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## **Scientists To Solve Insomnia Mystery**

Sleepless Australians could soon know whether their insomnia will respond to treatment that will get them snoozing through the night.

Researchers at the Woolcock Institute of Medical Research are setting out to solve one of the biggest insomnia mysteries: Why the condition affects individuals so differently.

With this knowledge in the sleep arsenal, doctors will be able to direct patients to the treatment that will work best for them.

The team will recruit more than 300 Sydneysiders and Adelaidians with insomnia to better understand this chronic sleep condition, leading to improved diagnosis and treatment.

"Insomnia is incredibly common and has a hugely detrimental effect on people's lives, yet we know relatively little about the cause or how it manifests itself," says Dr Christopher Gordon, sleep specialist and a chief investigator of the Woolcock study.

"It's usually diagnosed through a patient's own self-reports and the treatment can be very hit-and-miss. There's a lot of scope to dramatically improve the way it's managed."

One in 10 Australians have insomnia, a persistent disorder that makes it hard to fall asleep, stay asleep or both. Sufferers often wake up feeling tired, unrefreshed and sapped of the energy needed to perform at work and get through the day.

But as Dr Gordon explains, not all insomniacs are created equal.

"Interestingly, some people with insomnia are left bleary-eyed and exhausted after a poor sleep while others are able to get on with their day without too much difficulty," he says.

"For doctors diagnosing the condition it can be impossible to know which of their patients are more at risk of debilitating effects so they can be fast-tracked onto treatment."

Treatment itself also posed a problem. The gold standard treatment, cognitive behavioral therapy, doesn't work for 30 per cent of patients, many of whom go on to relapse.

The researchers hope to develop a phenotyping toolkit used by clinicians to better diagnose the disorder and distinguish which patients will best respond to treatment.

To do this, the team need to recruit 325 adults with insomnia and collect a raft of sleep, mood, physical activity and brain function information. Recruits also spend two nights at specialist sleep labs undergoing sleep monitoring and brain function testing before starting a course of cognitive behavioural therapy.

The assessments are thorough, covering memory tasks, driving simulation, neuro-cognitive and balance tests as well as brain, heart and body temperature monitoring and tests to establish levels of the sleep hormone melatonin.

"This is a great opportunity for sufferers to get cutting-edge testing of their disorder and free access to therapy under the guidance of Australia's top sleep researchers," Dr Gordon says.

"That should be a huge boost for people with insomnia, many who try different treatments unsuccessfully and end up thinking they will never get better."

The study, a partnership between the Woolcock and the Adelaide Institute for Sleep Health, is open to people who have trouble falling asleep, staying asleep or waking too early at least three times a week for three months or more. They must also suffer some type of daytime impairment. Participants must be aged 18 or over, attempt to go to sleep around 10pm-midnight each night and be able to attend sleep labs in Sydney or Adelaide.

Those interested in participating should visit [www.sleepresearch.com.au](http://www.sleepresearch.com.au) to find out more information and register to participate.

The project is run by the Cooperative Research Centre for Alertness, Safety and Productivity, an industry and federal government-funded initiative aimed at improving sleep health, workplace safety and productivity.

### **Insomnia in Australia**

- Ten per cent of Australians have insomnia, defined as trouble falling asleep or staying asleep at least three times a week for three months or more.
- Older people with poor health are most at risk. Rates are higher for women and for shift workers.
- Many poor sleepers have developed poor sleeping habits.
- Cognitive behavioural therapy is the most effective treatment. Sleeping tablets are a short-term fix only.
- Those with ongoing trouble sleeping, persistent problems with mood, restlessness in bed, severe snoring or waking unrefreshed should talk to their doctor.

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