

# CranioSacral Therapy (CST) with Migraine Patients Results of Pilot Study

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Associates in CST  
September 2009

*Life expresses itself through motion*

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# Methodology

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Craniosacral Therapy (CST) is a very gentle form of bodywork. It works with the bones, soft tissue, and fluids in the head, spine and sacrum to free these structure for optimal function and health.

Goal of this pilot study is to identify how patients with chronic migraines or headaches respond to CST, particularly benefits and contra-indications.

## Who We Are

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- We are experienced, licensed massage therapists who are training in advanced craniosacral therapy (CST):
  - Renee Choury
  - Paula Curtis
  - Jane Houck
  - Cinthy Pierce
- We obtained patient referrals from Dr. Tamara Miller, a neurologist with Advanced Neurology of Fort Collins
- We also included migraine patients who learned of our study through our existing clients

## What We Did

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- We offered 4 free CST treatments to each patient
- Treatments lasted one hour and were scheduled weekly (as schedules permitted) throughout the months of April, May and June
- Each patient filled out a pre-study questionnaire and post-study questionnaire and kept a daily journal (see appendix)

*Note: Didn't collect daily journal from two patients (M11, M12)*

## Patient Profiles

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- We completed the study with 12 patients
  - Patients were women between the ages of 28 to 58
  - All experienced chronic migraines or tension headaches
  - Triggers for headaches were multiple and varied
    - M01 and M09 have a family history of migraines. M01 had migraines since her teens; her father had also suffered from them. M09's headaches began when she was seven years old.
    - M03 reported that her migraines had gotten worse after a hysterectomy; she also had a thyroidectomy and feels her headaches are influenced by hormone levels
    - M02, M04, suffered severe head trauma (car accident, snow boarding accident, etc) that precipitated their migraines
    - M05's headaches began when she had braces and wore rubber bands
    - M01 & M12 have low back issues with L4/5 fusion that may contribute to their migraines.

## General Results

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*“The treatments helped with my mood and stress level. It feels like everything bad in my life just went away.”*

*“CST lessened my headache and/or I have no headaches for long periods of time. I also became more of the person I was before my car accident (emotionally, personally, mentally); more of a positive outlook.”*

# Overall Patient Results - 1

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- Reduction in the number and/or severity of migraines during the treatment period
- Improved sleep patterns, with reduction or elimination of sleep medication



*Before the treatments, I was taking an Ambien nightly. Now I can't tell you when I last took one and I'm sleeping better! - M05*

*This month, I had nothing close to a migraine. Historically, May is a month that's busy, stressful and emotionally hard. So, to make it through May without a migraine is a big deal! Even my husband noticed. This was successful! - M01*

*My headaches do not last as long and are no longer as intense. I also went two days without a headache for the first time in years! – M07*

*I did not have any headaches at all after the first session. – M09*

*The first treatment almost completely relieved my daily headaches. I have more energy and better moods. – M10*

*I have been taking sleeping pills every night and then still wake up in the night and can't get back to sleep. It's been one month since my last CST treatment and I am still sleeping through the night without taking any sleeping pills at all. – M11*

## Overall Patient Results - 2

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- Improved well-being
  - less depression & fewer mood swings
  - better focus and concentration
  - more energy
  - improved sex drive



*I have made an appointment with my regular doctor to get antidepressants. I am to go see her tomorrow and I am going to tell her that I don't need them now. I feel clearer - like a fog has been lifted, and I'm more energetic. - M10*

*I can focus better. I make more detailed notes at work which I have never done before. Feels like everything bad just went away. My head feels like butter. I have never felt like this before. Less foggy. – M09*

*I've found that I have a lot more stamina and ability to concentrate. I feel much more myself. Also, I noticed a vast improvement in my love life in the last month. And, I spent whole day at zoo with my grandson without running out of energy! - M02*

*I was able to feel more like myself without pain. Having that feeling back of who I was before the car accident. Being stable and centered and whole again even if it is only for a couple of days. It well worth it to have that peace again. – M04*

## Overall Patient Results - 3

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- Greater awareness of body and migraine triggers
- Relaxation



*The relaxation was my favorite part. I am a person who has a very hard time relaxing at all, and I did right away. – M09*

