

## **Floataction Therapy for Chronic Back Pain**

**A case study demonstrating the value of floatation therapy for chronic back pain**

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### **Objective**

Chronic low back pain is of epidemic proportions. Current medical methods of treating chronic pain have led to an opioid crisis. This crisis has forced pain management professionals to consider alternative methods to manage or co-manage mental and body implications of chronic pain. Recovery and addiction centers are constantly seeking new and different ways to find collaborative and effective ways to manage pain and recovery from opioid addiction. New therapies such as floatation are proving to work well in tandem with other mind and body therapies.

The objective of this case study is to provide a concrete example of the positive effects of floatation therapy upon specific physical and emotional aspects related to an individual recovering from opiate addiction and who has been in recovery for 18 months.

### **Background**

The 25 year-old female subject in this case study has been in chronic pain for many years, starting with lower abdominal female issues as a teenager. She has had abdominal surgery due to these issues. This same region was also impacted through childbearing and delivery, exacerbating collateral musculoskeletal issues. She works in a jail and as a server for which she is on her feet a lot and is physically demanding. She is also a student in addition to being a single mom. She is unable to take pain medications due to risk of addiction. None of her current methods of pain management have been of much success.

### **Method**

This floatation therapy and chronic pain case study involves a single subject “floating” in a 9’ long x 5’ wide fiberglass tank with a hinged lid, shaped like a large egg, filled with a salty solution. The tank, or pod, is filled with 10” of water (approximately 170 gallons) and maintained at skin temperature, or approximately 94 degrees Fahrenheit. The water is saturated with 1000 pounds of medical grade Epsom salt, or magnesium sulfate: MgSO<sub>4</sub>.

The float tank is located inside a private room with a shower. To “float” the individual disrobes, showers, inserts silicone earplugs, turns off the overhead room light, then and climbs inside the tank which has an internal light and music controls. When inside, the individual closes the float tank lid and then transitions from kneeling or seated onto the back, face up. Once situated in a supine (face up) position and floating effortlessly, the subject has button controls to turn off the tank light and float in darkness, or to leave the light on. The subject also has the option to listen to ambient music or to be in silence. In this case, each float was done in darkness and silence for 60 minutes.

This study lasted 4 weeks in duration, where the subject floated for 60 minutes, twice/week for the duration of the study, for a total of 8 floats. A functional disability outcomes questionnaire with 9 categories was the primary method for capturing data related to mind and body dysfunction. This questionnaire was used for daily subjective recording, using a numeric scale on a 0-10 continuum where “0” indicates pre-injury status/no pain or dysfunction, “1-3” represents minor or mild issues, “4-6” is a moderate amount of pain and dysfunction, “7-9” is severe, and “10” is the worst, excruciating pain ever.

All floats took place at The Float Zone in Richmond, VA. There was no cost to the participant. There are no other disclosures.

## **Results**

The results of this case study clearly suggest that floating twice weekly for 4 weeks promotes significant functional improvements in multiple physical and behavioral categories related to chronic low back pain.

These categories include (a) overall back pain, (b) frequency of back pain, (c) back pain affect on daily activities, (d) quality of sleep, (e) back pain at rest, (f) back pain while standing/walking, (g) back pain radiating to legs/feet, (h) and back pain affect on travel.

Improvements were calculated by using an initial baseline survey compared to the week 4 average scores for the same categories. The numeric and associated graphical results are clearly indicative of rapid and sustained improvement.

