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Mind, Mood & Memory™

Maintaining Mental Fitness From Middle Age and Beyond

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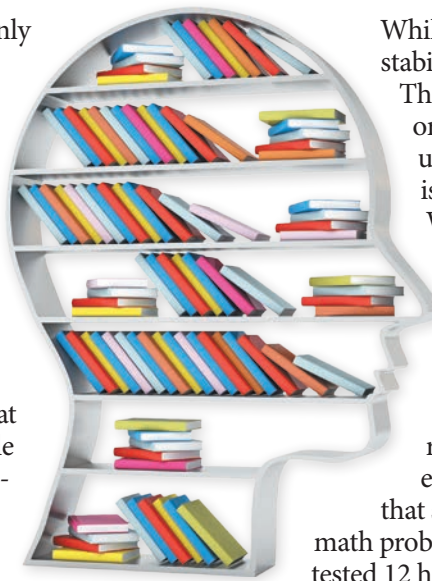
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Sleep On It: How Your Brain Organizes Memories and New Information Overnight

Your brain is hard at work prioritizing and storing information while you sleep.

If you think dreams are the only thing keeping your mind busy while you sleep, think again. The strengthening and organization of your old and new memories goes on every night, a realization that underscores the importance of sleep in the ongoing effort to preserve the important information in your life.

“Scientists once thought that all our learning occurred while we’re awake,” says Dara Manoach, PhD, a Massachusetts General Hospital neuropsychologist whose research interests include the effects of abnormal sleep patterns on memory consolidation. Now we know that the brain continues to work on new information for days and even years and that much of this evolution of memory happens while we sleep.”



Your brain organizes new information while you sleep, adding to and strengthening memories.

While you’re sleeping, the brain stabilizes and enhances memories. The brain extracts the essence or gist of a memory, while also updating it if new information is learned, Dr. Manoach says. Without you realizing it, your brain is studying and processing new information.

“Most everyone has heard of ‘sleeping on a problem,’ and there is experimental evidence that it really works,” she adds. “For example, one study showed that students who were given a math problem in the morning and were tested 12 hours later with no napping that evening were unlikely to have figured out the shortcut. In contrast, when students were trained in the evening and tested 12 hours later after a night of sleep, two and half times as many students discovered the shortcut. So sleep can lead to insights.”

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STUDY: DANCING BOOSTS FITNESS AND MOOD OF OLDER ADULTS

You don’t need to know a pirouette from a pas de deux to benefit from ballet, according to a recent study of older Australians. A three-month project, in which a group of older men and women took 10 Ballet for Seniors classes, resulted in higher energy levels, greater flexibility, improved posture and an enhanced sense of achievement among the participants. The slipper-wearing seniors also reported feeling happier and enjoyed a greater sense of community and friendship. The physical benefits of dance on aging bodies is well-established,

but this study also noted the joy and social connections that formed in just 10 weekly dance classes. The participants in the study had no formal dance training. Researchers suggest that such dance classes be encouraged more often as exercise options for older and younger adults, given the positive impacts on energy, flexibility, fitness and mental outlook. The study was conducted by researchers from Queensland University of Technology, with the assistance of instructors from the Queensland Ballet. **MMM**

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**Chronic Knee Pain Associated with Higher Depression Risk**

Knee pain that accompanies osteoarthritis (OA) affects about 13 percent of women and 10 percent of men over the age of 60 in the U.S. This type of chronic knee pain can limit your mobility and your ability to take care of yourself. You may be less likely to or simply unable to exercise regularly. Losing some of your independence and missing out on activities you once enjoyed can have significant effects on your quality of life. This, in turn, can lead to depression. A Japanese study, published in the *Journal of the American Geriatrics Society*, focused on 563 men and women age 65 or older. None of the study participants had depression at the start of the study. Within two years, about 12 percent of the participants reported depressive symptoms. They were people who reported knee pain at night in bed, or doing activities such as putting on socks or getting out of a car. Researchers suggest that chronic knee pain should be considered a risk factor for depression. If you experience chronic pain anywhere, especially if it interferes with your independence and quality of life, you should explore treatment alternatives. Aches and pains in your joints as you get older are common, but most of them aren't treatable. A regimen of physical therapy may be enough to avoid surgery. Weight loss, if you're overweight or obese, may help relieve some of the pressure and pain around your knee. But if surgery is necessary, consider how much better you'll feel once your knee is healed.

