

**Despite size, NFL players not more likely to develop heart disease, even after retirement, UT Southwestern researchers find**

DALLAS – Sept. 30, 2009 – Former professional football players with large bodies don't appear to have the same risk factors for heart disease as their non-athletic counterparts, UT Southwestern Medical Center researchers have found in studying a group of National Football League (NFL) alumni.

Compared to other men in a similar age range, retired NFL players had a significantly lower prevalence of diabetes, hypertension, sedentary lifestyles and metabolic syndrome, the study authors report. The scientific findings appear in the September issue of the *American Journal of Cardiology*.

“Despite their large body size, retired NFL players do not have a greater prevalence of heart disease risk factors when compared to the general population,” said Dr. Alice Chang, assistant professor of internal medicine at UT Southwestern and the study's lead author. “In fact, other factors such as age and high cholesterol levels were better predictors for heart disease than the body size of the former athletes in our study.”

When body mass index (BMI) standards are applied, more than half of all professional football players are considered overweight or obese, which is considered an indicator for heart disease risk. Dr. Chang said although a majority of these players are not as fit and active after retirement, they still had fewer risk factors for heart disease than men of the same age and body size from the Dallas Heart Study, a groundbreaking investigation of cardiovascular disease that involves thousands of Dallas County residents.

Staying physically fit earlier in life might have offset the risks associated with a large body size, said the study's senior author, Dr. Benjamin Levine, a professor of internal medicine at UT Southwestern, and director of the Institute for Exercise and Environmental Medicine – a joint program of UT Southwestern and Texas Health Presbyterian Hospital Dallas.

The study examined 150 former pro athletes and 150 normal counterparts from the Dallas Heart Study with an average age of 55. The median BMI for both groups was higher than 31, which is considered to be in the obese range.

Retired NFL players didn't get a totally clean bill of health, however. As a group they were found to have developed similar amounts of coronary atherosclerosis (hardening of the arteries) as the group of non athletes. Although they were less likely to have diabetes, they had higher rates of

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pre-diabetes, high fasting blood-sugar numbers that increase their risk for developing diabetes in the future.

The study authors' scientific investigation with a high-profile group could have far-reaching implications. More than 60 percent of offensive and defensive linemen at the high-school level, they note, also can be characterized through BMI as overweight or obese.

“The good news is that as long as you remain active and fit, even with a larger body, you can lower your risk for heart disease,” Dr. Chang said. “The bad news is that being a professional athlete doesn't eliminate your risk for developing heart disease later in life. Even professional athletes may be at risk for developing heart disease as they age.”

Professional athletes should continue exercise regimens after their professional careers are over, Dr. Chang said. For the public at large, the study reaffirms that exercise is an important way to decrease the risk for heart disease, Dr. Chang said.

Other UT Southwestern researchers who contributed to the study include Dr. Song Zhang, assistant professor of clinical sciences; and Amit Patel, fourth-year medical student. Researchers from the Cooper Clinic in Dallas, the University of Washington, Emory University School of Medicine, the Baptist Cardiac and Vascular Institute, and the Living Heart Foundation also contributed to the study.

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