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# THE RADON CURE

*Why would people travel hundreds of miles to be exposed to radiation?*

BY MARK SINGER

BOULDER, MONTANA

For Patricia Lewis's sake, and also for professional reasons, I wish I'd felt worse last month when I travelled to Boulder, Montana, where I intended to spend a few days inhaling radon gas in the company of people who believe that doing so cures what ails you. During the winter, my right knee began acting as if I'd overextended a ligament, and I also had some lower-back pain, probably from slouching in my desk chair. By the time I showed up in Boulder, an unprepossessing town with a population of two thousand, in the west-central part of the state, midway between Helena and Butte, these symptoms had inopportunely vanished. In their absence, it would have been convenient if I'd brought along a crippled dog—but, well, I hadn't. Nevertheless, I didn't experience a diminished sense of purpose or a feeling of not fitting in, mainly because Boulder, an old mining settlement, impressed me as a place where hopefulness tends to prevail over careful planning or exactitude. Pat Lewis and her husband, Burdette Anderson, seemed a prime example. Seven years ago, they packed up their lives in Seattle—at the time, she was doing office work for a shipping company and he was repairing hydraulic pumps on heavy machinery—and moved to Boulder, even though, she told me, "we didn't have a clue what we were getting into." She said this during our first conversation, in a tone that sounded both cheerful and mildly bewildered, as if, having somehow boarded the wrong train, she'd decided to ride it wherever it was heading.

*Pat Lewis, a mine operator, says she wants to "convince people that this is something*

What brought Lewis and Anderson to Montana was an erstwhile uranium mine on a gentle granite slope overlooking Boulder, which is situated in a typically Montana-sublime mile-high valley in the Elkhorn Mountains. In 1949, the

mine produced its first commercial quantities of uranium ore from one of three claims staked by the Elkhorn Mining Company, whose president and principal owner was a geologist and mining engineer named Wade V. Lewis, Pat's grandfather. Two years later (and two years before she was born), he made an inadvertent and peculiar discovery. According to legend—a legend Wade himself promulgated in "Arthritis and Radioactivity," a book that he published in 1955—one day he was giving a tour of the mine to a woman from California who mentioned that she suffered from bursitis, and Wade "facetiously" replied that the radiation inside the mine might alleviate her symptoms. Sure enough, the very next day she was pain-free. Subsequently, another Californ-

*worth trying as a first step rather than as a last resort." Photograph by Sylvia Plachy.*

nia woman with bursitis, an acquaintance of the first, came to the mine and she, too, got relief. "Thereafter," Lewis wrote, "the stampede started."

During the next few months, hundreds of people, most of them encumbered by arthritis or other rheumatological complaints, some in wheelchairs and some carried on litters, made the journey to what became known as the Free Enterprise Radon Health Mine. So, inevitably, did reporters. A photographer and a correspondent from *Life* came around in June, 1952, and by then the Merry Widow mine, in the nearby town of Basin, had also begun welcoming the afflicted. The story in *Life* alerted potential customers as well as potential entrepreneurs, and eventually there were sixteen radon-therapy mines operating within a thirty-mile radius.

In a revised edition of "Arthritis and Radioactivity," published nine years after the first, Lewis set forth his theory of radon's medicinal application. When inhaled for a prescribed amount of time in the sort of optimal conditions that just happened to exist at the Free Enterprise mine, radon—which is a by-product of the decay of radium—stimulated the endocrine system to increase the body's natural secretions of hydrocortisone, and this reduced inflammation of the joints. Radon therapy, he maintained, also ameliorated sinusitis, asthma, and eczema. Lewis wasn't a medical doctor or a nuclear physicist, of course, nor did he have tangible medical evidence to corroborate his hypothesis. But he had lots of anecdotal evidence in the form of written testimonials from happy visitors who described how they'd given up their wheelchairs or canes or crutches or pain medications. Not everyone who came to the mine benefitted, but the majority apparently did. Lewis couldn't prove that radon therapy worked. On the other hand, anyone who insisted that it didn't work was in the logically awkward position of trying to prove a negative.

Radon is ubiquitous in nature, constantly emanating from the earth's crust and filtering into the atmosphere. It has a half-life of not quite four days, and as it breaks down, or ionizes, it emits electrically charged alpha and beta particles and gamma rays. Epidemiological studies conducted on miners have shown a correlation between prolonged exposure to radon gas—specifically to the heavy alpha particles—and lung cancer. There's less than absolute scientific consensus about radon's effect on humans who don't spend their working lives underground. The majority viewpoint goes: if exposure to a lot of ionizing radiation from radon is bad for you, so, too, is exposure to a little. This school of thought has predominated since the mid-eighties, when the Environmental Protection Agency launched an aggressive and often hyperbolic public-relations campaign to warn of the dangers of radon in the home. The public-health consequences of the E.P.A.'s efforts across the years are debatable, but one clear economic consequence has been the creation of the estimated hundred-million-dollar-a-year radon-abatement industry. These are the friendly contractors who charge homeowners disconcerting sums to ventilate their basements.

