

# Health Insights Today

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## The Relaxation Response Interview with Herbert Benson, MD

By Daniel Redwood, DC

**H**erbert Benson, MD, is the father of modern mind-body medicine. From the late 1960s onward, Dr. Benson's breakthrough research at Harvard Medical School has demonstrated that the *relaxation response*, which can be elicited through a variety of methods including meditation, is the physiological counterpoint to the fight-or-flight response and serves as a natural antidote to stress. Numerous markers including metabolic rate, heart rate and blood pressure are increased by stress and decreased by the relaxation response. Benson continues to lead research into its basic physiology and efficacy in counteracting the harmful effects of stress.

In this interview with Dr. Daniel Redwood, Dr. Benson describes his research and its potential for filling a major gap in contemporary health care. He explains that because drugs and surgery have such dramatic effects, the medical profession has tended to focus on these methods to the virtual exclusion of mind-body approaches, which can provide a much needed complement, particularly in the treatment of stress-related conditions.

Benson is a graduate of Wesleyan University and the Harvard Medical School. He is the author or co-author of over 175 scientific publications and 11 books, including *The Relaxation Response*, *The Mind/Body Effect*, *Timeless Healing: The Power and Biology of Belief*, *The Relaxation Response—Updated and Expanded (25th Anniversary Edition)*, *The Breakout Principle*, *Mind Over Menopause*, and *The Harvard Medical School Guide to Lowering Your Blood Pressure*. More than four million copies of Dr. Benson's books have been printed.

In 1988, Dr. Benson became founding president of the Mind/Body Medical Institute and remained in that position until 2006 when the Mind/Body Medical Institute ceased to exist. At that time, the Benson-Henry Institute for Mind Body Medicine at Massachusetts General Hospital was founded and he became its Director Emeritus. Harvard University has honored his many contributions by the establishment of the Herbert Benson Professorship in Medicine, which will be activated upon his retirement.

*In the early 1970s, you published the first major research articles on meditation and the relaxation response. You demonstrated that a whole series of physiologic indicators which are increased by stress, can be decreased by practicing the relaxation response. For those not familiar with your work, could you summarize what you found and also tell us how you felt when you started to sense its importance?*

What we found was that when people practiced Transcendental Meditation (TM), there were a set of profound physiologic changes that were opposite to those of stress. Namely, decreased metabolism, decreased blood pressure, decreased heart rate, decreased rate of breathing, and also slower brain waves. These findings were performed at Harvard Medical School in the late 1960s, in the very laboratory in which Walter B. Cannon had defined the fight-or-flight response back in the early 20<sup>th</sup> century, where he found *increased* blood pressure, increased heart rate, increased rate of breathing, increased blood flow to the muscles, and called it "fight-or-flight," or emergency response.

The importance of this is that 60 to 90 percent of visits to doctors are in the mind-body, stress-related realm poorly treated by any drugs or surgery. So initially, I felt that this was a very important finding, that in our minds we have the capability to bring forth a response opposite to the fight-or-flight response that could have therapeutic value. And then our teams discovered that there is a physiologic state opposite to the fight-or-flight response, which we labeled the relaxation response, which has been practiced and brought forth *for millennia*.

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It is elicited by using two steps. The first is a repetition, which could be a word, a sound, a prayer, a phrase or even a repetitive movement. The second step is, when other thoughts came to mind, you disregard them and come back to the repetition. This would bring forth the same physiologic changes that were brought about by the practice of Transcendental Meditation. The importance of this was that, again, for millennia people have been bringing forth a response opposite to the stress response, that has therapeutic value in disorders caused or exacerbated by stress.

We recognized the importance of this immediately. We recognized that what we were doing was putting numbers on what people had been doing for thousands of years, be it through yoga, meditation, repetitive prayer, tai chi, qigong, jogging, knitting, crocheting. It didn't matter. There was one response brought forth by scores of techniques that have a scientific definition for the first time.

