



NEWSLETTER

How much sleep do we really need?

SOME OF us feel well-rested after a solid eight hours of sleep. For others, closer to nine feels best. For others still, a little less will do. How much sleep we prefer to get is highly subjective -- but how much sleep we need is a bit more concrete.

After web analytics showed the vast popularity of the [How Much Sleep Do We Really Need?](#) feature of the National Sleep Foundation's (NSF) website, a panel of experts set about to reassure that the information provided there was the most accurate and up to date.

"Sleep duration was basically one of the most visited pages on the NSF website, and it wasn't really clear how those recommendations for the ranges had been arrived at," Max Hirshkowitz, Ph.D., chair of the National Sleep Foundation Scientific Advisory Council, told The Huffington Post.

To do so, a panel of six sleep experts and 12 other medical experts from organizations including the American Academy of Pediatrics, the American Geriatrics Society, the American Psychiatric Association and the Society for Research in Human Development, conducted a formal literature review. The panel focused on the body of research surrounding sleep duration in healthy human subjects that had been published in peer-reviewed journals between 2004 and 2014. From the 312 articles reviewed, the experts were able to fine-tune existing sleep duration recommendations as detailed below:

Newborns (0-3 months): 14-17 hours (range narrowed from 12-18)

Infants (4-11 months): 12-15 hours (range widened from 14-15)

Toddlers (1-2 years): 11-14 hours (range widened from 12-14)

Preschoolers (3-5): 10-13 hours (range widened from 11-13)

School-Age Children (6-13): 9-11 hours (range widened from 10-11)

Teenagers (14-17): 8-10 hours (range widened from 8.5-9.5)

Young Adults (18-25): 7-9 hours (new age category)

Adults (26-64): 7-9 hours (no change)

Older Adults (65+): 7-8 hours (new age category)

(In addition, the NSF has also added categories for the outliers among us, supplying the

range of hours of sleep that have been deemed both "May be appropriate" and "Not recommended.")

"This is the first time that any professional organisation has developed age-specific recommended sleep durations based on a rigorous, systematic review of the world scientific literature relating sleep duration to health, performance and safety," Charles A. Czeisler, Ph.D., M.D., professor of sleep medicine at Harvard Medical School and chairman of the board of the National Sleep Foundation, said in a statement.

It's not an exact science, said Hirshkowitz, but it's a start. "Like with most things, it's successive approximation that gets you to the goal. The first time somebody built a wristwatch, it wasn't very good, but after hundreds of years of making precise changes, to have a timepiece that doesn't tell time is pretty unusual." As more and more research is conducted around sleep duration, subsequent minor changes will be made, he said, helping experts to zero in on the absolute best recommendations to give to patients. If you're currently getting enough sleep and feel pretty good, keep it up. But if you're meeting your age group's recommended range and waking up groggy and feeling slugging throughout the day, it could be a warning sign of various sleep conditions or a less-than-ideal sleep environment, said Hirshkowitz, which you might want to address with a healthcare professional.

If you're simply not sure, he suggests doing a little home experiment. Start with the midpoint of the sleep duration range for your age group. Note you how feel when you wake up, how you feel during the day and how you feel as you're winding down in the evening. Then, depending on how you feel, you can adjust your time in bed to be shorter or longer as you see fit. Or, try something a little less elaborate. "If you could select your bedtime and wake time, what would it be?" Hirshkowitz asked. I said 11:30 p.m. and 8 a.m. "Now, if that is going to be your set bedtime forever, forevermore, you will never be able to get one extra minute, you will always have exactly that amount of sleep -- do you want to adjust what you said?" Never one extra minute?! I gave myself an extra hour -- and most people adjust when faced with this exercise, he said. Your optimal sleep duration is probably somewhere in between those two ranges.



Tiny implant may ease sleep apnoea.

A NEW treatment for adults with obstructive sleep apnoea may help some patients get a better night's sleep without using a mask at night or getting extensive surgery.