The following are single category percentage **improvements**, indicating gains over the course of floating 2x per week for 4 weeks:

**Overall back pain:**

Baseline score 8/10

Averaged last 7 days: 5.2/10

**Improvement: 35%**

**Frequency of back pain:**

Baseline score 10/10

Averaged last 7 days: 4.7/10

**Improvement: 53%**

**Pain at rest:**

Baseline score 6/10

Averaged last 7 days: 4.5/10

**Improvement: 25%**

**Pain affect on walking/standing:**

Baseline score 5/10

Averaged last 7 days: 4.0/10

**Improvement: 20%**

**Radiation of pain to legs/feet:**

Baseline score 2/10

Averaged last 7 days: .3/10

**Improvement: 83%**

**Pain affecting travel:**

Baseline score 5/10

Averaged last 7 days: 5.3/10

**Improvement: negative 6%**

**Pain affecting activities of daily living:**

Baseline score 8/10

Averaged last 7 days: 6.3/10

**Improvement: 21%**

**Pain affecting productivity:**

Baseline score 6/10

Averaged last 7 days: 4.2/10

**Improvement: 30%**

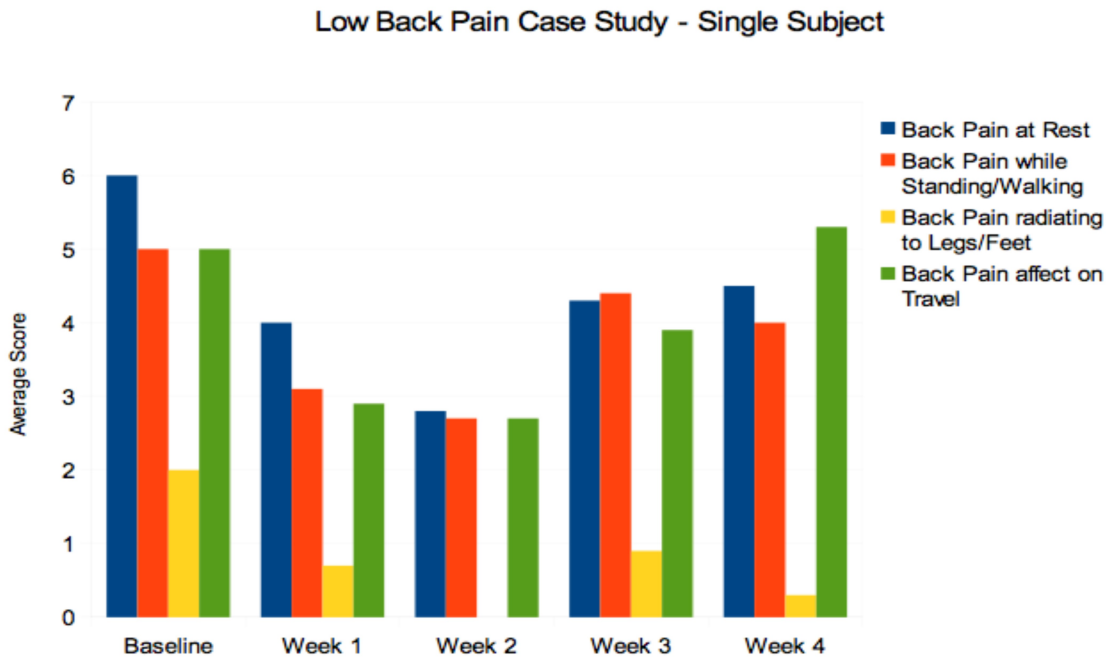
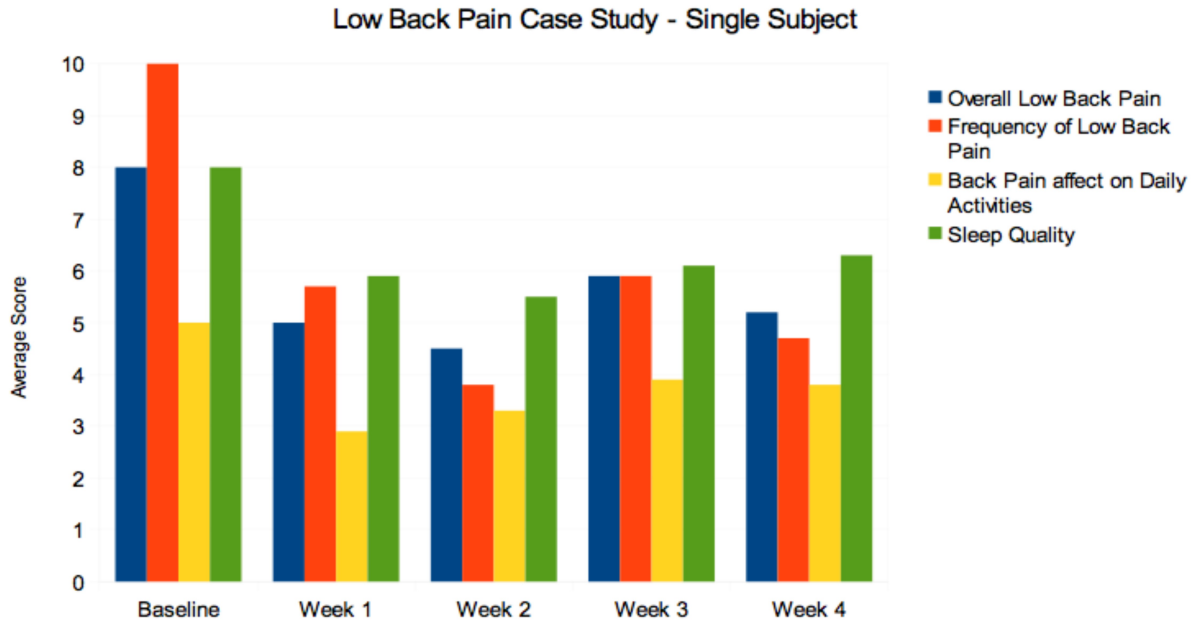
**Quality of sleep:**

