



The call of nature:

Urinary problems, their effect on men's sleep, and demand for natural solutions



The value of sleep

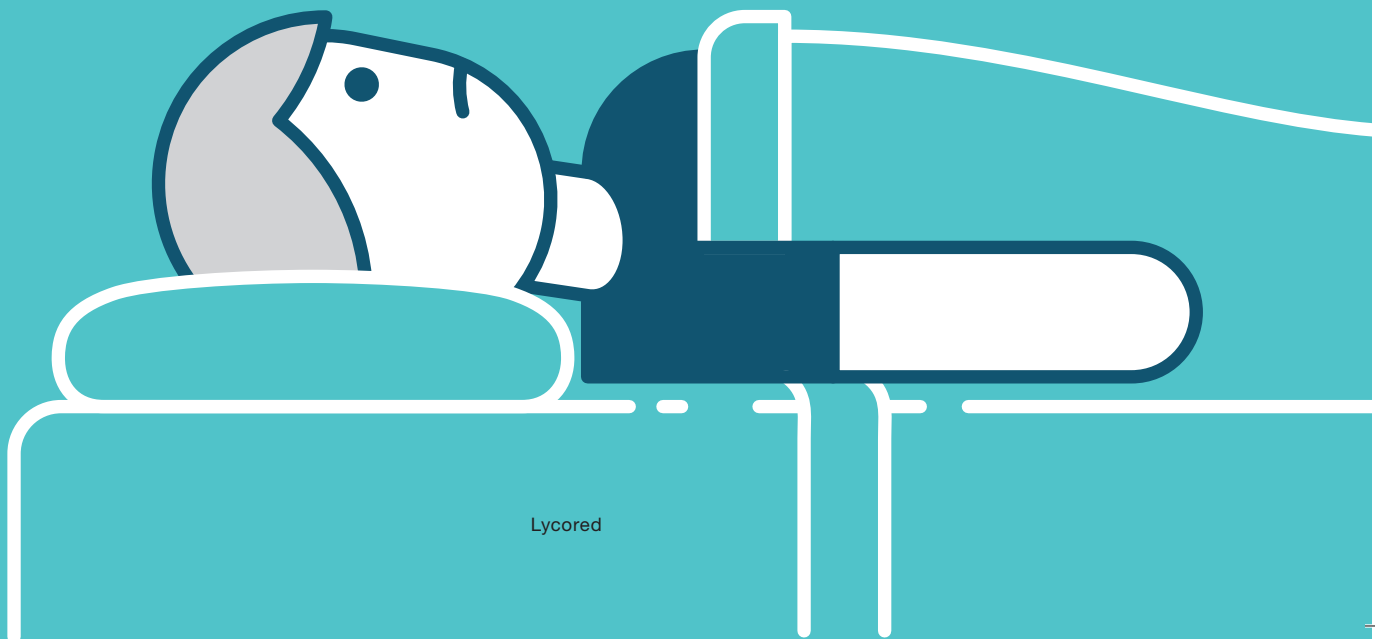
There is growing understanding of the seriousness of sleep deprivation. Recent studies have shown that its consequences can include cognitive impairment¹, reduced immune function², psychotic experiences and other mental health problems³, and increased risk of cardiovascular disease⁴ and cancer.⁵

Consumers are also demonstrating high awareness of the health benefits of sleep. A 2017 survey of 6,000 adults found that 92% viewed sleep as a crucial component of their health and wellbeing, while 68% believed sleeping more would improve their quality of life.⁶

Nocturia: a common cause of sleep loss

Nocturia is the scientific term for the need to wake at night to urinate.⁷ Its prevalence increases with age and it is more common in older men than older women.^{8,9}

Sleep disruption caused by the need to urinate is often linked to prostate and urinary health problems. A 2012 study of French men with lower urinary tract symptoms and / or benign prostatic enlargement found a 60.9% prevalence of insomnia in the group – more than three times the figure for the general population.¹⁰ The study demonstrated that poor sleep in the group was associated not just with age, but also the severity of nocturia.