**Age of Menopause May Affect Memory Skills Later in Life**

Entering menopause at a later age is associated with a small benefit to your memory years later. In a study published in *Neurology*, researchers studied more than 1,300 women, whose health has been studied since birth in 1946. Tests of their verbal memory skills and their cognitive processing speed were taken at ages 43, 53, between 60 and 64, and again at age 69. The researchers also collected information about menopause, either natural or due to removal of their ovaries, whether they took hormone replacement therapy, and other factors that could affect thinking and memory skills. These factors included childhood cognitive ability, amount of education, smoking and type of occupation. Menopause started, on average for the women with natural menopause, at age 51 ½. The women who had menopause later had slightly better scores on tests of memory (recalling a 15-item list three times) each year the tests were administered. Researchers suggest that this evidence of a stronger memory could be associated with a lower risk of dementia later in life. On tests of information processing speed, there was no relationship between the age of menopause and test scores. Researchers could not fully explain why later menopause was associated with stronger memory in the women studied, though they suggested that it may have something to do with maintaining the same hormonal status they had during their childbearing years.

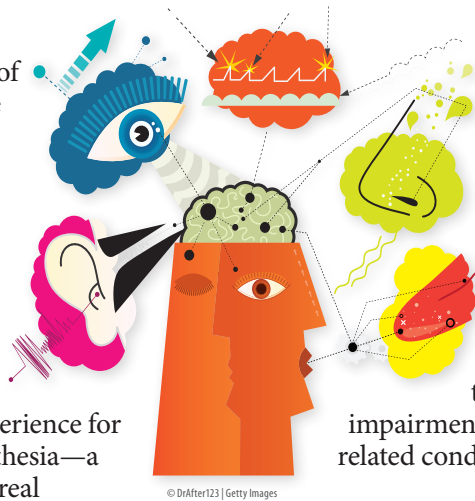
**Sad, Serious Life Events May Speed Up Aging of the Body and Brain**

A major health crisis, financial woes, divorce, a death in the family, and other fateful life events (FLEs) appear to accelerate physical aging and aging in the brain. A study, published in the journal *Neurobiology of Aging*, found that FLEs can measurably accelerate aging in the brains of older men, even when controlling for such factors as cardiovascular risk, alcohol consumption, ethnicity, and socioeconomic status—all of which are also associated with aging risk. The study, which used MRI to assess brain volume and cortical thickness, found that only a single FLE caused the brain to appear one-third of a year older than the person's chronological age. Future studies will need to include women and a broader ethnic mix to better understand the impact of FLEs on brain aging. Researchers say that their study further underscores previous studies that have shown the serious impacts of stress on aging and health. While there was no suggestion of how to counteract the effects of FLEs on brain age, one lesson may be that living through stressful times means it's even more important to live a healthier lifestyle and strengthen one's coping skills during and after the stressful event. **MMM**

Synesthesia Research May Unlock Clues About Autism and Other Conditions

Learning more about this rare trait, in which the senses overlap, could provide greater insight into autism and other conditions.

Imagine reading words on a page of black ink on white paper and seeing colors with each letter or hearing a sound and having it stimulate your tastebuds with an array of flavors. That sort of overlap of senses is an everyday experience for people with synesthesia—a state in which the real



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stimulation of one sense, such as hearing, induces a subjective response from another sense, such as taste.