Certain non-obese patients with moderate to severe OSA now have the option to get a surgically implanted system to help keep their airway open at night.

The Inspire Upper Airway Stimulation system was approved by the U.S. Food and Drug Administration last year for people age 22 and older. It's installed during outpatient surgery and can be wirelessly turned off and on by the patient, using a remote.

Inspire consists of a small, pacemaker-like device with leads (wires) attached to it that's implanted into the upper chest. The system senses breathing and stimulates the hypoglossal nerve that controls the tongue, moving it forward so that the patient's airway stays open when it needs to.

"The hypoglossal nerve is the main nerve that moves the tongue," said Dr. Andrew Gould, a Louisville surgeon who performed Kentucky's first Inspire surgery. Inspire is designed to help patients whose "tongue falls backwards and blocks off their airway, so that when they try to breathe in it's obstructed and their oxygen levels drop, and it stresses out their heart, and they wake up tired, and it has a lot of negative health effects."

Sleep apnoea can lead to loud snoring and increase the risk of serious health conditions, such as high blood pressure, stroke, diabetes and heart failure, according to the National Heart, Lung, and Blood Institute.

Courier-Journal medical writer Laura Ungar discusses two approaches to diagnosing sleep apnoea -- including an in-home test.

The goal of treatment is "to improve a person's sleep and then also their health because when you treat someone's untreated sleep apnea, other disease processes improve," said Gould, who's with Advanced ENT and Allergy. Also, "their work productivity improves," and they can avoid getting into accidents related to sleepiness, he said. And surgical options have tended to be more extensive than Inspire requires and "primarily removed or altered the anatomy," Gould said. Inspire "doesn't do that. It leaves your anatomy intact. We're just stimulating your nerve."

Pleasure Ridge Park resident Fred Harley had surgery earlier this week to receive the Inspire system. Though it hasn't been turned on yet, Harley's wife, Brenda, said she and her husband have "high hopes" that it will improve his sleep apnoea. "He wouldn't have done it if he didn't think it would work," she said.

Fred Harley, who declined to be interviewed so soon after surgery, had tried a similar device before as part of a research study and it worked well, so he decided to get Inspire, his wife said. He also liked the idea that Inspire had FDA approval since that meant the

£22,000 procedure would be covered by insurance, she said.

Inspire was found to be effective in a clinical study involving 126 participants in more than 20 sites, according to the FDA. The system "provided the majority of patients with significant reductions in the severity of their obstructive sleep apnoea and improvements in their quality of life," the administration noted, but it is requiring additional research on safety and effectiveness.

The surgery

During the Inspire procedure, "we make an incision just below the jaw and then we make an incision just under the collarbone and then we make a little incision just under the main muscle on your chest — the pectoralis muscle — over a rib, so there's three incisions," Gould said.

The Inspire system has a sensing lead (a little wire that runs under the skin) that attaches to the rib and senses when you breathe and sends a signal to the implant, and the device then sends a signal to the hypoglossal nerve in the upper neck. When that nerve is stimulated, the tongue moves forward, opening the airway up, he said. After surgery, a sleep doctor follows up with the patient to make sure the device gets adjusted properly. "We'll do a sleep test with the device in place and with our trained technicians who can tweak it exactly," said Dr. David Winslow, a sleep medicine specialist in Louisville who collaborates with Gould and will be part of future research on the Inspire system. The stimulation that patients receive should be "just low enough so it doesn't wake them up but just high enough where you're opening up the airway ... to get the right flow pattern that we will see on the sleep test."

Winslow, of Sleep Medicine Specialists, said he's excited to have Inspire to add to other options, such as losing weight or getting a dental device to treat sleep apnea. "This is just a tool that we're going to have for those folks who have not responded to the other modalities ... and just really can't do anything else and are struggling," he said. "We feel like this is going to be helpful" for them.

But Inspire isn't without risks. For example, it could negatively impact patients' ability to pronounce words and lead to lower lip weakness, but that would be uncommon, Gould said. There's also a possibility of infection and other problems, such as tongue soreness and headache.