*Most meditation techniques originally developed in religious or spiritual traditions. One of the groundbreaking aspects of your relaxation response work was that you sought to retain the essence of such traditional methods while removing the religious, sectarian, and culture-specific overlays, and thus you were able to use the relaxation response as a therapy in health care settings for people of all backgrounds. How important was it to go that route at that point?*

I thought it was fundamental, because if it were only Eastern meditation many people of different belief systems wouldn't pay attention to it. What we were doing was giving the explanation that our own culture, all cultures have the same capacity to bring forth this response in people. And the important feature there was that people, patients, subjects, be given the choice of a technique that they believed in. It could be religious, it could be secular. It could be sitting quietly, it could be during movement. It didn't matter. There was one common response. So it opened the door for people of all beliefs to take advantage of this. There is no "relaxation response" technique. We teach them all and adapt them by taking into account the beliefs and culture of the patient, to make it more universal.

*Were there complaints from people who felt that you had overly compromised the essence of the traditional meditation techniques and that something crucial was lost in translation?*

The main criticisms were coming from specific techniques, the practitioners of which felt that theirs was superior to others. Generally, though, we've found people of all traditions saying, "Isn't it wonderful that we can choose our own." It's the ones that say "mine is better and different" with which we had the main problems initially, and still to this day.

Aside from the physiological effects of the relaxation response, have you also found psychological benefits? Can meditation or relaxation response can be incorporated into psychotherapy?

Without question. The conditions in which the relaxation response is found to be effective include anxiety, mild and moderate depression, and excessive anger and hostility. They are all effectively treated by regularly evoking the relaxation response. It's very important to note that health and well being is akin to a three-legged stool. One leg is pharmaceuticals. The second leg is surgery and other procedures. There has to be a third leg and *that leg is self-care*. And within that self-care leg we have the relaxation response, nutrition, exercise, the beliefs of the patient, socialization, and also cognitive restructuring. So you see, when we say that the relaxation response is effective in many mental disorders, it does not preclude, nor is it meant to preclude, the simultaneous use of appropriate medications or surgeries.

*Is the nervous system the primary means through which the effects of relaxation response are mediated?*

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It seems to start with the breaking of the train of everyday thought, as I just pointed out. So it would appear that as a fundamental entry point, it is the nervous system. But the breaking of the train of everyday thought needn't be a mental effect; it could be a physical effect brought about by, say, jogging. Or knitting or crocheting. Are you with me? Ultimately it's mediated through and by the nervous system.

*If the relaxation response could be manufactured as a pill, it would probably be considered malpractice not to prescribe it. Do you find that non-pharmaceutical, non-surgical approaches are held to a higher standard?*

To answer that properly, we have to pay attention to the fact that over 150 years ago, there were no effective medications. There was quinine for malaria and there was the juice of limes for scurvy, but other than that we had nothing. Then, starting with the definition of bacteria with Koch and Pasteur, and going on to the incredible discovery of penicillin, these successes were so awesome, breathtaking, that we looked away from the older methods. Penicillin could *cure pneumonia*, with a majority of our population passing away from that. Drugs like streptomycin coming along, that could treat tuberculosis. Even when I was in medical school, in the late 1950s, half the hospital beds in the United States were occupied by tuberculosis patients. And to correct blindness through cataract surgery. These were fantastic. And we came to believe that that's all that we needed, overlooking the fact that even when all of these wonderful therapies were incorporated, some 60 to 90 percent of visits to doctors still involved stress-related factors. So to have a truly balanced medicine, we need not only the surgery, not only the pharmaceutical approaches, but we also need self-care.

Is it held to a higher standard? Yes, probably because of these awesome successes of the others. But they're not complete.

*How widely has your work, the relaxation response, spread in terms of application by doctors, in hospitals, in educational settings and elsewhere?*

When we started our work in the late 1960s, about seven percent of the population were using such mind-body approaches. Now, when you include prayer for self-healing, over 50 percent of people are regularly using a technique that evokes the relaxation response. But they are multitudinous. It's not just meditation; it's prayer, yoga, tai chi. It's been a whole series of mind-body effects that have that common result of the relaxation response. So it's widespread.

What's bothersome is that many consider it alternative medicine, or complementary medicine or integrative medicine. In truth, it's simply part of our traditional medicine because it's now scientifically proven and shouldn't be held to a different standard. It has the scientific proof.