Earlier this year, researchers published a study in the *Proceedings of the National Academy of Sciences* in which they unlocked genetic clues to this unusual trait. After studying the DNA of three families that had multiple members with synesthesia across generations, researchers identified rare genetic changes that alter the way genes code for proteins.

This research was particularly interesting to Joel Salinas, MD, a neurologist at Massachusetts General Hospital and an expert in synesthesia. It's a personal subject for him, because he has synesthesia, and has studied it and written about it extensively. Dr. Salinas, who was not involved with this study, says that a greater understanding of synesthesia's roots may also help researchers better understand autism, which shares some characteristics with synesthesia.

"Several studies have found that there are overlaps between the reported sensory experience of people with autism and people who have synesthesia," he says. "In fact, synesthesia is much more common

among people with autism than it is in the general population." Dr. Salinas adds that synesthesia research may even lead to discoveries related to cognitive impairment and other brain-related conditions.

What is Synesthesia?

The word synesthesia comes from the roots "syn," meaning "together," and "esthesia," meaning "sensation." Just how many people have some form of synesthesia is difficult to gauge, partly because diagnosing it can be challenging.

"About 4 percent of all people have some testable manifestation of synesthesia that is virtually impossible to falsify," Dr. Salinas says. "And even if you don't think you have synesthesia, there's a good chance everyone knows at least one person who does have synesthesia. They probably just haven't asked the right questions, like, 'That sound... what did it look like to you?'"

Synesthesia can involve any of the senses. The most common form involved colored letters and numbers, known as grapheme-color synesthesia. "I see a word like 'CAT' and I know that the text there is black, but each letter also has another color projected on top in my mind's eye," says Dr. Salinas, who has multiple forms of synesthesia. "For me, C is black, A is red, and T is a reddish-orange, and all together the word CAT looks like a cloud of black with puffs

of red and red-orange. The colors can quickly shift depending on both what my brain perceives and what my brain predicts it's seeing."

Synesthesia is often passed on in families through a collection of genes involved in brain development. But not all cases of synesthesia are inherited. "Some people are born with this trait, while others may acquire it after a brain injury, like stroke, or may briefly experience what it's like to have synesthesia while using a hallucinogen like LSD," Dr. Salinas says.

Effects of Synesthesia

Though it may seem like a confusing or overwhelming experience to others, synesthesia is seldom a problem, and it requires no treatment.

"People with synesthesia typically perform better on tests of memory, creative thinking, mental imagery, identifying with their senses, like absolute pitch or recognizing subtle tastes," Dr. Salinas says. "They're also adept at picking out small differences between the senses, like one shade of color from another or telling one smell from another."

Creative people may be more likely than others to have synesthesia. Musicians, including Billy Joel and Duke Ellington, have shared their stories of composing songs while seeing colors. Nobel Prize-winning physicist Richard Feynman saw colors in the equations he was solving.

"The future of synesthesia research is likely going to help us learn more about how all of our brains work, including sensory perception, cognitive function, and more complex behavioral concepts, such as creativity, empathy, attention, self-regulation, and above-average memory capacity," Dr. Salinas says. "The future of synesthesia will also likely uncover how it relates to other manifestations of neurodiversity, like autism, and possibly offer insights into treatments for psychiatric disorders and common neurologic conditions, such as epilepsy or cognitive impairment." **MMM**

Migraine Home Remedies for Symptom Relief and for Headache Prevention

Some strategies may ease the onset of symptoms, while others may help you avoid migraines altogether.

A flash of lights and shapes seem to appear before your eyes. Soon, the unmistakable throbbing pain of a migraine headache takes over. You look for relief, but what can help you now? What can help you avoid these disabling attacks down the road?

If you're one of the 40 million or so Americans who have migraines, you may already take prescription medications to prevent the powerful headaches or control the symptoms once they start. But there are also some simple migraine home remedies that may safely complement your medications or help you without taking any drugs at all.