*An awareness of a new facet of my body and system.– M08*

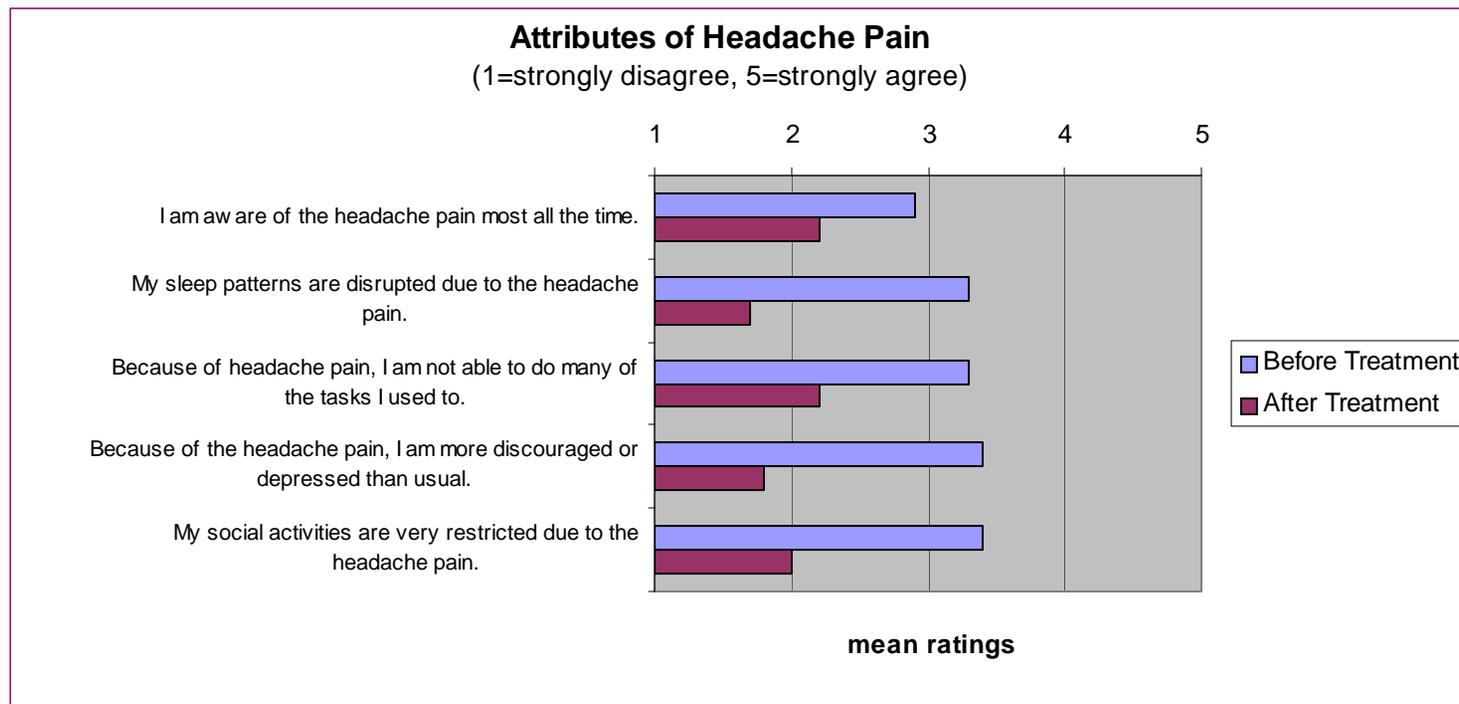
*I became more aware of benefits of manipulation of face and skull on headache relief. Also benefited in other areas of body such as hips, knees & pelvis. - M01*

*More awareness of my body's connections to my headaches and the effects of subtle procedures. – M02*

*The treatments have helped me pay more attention to possible triggers. –M07*

# Subjective Ratings

- Improvement in patient subjective ratings for all 5 behavioral attributes in the pre and post questionnaires: headache awareness, sleep pattern, daily activity, depression, social activities
- Even though the sample size was small (n=12), a paired t-test showed significant improvement at the 5% level in two of the ratings:
  - sleep pattern
  - depression



## Therapist Lessons Learned

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- CST is very beneficial for migraine patients
  - Some patients experience dramatic improvement after the first treatment
  - Others show steady improvement over a series of treatments, with progressive, longer pain-free periods
- Some migraine patients are sensitive, especially those with severe head trauma
  - With these patients, a full hour treatment may be too much initially; need to work slowly and gently to restore vitality.
  - Occasionally, these patients may experience a headache immediately following treatment, but tend to feel much better the next day and experience a period of being headache free; need to prepare them for this possibility
- Importance of releasing sacrum, low back and hips in working with headaches
- Keeping a log helps patients remember and track improvement
- Many of the benefits are *intangible*, including deep relaxation and improved sense of well being

## Individual Patient Results

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Subjective Pain Rating on scale of 0-10: 0=no pain, 10=pain as bad as it can be

# M01 Results

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- Migraine history
  - Migraines started in her late teens; father had them also
  - Recent hysterectomy
  - L4/L5 fusion surgery
- Migraines in past month
  - 2 migraines/mo, usually lasting 4 days
  - Pain levels between 8-10
  - She doesn't take narcotics anymore because they don't work and she's had a bad rebound effect
  - Migraines are triggered by lack of sleep and stress

