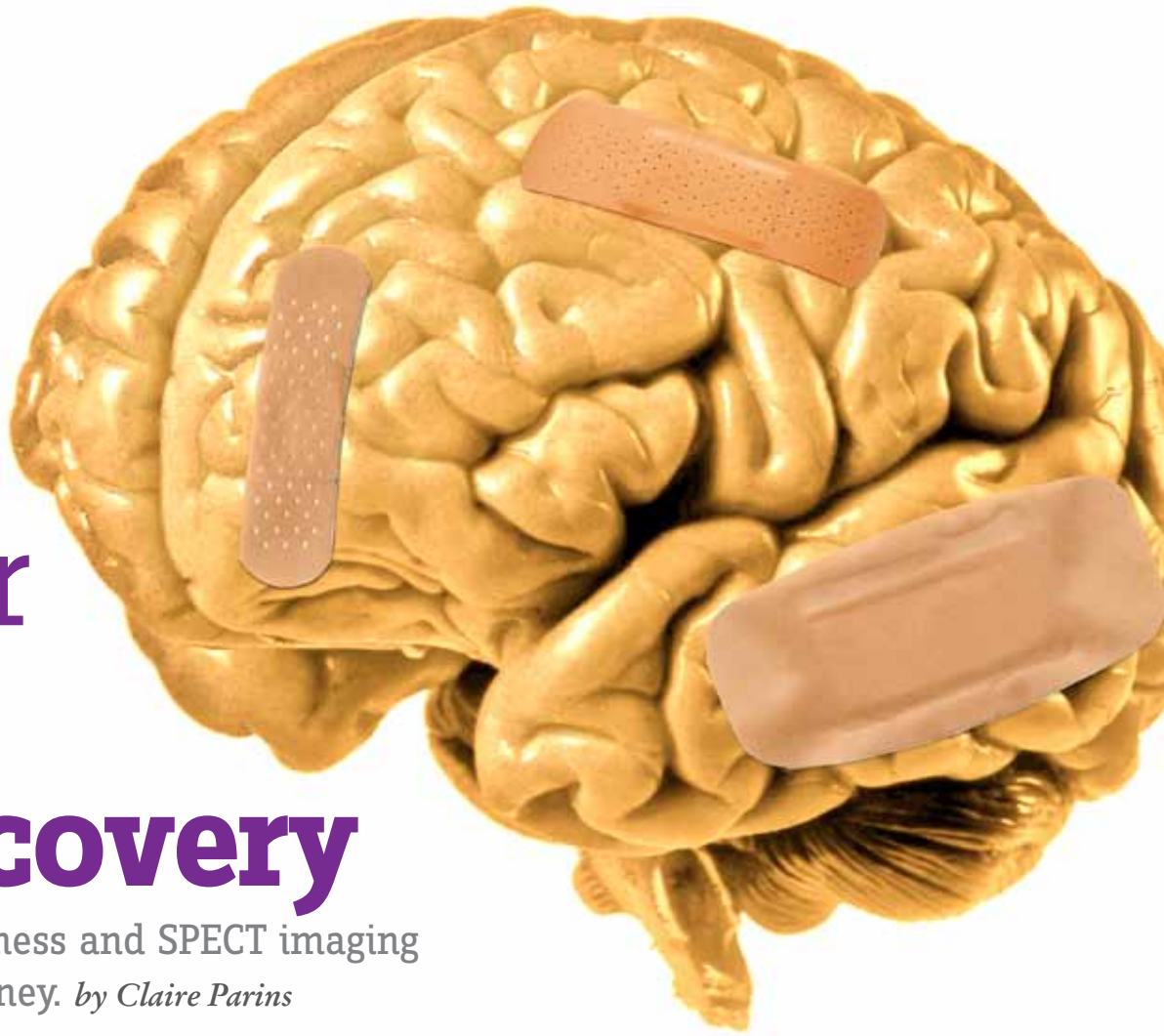

This Is Your Brain on Recovery

Enhancing brain fitness and SPECT imaging may help your journey. *by Claire Parins*

You see ads about our brains everywhere: Boost your memory! Pre-vent Alzheimer's by eating right! Enhance learning in three easy steps! Improve your mood, and prevent depression with natural supplements. There is an avalanche of products and information about enhancing brain fitness. No question, brain health is "in."

For those in recovery, brain fitness may be even more important than for those who don't struggle with addiction. After all, the brain is the organ that controls our ability to say yes and no. It is the center of the addictive voice and where the mysteries of depression and joy reside. The good news is that, more than ever, tools and information about how to take care of our brains are helping enhance the recovery experience.