It all starts with a diary.

Hsinlin T. Cheng, MD, PhD, director of the Headache and Neuropathic Pain Unit at Massachusetts General Hospital's Department Neurology, says keeping a diary is the best way to track the frequency of headaches and discover what may trigger your attacks.

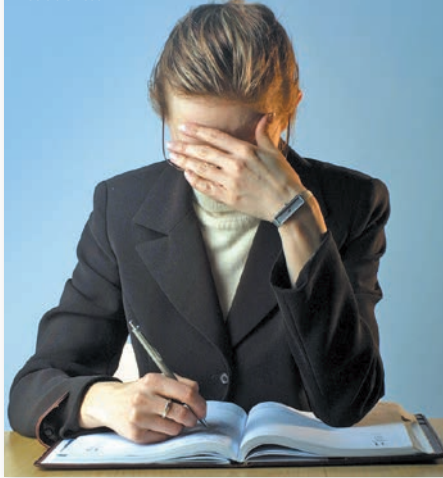
"You want to write down how often you have migraines, how long they last, any other symptoms you have, and any possible triggers," he explains. "What did you do before the migraine? Did anything help treat it? With a diary, it's easier to identify factors that contribute to your migraine and how to treat it."

Avoiding Triggers

Of course, once a trigger has been identified, avoiding that food or beverage, or that problematic environment may be the simplest path away from future migraines. Migraines can develop from a wide range of causes. Among the more common potential dietary migraine triggers are:

- Alcohol
- Caffeine
- Processed foods containing nitrites, nitrates, sulfites, MSG, or

Keeping a migraine diary may help you identify triggers, which you can then avoid to prevent future headaches.



tyramine (an amino acid found in aged cheese and other foods).

- Chocolate

Understand that migraine triggers can vary greatly from person to person. Something as benign as a pickle or a citrus fruit could be your trigger. It's also worth noting that a food you ate for years without any reaction could become a migraine trigger later in life. That's why a migraine diary that includes a recounting of your pre-headache food intake is so important. It's also not just a matter of what you eat and drink, but how much. "Try to eat regular meals," Dr. Cheng says. "Migraines can be triggered by eating too much or by eating too little. Hunger can be a common trigger for migraines."

Managing Other Triggers

Plenty of other external and internal factors can also spark a migraine. Lifestyle behaviors that affect sleep, exercise, and stress can also affect your likelihood of developing a migraine.

"A regular sleep cycle is very important for migraine prevention," Dr.

Cheng says. This means improving your sleep hygiene, which is your nighttime routine to help prepare your mind and body for sleep. (See story on page 6 for more information.)

Stress itself is also a major trigger for migraines, so learning to relax through leisure activities, meditation, and exercise is highly recommended, Dr. Cheng says. Regular exercise is recommended for a few reasons, actually. In addition to helping you relax, exercise can improve your sleep. It's best to exercise in the morning if possible, but exercising when it fits your schedule is better than not exercising at all. And of course, exercise is key to improving your cardiovascular health and managing your blood pressure and cholesterol.

Poor posture is another common migraine trigger. People who look at a computer screen are especially at risk if their screen is not at eye level. Changing your home or office workstation is an easy migraine home remedy. And if you're particularly sensitive to noise at your office or in any environment, headphones that reduce noise may be a way to avoid that common migraine trigger. Dr. Cheng also notes that if light, such as too much sunlight, overhead indoor lighting, or oncoming headlights when driving, are your triggers, special eyeglasses can give you some protection.

Supplements and Painkillers

Taking certain supplements may also reduce the frequency of migraines, Dr. Cheng says, though there is no guarantee that they will be effective for everyone. The most widely recommended supplement to help prevent migraines is magnesium. This mineral plays important roles in the health of your cells, muscles, bones and heart. You can actually buy several types of magnesium in pill form, such as magnesium citrate and magnesium chloride. The version most recommended for migraine prevention is magnesium oxide, which is available over the counter (OTC). Magnesium can cause diarrhea in some people, so be aware.

