The Science Behind Guided Imagery

The past 30 years have seen dramatic, exciting gains in how we use guided imagery with cancer treatment.

I remember when I was creating my first batch of audio tapes for various health challenges, back in the 80s. The only docs who would help me were the ones who lived on my block. It was all about the social pressure: They knew if they turned me down, they'd have to look me in the eye when we met on the tree lawn, taking out the trash.

By then, the work of Stephanie and Carl Simonton, Bernie Siegel, Larry LeShan, Jeanne Achterberg and a few others was creating positive press for guided imagery. But personal miracle stories and general missionary zeal tended to oversell what guided imagery could do.

Some promoted it as a method that could heal cancer. This, not surprisingly, alarmed the medical community, causing concern that patients would opt for guided imagery over conventional treatment. And a few hardcore patients did see it as preferable to the indiscriminate slash-and-burn chemotherapy that was available at the time. But most were encouraged to use it along with their chemo or radiation or surgery.
Sidebar: There were other diehard dicta going around back then. The dogma of "Positive Attitude" reached its demented zenith around then, mostly from people taking Bernie Siegel’s first book too literally. Far too many patients and families got it into their heads that if they had a fearful moment, if they became angry or resentful, or if out of their mouths came a discouraging word, they were making themselves sicker.

Unkind, unfair and untrue. Unlike our behavior, we can’t legislate our feelings, nor should we. To try to do so is the worst kind of self-bullying. And it’s destined to fail. Because the more we deny what we feel, the more those feelings push back, lock in and stay stuck. Rather than suppress them, we empower them and give them added juice.

And ironically, we’ve come to understand that what best serves our sense of strength, wholeness, vitality and personal power is owning whatever it is we feel, no matter how unpleasant, and then just breathing it out -- the mindful meditation of noticing it, acknowledging it and letting it go.

It’s also worth mentioning that back then, most imagery experts - - Siegel, Achterberg, Emmett Miller, Shakti Gawain, Larry LeShan and even Louise Hay -- were talking about visualizing, not guided imagery as it’s practiced today. You imagined seeing white blood cells vanquishing your cancer cells, or else you saw a Pac-Man munching up your symbolic cancer cells. You could also visualize a tumor shrinking or see yourself leading a healthy life.

It was all about the visual.

It turns out that only 55 percent of the population is strongly wired for visual imagining. To cover everyone, imagery has to engage all the senses, using sounds, smells, tastes and kinesthetic feel, inside and outside the body -- imagining emotion, too. So we got a lot better at deploying all our fabulous sensory equipment and, you'll note, the term "visualization" is rarely used now by the pros.
So that was where things stood in the 80s and 90s. And in spite of some anecdotal reports of extraordinary healing with imagery, the general research didn't bear out the primary assumption -- that imagery, or visualization, really could make a dent on the disease itself.

What clinicians and researchers could prove was that guided imagery could reduce the unpleasant side effects of cancer and its treatment (nausea, fatigue, anxiety, pain, stress, depression, fear of medical procedures), and that it could beef up coping ability, quality of life, energy, hopefulness, confidence and motivation.

The data kept coming in, and after a couple of decades, guided imagery went from being a tape a few cranky, demanding patients insisted on bringing with them to chemo, to becoming a legitimate adjunctive tool for treatment that pharmas gave out alongside their anti-emetics.

Hospitals tripled their adoption rates of guided imagery (also massage therapy, meditation and Healing Touch or Reiki) over the last decade, from 2000 to 2010. And although late to the party, the American Cancer Society began describing imagery as a useful adjunct to help cancer patients cope.

Then in 2008 there was a notable uptick in research, involving state-of-the-art blood assays and brain scans. Several exciting studies were published, showing that guided imagery could indeed produce changes in immune activity on the cellular level. (So did hypnosis and meditation).

Data analysis from the University of Pennsylvania School of Medicine (Hudacek) concluded that hypnotic imagery yielded a significantly heightened count of "natural killer" or NK cells.
A piece in the *International Journal of Neuroscience* (Trakhtenberg) described how guided imagery elevated immune system functioning, and how cell-specific imagery affects corresponding white blood counts, neutrophils and lymphocytes.

A small but well-designed study with breast cancer patients (Lengacher et al) in that same year -- 2008 -- by a group of researchers from the University of South Florida showed that guided imagery produced significant effect sizes, with increased natural killer cell activity and cytotoxicity, and increased activation of Interleukin-2.

A year later, a larger randomized, controlled study out of the UK with breast cancer patients (Eremin, Walker et al) revealed big differences in activated T-cells, natural killer cells and lymphokine-activated killer cells, concluding that guided imagery up-regulated anti-cancer host defenses during and after chemotherapy and radiotherapy.

And just this year, a randomized, controlled study out of M.D. Anderson (Cohen et al) with men with prostate cancer showed that those who used diaphragmatic breathing and guided imagery had significantly higher levels of natural killer cell cytotoxicity, higher levels of circulating pro-inflammatory cytokines, and higher tumor necrosis factor-α. And while the immune parameters got better and better for the intervention group, they decreased or stayed the same for the controls. So, are we back to where we started, when people were claiming that guided imagery heals cancer? No. We've got evidence of increased immune function on many levels and with many indicators, but so far, that hasn't translated into changes in clinical outcomes with cancer per se.

It could eventually, as we get more and more sophisticated about what kinds of imagery are most powerful for which patients, and combined with which other modalities to produce maximum impact. For instance, some questions we'll address:
• Does imagery that targets the cells work better than imagery that's more general, relaxing and inspirational?

• Does imagery combined with massage or acupoint tapping increase therapeutic impact?

• Does doing brief segments of imagery five times a day work better than longer segments once or twice a day?

We don't know. But we will in the next few years.

In the meantime, is it a good idea to use this simple, portable, user-friendly intervention to pump up immune function and de-stress at the same time? Very likely so.