

Increased Ischemic Cardiac Deaths in Central Indiana in Summer Months Compared to Winter Months
Shannon Cook¹, Frank Lloyd Jr.², Alfie Ballew², George E Sandusky¹

¹Department of Pathology, IU School of Medicine; ²Marion County Morgue Indianapolis IN 46202

Cardiovascular diseases have been the leading cause of death in the United States for several decades. Despite sustained declines in the mortality rates from these diseases, the magnitude of the disease is still staggering. One large recent study, using data on hundreds of heart attacks documented in the National Registry of Myocardial Infarction, found that 53 percent more cases in winter than in summer. The primary culprit, many believe, is temperature. Cold weather narrows coronary arteries and raises blood pressure, stressing the heart. Physical strain and ruptured plaques caused by shoveling snow are also commonly cited.

But in a recent study, two researchers, found that the risk increases even in warm climates. Analyzing death certificates in seven regions with different climates, Los Angeles, Texas, Arizona, Pennsylvania, Massachusetts and others found that cardiovascular deaths rose up to 36 percent between summer and winter, regardless of climate and temperatures

In this study we evaluated the incidence of ischemic cardiomyopathy in the Central Indiana area in the winter months compared to the summer months for the years 1998 to 2002. Approximately 5325 deaths were seen in the Marion County Morgue in central Indiana in this time period. There were 609 ischemic cardiac deaths seen in the summer (March 15th through October 15th) compared to 434 ischemic cardiac deaths seen in the winter (October 15th through March 15th). The deaths by years in the summer were 129, 131, 92, 127, and 130 and in the winter were 95, 96, 90, 96, and 57 respectively. In conclusion, this study was consistent with the outcome as the previous study done in multiple northern and southern cities in the country.

Mentor: George E Sandusky, Department of Pathology, IU School of Medicine, Indianapolis, In 46202