Your Recovering Brain

Mike Logan, an anger management counselor from Rockford, Ill., has been in recovery for 32 years and says he has a long pedigree of experience going after things to deepen his recovery. Three years ago, Logan, 63, noticed a slowdown in word recall. After doing some research, he was excited to learn about neurogenesis and neuroplasticity, which both go to the heart of enhancing brain fitness.

"Neurogenesis is the word that describes the daily growth of new neurons, which can help enhance memory," Logan says.

Logan works to build new neurons every day by maintaining a healthy lifestyle based on what are called the pillars of brain fitness. These pillars include exercise, nutrition, good sleep, stress management and a hunger for novel learning experiences. He says the pillars also enhance the neuroplasticity of the brain, which is the brain's ability to form new connections quickly, sometimes within minutes, when new learning is happening.

Logan started a Facebook page in 2010 called Your Recovering Brain. With nearly 2,000 fans, it's a resource designed especially for people in recovery. Logan provides everyday support and information about enhancing brain fitness, including links to other resources for learning.

Logan says the most effective novel learning experience is picking up a new instrument or a new language because there is an increasing level of challenge and regular practice is required. Other advice? Don't believe what you've been told. The brain is not fixed and can generate neurons even in old age. There are many things a person can do to sharpen the brain.

Brain Imaging

It's controversial in some circles, but SPECT brain imaging is one tool being used to help identify the underpinnings of addiction and to help some doctors formulate the biological portion of the treatment plan.

SPECT stands for single photon emission computed topography and measures cerebral blood flow. Although SPECT imaging does not give the whole answer, it can provide an important piece of a clinical puzzle. For example, SPECT is used to help identify underlying head injuries, exposure to toxins and other factors that might be contributing to a patient's addiction.

Jim Moorhead, the publisher of *Renew*, was intrigued when he heard about brain imaging from a friend whose daughter was mak-

Illustration: Edward Blankenship

ing D's in college. With the help of brain imaging, the family identified some problems that were treatable, and the daughter is now an A student. After hearing this, Moorhead set out to learn more about the scans and how to make his brain healthier.

"I knew I wanted to find out what was going on with me, and I knew brain imaging might be a valuable tool for our readers," Moorhead says.

Moorhead has been through rehab five times. He doesn't even really count the first time, which he did as an outpatient 12 years ago. The second, third and fourth times he went into rehab all ended in relapse three to six months after he left treatment. The good news is the fifth time he got help, it worked for him. He's been drug- and alcohol-free for more than four years since going to Sierra Tucson where experts took a less traditional approach to treatment than other places he had been.

Sobriety, in Moorhead's eyes, is only one step in a long journey, and he is passionate about enhancing his recovery in every way he can. But he says that ever since he left Sierra Tucson, he feels like his brain has a big, warm blanket over it. He wanted to find out why.

Moorhead got in touch with the Amen Clinics and set up a scan and consultation. His goals were to improve mental health, concentrate better, think more clearly and grow his brain capacity. He describes the adventure as simply one step toward better health.

Turning Brain Disorder Treatment on Its Head

Daniel Amen has been doing brain scans for 20 years, ever since he was director of a dual diagnosis clinic in California. It was then he noticed that the scans of addicts were awful compared to everyone else. His conclusion was that drugs and alcohol are directly toxic to brain function.

"Scans help us understand a person's brain and better treat problems," Amen says.

Amen adds that SPECT imaging helps mental health specialists like him treat patients more effectively because he can finally look at the organ he is treating.

"Think about it," he says. "Psychiatrists are the only doctors who don't, as a matter of course, examine the part of the body they are treating." Instead, most doctors tend to guess at symptoms based on cluster categories.

Amen says SPECT imaging helps a doctor observe the areas of the brain that work well, are working too hard or aren't working hard enough. Once he can see what is going on, he recommends treatment that calms down the overstimulated area or stimulates the part of the brain that isn't working.

Amen says brain imaging helps patients break through denial about the impact substance abuse has on the brain. Time and time again he has seen how a patient's scan will motivate him to get a healthier brain. He calls this "brain envy." By examining what is going on in different areas of the brain and treating deficiencies and over activity, the focus shifts away from the idea that addiction is a character flaw and focuses instead on how to make things better.

"The testing, scans and treatment protocol all give patients a clear sense of what the task is, which is to get the brain healthy."

Amen also says that SPECT imaging is immensely helpful for people with addictions because it can help determine if there is brain damage secondary to the addiction or if there is an underlying condition like attention deficit disorder or depression.

"Scans have shown a higher than expected incidence of mild to traumatic brain injury for those with addictions," Amen says. "If the damage is in the frontal lobe, it often weakens a person's ability to say no."

