

Daydream Believers



At last, we have permission to let our minds wander. We've all experienced those instances where we try and remember a name, a place, a movie title. And for some reason, we just can't. Then hours or even days later, after we've STOPPED thinking about it, the answer magically popped into our heads. Well, it's not so much magic, as science.

Psychologist Kalina Christoff, from the University of British Columbia, devised a way to study this phenomenon. While lying inside a brain scanner, her subjects were asked to touch a computer screen each time a number appeared. She would stop subjects about once a minute, allowing them enough time to let their mind go off of the repetitive task. In reviewing the results from the scans, she found that as subjects' minds started to wander, not only did their brains' "default network" kick in, but what she calls the "executive network" (the part of the brain responsible for solving complicated problems) became active as well. Usually these two systems do not act at the same time. A surprising result that deserves deeper investigation. But for now, it seems that while we're not thinking, we're actually thinking fairly hard.

Have Another Cup of Joe

That morning cup of coffee. Many of us think we need it. And many of us might be right. Swedish and Finnish researchers studied 1500 middle-aged people over the course of 21 years, and they concluded that drinking three to five daily cups of coffee in middle-age was associated with cutting the risk of developing Alzheimer's by two-thirds. Of course, this is just one study, and other studies indicate that drinking seven or more cups of coffee could lead to hallucinations, not to mention other health problems. Everything in moderation. So as beneficial as coffee might be, make sure it's okay with your doctor.



Dakim's New Goal

As with physical exercise, consistency is the key to your BrainFitness program. And the best way to stay consistent is to set a goal. That's why we're introducing a new "goal-keeping" feature. Every player is invited to select the number of days a week they wish to commit to playing. We recommend at least three days, but five times a week is ideal. Then each session concludes with a calendar graphic that indicates how the player is doing in relation to their goal – e.g., "You're currently achieving 75% of your goal." Of course, there's no obligation and no penalties are involved. It's simply a self-motivational tool to help keep you on track.



Visit our website
for a demonstration.

We'd like to invite you to come over to our website and play. Go to www.dakim.com to see for yourself just how much fun working out your brain can be.

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a difference in the
lives of seniors.

On the website, you'll also find our most up-to-date customer list. It includes some of the most respected senior care and housing communities in the United States. We're very proud to have them on board.



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Brain Storm™

by Dakim®
The Brain Fitness Solution

The Upside of a Down Economy

You read it right. There's something good to be said for a bad situation. Research done at the Institute of Psychiatry at King's



College London suggests that being forced to retire later in life because of economic issues can delay the risk of developing Alzheimer's. The study, published in the *International Journal of Geriatric Psychiatry*, concluded "Extended employment may keep an individual participating in intellectually stimulating activities." And co-author, Professor Simon Lovestone, said "The intellectual stimulation that older people gain from the workplace may prevent a decline in mental abilities, thus keeping people above the threshold for dementia longer."

In fact, each extra year of work past the age of 65, delayed the onset of Alzheimer's by approximately 18 months. This completely supports what we at Dakim have been about from the start. When it comes to maintaining brain health, it's a matter of use it or lose it! Even if you're already retired, there's a tremendous need for volunteers. You probably have many valuable skills that you can use to help others, and at the same time, keep your mind active. Work out your brain every day, and it will work better for you. And, hopefully, the economy will work itself out.

"I've Never Heard Them Laugh Like That Before"

by Dan Michel
Founder and CEO of Dakim, Inc.

That's what the therapist at a senior living community in Massachusetts said after observing a group of seniors with Mild Cognitive Impairment "play" Dakim BrainFitness. "I've never heard them laugh like that before." And that's music to our ears here at Dakim. Because we're not just about keeping brains "fit," we're about keeping the life in the lives of seniors, including "Helen," a resident at the community in Massachusetts.

When our ambassador, Maureen Rossi, visited the community, she met Helen who immediately accused Maureen of being there to "check her brain." Helen's initial reaction to the system was less than joyful. "There is nothing wrong with my brain!" she insisted. And adamantly refused to play. When other residents began to play, Helen actually looked away.

One of the exercises on Dakim BrainFitness involves watching a humorous skit with Jack Benny and George Burns, followed by a series of questions based on the content of the clip. At the end of the session, all of the residents were able to answer the questions correctly. Which was amazing to Maureen Rossi, who said, "They were able to use abstract reasoning skills." But perhaps as importantly, they had a great time "playing." Laughing loudly at the jokes. Singing along with "When the Saints Go Marching In." In the end, even Helen came around and began to sing along with everyone else.



Finally, when the session was complete and Helen was being wheeled away, she asked the therapist, "Do I have to sign up?" When the therapist responded "No," Helen said "I'll try it!" Helen's surprising reaction had us here at Dakim actually laughing out loud.

For Seniors. For Life.

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Small Thoughts on Longevity

You probably recognize Dr. Gary Small from his recent PBS special, *Living Better Longer*. Or perhaps you've read his latest bestselling book, *iBrain: Surviving the Technical Alteration of the Modern Mind*. Gary Small, M.D., professor of psychiatry and biobehavioral sciences, is the director of the UCLA Center on Aging and Chief Scientific Advisor for Dakim.

Dr. Small took a few minutes from his busy schedule to talk with us about brain fitness:

In the last issue of BrainStorm, I discussed my findings that using technology, specifically Internet search engines, engages complicated brain activity that may help exercise and improve brain function.



