

The Active Denial System, Risk Mitigation, and Pain Relief

Let me start out by saying, “Getting old(er) is not for wimps!” Legacy code and legacy coders can both cause trouble.

A few weeks ago, I decided to try and move a table up a flight of stairs—all by myself. Not a good idea.

Two weeks later I was still experiencing a bit of back pain. In fact, I was having trouble sleeping, so I asked my wife if she would mind running to the drugstore and grabbing some more ibuprofen for me. She was happy to make the trip for me (most likely, happy to get away from a whiney husband whose back hurt). She called from the store, and asked if I wanted some “pain relief patches.” I had seen them advertised on TV. Supposedly, they provide “gently, soothing heat for pain relief lasting up to 8 hours.” Sounded good!

The next morning, as I was leaving for work, my wife reminded me about the pain relief patches. I slapped one on and started my 40-minute commute to work.

For the first five to 10 minutes of driving (while I was in range of several gas stations with bathrooms), I felt nothing at all. No “gently, soothing heat.” Soon, however, I cleared the town, and was on the 15-mile stretch through the countryside—no gas stations, no rest areas—and only then did I start to feel the “gently, soothing heat.” And, in a more few minutes, I felt the “direct, REALLY hot heat.” And then, a few seconds later, somebody set off a small, localized nuclear meltdown on my back.

I drive a small car, and was unsuccessfully trying to lean forward, and remove the smoldering patch before it burned both my back and my leather seats. The patch, however, was pretty much permanently fused to my backside (and a permanent part of my anatomy as it first melted and then fused with my skin). Finally, I pulled over, stepped out of the car, and in a rather hurried rush, ripped the patch off. Unfortunately, the sticky material (that obviously contained the magic ingredients that provided soothing gentle relief) stayed tightly attached to the dermal layer of my tuchas (go Google it).

Let me digress a bit here, and point out that later in the day, when I returned home, I examined the box the patches came in. The active ingredient was capsaicin. At this point, let me point out what Wikipedia has to say about this particular chemical, “Capsaicin is the active component of chili peppers, which are plants belonging to the genus *Capsicum*. It is an irritant for mammals, including humans, and produces a sensation of burning in any tissue with which it comes into contact.”

When I was a consultant about seven years ago, the company I worked for helped provide testing on the Active Denial System (ADS). The DoD describes the ADS as, “A non-lethal, directed-energy weapon developed by the U.S. military, designed for area denial, perimeter security and crowd control.”

Informally, the weapon is also called the heat ray since it works by heating the surface of targets, such as the skin of targeted human subjects.

According to Wikipedia the original ADS contract was slightly over \$6 million. A spokesman for the Air Force Research Laboratory was quoted as saying, “For the first millisecond, it just felt like the skin was warming up. Then it got warmer and warmer and you felt like it was on fire.... As soon as you’re away from that beam your skin returns to normal and there is no pain.”

Few subjects are able to stand the ADS for more than a few seconds.

I got the same effects for less than \$5! The DoD could save millions by buying some of those guns they use at ball games to shoot T-shirts up into the stands. Load them with “gentle, soothing heat relief patches” then fire into the crowd, and watch them run! On the other hand, never mind. It’s probably illegal under the Geneva Convention.

Back to me standing by the side of the road: I had pulled over near the Angelina River, a small and muddy river on the way to work. While I eventually was able to rub off most of the sticky residue, only the thought of a headline reading, “Local University Professor Caught Skinny Dipping In River” prevented me from a quick rinse (but I seriously considered it for several LONG moments).

Back at home that night, I saw that in 2-point font on the back of the box, there is a warning that says, “Some users might be sensitive to capsaicin. Effects may vary, and you should test on a small patch of skin prior to applying the entire patch.” No kidding!

Reasonable people (unlike myself) might consider testing a new type of pain relief system prior to use. I might have even asked my friends or students if they had a similar experience. In fact, when I mentioned a brief version of this story to a class of seniors, several of the athletes laughed and said that those patches were like pouring gasoline on the painful area, and then lighting a match!

Do you really read warning labels on non-prescription drugs? Do you really read product warnings? Switching topics, do you thoroughly check software reviews and sources?

Ever download software from an unknown source? Get a virus unexpectedly? Just last week I downloaded an application for my Mac that causes the system to freeze every time I use it. Come to find out, it’s a known problem.

Who makes the decisions to update/download/integrate your system? Are the risks fully evaluated? Do the people making the decisions really have the knowledge to make trustworthy evaluation?

Or is YOUR tuchas going to be burning one day, too?

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