

Fatty Heart Linked to Sudden Cardiac Death

Source: *Health Canal*

CUMC researchers have found a link between fat accumulation in the heart and sudden cardiac death. Obesity and diabetes, both known risk factors for sudden cardiac death, can lead to extra fat in the heart. But until now, separating the specific effects of so-called "fatty heart" from those of obesity and diabetes has been difficult.

To cardiologist John Morrow, MD, it seemed logical that a fatty heart should lead to problems. After all, fat build-up in the liver causes liver problems.

Morrow and his colleagues happened upon genetically engineered mice in a neighboring lab that had normal metabolism and weight, but an abnormally fatty heart. Although the mice seemed healthy, many died young suddenly from heart arrhythmia. "We found that the surplus of fat changed the heart's electrical properties, which frequently sparked an erratic heartbeat and sudden death," said Morrow.

Next the researchers plan to use these mice to try to identify the molecular mechanisms that lead to fatal arrhythmia in humans. Their long-term goal is to find a way to correct the rhythm.