A trial attorney, Jim Dyer practiced law in Tucson, Arizona for 34 years before the debilitating effects of multiple sclerosis (MS) forced him into early retirement.

When he received his diagnosis, his initial reaction was to read everything he could about the disease. He learned that MS is caused by damage to the myelin sheath, the protective coating that surrounds and insulates nerve fibers. A misdirected immune response, when myelin protection begins to disintegrate, symptoms vary widely depending on where the damage first occurs along the brain, optic nerve or spinal cord. Rampant inflammation eventually leaves lesions, collections of the damaged neurons that form hard, or sclerotic, plaque, scar tissue, in multiple areas.

According to the National Institute of Neurological Disorders and Stroke, 250,000 to 350,000 people in the United States have MS, and approximately 200 new cases are diagnosed every week. MS affects more than 1 million worldwide. Depending on the type of MS, some episodes last for days or months and then go into remission. Eighty-five percent of those affected by MS have this attack-remission form. Dyer, who is 59, has the less common form, Primary Progressive, which means that while he does not have the repetitive attacks followed by remissions, he could get progressively worse gradually.

Despite considerable research into the disease, its causes are unknown. There does seem to be a relationship to the geographic location that some MS sufferers have lived, which suggests that those who spent their early years in

For Jim Dyer, a great day in the magnificent Southwest includes leisure time with Tiny.

By Mary Lou Smart
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northern latitudes have a much higher risk for developing it. Because of the link to sun exposure and an immune system gone haywire exists, research into vitamin D has been undertaken, and early results are promising.

In addition to cutting out stress, avoiding fatigue, improving his diet, and doing everything else possible to lead a healthy life, Dyer began taking large doses of vitamin D. He has documented that vitamin D supplementation appears to have been successful. When he received his diagnosis eight years ago, Dyers had active MS legion activity on his spinal cord and brain.

"After I elevated my vitamin D level for 10 to 12 months, my neurologist looked at my MRI and said that all active lesions were gone, and there were no new lesions," he said. "I have had half a dozen MRIs since, and they've always been clear. So I do know that vitamin D is something that will stop, or at least slow, the progression of the disease." (Caution should be used when taking vitamin D, as too much can be toxic.)

Current treatment of MS is primarily symptomatic, targeted at the problems that appear as a result of the disease, including the spas ticity, pain, fatigue, bladder problems and depression. Symptoms range from muscle issues including spasms, tremors or weakness in arms and legs; vision loss or double vision; numbness or tingling sensations on the face, arms or legs; brain and nerve issues including memory or hearing loss, vertigo, and balance problems; and speech and swallowing difficulty. His neurologist warned him that any of the symptoms, loss of vision or vertigo for instance, might appear at any time.

Even with the onslaught of the disease interrupted following vitamin D supplementation, the damage to his myelinated coating is irreversible without some sort of intervention like stem cell repair, he said. In the meantime, he is faced with muscle weakness, the pain of muscle spasms and balance problems. For Dyer, muscle spasms are the worst part of his condition.

At first, painful spasms wracked his body night after night, keeping him awake. His neurologist prescribed muscle relaxers and medication for neuropathic pain, but the conventional therapy did not work. Especially at night when he was in bed and not moving his muscles, no prescription medicine would stop the spasms.

For daytime medication, he did find one muscle relaxer that relaxed his muscles to the point where he could not move, making it impossible to do anything but sit on the sofa.

"I took one of them, and 15 minutes later I tried to stand up and I fell on the ground," he said. "The problem is that the muscle relaxers that are prescribed to stop spasms, they relax the muscle. When they relax the muscle, you don't have as much control. Your control is already screwed up from MS, and so any loss at all is huge." He tried lowering the dose of some of the prescription medications, and that didn't help either. "It was not a dose situation," he said. "It is a medication effect.

In addition, he was uncomfortable with possible side effects of the prescribed medication. Listed side effects on packaging for muscle relaxants includes information about tumors in animals, liver damage, diarrhea, dizziness, drossiness, nausea, abdominal cramps, constipation, headaches, speech and sleep difficulty and nervousness.

Baclofen was prescribed for spasms and neuropathic pain. Not only did it not stop either, he was not thrilled with possible side effects, which include high fever, altered men-
In 1998, alarmed by the number of MS patients being arrested in England with marijuana, and following testimony, the House of Lords recommended that clinical trials be started as soon as possible.

tal status, spasticity that is sometimes worse than what is being treated, and muscle rigidity. Symptoms of overdose include shortness of breath or troubled breathing, vomiting, seizures, loss of consciousness and coma. Baclofen is sometimes injected into the spine with a pump, and abruptly stopping implanted baclofen has been fatal to some.

Conventional therapy is often ineffective with MS symptoms, which is probably why so much research is conducted in alternative therapies such as medical cannabis. There is a great amount of anecdotal evidence showing that cannabis works wonders in alleviating spasticity and neuropathic pain associated with the disease. In the United States, while conditions qualifying for a medical cannabis recommendation vary state to state, all 17 states, and the District of Columbia, that have a medical marijuana program approve of either MS or severe symptoms resulting from MS. In comparison to pharmaceutical medications, cannabis has few side effects and the natural remedy is considered safe.