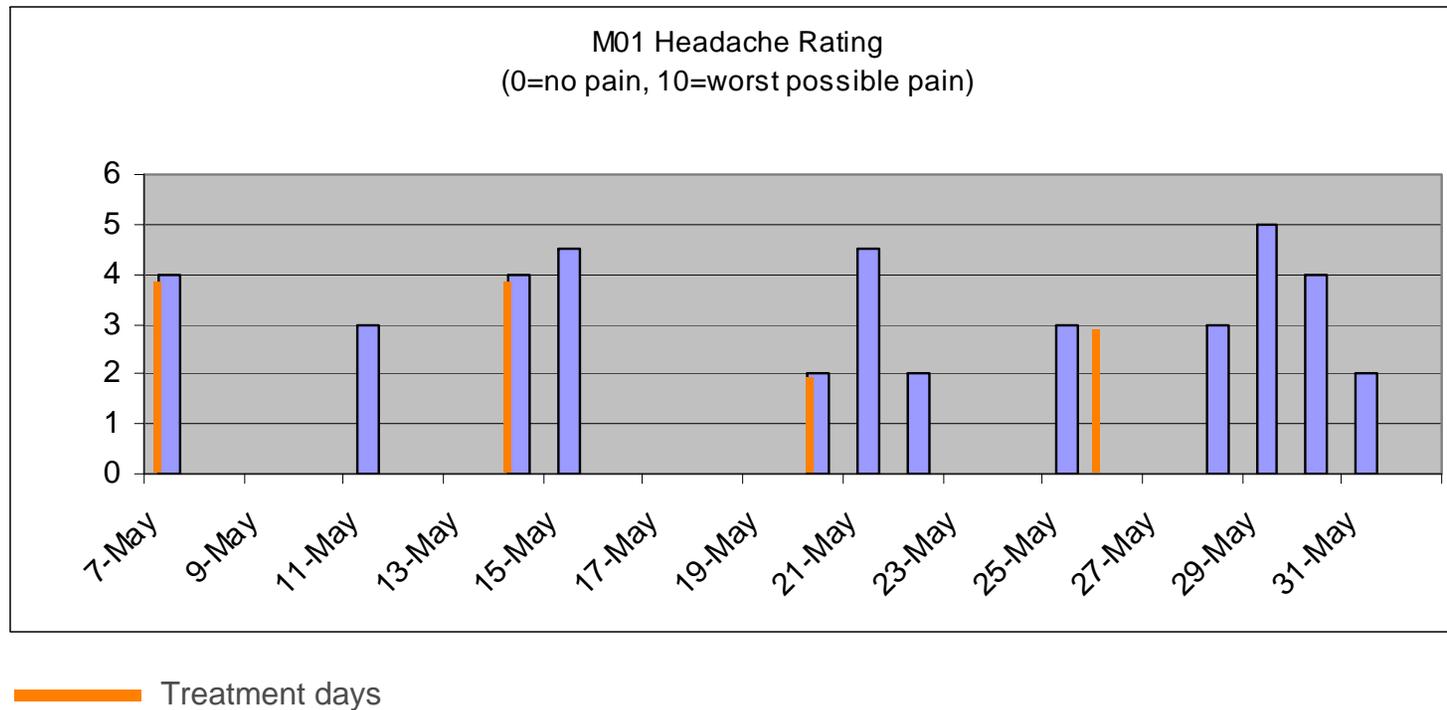
- Benefits from CST:
  - No major migraine; headaches were less severe and shorter in duration
  - Slept better
  - Greater awareness of the link between her headaches and tension in other parts of the body

*This month, I had nothing close to a migraine. Historically, May is a month that's busy, stressful and emotionally hard. So, to make it through May without a migraine is a big deal! Even my husband noticed. This was successful! After the first treatment, effects lasted 2 days. By 3rd treatment, effects lasted quite a while.*

## M01 Daily Log

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- No major migraine, compared to previous month
- Worst headache reached 5, compared to 10



## M02 Results

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- Migraine history
  - Migraines first started when she was 10 years old and her parents were going through a divorce. They eventually subsided.
  - However, migraines returned after car accident in 1997. She's had three car accidents; two with whiplash
  - Participated in 15-month botox clinical trial and experienced improvement.
- Migraines in past month
  - 2 migraines, lasting typically 3 days each
  - During migraine, she is non-functioning with pain level of 8

- Benefits from CST:

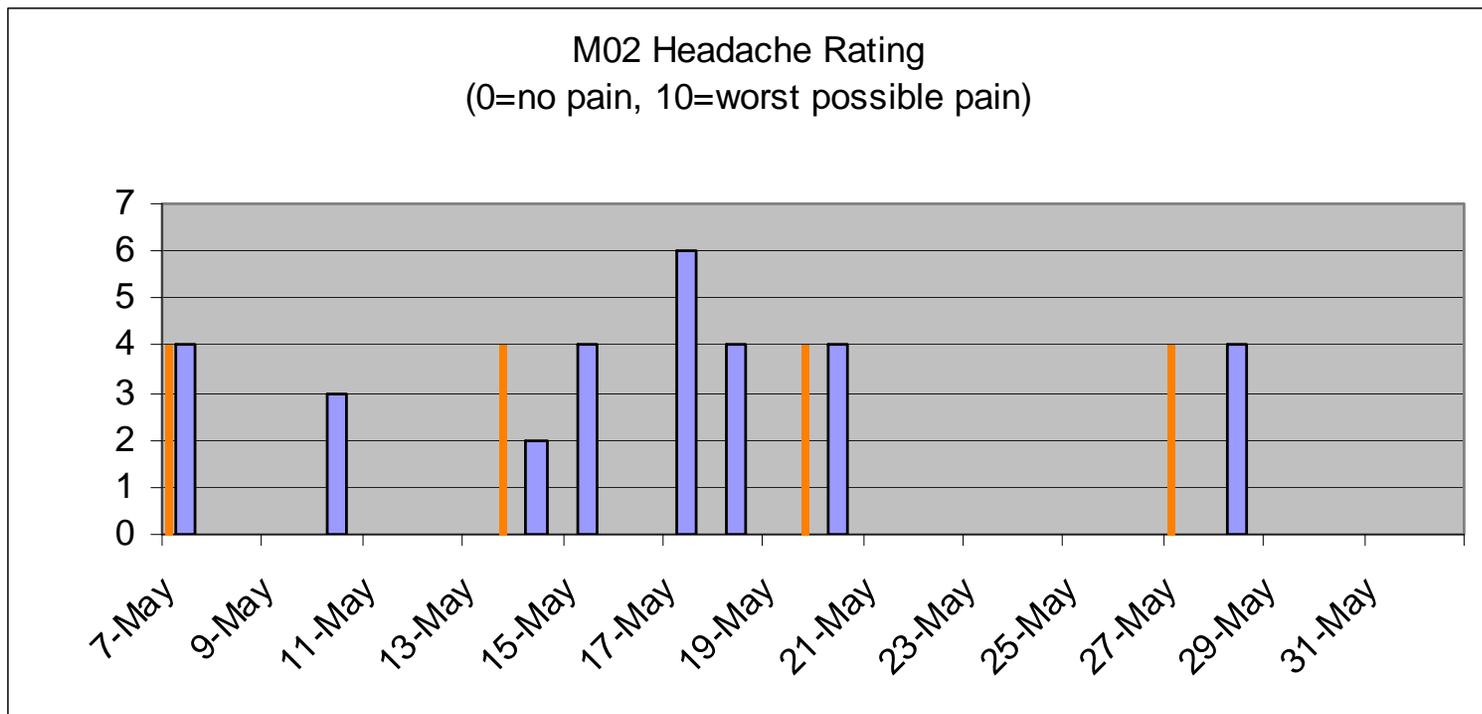
- Only one headache that lasted multiple days; severity was less than previous month
- Improved stamina
- Stress and pain reduction

