Sleep Research

The latest scientific results

Consistent with earlier scientific findings, a study undertaken by the University of Sydney, Australia and funded by the Australian Wool Innovation, has found that a better night's sleep is achieved when sleeping in or under wool.

Australian Wool Innovation Ltd, is the owner of The Woolmark Company Pty Ltd

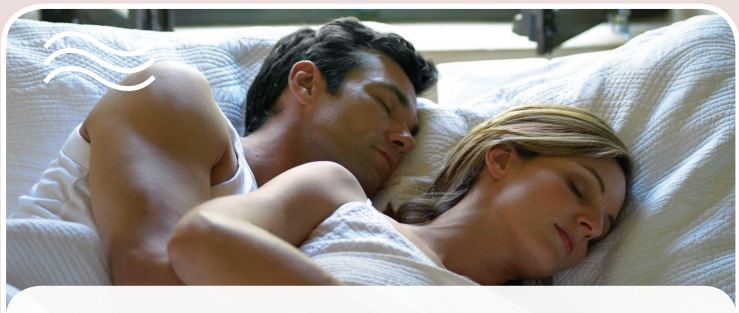
1 In the pilot stage of this 3-year study, eight volunteers participated in the study and were tested in varying temperatures using both wool and non-wool sleepwear and bedding products.

2 Results were derived using polysomnography which is currently the standard technique where subjects have brain wave patterns measured and analysed.

3 According to this study, wool sleeping apparel and bedding increases total sleep time and improves sleep efficiency.

In hot (29 degrees Celsius) conditions, wearing wool sleepwear saw participants sleep significantly longer; reflecting faster sleep onset and waking up less frequently (Total Sleep Time, see figure 1).

Figure 1. Comparison of Total Sleep Time between wool and non-wool apparel under hot conditions.



In both cold (17 degrees Celsius) and **neutral** (22 degrees Celsius) conditions, the combination of wool sleepwear and bedding saw participants have a more efficient sleep (see Figure 2) compared to when tested using non-wool sleepwear and bedding.

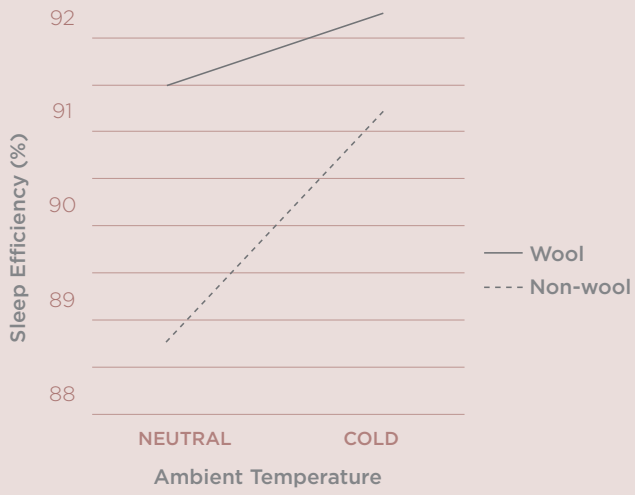


Figure 2. Comparison of Sleep Efficiency between wool and non-wool sleeping apparel and bedding under warm (22°C) and cold (17 °C) conditions. Sleep efficiency is the portion of time spent asleep compared to total time in bed; the higher the proportion the higher the sleep efficiency.

For more information please visit:
www.woolmark.com/working-with-wool/wool-bedding

Does wool improve sleep quality?

The scientific evidence

THE WOOLMARK COMPANY®

Previous studies suggest that sleep quality improves when sleeping on or under wool. This appears to be related to wool's unique temperature and moisture management properties, and texture. You can read about these studies below.

1 The use of a fleecy wool underlay enabled sleepers to be more 'settled' and improved their own assessment of sleep quality.[1]

2 Sleepers preferred wool blankets (when compared with cotton/acrylic blends) for their temperature regulation properties.[2]

3 Wool sheepskin underlay was shown to be better at diffusing pressure points when compared with cotton sheets.[3]

4 The use of wool-on sheepskin as underlay more than halved the incidence of lower back pressure ulcers.[4]

5 The rate of weight gain in underweight newborns was 61% higher when sleeping on a wool underlay compared to a cotton sheet.[5]

6 Jaundiced newborns sleeping on wool were more settled when sleeping compared to those on cotton – around 30% of babies on wool cried compared with 67% on cotton.[6]

7 The incidence of allergies to wool are described in the scientific literature as 'uncommon' or 'rare'.[7]

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