

Wool & Sleep

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Recent scientific studies show that wool bedding and sleepwear promote a better night's sleep.

By regulating body temperature far better than any other fibre, wool helps keep a sleeper in 'the thermal comfort zone'.

Healthy sleep is as important to human health as a healthy diet and exercise.



Yet, people aren't getting enough sleep.

62% of the adults who responded to a recent worldwide survey said they don't sleep well.

80% of adults surveyed said they want to improve the quality of their sleep.

Source Philips Global Sleep Survey¹

How to Sleep Better with Wool

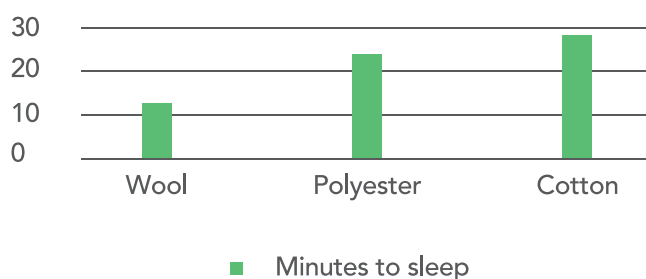
Physical space plays a large role in the quality and duration of your sleep.¹ Recommendations for improving sleep include "setting the bed for success,"² and we know that sleep quality can be affected by the fabric of bed linens and sleepwear.³

A combination of wool sleepwear and bedding has been shown to produce a deep and longer sleep, with sleepers waking less frequently.⁴

This research built on earlier research showing that periods of immobile/REM-stage sleep increased when participants slept on a fleecy wool underblanket. Participants reported feeling better in the morning and having improved sleep quality.⁵ Sleeping on wool has been shown to⁶

- provide comfort to pressure points
- give better insulation to the sleeper than other fibres
- absorb perspiration better than alternatives
- feel reassuring

The Impact of Sleepwear Fibre Type



The Sleep Microclimate

Scientists believe that the benefits of sleeping in wool are related to wool's superior moisture management – the ability to keep us dry and comfortable.⁴

Wool fibre is approximately twice as effective as cotton at moving moisture vapour through fabric and 10 times better than polyester.

During sleep, wool helps moisture flow outwards from the body, keeping the sleeper drier and more comfortable than fabrics made of other fibres. Scientists call this buffering.

How buffering works:

As the rate of moisture evaporated from the skin increases, the relative humidity of the microclimate adjacent to the skin increases. Wool fibres respond by increasing their moisture vapour content, which slows (or buffers) the rate of rise in humidity next to the skin.

As moisture levels decrease, the fibres give up some of their stored moisture, again slowing the rate of humidity change.⁷

These properties hold true irrespective of whether the wool has been processed by the woollen or worsted system, and largely irrespective of yarn twist.⁸

Sleeping 60 to 90 minutes more per night can make you happier and healthier.

Almost 20% of all car crash accidents and injuries are associated with sleepiness.



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¹ Philips Global Sleep Survey, 2019 answered by over 11,000 adults from 12 countries. <https://www.usa.philips.com/c-dam/b2c/master/experience/smartsleep/world-sleep-day/2019/2019-philips-world-sleep-day-survey-results.pdf>

² Are you sleeping enough? 16 Aug 2019 Ashley Viens, World Economic Forum <https://www.weforum.org/agenda/2019/08/we-need-more-sleep/>

³ N.A. G. Johnson and I.M. Russell (eds). Advances in Wool Technology. The Textile Institute, CRC Press, Woodhead Publishing Limited (Cambridge, England, 2009) p. 273 (buffering), p. 284 (30% absorption)

⁴ The effects of fabric for sleepwear and bedding on sleep at ambient temperatures of 17°C and 22°C. Shin, M., Halaki, M., Swan, P., Ireland, A., and Chow, C. Nature and Science of Sleep, Volume 2016:8 Pages 121–131, 22 April 2016. <https://www.dovepress.com/the-effects-of-fabric-for-sleepwear-and-bedding-on-sleep-at-ambient-te-peer-reviewed-article-NSS>

⁵ N.A. G. Johnson and I.M. Russell (eds). Advances in Wool Technology. The Textile Institute, CRC Press, Woodhead Publishing Limited (Cambridge, England, 2009) p. 273, p. 284

⁶ P.R. Dickson, Effect of a fleecy woollen underlay on sleep. The Medical Journal of Australia 140 (1984) pp. 87-89.

⁷ N.A. G. Johnson and I.M. Russell (eds). Advances in Wool Technology. The Textile Institute, CRC Press, Woodhead Publishing Limited (Cambridge, England, 2009) p. 273 (buffering), p. 284 (30% absorption)

⁸ R. Laing and P. Swan, Wool in Human Health and Well-being, from Natural Fibres: Advances in Science and Technology Towards Industrial Applications (Springer, Netherlands, 2016) pp. 19-34. 5