Because there's no countervailing economic incentive to promote the salutary effects of low-level ionizing radiation, there's no such thing as an organized pro-radon lobby. One natural constituency would be the owners of Montana's five remaining radon mines and their patrons—a declining population, it turns out. Pat Lewis had warned me that I would be visiting the Free Enterprise during a slow week, and, indeed, as I dropped in and out over a four-day period I encountered only eleven customers and two superannuated dogs. Then I made the rounds of the other mines—Merry Widow, Sunshine, Lone Tree, and Earth Angel—and discovered that, with the exception of the Merry Widow, where the amenities include a campground along the Boulder River, most weeks are slow weeks everywhere.

The unresolved mythology that surrounds radon—terribly bad for you? not really so bad? spooky but beneficial?—probably explains why the Montana state

government has shown little inclination to regulate the radon mines or, for that matter, to promote them as a tourist attraction. There's considerable variation in radon levels from one mine to another. One chart I came across showed that the level at the Merry Widow was eighty-five per cent higher than at the Free Enterprise and almost six hundred per cent higher than at the Sunshine. Nevertheless, more than a decade ago the mine owners agreed to adhere to a standard that limits visitors to thirty-two hours of exposure during a calendar year. In practice, however, anyone who wanted to spend thirty-two hours a year in each of the mines could easily do so undetected. Whether it would make any difference, positive or negative, is another question.

Of all the testimonials that get recited inside radon mines, I'm partial to the canine variety. I heard my first iteration at the Free Enterprise, courtesy of Patrick McGowan, a retired ironworker who, unlike most radon seekers, lives in Boulder and spreads his annual thirty-two hours over several weeks. I met him as he emerged from a therapy session in what a former custodian of the mine—a cousin of Pat Lewis's whom she unaffectionately refers to only as "previous management"—had christened the "Ionization Inhalatorium." (Lewis just calls it the radon room.) This is a ground-level, ten-by-forty-foot space with wall-to-wall carpeting, wood panelling, easy chairs, footrests, a card table, shelves filled with old magazines and *Reader's Digest* condensed books and board games, and, most important, vents that deliver radon-saturated air from the mine. The economics of the Free Enterprise are sufficiently marginal that, in the off-season, Lewis asks patrons to take their treatments in the radon room, which obviates the need to burn electricity inside the mine—where, eighty-five feet down, accessible by elevator, there's a four-hundred-foot-long drift furnished with more chairs, benches, tables, and bookcases.

McGowan had a medley of health problems—arthritic feet, emphysema, diabetes—and a faith in the general curative powers of radon. "I wasn't a true believer until I seen a gal that had one finger crooked as a snake," he said. "They'd all been crooked until she started going in the mine, and then there was one left that was all curled up. And she showed it to me and, just like that, it straightened out. That's what changed my mind." Before that, his imagination had been piqued by a Wade Lewis vintage story about a dog so hobbled with arthritis that it had to be coaxed into the mine backward. "After three or four days or weeks or whatever," McGowan said, "that dog was running and chasing cats." He repeated this anecdote verbatim the next day, when I joined him in the radon room, along with a married couple from Oregon. They were nearing the end of an eight-day sojourn and had brought along a geriatric Shih Tzu. "She's nineteen years old," the woman said. "She's got some sight in one eye and she's deaf. We only bring her in for an hour a day, but she seems to have perked up some. How? Well, she bounces around a little more, she acts younger. You'd never know she was nineteen by how she acts."

I collected more rejuvenated-pooch stories at the Merry Widow, Lone Tree, Earth Angel, and Sunshine mines—always the same basic theme, the only variation being that, instead of cats, the dogs would chase rabbits or chipmunks. The subtext of these testimonials was "O.K., maybe you think it's all in our heads, maybe you think it's all psychosomatic. But are you telling me that when a dog goes lame, comes to the mine, and then gets better, *that's* psychosomatic?"

Actually, I wasn't telling anybody anything; I was busy listening. Most radon-mine devotees are pensioners, most are middle-middle-class, and a high percentage come from Canada, where the government has a far less alarmist view of radon. I overheard many conversations about arthritis case histories, cross-country meanderings in recreational vehicles, and memories of the mines themselves. A man at the Merry Widow, who was wearing an "Official Montana Bullshit Cap," rhetorically asked no one in particular, "If this is quackery, why do the same people keep showing up year after year?" And I thought, Because it might be cold and dank inside, but the atmosphere is remarkably convivial, especially if you enjoy canasta and cribbage.