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A lower dose may be effective and help you avoid any side effects.

A few herbal supplements have also been shown to help certain people who suffer periodic migraines. Feverfew (tanacetum parthenium) has been getting more attention in the U.S. and Europe in recent years, though a similar herb—wild chrysanthemum—has been used for centuries in Chinese medicine. Feverfew is available in OTC tablets. Coenzyme Q 10 is another supplement associated with migraine prevention.

When Symptoms Begin

When headache pain first appears, you may benefit from simple migraine home remedies, such as an ice pack or retreating to a dark, cool room. OTC painkillers, such as acetaminophen (Tylenol) or nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Advil) and naproxen (Aleve), may also help. These medications may be helpful in mild-to-moderate cases. Dr. Cheng warns, however, that overuse of NSAIDs and other painkillers can actually bring on migraines.

Severe migraines may require a different class of medications, called triptans. In addition to migraine drugs used to treat symptoms once they've started, there are drugs for prevention. They are taken daily to help reduce the frequency of migraines.

Don't Suffer in Silence

If you experience migraines, don't assume it's a hopeless cause. Even if you have tried prescription treatments or homemade remedies, continue to look for relief. Talk with your doctor about treatment options, and don't hesitate to seek a referral to a migraine specialist.

For any concerns about supplements or medications to prevent migraines or treat the onset of headaches, talk with your doctor about what's best for you. You may need to try a few treatments before you find success. **MMM**

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MEMORY MAXIMIZERS

HERE'S THE LATEST RESEARCH TO HELP YOU KEEP YOUR BRAIN SHARP.

Sitting for Too Long May Harm Your Memory and Physical Health

Numerous studies in recent years have found a strong link between too much sedentary behavior and higher risks of heart disease and other health problems. A small study published recently in *PLOS One* found that sitting for long periods is also associated with thinning in regions of the brain that are critical to memory formation. In the study, researchers questioned 35 men and women about their physical activity levels and the average numbers of hours a day they spent sitting during the previous week. Each study participant then had a high-resolution magnetic resonance imaging (MRI) scan. The scans provided researchers a detailed view of the medial temporal lobe (MTL), a brain region involved in the formation of new memories. The people in the study who spent the most time sitting tended to have more thinning in the MTL. Researchers actually found that while sedentary behavior is a significant predictor of MTL, physical activity—even at high levels—is insufficient to offset the harmful effects of sitting for extended periods. The study didn't prove that too much sitting actually causes thinner brain structures, but that there is a strong association. One limitation of the study, aside from it including just 35 people, was that researchers did not explore whether or how often the participants took breaks from sitting. The researchers hope to follow a larger group for a longer period of time, and to study whether gender, race, and weight may play a role in how sitting affects brain health. While there is no set number of hours that is considered safe or unsafe, health experts agree that it is best to reduce the number of hours you sit each day and take frequent breaks during long stretches when you're seated.



Sitting for long periods of time can be bad for your cardiovascular health and your memory.



Controlling Your Blood Pressure May Lower Your Dementia Risk

If you control your blood pressure with any of the commonly prescribed antihypertensive medications, such as ACE inhibitors, calcium channel blockers, beta blockers or diuretics, you may also be lowering your dementia risk. In a study of 1,262 older African-Americans with hypertension, researchers found that men and women who managed to control their blood pressure, even after the age of 65, experienced a reduced risk of dementia later in life. The study participants were followed for an average of 24 years. They were identified as cognitively normal or healthy at the start of the study. Though the study included only African-American adults, researchers suggest that well-controlled blood pressure is likely to reduce dementia risk, as well as the risk for stroke, kidney disease, and other health problems. The researchers noted that many of the medications study participants used to manage blood pressure were lower-priced generic drugs, rather than the higher-priced name brands. If your blood pressure isn't consistently under control, talk with your doctor about your options. You may benefit from a different medication regimen or lifestyle adjustments, such as regular exercise, a heart-healthy diet, better sleep, and greater stress management. **MMM**

Are You Getting Enough Sleep?