Both Gould and Winslow have prior experience with a similar device — from a different company, Apnex Medical. Though local patients, such as Harley, were "very happy" with that device, the company ultimately pulled the plug on it, Winslow said. A news report said it was because of disappointing results that made FDA approval unlikely.

"They had a few more failures, and I think that's why the FDA wanted them to do some more studies," Winslow said. "I think if this (Apnex Medical) company had done more studies, they'd have gotten approved also. They just weren't willing to put any more money in it."

Safety alert over aftercare of children

By: Helen Branswell, The Canadian Press

CHILDREN WHO have had their tonsils removed because they have obstructive sleep apnoea should be given ibuprofen not morphine for pain after the surgery, a new study suggests.

The research suggests pain can be controlled effectively with a combination of acetaminophen and ibuprofen — sold under the brand names Advil and Motrin among others — in most cases. When that combination is sufficient it is the approach that should be used, the authors say.

Currently many doctors use acetaminophen and in these children, fearing that use of ibuprofen might trigger bleeding where the tonsils were removed. But the study found that morphine actually lowers oxygen saturation — oxygen levels in the blood — among many of these children in the first couple of nights after having the operation. The authors said it would be safer not to use the drug if it can be avoided.

“We’re not quite saying: Hey, let’s sound the alarm bells completely, take this off the market for kids.

That’s not what we’re saying,” explained Dr. Doron Sommer, one of the authors.

“But we are saying: Be really careful. . . . It’s not as safe as we thought it was.”

The study was conducted by researchers at the Motherisk Program at Toronto’s Hospital for Sick Children and McMaster University Medical Centre. It was published Monday in the journal Pediatrics.

Dr. David Juurlink, an expert in pharmacology and toxicology, said that while the study was a small one, the findings were persuasive.

“This study seems to lend credence to the notion that in appropriately selected patients, non-steroidals and acetaminophen are . . . a suitable and probably preferable alternative,” said Juurlink, who was not involved in the research. He practices at Toronto’s Sunnybrook Health Sciences Centre.

Ibuprofen is a non-steroidal anti-inflammatory drug. “I think the enthusiasm for morphine probably stems from the perception that many physicians hold that opioids are stronger or better pain relievers than anti-inflammatories. And I think for many patients that’s actually not true,” Juurlink said.

Until a few years ago, children who had a tonsillectomy for obstructive sleep disorder were given acetaminophen and codeine for their pain.

But when three children in the United States died after C160 Lithium-ion CPAP receiving codeine for pain triggered by a tonsillectomy, the U.S. Food and Drug Administration — and later Health Canada — advised against its use. In 2013, Health Canada said codeine should not be given to children under the age of 12. That led to a switch to morphine. Although it, too, is an opioid, it was thought to be safer. But this group of scientists decided to see if that assumption was true. They randomly assigned 91 children aged one to 10 years who were having a tonsillectomy for obstructive sleep apnea to be treated with acetaminophen and morphine or acetaminophen and ibuprofen for pain.

Enlarged tonsils can actually impede night-time breathing; these days it is the most common reason children undergo tonsillectomies. And the operation is pretty common. About 500,000 tonsillectomies were performed in the U.S. in 2014 and in Ontario alone, close to 14,000 took place, said Sommer, a head and neck surgeon at McMaster University Medical Centre. Once the tonsils were removed, oxygen saturation levels were expected to go up in children who had obstructive sleep apnoea. But only 14 per cent of the kids who got morphine improved in the first night after their surgery, compared to 68 per cent of the kids who got ibuprofen.

In fact, one of the children who got morphine had to be rushed back to hospital because her lips were blue, her heart rate was slow and she was unresponsive.

She was given an antidote to the morphine and spent four days in hospital, but made a full recovery.

Sommer said the findings don’t apply to children who are having their tonsils removed because they are chronically infected, or children who stay overnight in hospital after a tonsillectomy because they will be monitored.