*This was a big month of shifts - I lost 12 lbs. I've found that I have a lot more stamina and ability to concentrate. I feel much more myself. Also, I noticed a vast improvements in my love life in the last month. I spent whole day at zoo with my grandson without running out of energy!*

## M02 Daily Log

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- Didn't experience a "non-functioning" migraine of pain level 8



— Treatment days

## M03 Results

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- Migraine history
  - Thyroidectomy (cancer) 8 years ago
  - Hysterectomy 1.5 years ago; noticed that headaches have been worse since then
  - Head injury when she was 4 yrs and 12 years old
- Migraines in past month
  - 3 migraines per week, lasting 2-3 hrs until Imetrex takes hold
  - Pain levels at 6

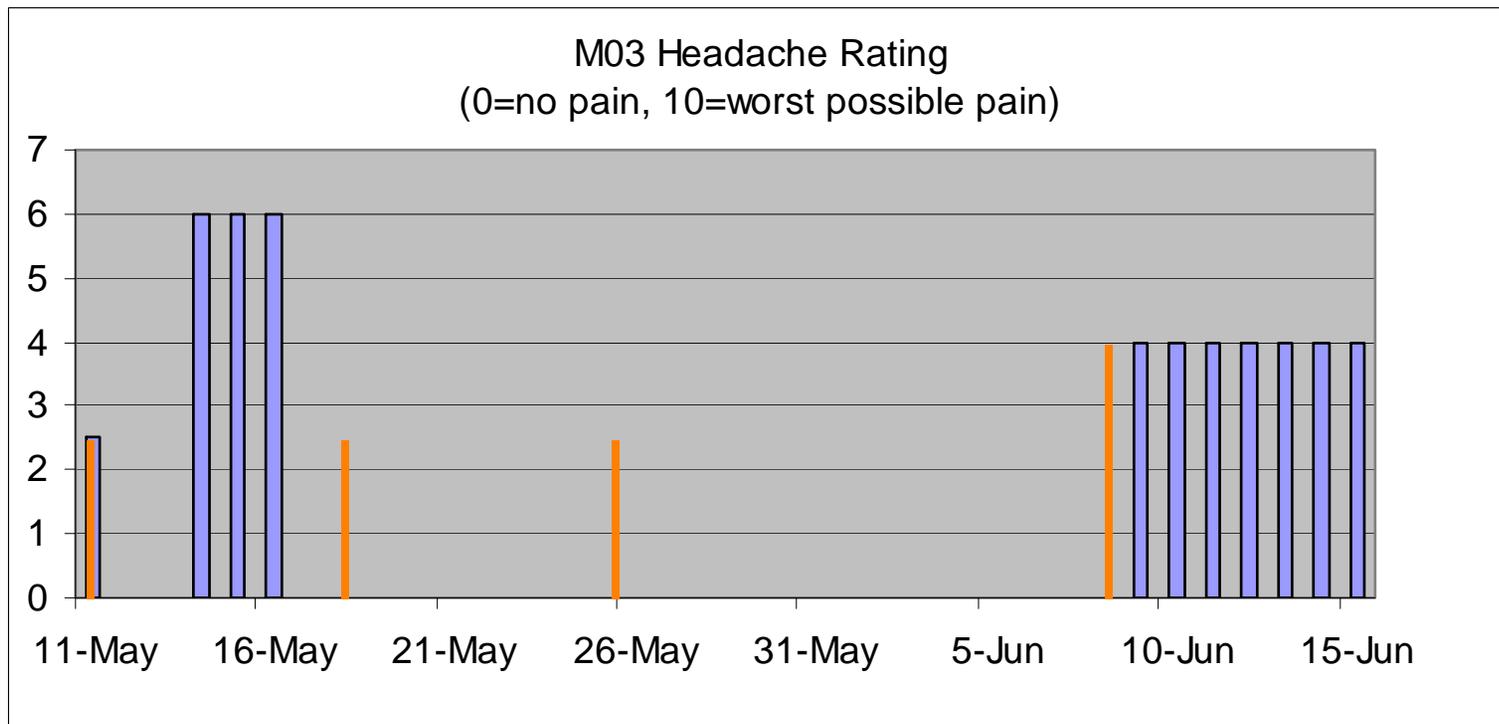
- Benefits from CST:
  - Relief from headaches, lasting up to 10 days
  - Greater awareness of where she holds tension and what it feels like when her head is more “balanced”

*I experienced relief from headaches from 4 to 10 days, especially from the pain in back of head. During this relief I also had a lot more energy.*

## M03 Daily Log

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- Experienced 10 days of being free of headache pain



— Treatment days

## M04 Results

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- Migraine history
  - Major car accident with closed head injury in 2005; after accident did a lot of physical, cognitive and vision therapy
  - Two concussions from playing soccer in 1999
- Migraines in past month
  - 6-8 migraines per month, lasting 1-3 hours
  - Pain levels at 6-8
  - Takes Topemax daily, also takes Migrate when she gets a migraine; 3-4 weeks earlier started taking a muscle relaxant