Baseline score 5/10

Averaged last 7 days: 3.8/10

**Improvement: 23%**

These are the corresponding graphs for the daily survey numerical data that indicate daily and weekly fluctuations with an end result being improvement in all categories, other than affect on travel, which slightly worsened.



## **Conclusion**

Floatation therapy has a direct and positive effect on multiple categories of functional and behavioral qualities of life for a chronic back pain currently in recovery from past opioid use.

This case study establishes a precedent for positive results with a twice/week initial float frequency. Future case studies will examine longer periods of study, variations in float frequency, float time/session, larger sample size, and other considerations.

## **Discussion**

As the subject has never scored herself in this capacity, a subjective analysis and personal discussion as to her take on the process and improvement, is necessary to make a more comprehensive judgment. As such, the subject's post-case study comments and observations, provide a little window into how she viewed the benefits of floatation therapy on her condition and life.

The subject was clearly in a lot of pain and dysfunction at the beginning. Needless to say, pain and pain triggers are very subjective from person to person, as well as emotional effects, for which she considers herself to be very low in anxiety and depression which is counter intuitive and uncharacteristic of most people with the same constellation of symptoms. Further, what is very common but also not necessarily reflected in the overall results is that reduction of body and mind dysfunction often enables an increase or overuse of activity, often to the point of injury or setbacks.

In order to fully appreciate the results of this study, subjective journaling would have been helpful to make better sense of the graphs and numbers, but is unavailable in this case. However, here are some post-study comments from the participant:

“When I began the floats, my lower back pain was immense and my stress level was very high. Knowing that I had the 2 sessions per week to go to eased my mind tremendously.

Over the course of the 4 weeks, what I noticed physically was that my lower back pain went from a consistent pain level of 9 or 10 down to anywhere between a 1 and 4 on the scale.

The effortlessness that it took to relax in the water was extremely beneficial to both my physical and mental health. I am not someone who suffers from anxiety. However, I do deal with high stress levels. 6 out of the 8 times I floated, I meditated and fell asleep.

Towards the end, I found the red light in the pod to be much more relaxing and aided my meditation status. Overall, I'm incredibly pleased with the results produced both physically and mentally from floating twice a week for 4 weeks."