



HeartMath and Hypertension

A recent study with hypertensive patients at a medical center in Eastern Saudi Arabia showed substantial reductions in high blood pressure for participants who practiced HeartMath emotion self-regulation with the emWave® technology and Quick Coherence® Technique.



Dr. Abdullah Abdulgader

The study was conducted over several months at the Prince Sultan Cardiac Center in Hofuf, Eastern Province, Saudi Arabia, by center director and respected cardiologist Dr. Abdullah Abdulgader and cardiac catheterization lab technician Bader Anez.

During an interview videotaped by Institute of HeartMath Director of Research Dr. Rollin McCraty, Anez described the study, frequently expressing his amazement at the effectiveness of the HeartMath emotional self-regulation interventions in reducing the blood pressure of the study participants.

"We're looking into possibly a new window of alternative medicine that will rapidly expand within the world," he said, referring to HeartMath tools and technology, like the emWave and Quick Coherence. "Dr. Abdulla (Abdulgader) described it as a breakthrough in cardiac medicine ... and I looked into his eyes and I told him, this is magic, and he told me there's nothing magic about it. It's just an exercise (Quick Coherence) with the help of a device (the emWave PSR)."

McCraty commented later about Abdulgader's statement that the HeartMath interventions represented a breakthrough: "That's a very profound statement and

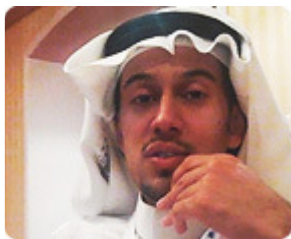
it gives all of us at HeartMath great encouragement."



McCraty conducted his interview of Anez while he was in Saudi Arabia to attend the Third International Conference on Advanced Cardiac Sciences: King of Organs, held Sept. 27-30 in Al Ahsa, Eastern Province. He was pleased and excited by the results of the study, which Anez and Abdulgader described in their conference presentation, Coherence: A novel non-pharmacologic modality of controlling systemic hypertension.

"Their research," McCraty said, "independently confirms the findings of our studies over the years at the Institute of HeartMath, that practicing self-regulation and learning how to increase our coherence are excellent ways for hypertensive individuals to reduce their blood pressure."

Going into the study, Anez knew about the emWave and Quick Coherence Technique's potential because Abdulgader wanted him to personally experience what they could do before beginning the trials.



Bader Anez

Now, Anez said during the interview, "I do it everyday and reach full bars (coherence) in the first minute, and I feel great about it."

Anez told McCraty about one of the study participant's experiences that particularly impressed him.

"I had a lady whose systolic blood pressure was 185 (the first number). I asked her, 'Are you not feeling well? Anything that actually makes you stressed', and she told me, 'No. I'm alright.' ... After two sessions – two consecutive sessions – of performing the Quick Coherence Technique, her blood pressure amazingly reached 135."

Prince Sultan Hospital Blood Pressure Study Results

Participant information: The study participants included 31 women and 34 men, all of whom were considered to have moderately high blood pressure. All participants were 50 to 55 years old, except the three subjects in the control group, who were approximately in their mid-70s. A little over a third – 24 – were considered to be overweight by typical health standards.

Note about blood pressure: Blood pressure has two measurements: systolic and diastolic. A reading of 120 over 80 means the systolic pressure, taken when the heart beats while pumping blood, is 120, and the diastolic pressure, taken when the heart is at rest between beats, is 80. Anything below 120 and 80 is considered normal.

Study participants were divided in four groups.

Group 1 Patients

This group had 30 participants who were taking blood-pressure medication and used the emWave Personal Stress Reliever and the Quick Coherence Technique. By the end of the study, this group showed the greatest reduction in blood pressure.

Over the course of the study, these patients saw an average decline of about 21 mmHg in systolic pressure and nearly 6 mmHg in diastolic pressure.

For a person whose pretrial systolic blood pressure was 140, which is considered Stage 1 hypertension, a decline of 21 mmHg would place the individual within the normal range. For someone whose pretrial diastolic pressure was 85, which is considered prehypertension, a decrease of 6 mmHg would place the individual within the normal range.

Group 2 Patients

There were 12 patients in this group and they used the emWave PSR and Quick Coherence Technique, but were not taking medication for their high blood pressure. This group had the second highest decline in blood pressure.

During the study, these patients' systolic blood pressure dropped an average of approximately 17 mmHg. Their diastolic pressure fell an average of a little over 3 mmHg.

Group 3 Patients

The 20 patients in this group continued taking their blood-pressure medication, but did not use the emWave or Quick Coherence Technique. They had the third highest reduction in blood pressure.

Their systolic pressure dropped an average of about 8.5 mmHg, and their diastolic pressure decreased a little less than 3 mmHg.

The National Institutes of Health provides the following information related to blood pressure on its website, [NIH blood-pressure guidelines](#).

Hypertension is the term used to describe high blood pressure.

Blood pressure is a measurement of the force against the walls of your arteries as the heart pumps blood through the body.

Blood pressure readings are measured in millimeters of mercury (mmHg) and usually given as two numbers – for example, 120 over 80 (written as 120/80 mmHg). One or both of these numbers can be too high.

The top number is systolic pressure. It is considered high if it is over 140 most of the time. It is considered normal if it is below 120 most of the time.

The bottom number is diastolic pressure. It is considered high if it is over 90 most of the time. It is considered normal if it is below 80 most of the time.

Group 4 Patients

The control group, which consisted of three patients, were not taking medication for their high blood pressure and did not use the emWave or Quick Coherence Technique. Anez said these individuals were asked simply to relax during the trials. This group showed the lowest level of reductions in systolic and diastolic

pressure.

Anez said he considered the slight variations of this group's systolic and diastolic pressure to be insignificant. He noted, however, that he would have liked to have had a larger control group for the study.

The 2010 Heart Conference

This year marked the third installment of the King of Organs gathering, whose purpose, according to a preconference statement by Abdulgader at www.kingoforgans.com, was to continue work begun in previous years to shed light "on recent advances in research studies on the dominance of the heart over the other organs of the human body."

Featured topics of discussion this year included heart-brain pathophysiology, the effects of heart-brain interactions on human health, treatment of heart-brain disorders and new and innovative cardiac nondrug treatments. Many internationally recognized individuals in advanced cardiac sciences, from the United States, Saudia Arabia, Great Britain and France, spoke at the conference.

HeartMath and Hypertension

According to a 2009 report, the most recent available from the Centers for Disease Control and Prevention, nearly 1 in 3 American adults had hypertension, which is synonymous with high blood pressure.

High blood pressure, one of the leading causes of heart attack and stroke and a major risk factor for developing heart disease, has been called the "silent killer" because most people do not know they have it because there are apparent symptoms.

Health officials strongly recommend that hypertensive individuals who have taken no action to control it should do so immediately and those who do not know if they have it should arrange for a simple blood-pressure check with their doctors or other qualified medical personnel. Untreated hypertension can lead to heart attack, heart failure, stroke and kidney disease.

The Institute of HeartMath has been conducting research and developing interventions for many years that have proved to be invaluable in the battle against this serious condition. You can visit the institute's [Heart disease and Hypertension Solutions for Stress](#) page for more information to help you, a loved one or friend.