New insights into men's experience of sleep

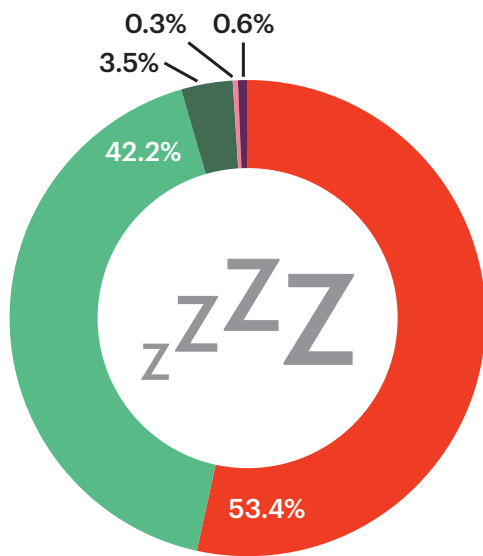
Lycored has long been committed to supporting men's wellness – the company's prostate health formulation, Lycocomfort™, is the result of years of study.

In 2018, Lycored set out to gain new insights into men's experience of sleep and nocturia, focusing on the impact on health and quality of life. It surveyed 313 male consumers over the age of 50 (163 in the UK and 150 in the US).

Almost all (95.52%) the respondents said sleep quality was either important or very important to their health, and 95.21% said it was either important or very important to their quality of life.

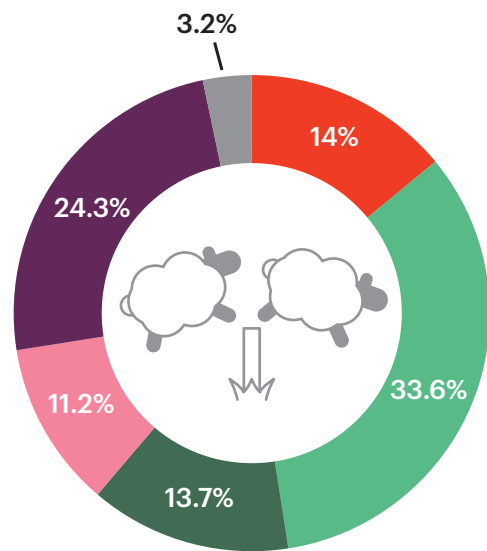
However, more than one in five (22.04%) described the quality of their sleep generally as either bad or very bad. Over a third (33.55%) said they slept badly every few nights, with 14.06% sleeping badly every night. Only 3.19% said they never slept badly.

How important is sleep quality for your health?



- Very important
- Important
- Neither important nor unimportant
- Unimportant
- Very unimportant

Roughly how often do you have a bad night's sleep?



- Every night
- Every few days
- Once a week
- Once a month
- A few times a year
- Never

Causes of sleep disruption

Needing to urinate was by far the most common cause of sleep disruption. Seven in ten (69.01%) said it was one of the two things most likely to wake them up at night, ahead of noise (23.96%), stress (22.36%), a partner (10.54%), light (9.9%) and nightmares (9.58%).

Survey respondents were also presented with a list of illnesses and asked to pick all that they worried about at night. Overall, the most common cause of worry was diabetes (13.74%) followed by heart disease (11.5%)