It's not just a matter of quantity, but quality, too.

Sleep is a crucial component of good physical and mental health. It helps with memory storage, maintaining a healthy blood pressure, regulating your metabolism, and many other functions. But many people overlook this important aspect of your wellbeing.

In recent years, awareness of sleep's role in health has grown considerably.

But that doesn't mean everyone is getting a sufficient amount of quality of sleep each night. There may be times when you ask yourself whether you're getting enough sleep, and if not, why not.

Most adults require seven to eight hours of sleep each night. "There are exceptions to that rule," says John Winkelman, MD, PhD, chief of the Sleep Disorders Clinical Research Program at Massachusetts General Hospital. "Some people may need nine hours of sleep. And there's the occasional person who needs less than seven or eight hours. ... As people get older, it's not that they need less sleep, but that they're less able to get consolidated sleep, especially in that last third of the night."

Quality and Quantity

Arthritis or other causes of chronic pain may make it tougher to stay comfortable in bed. You may need to get up and use the bathroom in the middle of the night or earlier in the morning than you would normally arise. There may be other reasons that affect your ability to fall asleep or stay asleep throughout the night.

Dr. Winkelman explains that there are two components to evaluating your sleep: the number of hours you are asleep and the quality of the sleep you get. "They can each produce the



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Daytime sleepiness and a strong desire to nap are key signs that you're not getting enough sleep. But there are other symptoms of poor sleep, including trouble concentrating and weight gain.

same daytime consequences: having trouble keeping your eyes open, irritability, trouble concentrating, fatigue," he says. "Also, if you find the alarm is waking you up each morning, and you're not waking up spontaneously, that's often a sign you're not getting enough sleep."

Other effects of poor sleep include weight gain caused by increased appetite (often for carbohydrates), moodiness, forgetfulness and feeling more stressed. Take note if you observe these changes in yourself or your partner. Sometimes loved ones have a clearer picture of physical or emotional changes brought on by sleep deprivation.

To Nap or Not?

So how do you make up for those lost sleep hours? A nap really can help you "repay" your sleep debt. And curling up for a 30-minute nap may seem like an innocent way to compensate for a poor night's sleep. But napping isn't a simple proposition. If you nap too late in the afternoon, it could interfere with your sleep that night, and just perpetuate the problem.

Dr. Winkelman says that if your sleep-related complaint is that you experience a lot of daytime sleepiness, you may benefit from a late morning/early afternoon nap. "If your complaint is distress about being able to

fall sleep at night, then I might recommend against naps," he says.

Sleep Hygiene

If you're feeling stressed about being able to fall asleep and stay asleep, Dr. Winkelman suggests paying close attention to your sleep hygiene—the habits that contribute to a good night's sleep. And one of the biggest sleep hygiene mistakes people make, Dr. Winkelman says, is that people spend too much time in bed *trying* to fall asleep.

He says, for example, that older patients tell him they're spending nine hours in bed. But if they simply can't get more than seven hours of sleep a night, it's counterproductive to spend another two hours unsuccessfully trying to sleep. "Reduce the amount of time in bed to make it closer to your actual amount of sleep time," Dr. Winkelman says. "That leads to higher sleep efficiency."

Once you turn out the light and try to sleep, if you're still awake after 20 minutes or so, move to another room and quietly read or do something relaxing. Keep the lights low, so you don't trigger your brain to be alert. Once you feel sleepy, try your bed again.

Dr. Winkelman also warns against caffeine in the late afternoon or evening, and too much alcohol, especially close to bedtime, as it can interfere with sleep.

