

## BMJ OPEN

### Cutting daily sitting time to under 3 hours might extend life by 2 years

*And watching TV for less than 2 hours a day might add extra 1.4 years*

[Sedentary behaviour and life expectancy in the USA: a cause-deleted life table analysis doi 10.1136/bmjopen-2012-000828]

Restricting the amount of time spent seated every day to less than 3 hours might boost the life expectancy of US adults by an extra 2 years, indicates an analysis of published research in the online journal **BMJ Open**.

And cutting down TV viewing to less than 2 hours every day might extend life by almost 1.4 years, the findings suggest.

Several previous studies have linked extended periods spent sitting down and/or watching TV to poor health, such as diabetes and death from heart disease/stroke.

The researchers used data collected for the National Health and Nutrition Examination Survey (NHANES) for 2005/6 and 2009/10, to calculate the amount of time US adults spent watching TV and sitting down on a daily basis.

NHANES regularly surveys a large representative sample of the US population on various aspects of their health and lifestyle.

They trawled the research database MEDLINE, looking for published studies on sitting time and deaths from all causes, and pooled the different relative risk data from the five relevant studies, involving almost 167,000 adults. The database was then reanalysed, taking account of age and sex.

They combined these data and the NHANES figures to come up with a population attributable fraction (PAF) - an estimate of the theoretical effects of a risk factor at a population, rather than an individual level - to calculate the number of deaths associated with time spent sitting down.

The PAFs for deaths from all causes linked to sitting time and TV viewing were 27% and 19%, respectively.

The results of life table analyses indicates that cutting the amount of time spent sitting down every day to under three hours would add an extra two years to life expectancy.

Similarly, restricting time spent watching TV to under two hours daily would extend life expectancy by an extra 1.38 years.

The authors emphasise that their analysis assumes a causal association rather than proving that there is one. But they point to the evidence showing the detrimental effect of a sedentary lifestyle on health.

And they caution that their findings should not be interpreted as meaning that someone who leads a more sedentary lifestyle can expect to live two or 1.4 years less than someone who is more active.

“The results of this study indicate that extended sitting time and TV viewing may have the potential to reduce life expectancy in the USA,” they write.

“Given that the results from objective monitoring of sedentary time in NHANES has indicated that

adults spend an average of 55% of their day engaged in sedentary pursuits, a significant shift in behaviour change at the population level is required to make demonstrable improvements in life expectancy," they conclude.

Further research will be required before recommendations on safe levels of sedentary behaviour can be made, they add.