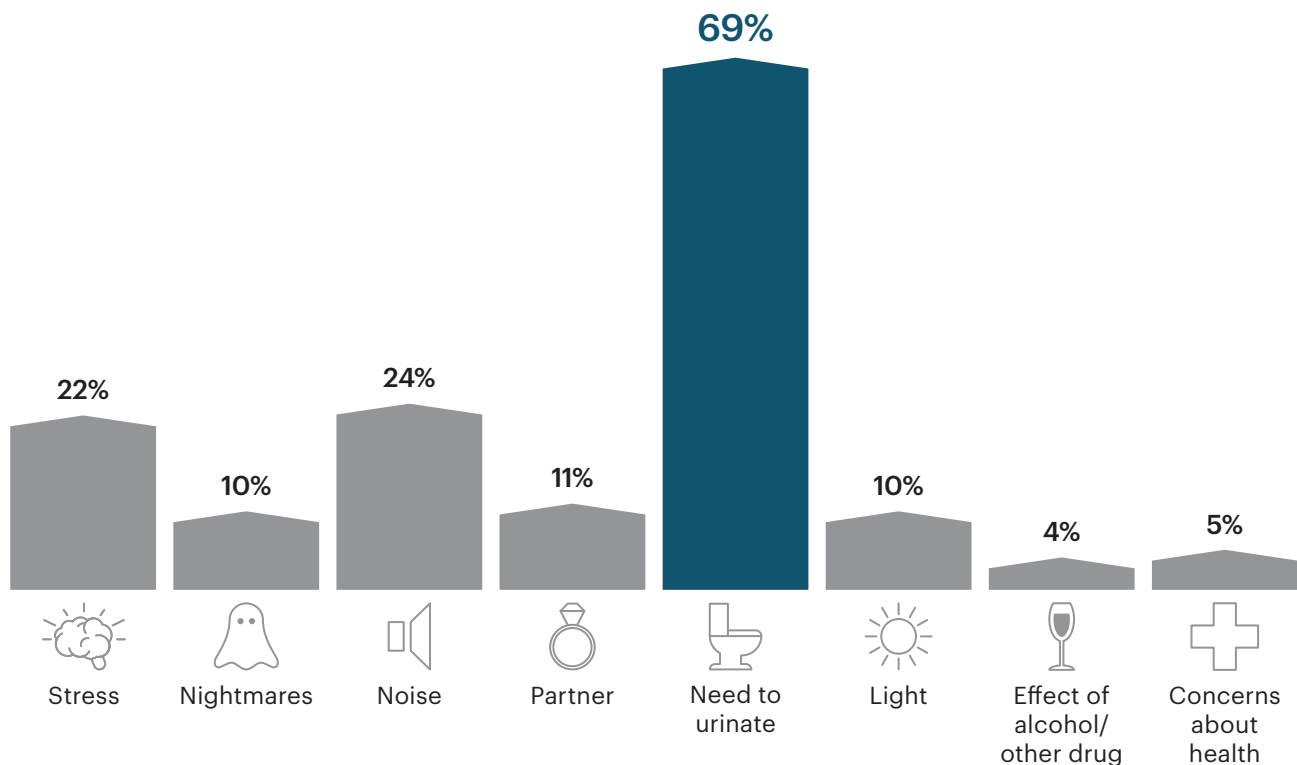
Interestingly, the Americans surveyed were significantly more likely to worry about diabetes (18.67%) and heart disease (14.67%) than the Brits (9.2% and 8.59% respectively).

The UK respondents were slightly more likely to worry about cancer (9.82%) than heart disease (8.59%), whereas Americans were more likely to worry about heart disease than cancer (14.67% compared to 9.33%). This may reflect the fact that cardiovascular disease was recently overtaken by cancer as a cause of mortality in the UK¹¹ but remains the biggest killer of Americans.¹²

Brits were also more likely to worry about mental illness (8.59%) compared to 8% of Americans.

Seven in ten men said needing to urinate was one of the two things most likely to wake them up at night.