- Benefits from CST:
  - Lessen headaches and/or have no headaches for long periods of time
  - Emotional stability; more affectionate
  - More of a positive outlook

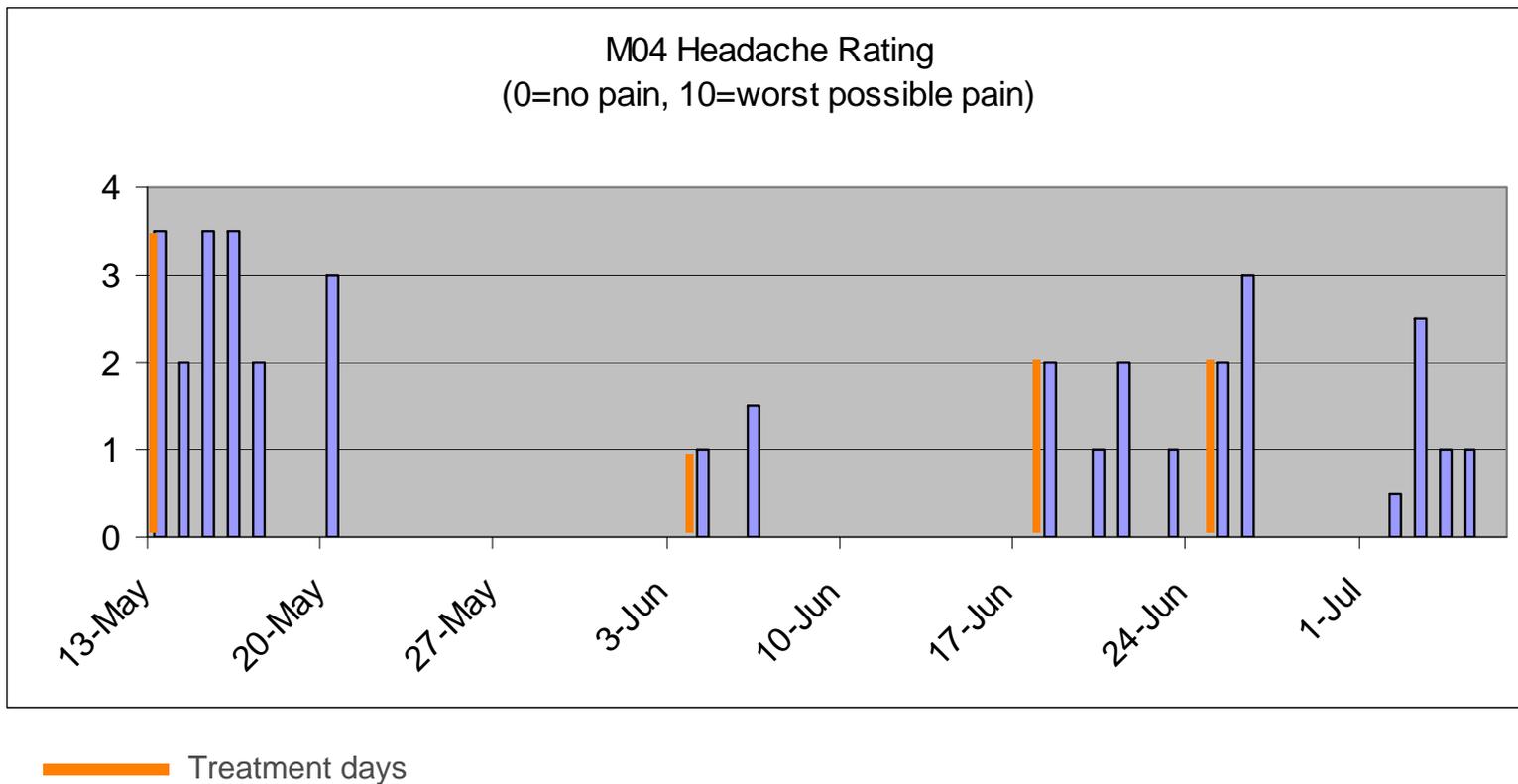
*With the treatments, I was able to feel more like myself without pain. Having that feeling back of who I was before the accident. Being stable and centered and whole again even if it is only for a couple of days. It well worth it to have that peace again.*

*On the day of the treatment, I couldn't do anything too vigorous. I really needed to take it kind of easy to let things settle down.*

## M04 Daily Log

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- No headaches for extended periods of time
- Severity of headaches lessened



*After the second treatment, I felt pleasant, more laughable and playful than I have been in years with my husband.*

## M05 Results

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- Migraine history
  - Headaches began when she had braces with rubber bands
  - Has TMJ along with tension headaches
- Migraines in past month
  - 10 headaches per month; occasionally will last for a week, but usually headaches last about a day
  - Pain levels at 7
  - Gets by with Tylenol or Advil

- Benefits from CST:
  - Little or no jaw, neck and head pain
  - Improved sleep without need to take Ambien

