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Swimming, racquet sports, and aerobics linked to best odds of staving off death

Specific types of sport and exercise seem to be associated with differing risk levels

In terms of exercise, swimming, racquet sports, and aerobics seem to be associated with the best odds of staving off death from any cause and from heart disease and stroke, in particular, suggests research published online in the *British Journal of Sports Medicine*.

The health benefits of physical activity are legion, but to try and quantify the impact of different types of sports and exercise on the odds of beating death, the researchers analysed data from 11 nationally representative annual health surveys for England and Scotland, carried out between 1994 and 2008.

In all, the analysis included 80,306 adults with an average age of 52. In each of the surveys, participants were quizzed about what type and how much physical activity they had done in the preceding 4 weeks, and whether it had been enough to make them breathless and sweaty.

Physical activity included heavy duty domestic chores, gardening, and DIY/maintenance; walking; and the six most popular forms of sport/exercise practised—cycling; swimming; aerobics/keep fit/gymnastics/dance; running/jogging; football/rugby; and badminton/tennis/squash.

Less than half of the respondents (just over 44%) met the recommended weekly physical activity quota when they were surveyed.

The survival of each participant was tracked for an average of 9 years, during which time 8790 of them died from all causes and 1909 from heart disease/stroke.

After taking account of potentially influential factors, the analysis of the pooled data indicated varying odds of death according to sport/exercise type.

Overall, compared with the survey respondents who said they had not done a given sport, risk of death from any cause was 47% lower among those who played racquet sports; 28% lower among swimmers; 27% lower among aerobics fans; and 15% lower among cyclists.

No such associations were seen for runners/joggers or those who played football/rugby.

When the researchers looked at risk of death from heart disease and stroke, they found that playing racquet sports was associated with a 56% lower risk, with equivalent figures of 41% for swimming and 36% for aerobics, compared with those who did not participate in these sports.

Neither cycling, running/jogging, nor football/rugby were associated with a significantly reduced risk of death from cardiovascular disease, the analysis showed.

The researchers did find a 43% reduced risk of death from all causes and a 45% reduced risk from cardiovascular disease among runners and joggers when compared with those who didn't run or jog, but this apparent advantage disappeared when all the potentially influential factors were accounted for.

And few of the survey respondents said they played football or rugby regularly, which might also explain the apparent low impact of these activities on death risk in this study, explain the researchers.

For some sports, the higher the intensity, duration, and volume, the greater was the reduction in risk, while for others a U shaped curve emerged, indicating that lower intensity might be better than higher intensity or no participation at all. But due to the small number of deaths involved, these findings should be regarded as preliminary, say the researchers.

This is an observational study so no firm conclusions can be drawn about cause and effect, added to which the relatively short recall period, the 'seasonality' of certain sports, and the inability to track changes in levels of sports participation throughout the monitoring period, may all have had some bearing on the results, caution the researchers.

Nevertheless, they conclude: "These findings demonstrate that participation in specific sports may have significant benefits for public health," adding that they should help health professionals to bang the drum for getting involved in regular sports/exercise as good way of staying healthy.