

## Deadly heart attacks more common on a Monday

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Serious heart attacks are more likely to happen at the start of the working week than at any other time, according to new research presented today at the <u>British Cardiovascular Society (BCS) conference</u>



## in Manchester.

Doctors at the Belfast Health and Social Care Trust and the Royal College of Surgeons in Ireland analyzed data from 10,528 patients across the island of Ireland (7,112 in the Republic of Ireland, 3,416 in Northern Ireland) admitted to hospital between 2013 and 2018 with the most serious type of heart attack. This is known as an ST-segment elevation myocardial infarction (STEMI) and occurs when a major coronary artery is completely blocked.

The researchers found a spike in rates of STEMI heart attacks at the start of the working week, with rates highest on a Monday. There were also higher rates of STEMI than expected on a Sunday.

Scientists have so far been unable to fully explain why this "Blue Monday" phenomenon occurs. Previous studies suggesting that heart attacks are more likely on a Monday have highlighted an association with circadian rhythm—the body's sleep or wake cycle.

There are more than 30,000 hospital admissions due to STEMI each year in the U.K. It requires emergency assessment and treatment to minimize damage to the heart, and this is normally performed with emergency angioplasty—a procedure to re-open the blocked coronary artery.

Cardiologist Dr. Jack Laffan, who led the research at the Belfast Health and Social Care Trust, said, "We've found a strong statistical correlation between the start of the working week and the incidence of STEMI. This has been described before but remains a curiosity. The cause is likely multifactorial, however, based on what we know from previous studies, it is reasonable to presume a circadian element."

Professor Sir Nilesh Samani, Medical Director at the British Heart Foundation (BHF), said, "Someone is admitted to <u>hospital</u> due to a life-



threatening <u>heart attack</u> every five minutes in the U.K., so it's vital that research continues to shed light on how and why heart attacks happen.

"This study adds to evidence around the timing of particularly serious heart attacks, but we now need to unpick what it is about certain days of the week that makes them more likely. Doing so could help doctors better understand this deadly condition so we can save more lives in future."

## Provided by British Heart Foundation

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