*Harvard Medical School has developed programs on spirituality in medicine. Why did Harvard conclude that this subject was worth teaching? Are there areas where science and spirituality intersect?*

These were courses that our team originated, Spirituality and Healing. The reason that came about was that we noted that people who were evoking the relaxation response claimed to be more spiritual. What did they mean? Dr. Jared Kass, in work supported by Laurence Rockefeller, found that there were two features that people experienced when they felt spiritual. One was the perceived presence of a power, a force, an energy. God, if you will. Two, that that condition was within them. Then we found that people who experienced spirituality (as Kass and others defined it) had fewer medical symptoms. That was the genesis of this course, to try to bring these two seemingly separate worlds together.

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But we were always cognizant of the point that there are religious and spiritual aspects that some people feel should never be studied scientifically. We were simply looking for the overlap. Not to undermine the importance of spirituality or in any way put it down, but rather to recognize its health benefits. Some people feel that such health benefits are not in the spiritual realm because spirituality, and communication with something beyond us, should be separate and not related to health. We felt that the overlap should be studied and expressed.

*Aside from achieving a relaxed state in which stress is managed or minimized, you also have written about what you call a “breakout” state. What is this and how does it relate to the relaxation response?*

When striving for a certain end, often people hit a wall. An example would be writer’s block, where achieving their goal is not met. There seems to be a formula to overcome that, which has four steps. One, a person has to work at something, to try very hard. You know, to be a good basketball player you have to practice over and over again. To be a good musician you have to practice on your instrument. To experience certain types of feelings, you have to almost work at them. So that’s the first step.

But then you have to learn to back off and, paradoxically, not care whether what you’re striving for is being achieved or not. In that backing off—through the relaxation response, or going to sleep, or going to a museum, there are scores of things to do—often what you’ve been striving for comes forth as a manifestation. And that is the ‘breakout.’ After backing off, the passive state, just letting it happen on its own, then you have that breakout occur. The fourth step is that you’re at a new plateau and you can repeat the process. That’s the formula of the breakout principle.

*What are you most passionate about these days?*

First of all, I am very pleased that I’ve lived long enough to see that what was originally ridiculed, is now widely accepted. And wouldn’t it be nice if there were a truly balanced three-legged stool where we could combine our phenomenal successes in pharmacology and surgery, along with helping ourselves help ourselves. To achieve such a balance is why we have now been incorporated as part of the Massachusetts General Hospital.

*This is the Benson-Henry Institute?*

Yes. In other words, to give it a base, to be part of our health and well being that could effectively not only treat but prevent diseases in a fully balanced manner that includes scientifically proven approaches such as the relaxation response.

*It occurs to me that if the relaxation response was broadly practiced as a normal first stage approach to many health issues, in a preventive way, that there would be far less need for the other two legs of the stool, the drugs and surgery.*

You’re absolutely correct, and that’s why we’re striving to have this in our school systems in the United States.

*To what extent has that happened?*

This is the work of Dr. Marilyn Wilcher. It’s widely disseminated and recognized to be important. The issue is that the school systems don’t have enough money to be trained. But it not only helps the children themselves in their struggles with the manifestations of stress—not only anxiety, insomnia, and bellyaches, but also drug abuse, violence and alcohol abuse. The schools recognize this. They want it. That’s why we’re trying to federalize this if we can.

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One of the premier prep schools in the United States, Phillips Exeter Academy, now has every single student there learning the relaxation response. It's in many of our ghetto schools and in many other school systems. Marilyn Wilcher's work at Needham High School, where there was an outbreak of suicides and car accidents, was quite noteworthy. Not only will it be treating the children, but as they get older they'll remember that they have a capacity within themselves to heal themselves.

*It seems to me that in terms of public policy, to lose the opportunity to incorporate this work as widely as possible would be a classic example of being penny wise and pound foolish.*

You're absolutely right, pound foolish.

*Is there anything else you would like to bring up, to add to what you've said?*

I am very appreciative of the time you have spent to prepare for this interview. Your questions have been right on. You're helping the word get out. And if people have already heard it, then to reinforce it. One point I'd like to emphasize is that as my career has evolved, there's always the latest and the newest that come around claiming to be the best. When in truth, it's the same. So whether it be TM, or mindfulness meditation, it's a common end point. Let the reader choose what's important for himself or herself, what they believe in. Then they'll be more likely to carry out the approach.

**Daniel Redwood, DC, the interviewer, is Editor-in-Chief of *Health Insights Today*.**