Which of the following is most likely to wake you up at night (pick up to two)



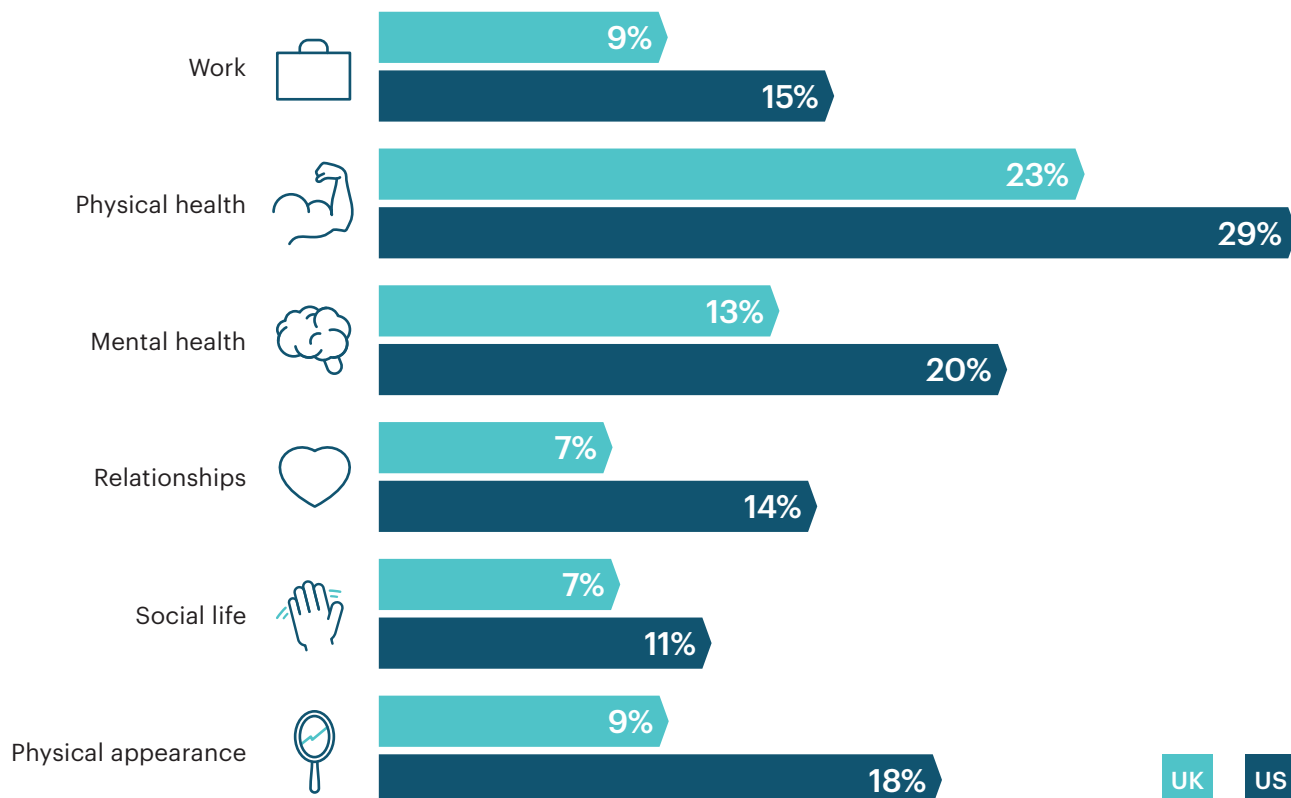
The cost of lost sleep

Over a quarter of survey respondents (25.88%) said poor sleep had affected their physical health over the past year. Sixteen per cent said it had affected their mental health, 13.42% their physical appearance, 11.82% their work and 10.54% their relationships.

Men in the US seem to be paying a far higher price for lost sleep than those in the UK. They were significantly more likely to report an impact on their physical health (29.33%, v 22.7% of Brits), their mental health (20% v. 12.88%) their physical appearance (18% v. 9.2%), their work (14.67% v. 9.2%), their relationships (14% v. 7.36%) and their social lives (10.67% v. 7.36%).

Over a quarter of men said poor sleep had affected their physical health over the past year.

Over the past year, which of the following have been affected by poor sleep?