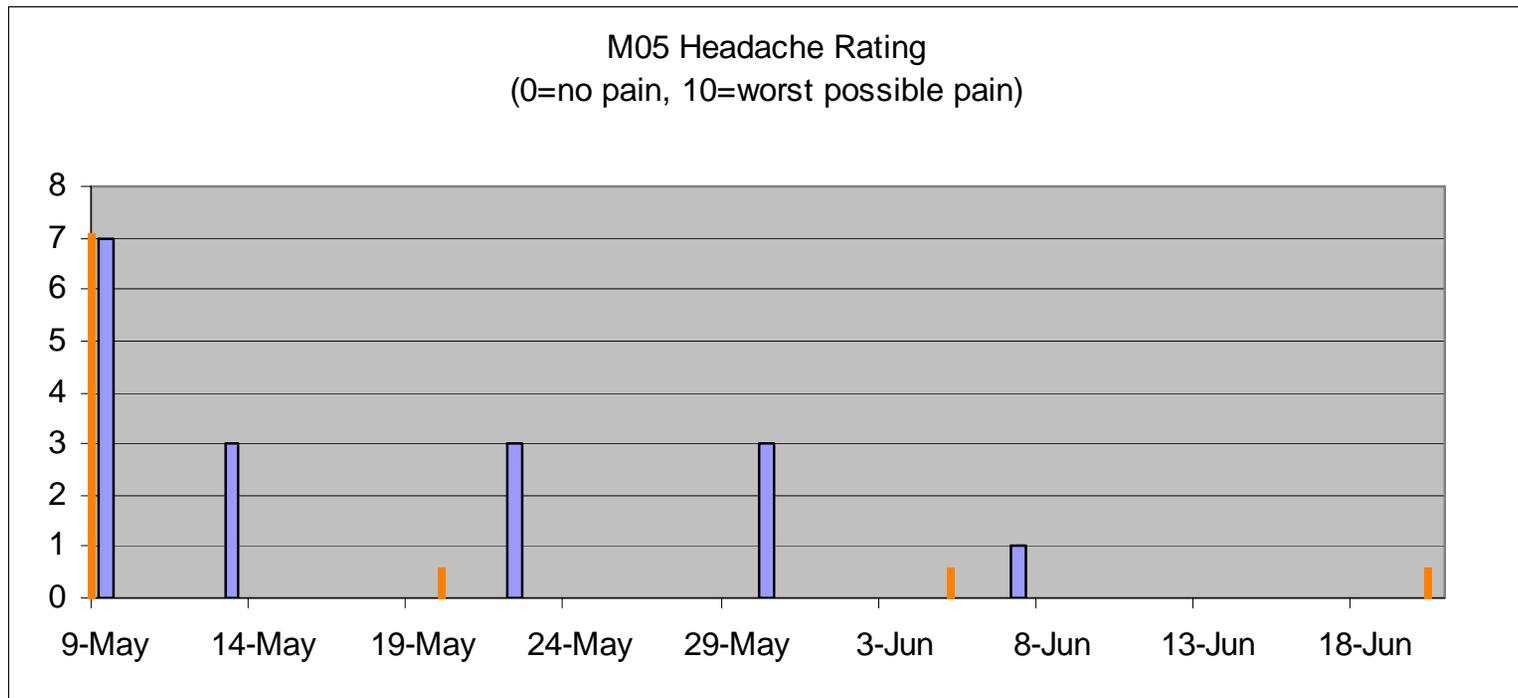
*Before doing the CST treatments, I had constant tension in my jaw and neck. That is much better.*

*Before the treatments, I was taking an Ambien nightly. Now I can't tell you when I last took one and I'm sleeping better!*

## M05 Daily Log

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- Only four relatively minor headaches after first treatment, compared to 10 headaches previous month



— Treatment days

## M06 Results

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- Migraine history

- Has suffered from migraines for many years
- Diagnoses with rheumatoid arthritis in her mid-twenties
- Has other health issues, including osteoporosis and asthma

- Migraines in past month

- 6 migraines/mo

- Benefits from CST:

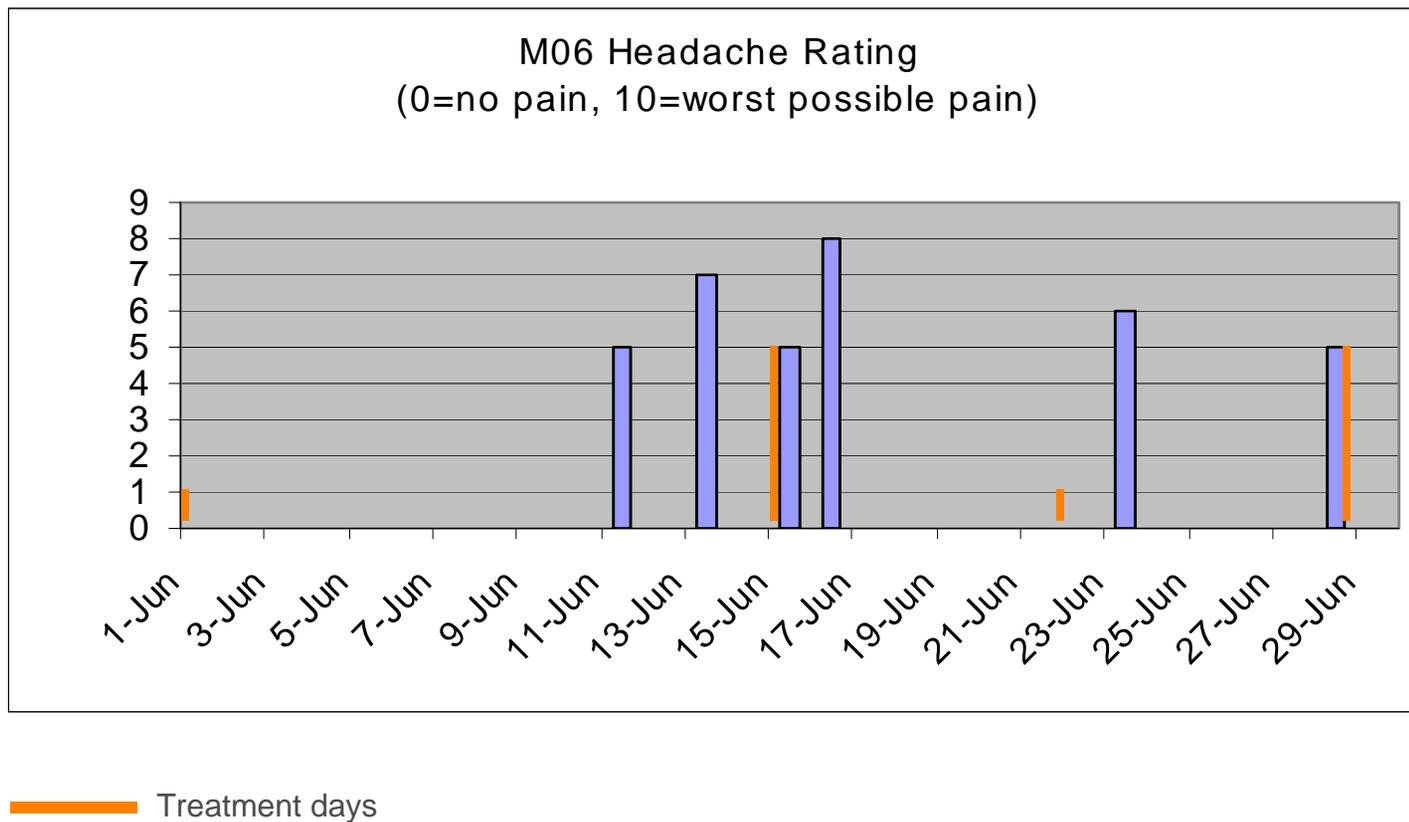
- Headaches were further apart, less intense
- Took less medication for headaches

