

# Research on Health Benefits of Luraco *iRobotics 7* Medical Massage Chair

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## **Abstract**

There is currently limited scientific information about the effectiveness of massage chairs as a stress management tool. A scientific study was conducted to evaluate the health benefits of the Luraco *iRobotics 7* Medical Massage Chair using systematic and scientific techniques to analyze collected data.

This study was conducted at the Weber State University Stress Relief Center to measure the impact of sitting in an *iRobotics 7* massage chair for 15 minutes on various stress-related factors, including perceived stress levels, resting heart rate, blood pressure, and physical pain.

## **Introduction**

Massage therapy has been practiced for centuries across various cultures. Nowadays, people use many types of massage therapy for different health-related purposes. In the United States, massage therapy is often considered part of complementary and alternative medicine (CAM), although it also has some conventional uses.

Based on the 2007 National Health Interview Survey, which conducted a comprehensive analysis of CAM usage among Americans, it was estimated that around 18 million adults and 700,000 children in the US had received massage therapy in the previous year. Massage therapy is used by people for various health-related purposes, such as reducing pain, rehabilitating sports injuries, decreasing stress and anxiety, treating back pain and headaches, promoting relaxation, alleviating depression, and improving overall wellness.

Although massage chairs have gained popularity, limited scientific evidence supports their health benefits. Researchers have yet to determine the exact changes in the body and mind during massage, whether they effectively improve human health, and, if so, what specific benefits can be expected from using them.

When Luraco Technologies launched its medical massage chair, *iRobotics 7 (i7)*, the Stress Relief Center at Weber State University conducted a study to determine the benefits of massage and identify the specific purposes for which it may be most effective.

We obtained two *i7* massage chairs and conducted a systematic evaluation to

investigate their health benefits. The methods and results of the study are presented below.

## **Methods**

A study was conducted on 2887 participants at the Stress Relief Center of Weber State University. Participants spent approximately 15-20 minutes seated in the Luraco i7 massage chair. The massage program used in the study mainly consisted of the default health mode on the i7, which provides a full body massage for approximately 10 minutes, after which the chair goes into a zero-gravity position. This position has been proven to eliminate stress on the body and create a state of deep relaxation.

Note: Many health professionals, including doctors and occupational therapists, recommend the zero-gravity position due to its numerous health benefits. This position helps to reduce muscular tension in the lower back or lumbar region. It also promotes better blood circulation, which makes the heart's job more manageable and expands lung capacity by widening the angle between the torso and thighs. This, in turn, makes breathing easier and boosts oxygen levels in the blood. The zero-gravity position also reduces pressure on the discs in our spinal column and encourages muscles to relax. Overall, adopting the zero gravity position can have a positive impact on our health and well-being.

## **Results**

This study carried out at the Weber State University Stress Relief Center, measured the impact of sitting in an iRobotics 7 massage chair for 15 minutes and selecting one of the nine available settings. The study assessed the perceived stress level, resting heart rate, blood pressure, and physical pain related to stress.

Below is the average data from 2887 participants who used the iRobotics massage chair:

## Perceived Stress Levels

On a scale of 0 to 10, 0 indicates no stress, while 10 indicates high stress levels.