The prevalence of prostate and urinary health issues

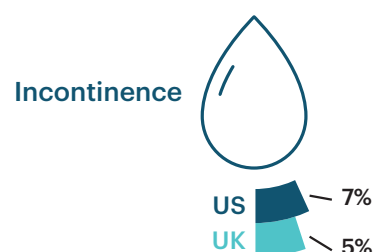
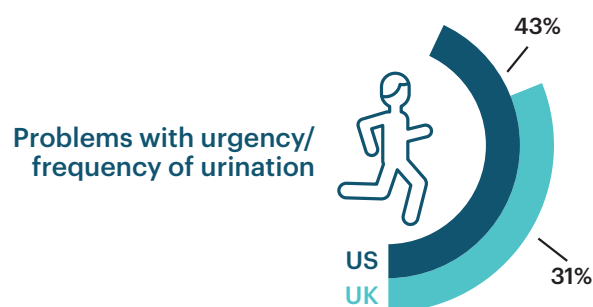
The Americans surveyed were more likely to report poor prostate health, with over a third (34%) experiencing a problem at some point, compared to 20.86% of the Brits.

Among men who had experienced a prostate problem, 84.71% said it had increased the need to urinate at night and two thirds (65.88%) said it had affected the quality of their sleep. This figure was significantly higher (77.78%) among the over 60s.

Thirty-one per cent of British respondents and 43.33% of Americans had experienced problems with the urgency or frequency of their urination over the past month. Over one in five (21.73%) had experienced problems with stream during urination, but this figure was significantly higher among the Americans surveyed (26%). A lower number (5.75%) had experienced incontinence over the past month.

Among men who had experienced a prostate problem, 85% said it had increased the need to urinate at night.

Which of the following have you experienced over the past month?



Demand for natural solutions

Despite the prevalence of sleep disruption, and the seriousness of its consequences, there was little appetite for medication to improve sleep. The vast majority (82.43%) of respondents said they preferred the idea of addressing the root causes of poor sleep to the idea of taking medication.

Furthermore, two thirds (65.82%) of respondents overall, and 70.67% in the US, said they were either interested or very interested in a natural dietary supplement that could improve the quality of their sleep. Even more (68.69%) were interested in a natural dietary supplement that could reduce the likelihood of needing to urinate at night.

Respondents were then asked what would influence their decision to purchase a dietary supplement that could reduce the need to urinate at night. The most commonly chosen factor was "clinically proven" (65.81%), followed by "affordable" (55.91%), natural (51.12%) and "made from an ingredient I've heard of" (26.20%). American consumers were more likely to be influenced to buy a supplement if it was clinically proven (72%) and natural (58.67%).

Given consumer demand for supplements supported by clinical evidence, it is worth noting that there are issues with saw palmetto extract, the best known natural remedy for benign prostatic hyperplasia and frequent urination.¹³ Research has found it ineffective for this purpose.¹⁴

Two thirds of respondents, and 71% in the US, said they were interested in a natural dietary supplement to improve sleep quality.

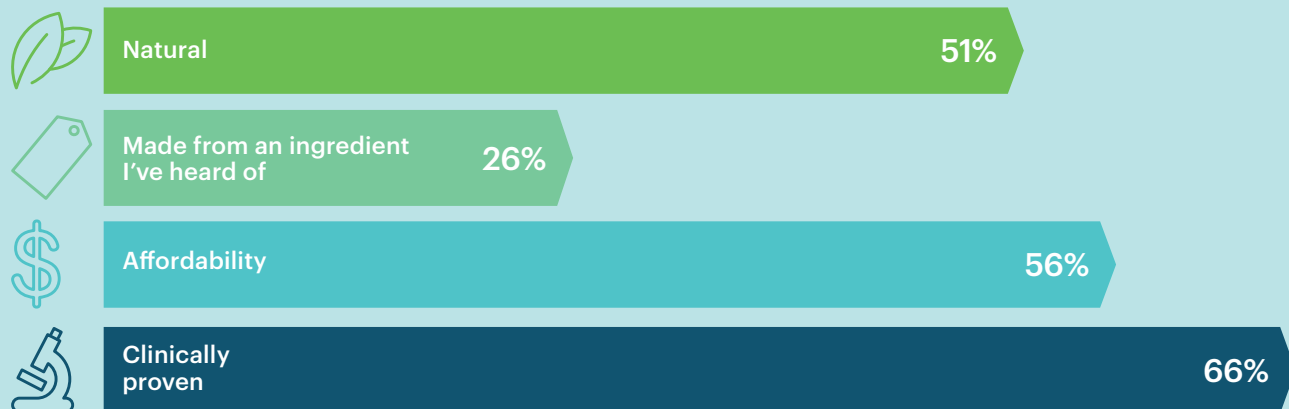
Preferred the idea of addressing the root causes of poor sleep to the idea of taking medication