*Headaches came and went more quickly.*

## M06 Daily Log

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- Even though the number of headaches in the month stayed the same, they were less intense



## M07 Results

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- Migraine history
  - Had car and snowboarding accidents; knocked unconscious 5 times
- Migraines in past month
  - Experienced daily chronic headaches
- Benefits from CST:
  - Headaches came and went more quickly
  - Days without headache pain
  - Greater awareness of headache triggers

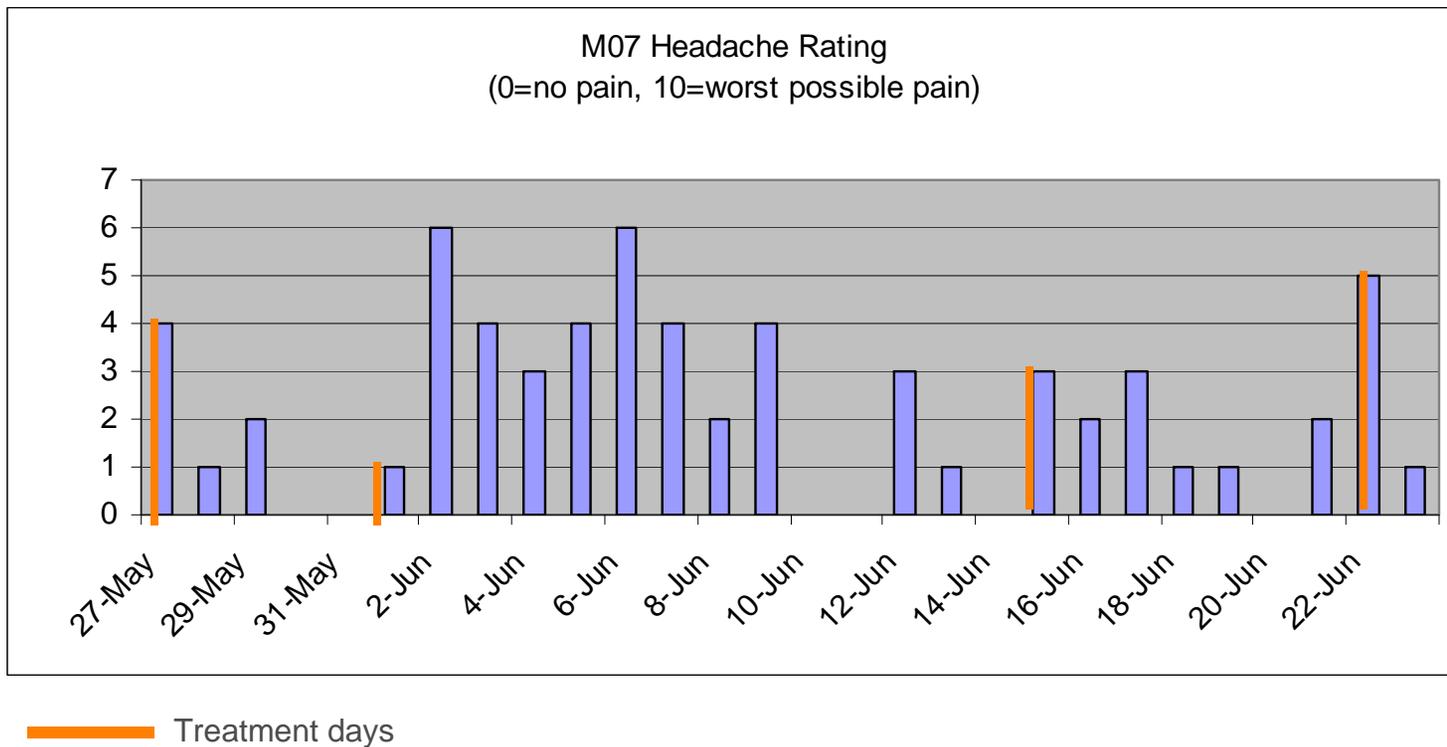
*My headaches do not last as long and are no longer as intense. I also went two days without a headache for the first time in years.*