### Before using the chair

- Participants' average stress level (on a scale from 0-10): **4.3**

### After using the chair

- Participants' average stress level (on a scale from 0-10): **2.4**

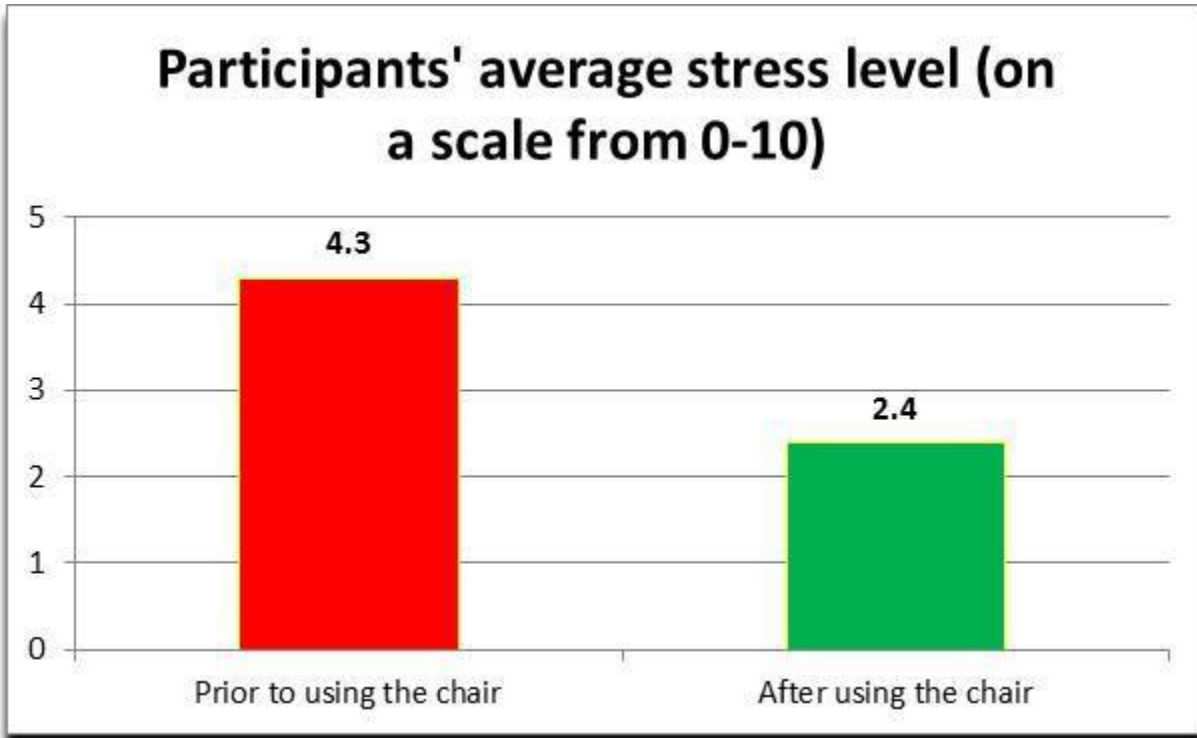


Fig. 1: Collected Data for Stress Levels from 2887 Participants

**Red Bar:** Participants' average stress level before using iRobotics 7

**Green Bar:** Participants' average stress level after using iRobotics 7

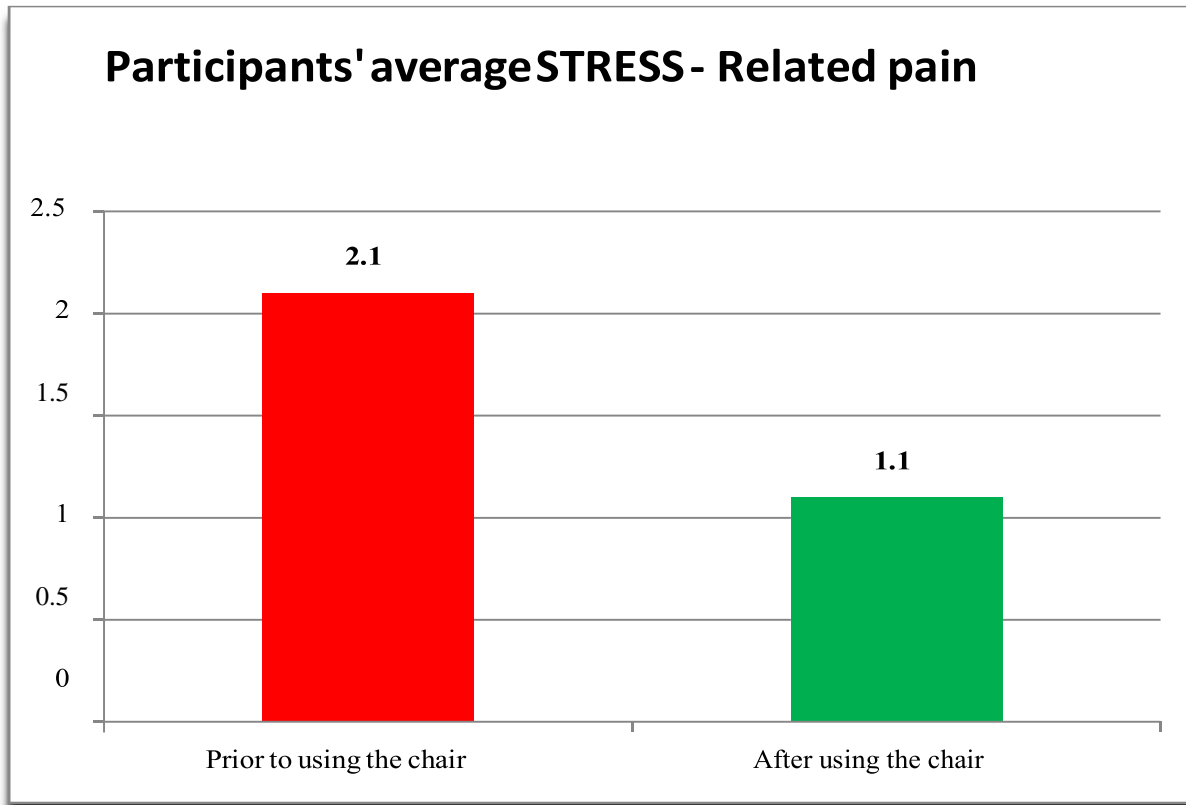
## Stress-Related Pain Levels

### Before using the chair

- Participants' average stress-related pain: 2.1

### After using the chair

- Participants' average stress-related pain: 1.1



**Fig. 2: Collected Data for Stress Related Pain from 2887 Participants**

**Red Bar:** Participants' average stress-related pain before using iRobotics 7

**Green Bar:** Participants' average stress-related pain after using iRobotics 7

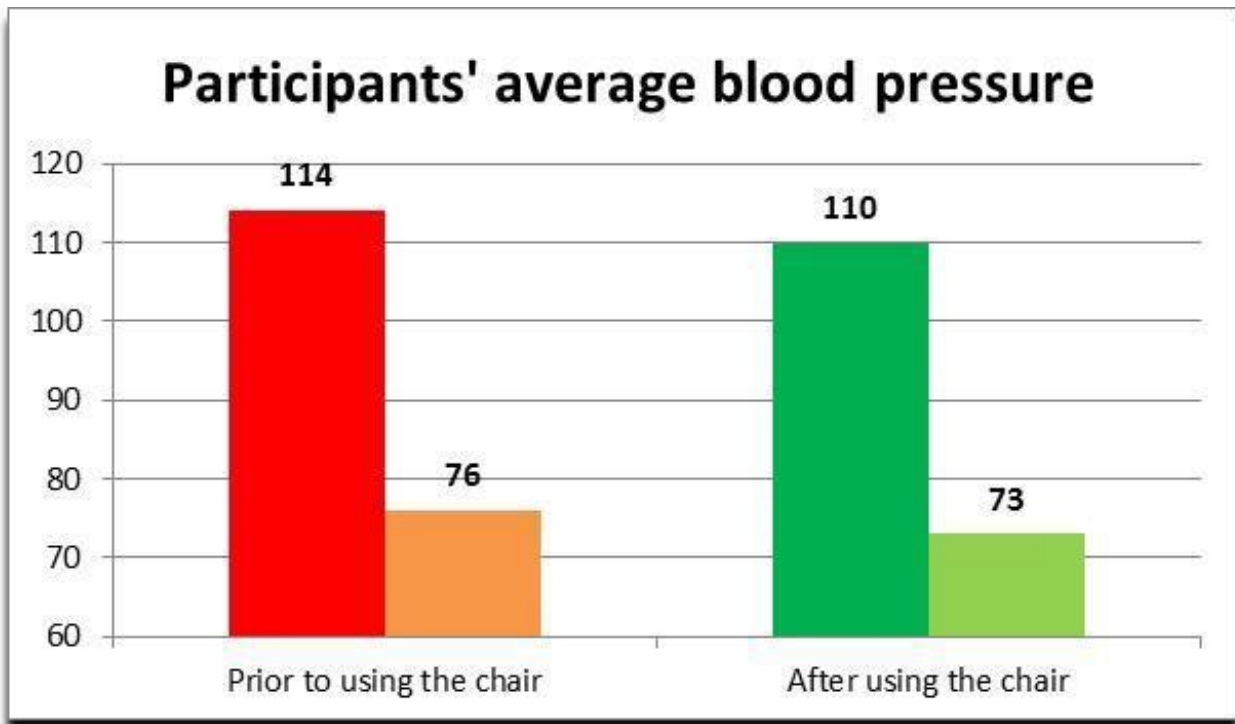
## Resting Blood Pressure

### Before using the chair

- Participants' average blood pressure: **114/76**

### After using the chair

- Participants' average blood pressure: **110/73**



**Fig. 3: Collected Data for Blood Pressure from 2887 Participants**

**Red Bars:** Participants' average blood pressure before using iRobotics 7

**Green Bars:** Participants' average blood pressure after using iRobotics 7

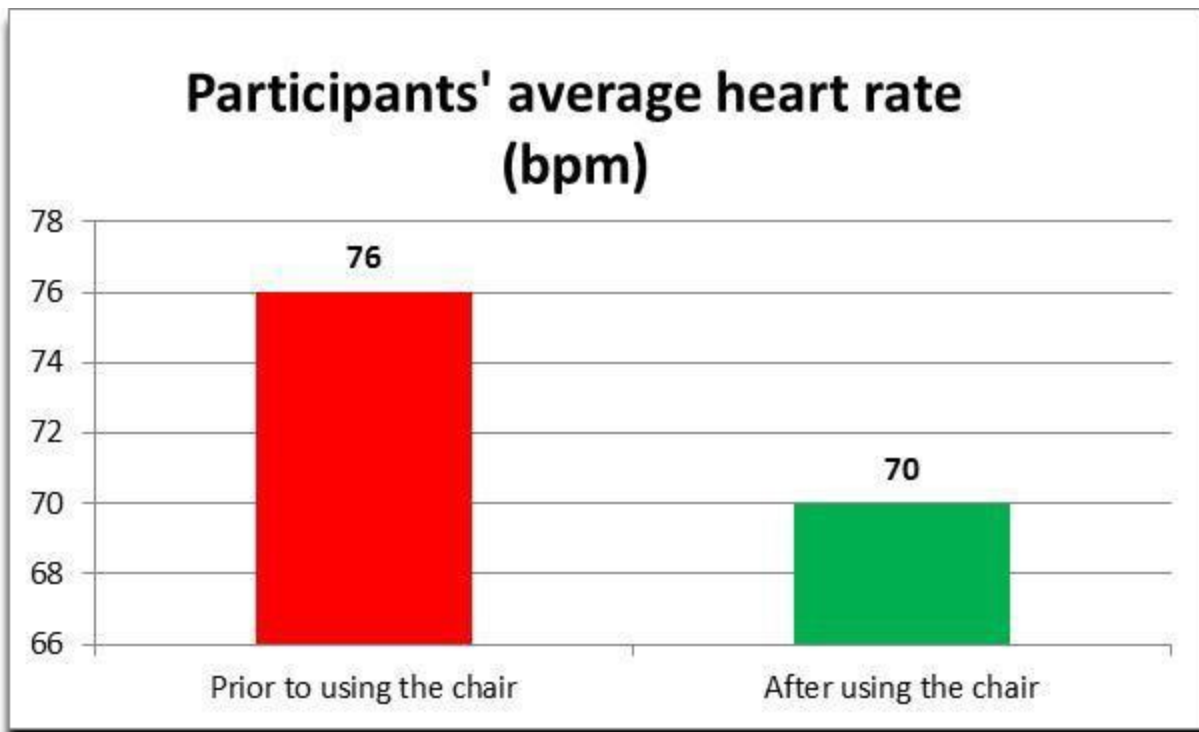
## Resting Heart Rate

### Before using the chair

- Participants' average heart rate: **76 bpm**

### After using the chair

- Participants' average heart rate: **70 bpm**



