

Sudden death during sport: Education to improve survival rates

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More widespread availability of defibrillators and education of the general public could boost survival rates fourfold amongst athletes suffering cardiac arrest, a study has found. In less than half of cases, a bystander initiated cardiopulmonary reanimation. This is crucial as survival at hospital admission is 4 times higher when CPR is attempted and 10 times greater when an electric shock is delivered.

The study by a Paris hospital outlined the poor prognosis of sudden death during sport, despite the fact that efficient measures are known, but not correctly and systematically applied, across France.

Until now, studies of sudden death during sport focused on young competitive athletes, although this group represents a small percentage of sudden deaths during sport. The study is the first to collect and analyze 700 sudden deaths during sport activity in the general French population. The three sports most often involved were cycling, running and soccer, with females representing only 5% of cases. The occurrence of such a dramatic event leads to family screening in 25% of cases.

The story of a young competitive soccer player dying suddenly during a match always elicits great emotion and has a tremendous media impact. However, sudden death in young competitive athletes represents only a minority of such deaths occurring during sports activity. The story of a middle-aged man collapsing during his Sunday morning run is rarely considered, but occurs more frequently. Although pulmonary, neurological or aortic injuries may result in sudden death, the vast

majority of cases are related to cardiac arrhythmias and cardiac arrest. Although regular [physical activity](#) is known to be beneficial in terms of [cardiovascular health](#), sport, particularly when it is practised intensively by untrained individuals, may present a trigger for cardiac arrhythmias.

The group collected the data for almost 700 sudden deaths over a 4-year period. The deaths occurred during or immediately after sports activity in France. Most cases occurred during the summer, probably because of more frequent sporting activity at this time of year. The patients were generally relatively young (mean age approximately 45 years), and only a small number of subjects (95%) of subjects were male and most deaths occurred during non-competitive sport with young competitive athletes representing only

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