Now, I'd like to talk to you about shutting off that computer, putting down that PDA and chatting in person, not online. At least for a while – say at dinnertime with your family or friends.

Investigators at the University of Minnesota found that traditional family meals have a positive impact on adolescent behavior. In a 2006 survey of nearly 100,000 teenagers across 25 states, a higher frequency of family dinners was associated with more positive values and a greater commitment to learning. But it's not just adolescents that benefit from social interaction. Stepping outside of our own skin, having positive interactions with other individuals and in groups has been shown to benefit the brain power of people of all ages.

Actually, it not only strengthens our neural circuitry for human contact (the brain's insula and frontal lobe), but it also helps ease the stress we experience in our daily lives, protecting the medial temporal regions that control emotion and memory.

So, stop and have a good time with good friends. And then get back on Dakim BrainFitness for your daily brain training session.

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Another pill bites the dust – or what they're now saying about NSAIDs.

For the past 20 years, there's been a common belief that brain inflammation contributes to the development of Alzheimer's disease. Therefore, it has been suggested that anti-inflammatories such as NSAIDs could provide help keeping people struggling with dementia from developing Alzheimer's. Recent clinical trials with anti-inflammatories have shown otherwise. And a new study published in *Acta Neuropathologica* may offer a glimpse as to why.



Researchers with the McKnight Brain Institute of the University of Florida, in collaboration with the University of Frankfurt, Germany, have shown that inflammation of microglia (a type of brain cell) is not associated with dementia. To short-hand this complicated study: microglia are a type of glial cell that outnumber neurons 10 to 1. They were thought to have been "activated" or inflamed by protein clumps called beta amyloid – a potential cause of Alzheimer's. Once "activated" these microglia were believed to worsen the situation.

However, this study suggests that microglia are not activated by the beta amyloid. In addition, no evidence was found that inflammation is at all to blame for brain cell death. According to Mark A. Smith, editor-in-chief of the *Journal of Alzheimer's Disease*, "This paper potentially represents a paradigm shift in the way we look at Alzheimer's disease."



So, while a pharmacological cure isn't at hand, and we don't have the time to wait for it, there is much we can do to reduce the risk for

developing dementia and improving our quality of life. We can all adopt a heart-healthy lifestyle – including controlling blood pressure, cholesterol and diabetes while eating a healthy diet and getting moderate cardiovascular exercise every day

We should also give ourselves a rigorous brain fitness workout five days a week. Of course, remaining socially engaged with others is a very important part of being mentally active. Together, these lifestyle modifications can not only reduce our risk of dementia, they will improve our quality of life.



Good News: Marrying Someone Smarter Makes You Smarter

(Bad news: *It only works for one of you*)

At least that's what married couple Warner Schaie and Sherry Willis, developers of the publication *Mind Alert*, have discovered in their work on aging and cognition. According to them, "In our study, we followed a number of married couples over a long period of time. It turns out that married couples' intellectual performance converges over time: the spouse with lower cognitive functioning early in the marriage moves in the direction of the higher-functioning spouse, cognitively speaking." We say that's all fine and dandy, but what happens to the spouse who started off as 'the smart one'?

More Sad News About Depression



We've seen the commercials. Sadness hurts everyone – you, your loved ones, maybe even your pets. But new information indicates that depression can potentially hurt your brain. According to findings published in the June 16, 2009 issue of *Neurology*, the more depressed patients diagnosed with Mild Cognitive Impairment were, the more likely they were to go on to develop Alzheimer's.

The three-year study used a test measuring the intensity of depression systems. Of those diagnosed with depression, every one-point increase on that test correlated to a three percent increase in the risk of developing Alzheimer's. Po H. Lu, Assistant Professor of Neurology at the University of California Los Angeles said, "Our longer-term findings add to the body of evidence that suggests depression is a major risk factor for Alzheimer's disease." Sad news, yes. But as other studies have shown, keeping mentally, socially and physically active can help with depression. Three things we at Dakim have been promoting for more than four years.

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Power Aging with Jack LaLanne



Jack LaLanne is perhaps the most recognizable name in fitness throughout the world. We at Dakim are proud to welcome him as our newest advocate for brain fitness.

It seems everywhere you turn around you're hearing something about how depressed people are these days. Teenagers. The elderly. Now, I'm not a physician, so I won't be telling you not to take your meds or whatnot, but I will tell you there are some things that you can do that don't involve pills to help improve your mood and your mind.

Exercise. I'll say it again and again and again until everyone "gets it." Exercise makes you look better and feel better. Period. You don't see too many happy couch potatoes out there now do you?

DON'T BE A COUCH POTATO!

Try something new. Don't get stuck in a rut. Every day meet someone new, do something new, see something new. When you learn a new skill, you not only feel better about yourself, you actually build new circuitry in your brain. Which can help keep you sharp.

Switch hands. If you're right-handed, use your left hand to brush your teeth. If you're left-handed, become a rightie for an hour. This can promote the growth of neurons in the brain which can help with thinking and memory. Added bonus – it's hard to feel bad when you're concentrating so hard on not spilling juice on yourself.

Accentuate the positive. Be an optimist. I've been one all of my life, and it's worked out pretty darn well. If your computer connection isn't working, think of how nice it would be to send someone you care about an actual letter instead of an email. If it's gloomy and raining, think about how your garden could really use the water. Find the sunny side of life and it just might find you.

Jack LaLanne