

MEDIA RELEASE

Research paper: Longevity of outstanding sporting achievers: Mind versus muscle (available online at <https://doi.org/10.1371/journal.pone.0196938>)

New study reveals chess players live longer

- **World-first study compares life expectancy of chess players with that of the general population and Olympians**
- **Elite chess players live up to 14 years longer than the general population**
- **Mind sport athletes have similar survival advantage to elite competitors in physical sports**

Researchers at the ARC Centre of Excellence in Population Ageing Research (CEPAR) have compared in a world-first study the life expectancy of elite chess players with that of the general population and Olympic athletes using advanced statistical methods. The study found that top chess players live up to 14 years longer than the general population.

In the study, [published in PLoS ONE](#), the CEPAR researchers Dr An Tran-Duy and Professor Philip Clarke, in collaboration with Dr David Smerdon of the University of Queensland, compared the survival of 1,208 chess players from 28 countries relative to the life expectancy of the general population from the same countries, and made indirect comparisons with similar data on Olympic medallists.

They found that chess players live on average around 8 years longer than the general population. The gaps were the largest for players from Eastern Europe who live up to 14 years longer.

“What sparked our interest in this topic have been media reports that the stress of the chess game can increase mortality. For example, the death of two players at a major chess tournament in Norway in 2014 was interpreted as being due to stress of the game,” said Professor Clarke, CEPAR Chief Investigator who conceived the project at the University of Melbourne.

“We thought that the relationship between playing chess and mortality needed much more systematic analysis – to examine the overall impact of being a top chess player we obtained information on all current chess Grandmasters and compared their life expectancy with a matched rate of mortality in the general population for each country they represented,” he said.

“The results of our study debunk the myth chess Grandmasters live short lives. In fact, they live longer,” said Professor Clarke.

“We find that there is no negative impact on mortality, instead chess players live up to 14 years longer than the general population – overturning the view that the stress of chess can have an overall negative impact on the survival of players at the elite level,” he said.

“The positive effects of chess on longevity are particularly interesting in an era in which the so-called ‘mind sports’, like chess, poker and competitive video games have become highly professionalised,” said CEPAR Senior Research Fellow and lead author Dr An Tran-Duy.

“The elite mental athletes in our study had a substantially higher life expectancy than the general population,” he said.

“There may be potential direct health benefits of chess expertise, with evidence suggesting that playing chess can reduce the risk of dementia, as well as physically alter the structure of the brain,” said Dr Tran-Duy.

The researchers also made indirect longevity comparisons with similar data on 15,157 Olympic medallists. Both Olympians and chess Grandmasters represent players at the very highest levels of their respective professions.

“We compared the life expectancy of elite chess players with Olympic medallists as well as the general population to see whether there were any differences,” said co-author Dr David Smerdon who is himself an elite chess player.

The researchers found that chess Grandmasters enjoy the same advantages in life expectancy as Olympians.

About CEPAR

The ARC Centre of Excellence in Population Ageing Research (CEPAR) is a unique, independent research centre and collaboration between academia, government and industry, committed to delivering solutions to one of the major social challenges of the 21st century. Funded primarily by the Australian Research Council (ARC) through the Centres of Excellence scheme, CEPAR’s research is providing global solutions to the economic and social challenges of population ageing and building a new generation of researchers to global standard with an appreciation of the multidisciplinary nature of population ageing. The Centre is based at the University of New South Wales (UNSW) with nodes at The Australian National University (ANU), The University of Melbourne, The University of Sydney and The University of Western Australia (UWA).

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