Interested or very interested in a natural dietary supplement that could improve quality of sleep



If there were a dietary supplement which could reduce your likelihood of needing to urinate in the night, which of the following would influence your decision to purchase it?



Clinically proven nutrient complexes for men's health

Lycored's garden-grown, clinically proven nutrient complexes and extracts from tomatoes for men's health are specifically formulated to address urinary function in middle-aged men.

Regular dietary supplementation with Lycored's private label supplement blends has been shown to help support prostate health and function in a multi-functional mechanism of action. The men's health blends balance the androgen signal and controls damage caused by free radicals – key mechanisms at the core of prostate discomfort. Tomato carotenoids also control prostate size in men suffering from Benign Prostate Hyperplasia, a common cause of increased need to urinate.

Lycored Nutrient Complexes for Men are available in the US, Europe, Asia and Australia in bulk soft gels, or as a pre-packaged product suitable for private labelling.



Conclusions

Lycored's research makes clear both the importance of sleep to older men and the seriousness of the consequences of sleep deprivation. However, there is significant resistance to the idea of pharmaceutical solutions to aid sleep, perhaps because of fears of side effects or dependency.

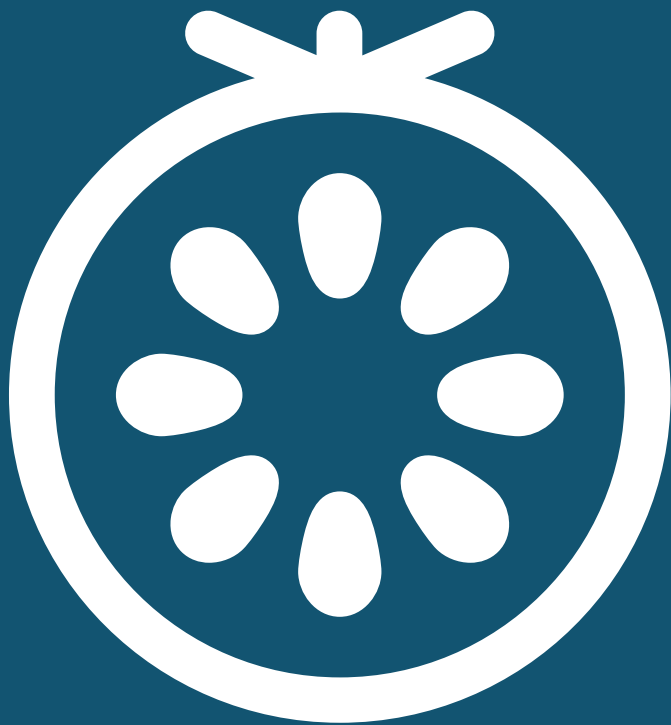
Instead, consumers want to tackle the root causes of the problem. And as Lycored's survey shows, by far the most common cause of lost sleep, at least among older men, is the need to urinate. Given these facts, the consumer appeal of natural, clinically proven solutions for prostate health, such as Lycored's nutrient complexes, is obvious. Furthermore, there is significant potential for them to be marketed on the basis of their potential to improve sleep.

