to INTERCOM readers two years ago as a Physician's Associate student, Chipper Wallet is now ready for graduation. In fact hundreds of thousands of newspaper readers across the country have been following the build-up all week to Chipper's graduation today in the "Gasoline Alley" comic strip. This pen-and-ink of Chipper was drawn for INTERCOM by "Gasoline Alley" artist Dick Moores. For more details on the relationship between Chipper and Duke, see the accompanying story.

trip over to Duke from his home at Fairview outside of Asheville to have a talk with Dr. Robert Howard, who was then director of the Physician's Associate Program.

Moores explained that in his "Gasoline Alley" family, the Wallets, there was a young man, Chipper, who was just coming back from service in Vietnam as a military corpsman. Moores was interested in having Chipper profit from his military medical experience and become a PA.

The idea delighted Howard and others at the PA Program, and they spent a day talking with Moores, answering his questions and letting him observe PA classroom work and training so he could satisfy his own demand for authenticity in the strip.

Over the following months Moores worked the PA idea into his strip and Chipper applied to the program. He received his letter of acceptance on July

10, 1971, and started to PA classes in September of that year.

True to his demand for authenticity, Moores left Chipper in the PA Program for the full two years. Several segments of the strip over that time were devoted to Chipper's training, and he found himself facing some of the same suspicions real-life PAs sometimes do.

Once, for example, when starting to conduct a preliminary examination on one patient while the doctor was seeing another, the patient objected: "Wait a minute! No young punk is going to examine me! Where's Doc?"

But, also as real-life PAs do, Chipper demonstrated his skill and training and convinced the patient of his value as an assistant to the physician.

Cartoonists must prepare their strips and send them to the syndicate that distributes them weeks and months in advance. Moores tries to keep 12 weeks ahead.

Several months ago, he called INTERCOM one day to check on the graduation date for the PA Class of '73, which is Chipper's class. He also inquired about the type program conducted at the graduation and the setting for the ceremonies.

He was told that the Duke PA graduation would be in August, that there would be a guest speaker and that the ceremonies would be in the Gross Chemical Laboratory Auditorium, which was described to him.

The scene of Chipper's graduation, which is the subject of today's strip in the approximately 200 newspapers that carry "Gasoline Alley," shows a speaker addressing the graduation audience in a large auditorium.

Aside from his PA link to Duke, Moores has some other ties here. His daughter Sara earned a Master of Arts in Teaching here in 1969, and his son Bill, now a heart surgeon, got his bachelor's degree here in 1962.

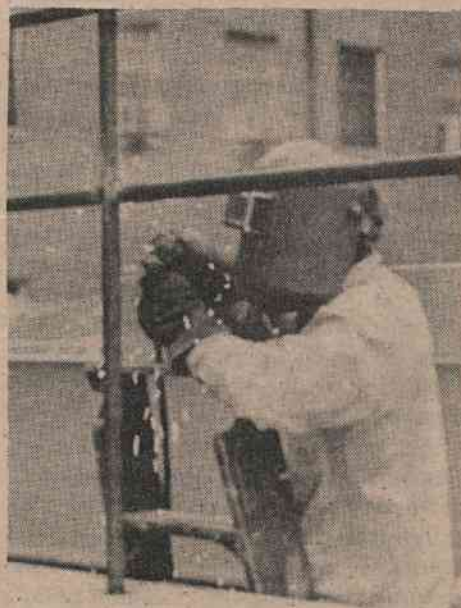
(While working on a road gang during a summer break at Duke, Bill was bitten by a rattlesnake. The surgeon in the Duke emergency room who treated him was Dr. William G. Anlyan, now vice president for health affairs.)

What will Chipper do now that he's a PA? Moores said he plans for him to continue working with "Doc," the general practitioner in his home town which has never been given a name in the strip.

"Gasoline Alley" was started more than 50 years ago by the late Frank King, with whom Moores worked until he took over the daily strip in 1960. Before becoming associated with King, his other work had included five years with Chester Gould, the creator of "Dick Tracy," and 14 years with Walt Disney drawing the "Uncle Remus" page and later "Scamp."

Moores produces "Gasoline Alley" for the Monday-Saturday newspapers. The Sunday strip is produced by Bill Perry of Orlando, Fla.

— JOE SIGLER



WELDER WIELDS WANING SPARKS—Bell Building's new air conditioning unit nears completion as certified welder Samuel Wheeler, from Lee's Welding Steel Service in Durham, puts some finishing touches on a guard rail around the fan unit. Abbott Lloyd, general superintendent of the medical center's Department of Engineering and Operations, said the 75-ton unit is designed to handle central air conditioning and heating for the front end of Bell Building's first, second and third floors. From trades helpers to insulators, more than 50 people have been instrumental in putting the unit together for operation. (Photo by Dale Moses)

Monday, September 3

Labor Day

Holiday

Labor Day unofficially marks the end of the summer vacation season. A story on Page 3 takes a look at this thing we call vacation and tells how some of the people around the medical center spent theirs.