

Sound Mind

Treat your brain like a muscle, and put it to work. By John Sedgwick

What did you have for lunch a week ago last Thursday? Did you have any soda water? How about the conversation, the restaurant's décor, the calories? Anything come to mind? Anything at all? Hello? Chances are, *you simply can't remember any of it*—the seven most tragic words in the language, for they relegate a portion of your experience to the discard pile.

It's appalling how much you forget. And, sad to report, you will only forget more as you grow older. Things will start to feel a little jumbled up there in the cranial spaces—less like your bedroom, where everything is so close at hand, and more like your attic, where you haven't been in years. But fortunately there are ways to keep your memory intact.

Most brain functions peak in your early twenties, but they decline only gradually over the next forty years. Contrary to previous scientific belief, brain cells don't die, never to be replaced (they do regenerate throughout life), nor, contrary to myth, are they killed off by moderate drinking (defined as two alcoholic drinks a day for men, one for women). Plus, experts say there are ways to retain the brain cells' excitatory capacity. Cognitive specialist Dharma Singh Khalsa, coauthor of *Brain Longevity* (Warner Books; \$15), believes that it is the pressures of our just-in-time lives that are causing so many people's memories to short out. "We're all victims of a fast-paced lifestyle, with all the multitasking," he says. "Our brains haven't evolved to handle it." In his clinical practice, Khalsa says, he has encountered countless stressed-out baby boomers who sense they are losing their mental edge. Such stress produces a hormone called cortisol, which works on the brain like battery acid. To cool out his patients, he recommends morning meditation "before the stress cycle kicks in," massage and other mentally soothing remedies. "Meditation lowers blood pressure, respiratory rate, metabolism, adrenaline and, most important, it lowers cortisol. It's very healing." Khalsa used yoga, meditation and other stress-reduction techniques before taking his medical board exams—which he reports having aced. "I went into them with the focus of a boxer going into a match," he says. "That's how psyched up I was."

In the view of other experts, brains are like muscles. Just as aging muscles no longer let us jump as high or run as fast, so do brains decline. But even this so-called natural aging can be countered with diet and exercise for the head. Dr. Jay Lombard, assistant clinical professor of neurology at Cornell University's Weill Medical College, recommends lifestyle changes as an aging-prevention program: "As a population, we need to reduce stress and increase antioxidant levels," says Lombard, who suggests eating more fruits and vegetables and

taking vitamin E supplements. He also points to ongoing research into the benefits of nonsteroidal anti-inflammatories (like Motrin), which may prove useful in preventing diseases such as Alzheimer's. And he cites encouraging studies conducted at the Mayo Clinic of a substance known as Chinese club moss (also called huperzine A), which enhances the acetylcholine levels in the hippocampus, the brain's memory center. (Acetylcholine regulates cognition and memory retention.) Supplements containing huperzine A are available in health-food stores. Lombard is also a believer in DHA, the omega-3 oil that keeps cell membranes healthy, and ginkgo biloba, which blocks the enzyme that destroys dopamine, the brain chemical that helps to give memories their emotional impact and makes them indelible. (If you're concerned about having "senior moments" and are interested in taking any of these supplements, consult your doctor; he or she would first want to rule out other causes of mental fog-iness, such as sleep deprivation, a B12 deficiency, depression or an underactive thyroid.)

"Use or lose it," adds Dr. Lombard. He recommends avoiding the "brain rot" of too much TV and trying chess, crossword puzzles and other more mentally active pursuits instead. "I tell children not to let their elderly mom and dad get too isolated," he says. "The more time they spend with family and friends, the better their chances of extending their mental vitality." Simply maintaining some constancy in your life can also be beneficial. Neuroscientist James McGaugh says that the biggest mistake some older people make is moving to a warmer climate. In doing so, they leave behind an array of environmental cues to a lifetime of memories.

As a rule, the more intense and more permanent memories are the ones that have been encoded most richly. The more senses that are involved, the more tags there will be for finding and recalling the memory later. Memory works by association. If music is played in the background when you're trying to memorize something, that music will help cue the memorized material later. Thomas Crook, president of Psychologix in Scottsdale, Arizona, advises his clients to incorporate a visual aid into the memory of a name to be stored. To remember the name Elizabeth, for example, visualize the woman wearing a crown and velvet robes, suggesting that unforgettable royal Queen Elizabeth I.