**Fig. 4: Collected Data for Heart Rate from 2887 Participants**

**Red Bar:** Participants' average heart rate before using iRobotics 7

**Green Bar:** Participants' average heart rate after using iRobotics 7

**A sampling of feedback received from the participants who used the iRobotics 7 massage chair:**

**Participant A:**

*“The chair felt awesome, and I feel very relaxed right now. This is a great way to keep the day going after sitting in Math 1050. Sometimes the neck and head massage got a little too intense on the health setting, so I used a small blanket next to the chair for extra padding. It’s also cool how it talks you and says to have a nice day and remain seated. It reminded me of a ride at an amusement park.”*

**Participant B:**

*“This chair is becoming my new favorite in here. I thought it was too intense the first time I’ve tried it, but I decided to give it another try and I’m glad I did. The health setting is my favorite because I feel it massages at a slower pace. I’m almost falling asleep when the massage ends (laughing).”*

**Participant C:**

*“I loved the body stretch setting! It feels so amazing when the chair squeezes your calves and feet while pulling you back simultaneously. I first tried the sport setting, but I thought it was intense, so I switched it to the stretch setting and loved it. Too bad this chair always seems to be taken when I come in.”*



**Fig. 5: Experiments and Lab Setup at the Stress Relief Center, Weber State University**

## **Conclusion**

The data collected from 2887 participants who used the Luraco iRobotics 7 medical massage chair in this study clearly demonstrates that the iRobotics 7 has several positive health benefits. In particular, the massage chair helps to reduce stress levels, stress-related pains, blood pressure, and heart rate, all of which are directly related to stress levels.

## **Author Bio**

Dr. Michael Olpin is a professor of health promotion at Weber State University (WSU) and is director of the WSU Stress Relief Center. He earned his Ph.D. in Health Education from SIU and his Master's and bachelor's degrees in Health Promotion and Psychology from BYU.



He has taught at six higher education institutions, including Southern Illinois University, Concord University, West Virginia University, Virginia Tech, and BYU. He has been teaching at Weber State for 16 years. He teaches classes on stress management, mind-body wellness, meditation, and wellness coaching.

Dr. Olpin has presented many classes, seminars, and workshops on stress management and wellness at the national, regional, and community level. Mike recently finished the fifth edition of a textbook he co-authored on stress management titled *Stress Management for Life: A research-based experiential approach*. Colleges and universities around the country and Canada are using this text.

He has published two additional books on stress management: “*The World is NOT a Stressful Place: Stress Relief for Everyone*” and his best-selling book, “*Unwind: 7 Principles for a Stress-Free Life.*”

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