

Warning on use of melatonin for children's sleep

February 25 2015, by David Ellis

Sleep researchers at the University of Adelaide are warning doctors and parents not to provide the drug melatonin to children to help control their sleep problems.

Melatonin is a hormone produced in the body with the onset of darkness. It plays an important role in fine tuning people's circadian rhythms, such as the timing of sleep onset, as well as other biological processes.

In a paper published in the Journal of Paediatrics and Child Health, Professor David Kennaway, Head of the Circadian Physiology Laboratory at the University of Adelaide's Robinson Research Institute, warns that providing [melatonin supplements](#) to children may result in serious side effects when the children are older.

"The use of melatonin as a drug for the treatment of sleep disorders for children is increasing and this is rather alarming," Professor Kennaway says.

"Melatonin is registered in Australia as a treatment for primary insomnia only for people aged 55 years and over, but it's easily prescribed as an 'off label' treatment for sleep disorders for children."

Professor Kennaway says there is extensive evidence from laboratory studies that melatonin causes changes in multiple physiological systems, including cardiovascular, immune and metabolic systems, as well as reproduction in animals.

"Melatonin is also a registered veterinary drug which is used for changing the seasonal patterns of sheep and goats, so they are more productive for industry. If doctors told parents that information before prescribing the drug to their children, I'm sure most parents would think twice about giving it to their child," Professor Kennaway says.

"The word 'safe' is used very freely and loosely with this [drug](#), but there have been no rigorous, long-term safety studies of the use of melatonin to treat [sleep disorders](#) in children and adolescents.

"There is also the potential for melatonin to interact with other drugs commonly prescribed for [children](#), but it's difficult to know without clinical trials assessing its safety."

Professor Kennaway, who has been researching melatonin for the past 40 years, says these concerns have largely been ignored throughout the world.

"Considering the small advances melatonin provides to the timing of sleep, and considering what we know about how [melatonin](#) works in the body, it is not worth the risk to child and adolescent safety," he says.

More information: Kennaway, D. J. (2015), "Potential safety issues in the use of the hormone melatonin in paediatrics." *Journal of Paediatrics and Child Health*. doi: 10.1111/jpc.12840

Provided by University of Adelaide

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