Nothing makes a memory last like an emotional involvement, though. No one forgets his first kiss or the day his mother died. "Our operating assumption is that the brain has a means for determining what's really important and

weighting it accordingly," says Larry Cahill, a cognitive neurobiologist at the University of California at Irvine. A key psychological ingredient, says Cahill, is "arousal." He and his colleague McGaugh suspect that emotional excitement triggers a cascade of physiological events that label a particular experience "Don't Forget." These emotional memories are now believed to be consolidated during REM sleep, when the brain reviews the day's most interesting material.

Everyone probably knows a Mr. Memory—someone with a steel-trap mind who seems to be able to recall information in detail, even if it is not particularly charged with emotion. Jeffrey Hall, a neurogeneticist at Brandeis University, for example, is renowned for his ability to recall citations to scien-

tific articles in his field of fruit-fly research going back a full century. How does he manage it? Thomas Crook and other experts believe that such mastery, however enviable, is largely an illusion of total command; in reality, the capability is usually confined to relatively few, small domains.

While it may not be possible for aging boomers to develop a photographic memory, they can at least put the wisdom of their years to use by developing compensatory strategies to make up for any mental luster they've lost. Sure, aging poses a trade-off: more experience accumulates with each passing year, but progressively less of it is retained. So write down the grocery list and always leave your keys in the same place. And relax. Not everything is memorable—or was meant to be.

Vital Signs

The secret of youth: don't act your age. By Anne Bernays

I was born in 1930, and yet, every morning, just after waking up, I have to remind myself that I'm not still thirty-eight—or, on some cold and rainy days, forty-four. Here's the good news: mind and body are not locked together with kryptonite. Eventually, of course, your body will betray you, but with good luck, your mind can operate on all eight cylinders until you're carried out feet first.

When I was a child, my grandmother Hattie, born during Lincoln's presidency, wore dresses that brushed her ankles and awful black shoes with laces. She wore a hat indoors and carried a small brocade purse to the dinner table. I never saw her run or even walk fast. The steamiest thing she ever did was watch *The Ed Sullivan Show* on TV. She had a stateliness that I admired then, but that I now recognize as a posture dictated for her by other people and by convention. She had almost no choice about how to behave.

After I reached fifty (a shock it took me six months to recover from), I decided that I would not allow my age to determine what I did or how I used my brain. I'd do exactly as I pleased—go to a drag show in Provincetown, play poker with the guys, teach my writing students without first changing from Gap jeans into something more "age appropriate," be a Don Imus fan—so long as it didn't embarrass my husband or my children. This also meant keeping abreast of the ongoing and fluid culture, rather than basking in the sun of my own past. I had a choice: to view middle age either as doors slamming shut behind me or as new ones opening up ahead.

I also made a conscious decision to acquire a new skill every couple of years. So I learned to windsurf; taught myself how to use a computer and go on the Internet (abetted by tutoring from a young man who explained things in a language unrelated to English); began to play chess again. Most

mornings, before starting to write, I play Scrabble against a CD-ROM opponent named Maven. I plan to relearn Latin.

Under a patina of shyness, Justin, my husband of forty-eight years, is a very funny and inventive fellow. We write and publish books together, and for recreation, we make up word and dictionary games. We make a copy of the daily *New York Times* crossword puzzle, then do it side by side, pretending that we're not competing. I find this brain food better for me than antioxidants and beta-carotene.

Justin and I are trying not to let the notion of comfort seduce us. We're thus resisting the lure of Florida, with its warm nights and singing palms, and choosing instead the hideous but psychically bracing New England winter. And when we travel, we avoid situations where everything is arranged for you ahead of time and everyone on the trip is the same age. There's nothing wrong with Elderhostel except its *raison d'être*, namely, to cater exclusively to elders; I can't imagine going on one of those creaky trips any more than I can imagine not writing. I need fellow travelers as diverse in age as they are in background.

Likewise, the people we generally hang out with stretch in age all the way from twenty-something to ninety. The fact that some of my friends are younger than my children seems to make my children slightly nervous. Maybe they wish I acted more like Grandma Hattie, but I refuse to do that. I'm still trying to maintain a balance—learning and using current slang (up to a point), reading new fiction, laughing at raunchy jokes, tracking trends in the culture—in other words, trying to be cool and with it without going overboard, like grandma Rollerblading in a miniskirt. I'm sure my children and my husband will let me know if they think I'm not acting my age—whatever that is.

functioning of the brain, indeed, to overall health. Constant stimulation of our intellect prevents or at least decreases every effect of aging on the brain, from simple forgetfulness to advanced dementia. Not only that, but it has recently been discovered that, contrary to previous belief, certain areas of brain cells, such as those related to judgment, continue to develop throughout our lives, especially if used. The wisdom of age is no fantasy, but only if we make use of it. No mental couch potatoes need apply.