The research was funded by the Canadian Institutes for Health Research Drug Safety and Effectiveness Network.



C160 Lithium-ion CPAP battery



THIS NEW 160 Watt hour (Wh) battery provides your CPAP with 12 volts direct current (12V DC). It is suitable for use on an aircraft and can even be used to charge up your mobile phone, tablet computer (ipad or similar) or digital camera from its USB socket.

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The battery can be recharged from the mains 110V or 240V AC, (it takes about 4 hours to charge from flat) or from your car or boat's 12V cigar lighter socket. It has a control panel with on/off switch which also doubles as a battery charge indicator switch. A single press causes up to 5 green LEDs to show depending upon the level of charge remaining.

Size 120mm x 200mm x 23mm. Weight 876g.

Tips for overcoming CPAP problems

Continuous positive airway pressure (CPAP) therapy is a common treatment for obstructive sleep apnea. It includes a small machine that supplies a constant and steady air pressure, a hose, and a mask or nose piece. Common problems with CPAP include a leaky mask, trouble falling asleep, and a dry mouth or nose.

The good news is that if one CPAP mask or device doesn't work for you, you have other options. And most CPAP masks are adjustable, to help make them more comfortable for you.

Here are 10 common CPAP problems and what you can do about them:

1. The wrong size or style CPAP mask

Work closely with your doctor and CPAP supplier to make sure you have a CPAP mask that suits your needs and fits you. Everyone has different needs and face shapes, so the right style and size mask for someone else may not work for you.

Many mask styles are available. A range of CPAP masks are available. For example, some feature full face masks that cover your mouth and nose, with straps that stretch across your forehead and cheeks. These may make some people feel claustrophobic, but they work well at providing a stable fit if you move around a lot in your sleep.

Other masks feature nasal pillows that fit under your nose and straps that cover less of your face. These can feel less cumbersome.

Nasal pillows may work well if you wear glasses or read with the mask on, because some nasal pillow systems obstruct vision less than do full face masks. However, they may not work if you move around a lot in your sleep or sleep on your side.

Pay attention to size. Most masks come in different sizes. Just because you're a certain size in one mask doesn't mean you'll be the same size in another. CPAP masks are usually adjustable.

Ask your doctor or CPAP supplier to show you how to adjust your mask to get the best fit. Manufacturer instructions also can help show you how to do this.

2. Trouble getting used to wearing the CPAP device

To start, it may help to practice wearing just the CPAP mask for short periods of time while you're awake, for example, while watching TV. Then try wearing the mask and hose with the air pressure on, still during the daytime, while you're awake.

Once you become accustomed to how that feels, shift to using the CPAP device every time you sleep — at night and during naps. Inconsistently wearing the CPAP device may delay getting used to it. Stick with it for several weeks or more to see if the mask and pressure settings you have will work for you.

3. Difficulty tolerating forced air

You may be able to overcome this by using a "ramp" feature on the machine. This feature allows you to start with low air pressure, followed by an automatic, gradual increase in the pressure to your prescribed setting as you fall asleep. The rate of this ramp feature can be adjusted by your doctor.

If this doesn't help, talk with your doctor about changing to a different type of device that automatically adjusts the pressure while you're sleeping. For example, units that supply bi-level positive airway pressure (B-PAP) or devices that have variable pressure contours are available. These provide more pressure when you inhale and less when you exhale.

4. Dry, stuffy nose

A CPAP device that features a heated humidifier, which attaches to the air pressure machine, can help. The level of humidification is adjustable.

mark@yourcomputermanager.co.uk e. Using a nasal saline spray at bedtime also can help. Your doctor may prescribe a nasal steroid spray if your dryness doesn't respond to heated humidity. It's also important that your mask fits well. A leaky mask can dry out your nose.

5. Feeling claustrophobic

While you're awake, practice by first just holding the mask up to your face without any of the other parts. Once you're comfortable with that, try wearing the mask with the straps.