Staring at a lighted screen, like a cell phone, TV, computer or similar device, can have mixed results. Dr. Winkelman says a little late-night screen time can help some people relax and fall asleep more easily. "That external focus can help some people quiet down their brain's internal activity," he says. "For others, it's too stimulating."

One other key sleep hygiene strategy is to keep a consistent sleep schedule. Go to bed at the same time, and wake up at the same time. Your wake-up time, in fact, may be the most important part of that schedule. Dr. Winkelman explains that

(continued on next page)

MEMORY (cont. from page 1)

The Sleeping Brain at Work

Dr. Manoach says scientists still don't completely understand how the brain stores memories overnight. Newly learned information is stored temporarily in the hippocampus, the part of the brain responsible for long-term memory and emotional response. While you sleep, the hippocampus communicates with the cortex, the largest part of the brain and the one responsible for many brain functions. The cortex is divided into four lobes. New information is distributed for more permanent storage in the appropriate part of the cortex.

Dr. Manoach says that all that communication and organization is an amazing, but vulnerable process. Sleep interruptions, whether they are to check your cell phone, let the dog out, or for some other reason, can disrupt the careful storage of your memories.

"This communication is accomplished by synchronizing the naturally occurring brain rhythms emanating from the hippocampus and cortex," she explains. "A good night's sleep is like a symphony of brain rhythms, with each movement serving a different type of memory. Cut it short, or let it be interrupted by

a text or a tweet, and you may miss the chance to have a breakthrough on that thorny problem you were sleeping on, or to perfect that piano piece just in time for the recital."

Sorting Your Memories

Another fascinating aspect of overnight memory processing is the way in which the brain determines which information to preserve as a long-term memory and what can be discarded. It's not entirely clear how this happens or why we occasionally cling to seemingly innocuous memories, yet forget information that seems worth storing.

"Studies suggest that memories are selected and sustained for consolidation in cortical networks by 'tagging' in the immediate aftermath of learning," Dr. Manoach says. "It is not known whether all memories are tagged while you're awake, or if the bulk of this decision making occurs during sleep and how this tagging is accomplished.

In general, the nighttime brain does a good job prioritizing the information we learn and think about each day.

"We don't remember everything we learn during the day," Dr. Manoach says. "Somehow, the sleeping brain knows what new information is

important enough to keep and what can be allowed to fade. Unfortunately, the sleeping brain remembers unpleasant memories better than neutral ones. While these memories may be more important to our survival, remembering mostly the bad things that happen can color your outlook and the decisions you make."

Dr. Manoach adds that sleep also allows your brain to manage your emotions. Think about how, after a poor night's sleep, you may be more emotional or moodier the next day. Researchers have even discovered what's happening in the brain to help explain the sleep-emotion connection.

"After not getting enough sleep, people who are shown either pleasant or upsetting pictures have more activity in the amygdala, a part of the brain involved in emotion," Dr. Manoach says. "In one study, compared with people who were sleep deprived, people who got enough sleep showed increased communication between the amygdala and the prefrontal cortex, a region that helps to control emotional reactions."

Given sleep's importance, if you find yourself not getting enough sleep, talk with your healthcare provider about how to get a better night's rest. After all, your brain has a lot of work to do. **MMM**

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when you wake up affects when your brain is exposed to light, which then helps set your body clock—including the timing of when you will feel tired that evening.

Do You Need a Sleep Specialist?

If you feel you're not getting enough hours of quality sleep on a regular basis, talk with your primary care physician. You may have an underlying health problem that is affecting your sleep. Identifying and treating that condition may result in a more peaceful night's sleep.

If you feel that the advice or care

from your doctor isn't helping, ask about a referral to a sleep specialist. Seeing a specialist doesn't necessarily mean you're going to be prescribed sleep medications, though for some people, short-term use of sleep aids can be safe and effective. Other treatments, such as cognitive behavioral therapy, relaxation exercise, and breathing techniques may produce the results you desire.