And that brings me to the greatest wisdom my seventy-year-old brain can impart, whether the hearers are twenty or one hundred. If you want a vibrant, exciting, physically robust and joyful life at any age, the most direct road to it is by the constant pursuit of creativity. The trick is to recognize that creativity must never be abandoned, no matter the form it takes. Retirement from a career or a profession simply means that one is then free to pursue creativity in some other direction. I am a surgeon who became a writer; an executive or magazine editor immerses herself in painting; the owner of a small business takes up a musical instrument; a farmer turns to amateur or even professional theatricals—the possibilities are legion.

Of course, the verve and the sense of optimism that dispel fears of aging are their own reward. But there is another motive worth thinking about, and some might call it pride. I'm not sure where pride ends and vanity begins, or if it even matters. If I've learned nothing else during my long life, I've come to a certainty that our wish to be desirable to members of the opposite sex never goes away. And thank God for that. Whenever I'm pumping iron in the gym, running around a tennis court or trying to mold a shapely sentence, I find myself hoping, not too far back in the recesses of my mind, that some woman—whether eighteen or seventy-five—will notice.

The Better to See You With

Nothing marks the passage of time quite like the acquisition of reading glasses. For years I'd prided myself on my eagle eyes in reading distant highway signs and on my sharp focus for what the ophthalmologists call close work. Sight is the primary sense, after all: to see is to understand. Clear-eyed, I took in the full sweep of reality. Gradually, though, while the faraway remained as distinct as ever, the near-at-hand turned fuzzy, especially toward the end of the day.

Time for reading glasses. Drugstore magnifiers, in my case. One point two fives. Reasonably chic ones, I'd like to think, but an appendage all the same. I notice the tickle of the glasses on the bridge of my nose, the slight pinch of the earpieces against my cranium and the strange way that my vision is framed within blobby rectangles. Years back, my aging father referred to his contact lenses as his "eyes." When he'd misplace them, which was often, he'd wail, "I can't find my eyes!" I now know what he meant. My seeing now lies elsewhere, out of my body.

Actually, glasses don't entirely remove the fuzziness that has accrued to menus, magazines, maps, books and everything else within arm's length. They merely shift it, making the wider world an underwater blur, but giving close-ups a marvelous, under-the-microscope clarity. I had no idea, for example, that my fingers had tiny hairs on them between my first and second knuckles. I'm even wearing my glasses at dinner now, thrilled to see the Vermeer-like detail in an asparagus stalk or the pearly gloss of a grain of rice.

I've taken to thinking of my spectacles as magic lenses, reversing time. They've restored the clarity of my childhood, reinstated the immediacy of things. If the normal progress of life's journey is from near to far, my glasses have brought me back to where I started. Here.

JOHN SEDGWICK

Facing Facts on Aging

Everyone ages differently. As anyone who's attended a twenty-five-year high school reunion knows, people vary greatly in how they change over the years. There are sixty-year-olds who look like forty-year-olds—and sixty-year-olds who look like eighty-year-olds.

Of course, we can make some general statements about how people typically age. Sample findings come from the Baltimore Longitudinal Study of Aging, published by the U.S. Department of Health and Human Services:

- Your heart grows slightly larger and maximum oxygen consumption decreases.
- Systolic blood pressure increases and

artery walls thicken.

- Your body redistributes fat. Women tend to store more fat in their hips and thighs than men.
- Muscle mass and hand grip decline.
- Ability to hear high-frequency sounds decreases starting around age twenty, and hearing low-frequency sounds becomes more difficult during your sixties.
- Maximum breathing capacity declines.
- Your brain sustains loss and damage of nerve cells.
- Your bladder loses capacity, leading to more frequent urination and sometimes incontinence.
- Your kidneys become less efficient in removing wastes from the bloodstream.

Now that you've read this list, forget it. Remember that information like this only describes what happens on average to groups of people. It doesn't predict exactly how aging will happen for you.

Genes account for only about one-third of the effects of aging; the rest are due mainly to lifestyle and environment. That means you can do a lot to enhance physical vitality, mental clarity and appearance as you age.

Reprinted from the Mayo Clinic's Successful Aging, with permission from Mayo Clinic Health Information, Mayo Foundation for Medical Education and Research, Rochester, MN 55905. For more information, visit www.mayo.edu.