The consumer appeal of natural, clinically proven solutions for prostate health is obvious.



About Lycored™

Committed to 'Cultivating Wellness', Lycored, part of Adama Group, is an international company at the forefront of unearthing and combining nature's nutrition potential with cutting edge science to develop natural ingredients and products. Established in 1995 in Israel, Lycored is the global leader in natural carotenoids for food, beverage and dietary supplement products. For more information visit www.lycored.com.



References

1. Kaliyaperumal D, Elango Y, Alagesan M, Santhanakrishnan I. 'Effects of Sleep Deprivation on the Cognitive Performance of Nurses Working in Shift' *Journal of Clinical and Diagnostic Research : JCDR*. 2017;11(8):CC01-CC03.
2. SA Gharib, MD et al. 'Transcriptional Signatures of Sleep Duration Discordance in Monozygotic Twins' *Sleep*, January 2017
3. Freeman D, et al. 'The effects of improving sleep on mental health (OASIS) : a randomised controlled trial with mediation analysis', *The Lancet Psychiatry*, Vol. 4, No. 10, 01.10.2017, p. 749-758.
4. Covassin N, Singh P. 'Sleep Duration and Cardiovascular Disease Risk: Epidemiologic and Experimental Evidence' *Sleep medicine clinics*. 2016;11(1):81-89. doi:10.1016/j.jsmc.2015.10.007.
5. Fang H-F, Miao N-F, Chen C-D, Sithole T, Chung M-H. 'Risk of Cancer in Patients with Insomnia, Parasomnia, and Obstructive Sleep Apnea: A Nationwide Nested Case-Control Study' *Journal of Cancer*. 2015;6(11):1140-114
6. Philips 'Prioritizing Sleep: Why is sleep not on top of the world's to-do list?' March 16, 2017, <https://www.philips.com/a-w/about/news/archive/blogs/innovation-matters/prioritizing-sleep-why-is-sleep-not-on-top-of-the-worlds-to-do-list.html> Accessed 26 July 2018
7. National Sleep Foundation, 'Nocturia or frequent urination at night' <https://sleepfoundation.org/sleep-disorders-problems/nocturia> Accessed 26 July 2018
8. Schatzl, G; Temml, C; Schmidbauer, J; Dolezal, B; Haidinger, G; Madersbacher, S (2000). 'Cross-sectional study of nocturia in both sexes: Analysis of a voluntary health screening project' *Urology*. 56 (1): 71-5.
9. Park, Hyoung Keun; Kim, Hyeong Gon "Current Evaluation and Treatment of Nocturia". *Korean Journal of Urology*. 2013 54 (8):
10. Chartier-Kastler, E et al. 'Prostatic hyperplasia is highly associated with nocturia and excessive sleepiness: a cross-sectional study', *BMJ Open* 2012;2e00505
11. Tandy, S 'Cancer overtakes heart disease as biggest killer in 12 countries', *Lancet Oncology*, Volume 17, Issue 9, September 2016, Page e382
12. Melonie Heron, Ph.D. and Robert N. Anderson, Ph.D. 'Changes in the Leading Cause of Death: Recent Patterns in Heart Disease and Cancer Mortality' Centers for Disease Control and Prevention, National Center for Health Statistics, Data Brief, No. 254 August 2016
13. Interlandi, Jeneen '5 Reasons to Skip Saw Palmetto for an Enlarged Prostate' *Consumer Reports*, Updated 16 March, 2018 <https://www.consumerreports.org/enlarged-prostate/reasons-to-skip-saw-palmetto-for-enlarged-prostate/>
14. Tacklind J, Macdonald R, Rutks I, Stanke JU, Wilt TJ. 'Serenoa repens for benign prostatic hyperplasia', *Cochrane Database Syst Rev*. 2012 Dec 12;12:CD001423

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