An overnight sleep study is usually done if the suspected problem is a sleep-disordered breathing condition, such as sleep apnea. A study may also be helpful in diagnosing a movement disorder, such as periodic limb movement, or behaviors such as sleep

walking. Dr. Winkelman adds that if you have insomnia, and traditional treatments aren't effective, a sleep study may be appropriate to learn more about what's going on with your brain and body while you try to sleep.

Regardless of your particular sleep issue, the important thing to remember is that sleep is a vital, if still somewhat mysterious, component of your health. Just as it's important to eat a healthy diet, exercise regularly, quit smoking, and follow your doctor's other advice, you need to pay attention to your sleep patterns and share any concerns you have about them with your healthcare provider or a specialist. **MMM**

ASK THE DOCTOR



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DEMENTIA WITH LEWY BODIES... ANXIETY DISORDER ... HEART DISEASE AND DEPRESSION

Q My sister was recently diagnosed with dementia with Lewy bodies, but her symptoms seem a lot like Alzheimer's disease. What's the difference?

A The symptoms of Alzheimer's disease (AD) and dementia with Lewy bodies (DLB) can be similar. In fact, dementia with Lewy bodies (DLB) is the third most common cause of dementia, after AD and vascular dementia. Between 10 and 25 percent of dementia cases are due to DLB. Lewy bodies are abnormal formations of protein in nerve cells. Alpha-synuclein protein is the main component of Lewy bodies. It's found throughout the brain, but researchers are still unclear as to its function. Lewy bodies can also be identified in the brains of people with Parkinson's disease, too. Many people with DLB and Parkinson's also have the abnormal beta amyloid plaques and tau tangles that are more commonly associated with Alzheimer's. Beta amyloid and tau are other types of proteins found in the brain. Both AD and DLB can lead to memory and cognition problems, as well as personality changes and difficulty communicating. Memory loss tends to be more severe in early AD than in early DLB, while people with DLB sometimes develop the movement problems, such as muscle freezing and a shuffling walk, that are common to people with Parkinson's. Hallucinations and trouble identifying familiar people may be more common among early-DLB patients than with early-AD patients.

Q Can an anxiety disorder ever go away on its own?

A If you have been formally diagnosed with an anxiety disorder, it's unlikely that it will simply fade away without treatment. Even with treatment, an anxiety disorder is usually a lifelong condition. Treatment is aimed at managing symptoms and developing coping strategies to be used throughout your life. Anxiety disorder is actually an umbrella term

to describe conditions, such as a generalized anxiety disorder (GAD) or panic disorder. If you have temporary feelings of anxiety, such as excessive nervousness before surgery or some other imminent event, those feelings may fade without treatment. But that's different from a diagnosable condition that gets in the way of your normal, daily functioning or affects your relationships or work.

While there are things you can do to reduce anxiety, such as managing stress, exercising and living a healthy lifestyle, you should talk to your primary care physician or a mental health counselor about finding the right type of anxiety treatment for you. Don't hope for it to just go away. Be proactive.

Q After a heart attack and emergency surgery last year my cardiologist asked me if I would like to see a therapist to talk about any worries I had about my heart disease. Should I be worried? I was thrown by his question.

A A heart attack can often trigger feelings of anxiety and depression. Several studies in recent years have drawn a strong connection between heart disease and depression. Some people feel like their future has been compromised, or they worry about a second heart attack or other health complications. Instead of waiting for patients to bring up new feelings or concerns, more and more cardiologists are asking about such things and suggesting counseling as a way to help cope.

You may have a different outlook about your health. Many people move on from a heart attack with a greater appreciation of their health and the other important things in their lives. Just be aware that heart problems are associated with depressive and anxious feelings, and that those feelings may surface down the road. If you feel anxious, sad, or confused about your health and your future, take your doctor up on his suggestion and share your feelings with a trained therapist. **MMM**

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