Next, try holding the mask and hose on your face, without using the straps. Have the hose attached to the CPAP machine at a low-pressure setting (with ramp feature turned on). And, finally, wear the mask with the straps and with the air pressure machine turned on while awake. After you're comfortable with that, try sleeping with it on.

Relaxation exercises, such as progressive muscle relaxation, also may help reduce your anxiety. It may help to get a different size mask or try a different style, such as one that uses nasal pillows.

If you're still feeling claustrophobic, talk to your doctor or CPAP supplier.

6. Leaky mask, skin irritation or pressure sores

A leaky or an ill-fitting mask means you're not getting the full air pressure you need, and you may be irritating your skin. It can also release air into your eyes, causing them to become dry or teary.

Try adjusting pads and straps to get a better fit. If the device fits over your nose, make sure it doesn't sit too high on the bridge of your nose, which can direct air into your eyes.

You may need to ask your supplier to help you find a different size mask, particularly if your weight has changed markedly. Or try a different style device like a nasal pillow or a mask with an inflatable cushion that contours to your face. If you develop skin deterioration or sores, such as on your nose, tell your doctor promptly.

7. Difficulty falling asleep

This is a normal, temporary problem. Wearing the mask alone for some time during the day may help you get accustomed to how it feels.

Using the ramp feature, which provides an automatic, gradual increase in the air pressure to your prescribed pressure setting as you fall asleep, also may help to relax. For example, take a warm bath before you go to bed. Avoid going to bed until you're tired.

And practice good general sleep habits — exercise regularly, avoid caffeine and alcohol before bedtime, and try to relax. For example, take a warm bath before you go to bed. Avoid going to bed until you're tired.

8. Dry mouth

If you breathe through your mouth at night or sleep with your mouth open, some CPAP devices may worsen dry mouth. A chin strap may help keep your mouth closed and reduce the air leak if you wear a nasal mask.

A full-face-mask-style device that covers your mouth and nose also may work well for you. A CPAP-heated humidifier that attaches to the air pressure machine also may help.

9. Unintentionally removing the CPAP device during the night

It's normal to sometimes wake up to find you've removed the mask in your sleep. If you move a lot in your sleep, you may find that a full face mask will stay on your face better.

You may be pulling off the mask because your nose is congested. If so, ensuring a good mask fit and adding a CPAP-heated humidifier may help. A chin strap also may help keep the device on your face.

If this is a consistent problem, consider setting an alarm for sometime in the night, to check whether the device is still on. You could progressively set the alarm for later in the night if you find you're keeping the device on longer.

10. Annoyed by the noise

Most new models of CPAP devices are almost silent. But if you find a device's noise is bothersome, first check to make sure the device air filter is clean and unblocked. Something in its way may be contributing to noise.

If this doesn't help, have your doctor or CPAP supplier check the device to ensure it's working properly. If the device is working correctly and the noise still bothers you, try wearing earplugs or using a white-noise sound machine to mask the noise.

Time and patience key to success

Using a CPAP device can be frustrating as you try to get used to it, but it's important you stick with it. The treatment is essential to avoiding obstructive sleep apnea-related complications, such as heart problems and daytime fatigue.

Work with your doctor and CPAP supplier to ensure the best fit and device for you, and try making adjustments if you're experiencing some of the common CPAP problems. It may take several months to find the correct settings for you and to adapt to the mask. With time and patience, CPAP can positively affect your quality of life and health.



Lack of sleep may lead to dementia

SCIENTISTS HAVE found that people who don't sleep much or are suffering from sleep apnoea were possibly likelier to develop dementia.

According to the new study, people who don't have as much oxygen in their blood during sleep, which occurs with sleep apnea and conditions such as emphysema, were more likely to have tiny abnormalities in brain tissue, called micro infarcts, than people with higher levels of oxygen in the blood.

These abnormalities are associated with the development of dementia.