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Amen adds that substance abusers are not one brain type and that understanding that each addict's brain is different is key.

"It's funny, once we discovered that scans showed each brain is different, I expected everyone would 'get it,' but many experts are resistant to this new way of thinking," Amen says. Amen thinks there is resistance because the discovery changes the way the profession looks at and treats patients, and change is almost always hard.

The SPECT Imaging Process & Moorhead's Results

Amen says the people with addictions who come to his clinics generally have had four diagnoses and four failures and are by and large complicated cases. That's one reason, he says, that Moorhead was a good candidate for brain imaging. SPECT's best use, according to Amen, is to help those with complicated problems. Such conditions, Amen says, are like storms, and brain imaging is like using radar when it's stormiest.

But Amen emphasizes that the scans only provide part of the picture. In addition to having two scans done—one at rest and one while doing a complicated task—each patient fills out a 20-page questionnaire, takes a battery of other tests and visits with an assistant who takes a two-hour history. It's after all this that Amen meets with the patient to put all the puzzle pieces together.

"SPECT data always needs to be correlated with the clinical information and will never replace a competent physician," Amen says. "The results of a scan, however, can help a doctor do a better job with more information."

The results of Moorhead's scans showed he should switch his antidepressant. The SPECT pattern predicted a negative response to the kind he was taking. The scans and testing also indicated Moorhead might have ADHD, which might also warrant medication.

Jim Moorhead, publisher of *Renew* (left) with Daniel Amen of the Amen Clinics in California after Moorhead's brain scan.

Amen recommended a variety of things for Moorhead to do, including further evaluation for sleep apnea, taking certain vitamin supplements and exercising more vigorously. Although it's too early to tell for sure whether the imaging and the treatment protocol will change things, Moorhead says he is already thinking more clearly and can concentrate better since switching antidepressants. He is also relieved to know that past head traumas may be part of why he has an addictive personality.

Logan, Amen and Moorhead all agree that the brain is a wonderful thing.

Since he built brain fitness into his life, Logan says he feels more aware of things and that he has more choices. He remembers words better and feels much better generally.

"The brain can change for the better," Logan says. "Find the tools that work for you as you face everyday challenges to sustain sobriety and a healthy lifestyle."

Amen says understanding how to heal the brain is essential in breaking addiction, and it should be part of a person's life to make his brain as healthy as possible.

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"Whatever the scan tells us, even if it's terrible, is good news. Your brain is what it is. If there are parts that are bad, then we intervene and try to make things better." Amen adds that most of the time there's room for improvement, and with targeted intervention, brain function can be improved or a condition such as brain dementia can be slowed.

Moorhead says he is grateful for what recovery has taught him. He doesn't think there's a magic bullet. Recovery is about looking at the whole and working on a lot of different things. He says after meeting with Amen, he will adjust some medication and will probably go in for further testing. He is also going to try to learn something new every day, eat better and take brisk walks with his dog. All is good. ■

Claire Parins is an editorial director for the American Bar Association's Publishing Services Group and a regular contributor to Renew.

BOOKS ABOUT BRAIN FITNESS

Unchain Your Brain
by Daniel G. Amen and David E. Smith

Brainfit for Life
by Simon Evans, Paul Burghardt and Howard Barry

Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves
by Sharon Begley

Flow: The Psychology of Optimal Experience
by Mihaly Csikszentmihalyi

The Brain That Changes Itself
by Norman Doidge

The Body Has a Mind of Its Own
by Sandra and Matthew Blakeslee

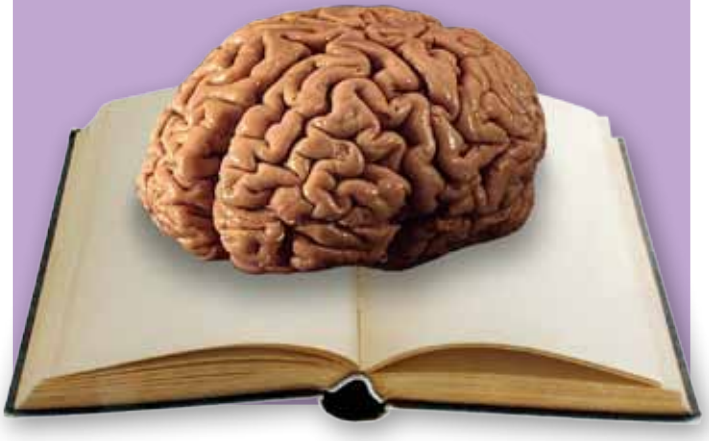

Photo: Jim Moorhead