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## Staff should start work at 10am to avoid 'torture' of sleep deprivation

Work start times should fit with body clock, Oxford University academic claims as study finds 9-to-5 leaves employees with higher risk of illness



Work should begin at 10am for those under 55, study finds Photo: Alamy

By Sarah Knapton, Science Editor

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Forcing staff to start work before 10am is tantamount to torture and is making employees ill, exhausted and stressed, an Oxford University academic has claimed.

Before the age of 55, the circadian rhythms of adults are completely out of sync with normal 9-to-5 working hours, which poses a "serious threat" to performance, mood and mental health.

Dr Paul Kelley, of Oxford University, said there was a need for a huge societal change to move work and school starting times to fit with the natural body clock of humans.

Experiments studying circadian rhythms have shown that the average 10-year-old will not start focussing properly for academic work before 8.30am. Similarly, a 16-year-old should start at 10am for best results and university students should start at 11am.

Dr Kelley believes that simply moving school times could raise grades by 10 per cent. He was formerly a head teacher at Monkseaton Middle School, in North Tyneside, where he changed the school start day from 8.30am to 10am and found that the number of top grades rose by 19 per cent.

Similarly, companies who force employees to start work earlier are also likely to be hurting their output, while storing up health problems for staff.



Dr Paul Kelley said work and school starting times should fit with the natural body clock Photo: GETTY

"This is a huge society issue," Dr Kelley told the British Science Festival in Bradford. "Staff should start at 10am. You don't get back to (the 9am) starting point till 5.5. Staff are usually sleep-deprived. We've got a sleep-deprived society.

"It is hugely damaging on the body's systems because you are affecting physical, emotional and performance systems in the body.

*'It is hugely damaging on the body's systems because you are affecting physical, emotional and performance systems in the body...'*

- Dr Paul Kelley

"Your liver and your heart have different patterns and you're asking them to shift two or three hours. This is an international issue. Everybody is suffering and they don't have to.

"We cannot change out 24-hour rhythms. You cannot learn to get up at a certain time. Your body will be attuned to sunlight and you're not conscious of it because it reports to

hypothalamus, not sight.

"This applies in the bigger picture to prisons and hospitals. They wake up people and give people food they don't want. You're more biddable because you're totally out of it. Sleep deprivation is a torture."

Sleep deprivation has been shown to have major impacts on health. Just one week with less than six hours' sleep each night leads to 711 changes in how genes function.

Lack of sleep impacts performance, attention, long-term memory and encourages drug and alcohol use.

It also leads to exhaustion, anxiety, frustration, anger, impulsive behaviour, weight gain, risk-taking, high blood pressure, lower immunity, stress and a raft of mental health conditions.

Neuroscientists say teens are biologically predisposed to go to sleep at around midnight and not feel fully awake and engaged until around 10am.

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- How to get to sleep: eight surprising tricks and tips

Dr Kelley said that almost all students were losing around 10 hours of sleep a week because they were forced to get up too early.

"Just by changing the start time you can improve quality of life for whole generations of children," he added.

"There are major societal problems that are being caused by that. But the opportunities are fantastic. We have an opportunity here to do something that would benefit millions of people on



Earth."



Teenagers are being allowed to start school at 10am to see if it improves their GCSE scores Photo: PA

Tens of thousands of children are starting school at 10am in a ground-breaking experiment by Oxford to prove that later classes can improve exam results.

GCSE students from more than 100 schools across England will take part in the four-year project based on scientific evidence which suggests teenagers are out of sync with traditional school. The team is hoping to publish findings in 2018.

A Department of Education spokesman said: "We have given all schools the freedom to control the length of the school day because they are best placed to know what's best for their communities.

"Allowing more time for supervised study and extra-curricular activities has been shown to benefit disadvantaged pupils in particular by giving them access to purposeful, character-building activities, which is why we are helping schools offer a longer day."

## Sleep habits of those at the top

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As Prime Minister, **Margaret Thatcher** famously slept for just four hours a night during the week, though she took regular daytime naps.

When asked how many hours sleep people need, **Napoleon Bonaparte** is said to have replied: "Six for a man, seven for a woman, eight for a fool."

US President **Barack Obama** is understood to only sleep for six hours a night.

Business magnate **Donald Trump** boasts just three to four hours sleep nightly.

**Sir Winston Churchill** managed on just four hours sleep a night during World War Two – but insisted on a two hour nap in the afternoon.

Scientist **Albert Einstein** reportedly slept for 10 hours a night, plus daytime naps.

**Bill Gates**, former chief executive of Microsoft, says he needs seven hours of sleep to “stay sharp”.

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How we moderate

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