In addition, people who spent less time in deep sleep, called slow wave sleep, were more likely to have loss of brain cells than people who spent more time in slow wave sleep. Slow wave sleep is important in processing new memories and remembering facts. People tend to spend less time in slow wave sleep as they age. Loss of brain cells is also associated with Alzheimer's disease and dementia.

For the study, 167 Japanese American men had sleep tests conducted in their homes when they were an average age of 84. All were followed until they died an average of six years later, and autopsies were conducted on their brains to look for micro infarcts, loss of brain cells, the plaques and tangles associated with Alzheimer's disease and Lewy bodies found in Lewy body dementia.

The participants were divided into 4 groups based on the percentage of the night spent in slow wave sleep. Of the 37 men who spent the least time in slow wave sleep, 17 had brain cell loss, compared to seven of the 38 men who spent the most time in slow wave sleep.

The results remained the same after adjusting for factors such as smoking and body mass index and after excluding participants who had died early in the follow-up period and those who had low scores on cognitive tests at the beginning of the study.

Study author Rebecca P. Gelber, MD, DrPH, said that the findings suggested that low blood oxygen levels and reduced slow wave sleep may contribute to the processes that lead to cognitive decline and dementia. More research was needed to determine how slow wave sleep may play a restorative role in brain function and whether preventing low blood oxygen levels may reduce the risk of dementia.

The study is published in the online issue of *Neurology*.

How the didgeridoo can be used to treat sleep apnoea.

NUMEROUS MEDICAL organisations are recommending that playing the didgeridoo can help people with obstructive sleep apnoea. Playing the didgeridoo strengthens and tones the tissues of the throat, and can provide good exercise for the respiratory system, as well as a meditation aid.

From the USA National Institutes of Health (NIH):
“One of the challenges in the treatment of sleep disorders is poor compliance. Thus new treatments not only need to be effective but also be ones that people are motivated enough to use. Didgeridoo playing seems to meet these requirements. Participants were highly motivated during the trial and practiced, on average, almost six days a week, which was even more than the protocol asked for. Regular playing of a didgeridoo reduces sleep apnoea and snoring in people with moderate obstructive sleep apnoea syndrome and improves the sleep quality of partners. Severity of disease, expressed by the apnoea-hypopnoea index, is also substantially reduced after four months of didgeridoo playing.”

The Mayo Clinic also recommends this in a recent book titled “The Mayo Clinic Book of Home Remedies” (2010).

Dr. Oz, of TV fame, recommends the didgeridoo for sleep apnoea “to exercise the muscles in the back of the throat that cause snoring while you sleep. Those muscles get lax while you sleep so, by exercising them with the didgeridoo, essentially a branch hollowed out by termites that turns into an instrument, you strengthen the muscles so they don’t collapse while you sleep.”

According to Rubin Naiman, PhD, an internationally recognised leader in integrative sleep and dream medicine and Clinical Assistant Professor of Medicine, University of Arizona: “Learning to play the didgeridoo is emerging as a surprisingly effective and practical strategy for managing snoring and sleep apnoea symptoms. I encourage all my patients with these concerns to discuss this option with their doctors.”

Read “Didgeridoo playing as Alternative Treatment for Obstructive Sleep Apnoea Syndrome: Randomised Controlled Trial” at the British Medical Journal.

This article presents the results of a 2005 Swiss medical study testing the efficacy of using didgeridoo to treat sleep apnoea.

It’s often recommended practising 20-30 minutes a day, 4-5 days a week. I usually tell beginning students to play a few minutes at a time, a few times a day. This lets them get used to the instrument without tiring or stressing the lips

Keep your didgeridoo nearby, somewhere you’ll see it; remember, out of sight, out of mind! Then, when they have built a little lip strength and endurance, they can increase the amount of time spent playing.

Playing the didgeridoo is fun, sounds great, and is easy for most people to learn! These qualities make it easy to stick with a programme.



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The website continues to be accessed regularly. Since the launch there have been 9616 hits. Including some from Denmark, USA and Peru!!!
<http://scottishsleepapnoea.co.uk/>

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