Thanks to research conducted outside of the United States, a great deal of clinical evidence exists as well.

Researchers at GW Pharmaceuticals, for instance, have been conducting clinical trials with cannabinoids and MS for years. In 1998, alarmed by the number of MS patients being arrested in England with marijuana, and following testimony, the House of Lords recommended that clinical trials be started as soon as possible. In the United Kingdom, where cannabis is illegal, GW Pharmaceuticals was granted a clinical trial exemption certificate to conduct clinical studies with cannabis-based medicines, specifically in the areas of relief of pain of neurological origin and defects of neurological function in many indications, including MS. To date, all of the company’s MS trials have provided positive results, and confirmed an excellent safety profile for cannabis-based medicines. The company has received regulatory approval in several countries for Sativex for the relief of neuropathic pain in adults with MS. A nose spray, Sativex is a cannabinoid medicine that is now marketed as a treatment for MS spasticity in the UK, Germany, Spain and Denmark and ready for final approval to launch in Italy, Sweden, Austria, Czech Republic, Belgium, Finland, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Poland, Portugal and Slovakia.

Dyers had smoked marijuana recreationally in the 1980s, but pretty much stopped after graduating from the University of Arizona College of Law in 1978 and entering the working world. He had heard that cannabis therapy helped others with MS, and so after receiving the diagnosis he wanted to understand more. Coincidentally, on the day he was to retire, he learned that a fraternity brother from college was a partner in a cannabis collective and gearing up to operate a dispensary in Arizona’s fledgling medical marijuana program. His friend introduced him to several people who are familiar with strains, delivery methods and dosing.

In November 2010, Arizona voters passed Proposition 203, a medical marijuana initiative. Since early 2011, the Department of Health Services has issued more than 31,000 identification cards to protect patients from arrest. In July, 13 Arizona county attorneys urged Governor Jan Brewer to halt the program, arguing that it facilitated federal crimes. The conservative Republican has her own well-publicized beef with the federal government’s handling of border issues, which possibly influenced her decision to honor the will of the voters and proceed. By November 2012, approximately 100 dispensaries were awaiting the final go-ahead to open.

In Arizona, patients are permitted to grow their own if they do not live within 25 miles of a dispensary. Until dispensaries are up and running, any patient in the state can grow plants. When they are open, there will be no limit to the amount of cannabis a dispensary can grow, and patients will be permitted to obtain up to 2 ½ ounces every two weeks. A qualifying patient may possess up to 2 ½ ounces or 12 plants for cultivation. If the patient is unwilling or unable to cultivate cannabis, he or she can designate a registered caregiver to help with the medicinal use of marijuana, including growing.

Dyer is not a green thumb. He has heard that cultivation can be a complex affair, and he has no desire to grow his medicine. In addition to smoking, which can bring immediate relief, he uses tinctures and edibles such as cookies or candies.

“Edibles are good when you need the medication to last a little bit longer, or if you are traveling,” he said. “I went on a river trip recently, and even though I could have smoked, I am uncomfortable doing this around people that I don’t know.”
One aspect of cannabis medicine that surprised Dyer is the difference between strains, and he is trying to learn as much as he can about them. During the day he prefers a sativa, which he finds more energizing. At night he finds that indica strains, which are known for pain relief and calming qualities, are conducive to sleep.

“I realized that there are huge differences between these strains,” he said. “Indicas make you want to take a nap. They would definitely affect your incentive to do anything. Sativas are completely the opposite. They make me want to do a bit of work around the house, and without the spasms.”

Dyer finds that cannabis is the only medication that helps with spasms at night, allowing him to sleep without awakening in pain. He can only go for a day or so without medicating before the spasms return. A few months ago, he went to Seattle for his sister-in-law’s wedding. He did not bring any cannabis with him because he was afraid of being arrested. For four days he had no medication.

“By the second day I had trouble sleeping,” he said. “By the third night I didn’t sleep at all. I had cramp after cramp after cramp. My wife saw what was happening and was shocked. I’d told her that the medical cannabis was controlling these things, but sometimes seeing is believing. She said, “This is bad. We’ve got to get home.” As soon as we got back to Tucson, I medicated, and I have had no problems since. This is anecdotal, but it is also obvious.”

With whole plant therapy, Dyer received another incredible benefit. The diagnosis of any debilitating condition can be a crushing blow. His legal career was going well, and being forced into retirement with MS was an adjustment. He was in pain with spasms, having difficulty with balance and walking, and taking medications with all sorts of undesirable side effects that were not really working.

“I was in a bad mood, and had no patience” he said. “Marijuana gives you that patience back so that you can be with your family and do all of the things that you’ve got to do. It gives you back a normal attitude. People don’t talk about that, and I don’t know why. This is not studied or talked about. Cannabis delivers a one-two punch; it relieves your symptoms, and as a result of that you feel better about everything. Cannabis has been a huge help. This is not expensive, and it works.”