One afternoon at the Merry Widow, I met Ola Veselovsky, a hairdresser in her early seventies, who had driven that day with her husband from their home in Alberta. She'd been coming to the mines for fourteen years and had tried them all. Unlike the Free Enterprise, the Merry Widow is a walk-in mine. And, unlike all the other mines, it has a natural spring and built-in basins where people soak their hands and feet or, if they don't mind forty-degree water, their entire bodies. Veselovsky told me that on her pilgrimages she collects water in gallon jugs and brings it home. Drinking a cup a day throughout the year, she believes, helps deter migraine headaches, and she bathes her eyes with a daily dose in an eyecup. As a child, she was myopic and wore glasses, and when her reading vision began to deteriorate in middle age she needed a prescription to correct for that as well. But

*"Shall we put it in play?"*

since she began washing her eyes with Merry Widow radon water, she said, her vision had soared to twenty-twenty. Or perhaps there was an entirely different explanation. On a bookshelf inside the Merry Widow, along with back issues of *American Hunter*, *Arthritis Today*, *Golf Digest*, *National Geographic*, *Sunset*, and other magazines, I found a copy of "The Merry Widow Mine Cookbook," a compilation of recipes, contributed by mine guests, for dishes of possibly profound therapeutic value: Porcupine Meatballs, Tuna Cheese Chowder, Hamburger Soup, Iowa Ham Balls, Honey Almond Pork Chops, Hutterite Borscht, Strawberry Pretzel Salad, Unnamed Salad.

The Merry Widow changed hands this spring, when the longtime owners sold it to Dwayne and Diana Knutzen, a young couple from Washington State. Dwayne, who used to own a garbage-hauling business, has stayed busy lately reading books and articles about radon, many of which Pat Lewis referred him to. In addition to monitoring the growing literature about low-level ionizing radiation, Lewis invites scientists to the Free Enterprise and occasionally travels to scientific conferences out of state. This fall, she's going to Europe to visit radon spas in Czechoslovakia and Germany. The added value of her expertise, she feels, justifies the price at the Free Enterprise—five dollars an hour, versus three dollars and change at the competition (except for the Earth Angel, where the owner, an eccentric octogenarian who calls himself Buffalo Bill, charges only a dollar per day). But there's a tendency among radon-mine visitors, who are interested, above all, in a pain-free night's rest, not to want to know any more than they need to know. Lewis, meanwhile, looks at the numbers—last year, the Free Enterprise had taxable income of eleven thousand dollars—and wonders how much longer she can stay afloat.

My last day in Boulder, down in the mine at the Free Enterprise, I had a conversation with Art Berg, a retired electrical contractor who had flown in from New York the previous day, after calling Lewis and telling her that he regarded the radon mine as his "last hope" for relief from arthritis pain. A trim, talkative fellow in his mid-seventies, Berg wore blue slacks, a blue Hawaiian shirt, and a blue cap from the golf course on Long Island, where, when he feels up to it, he works as a ranger.

"When I took that trip on the plane yesterday, I thought I was gonna die," he said. "But I can already feel the difference. I thought I was gonna feel terrible because of the time-zone change, but I woke up at three in the morning and I could move around in the bed. I figure it's worth a shot.

"I first heard about these radon mines from a friend. A friend of his, a guy three years in a wheelchair, came here, nothing happened, and he went home and said what a lot of baloney it was. Then, three weeks later, he gets out of bed and he can walk. He walks into the kitchen and grabs his wife around the waist, and she almost has a coronary because he hadn't been like that in years."

Back at ground level, a half hour later, Berg sat outdoors in a lawn chair and chatted with Lewis. He recalled how, months earlier, he'd checked out the Free Enterprise Web site.

"We're probably 1,389,676 out of eight million radon sites," she said. "Most of them about how bad radon is for you."

"Yeah, I read all the negatives," he said. "But, you know, water can be bad for you, too, if you drink too much of it."

"That's right. You could drown in it."

He wandered off to the housekeeping trailer he'd rented for the week, and Lewis remained seated, musing about her uncertain future. "I'd like to ride this thing out to the end," she said. "Because my goal is to try to do everything I can to bring it back. The science, if we can just turn the tide, with all the knowledge we've got, and convince people that this is something worth trying as a first step rather than as a last resort . . ."

"Then what?" I asked.

"I dunno." It was a sunny afternoon in the mid-seventies, a beautiful day to match the view. Five days earlier, it had snowed several inches, but, except for some traces on the Elkhorns, across the valley, you'd never know it. "I guess if we decided to move back to Seattle I'd be able to find work there. We figure if we sell the land here—we've got thirty acres—that would pay off our credit-card debt. Burdette and I have no heirs. Unless somebody needs a write-off really badly, I'm not gonna dump this on anyone. The problem is, even if you give it away it's a liability. After all, it's got radon." ♦