**College students need their sleep!**

*Research into the connection between sleep and learning suggests that sleep is even more important than previously thought.*

Only a month and a half into her first semester at college, Liz, a student at Harvard University, already wishes she had more time for sleep. Several mornings each week, Liz rises before six to join her teammates for rowing practice. On days like these she seldom sleeps more than seven hours per night, but it's not as if she doesn't try.

**(1)**…… She often misses opportunities to socialize in order to get her coursework done and still get to bed at a reasonable time. Even without knowing just how important sleep is to learning, she tries to make time for it.

This is not always easy, however. The many demands on her time include her chosen sport, as well as activities like studying optional extra subjects. **(2)**…… She and other students who think the same way as her sacrifice sleep to fit everything in. It isn't surprising to learn, therefore, that students represent one of the most sleep-deprived segments of the population. Coursework, sports and new-found independence all contribute to the problem.

Studies have found that only eleven percent of college students sleep well consistently, while seventy-three percent experience at least occasional sleep issues, as Liz does. Forty percent of students felt well-rested no more than two days per week. Poor sleep is no longer considered a harmless aspect of college. **(3)**…… The results of this show that it has significant impact on memory and learning.

Inadequate sleep negatively affects our learning processes. It is simply more difficult to concentrate when we are sleep deprived; this affects our ability to focus on and gather information presented to us, and our ability to remember even those things we know we have learned in the past. **(4)**…… That is, the effect that many sleep researchers think it has on memory consolidation, the process by

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which connections in the brain strengthen and form into something more permanent.

A number of studies have shown that poor quality sleep can negatively impact on a person's ability to turn factual information or processes they've just learned into long-term memories. **(5)**…… And if this opportunity is missed – such as when a student stays awake all night – it generally can't be made up. Even if sleep is 'recovered' on subsequent nights, the brain will be less able to retain and make use of information gathered on the day before. These findings shed new light on the importance of making time for sleep, not only for college students like Liz, but for anyone who wants to continue to learn.

Early in her first semester at Harvard, Liz feels like she is maintaining a healthy balance, but only just. Trying hard to get the most out of her time in college, she admits it's sometimes hard to see sleep as an important part of her athletic and scholastic objectives. **(6)**…… Rather than thinking of sleep as wasted time or even time off, we should, they say, instead view it as the time when our brain is doing some of its most important work.

**A** Although it may seem unnecessary to do these, Liz views them as essential.

**B** It also has a less obvious but possibly even more profound impact.

**C** Liz knows that she must nevertheless do her best to avoid it.

**D** Research suggests that the most critical period of sleep for this to happen in is the one on the same day.

**E** In fact, Liz's behaviour is not at all like that of other college students her age.

**F** But that's exactly what many researchers say it is.

**G** Quite the opposite, actually, as research into its effects progresses.

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