*Sometimes, I had a worse headache right after the treatment.*

## M07 Daily Log

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- Only four relatively minor headaches after first treatment, compared to 10 headaches previous month



## M08 Results

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- Migraine history
  - Has family history of migraines
  - Broke nose as a child and has had sinus surgery; triggers migraine
- Migraines in past month
  - 4 migraines/mo
  - Pain level at 10

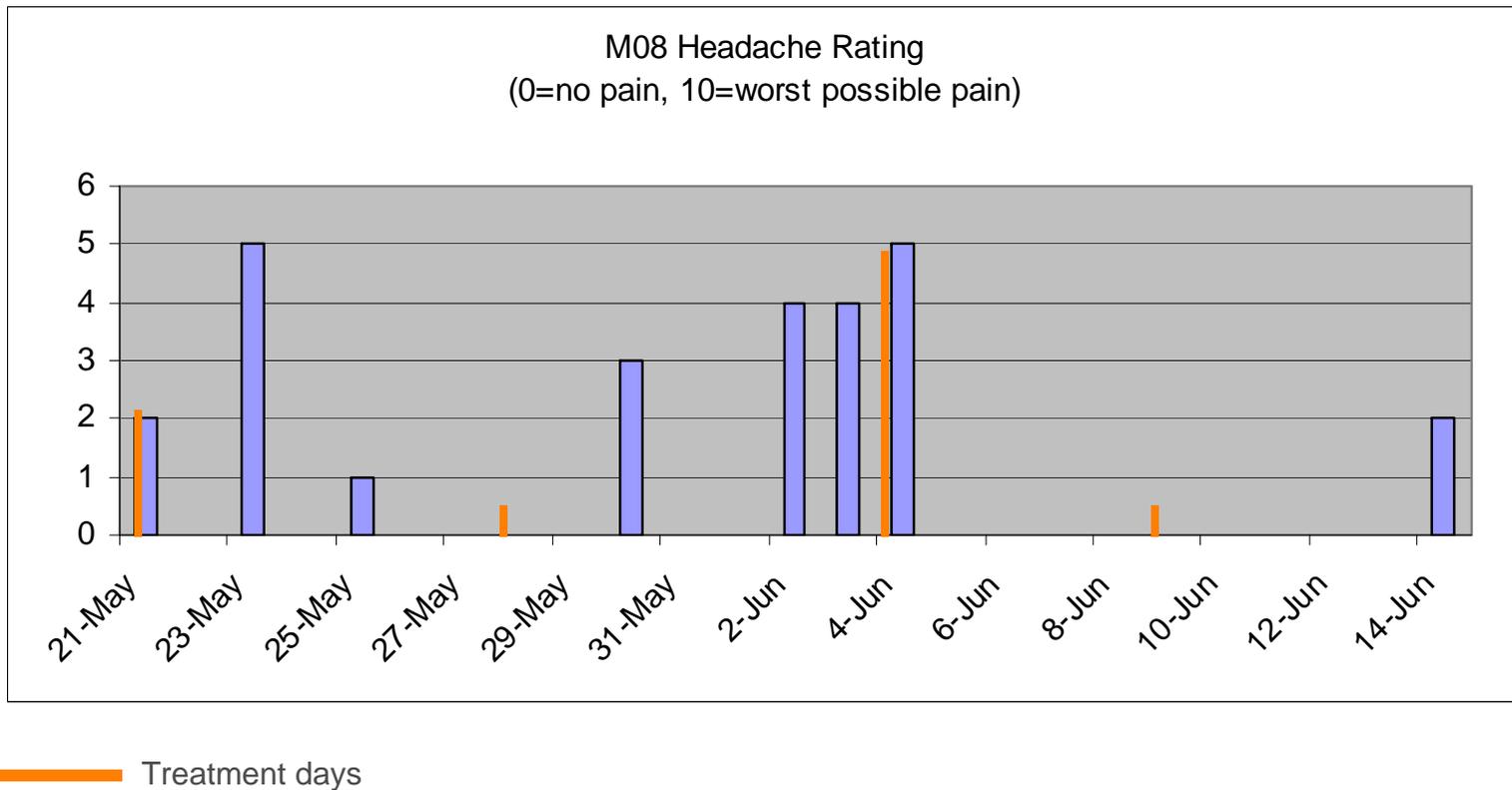
- Benefits from CST:
  - Reduced headache pain levels
  - Pain medication was more effective
  - Greater body awareness

*An awareness of a new facet of my body and system. And, on the day of my headache/treatment, more effective relief with the drugs.*

# M08 Daily Log

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- Headaches were less intense (went from 10 to 5)



## M09 Results

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- Migraine history
  - Has had migraines since she was seven years old
  - Family history of migraines
  - Triggered by seasonal changes
- Migraines in past month
  - 3 migraines/mo
  - Pain level at 8
- Benefits from CST:
  - Daily log was incomplete
  - Patient reported that she didn't have any headaches during treatment time
  - Improved well-being
  - Greater mental focus

*I felt more relaxed than I ever have. I did not have any headaches at all.*

*I can focus better. I make more detailed notes at work which I have never done before.*

*Feels like everything bad just went away. My head feels like butter. I have never felt like this before. Less foggy.*

# M10 Results

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- Migraine history
  - Migraines started in high school
  - MRI done 9 years ago showed elongation of left side of brain stem
- Migraines in past month
  - Daily cluster headaches, lasting 1-2 hours; sometimes more than one per day

*Emotionally I feel so well-balanced (not so up and down). My head feels lighter and there is a big difference in patience and attitude. Notice an increase in sex drive as well. My husband is liking that.*

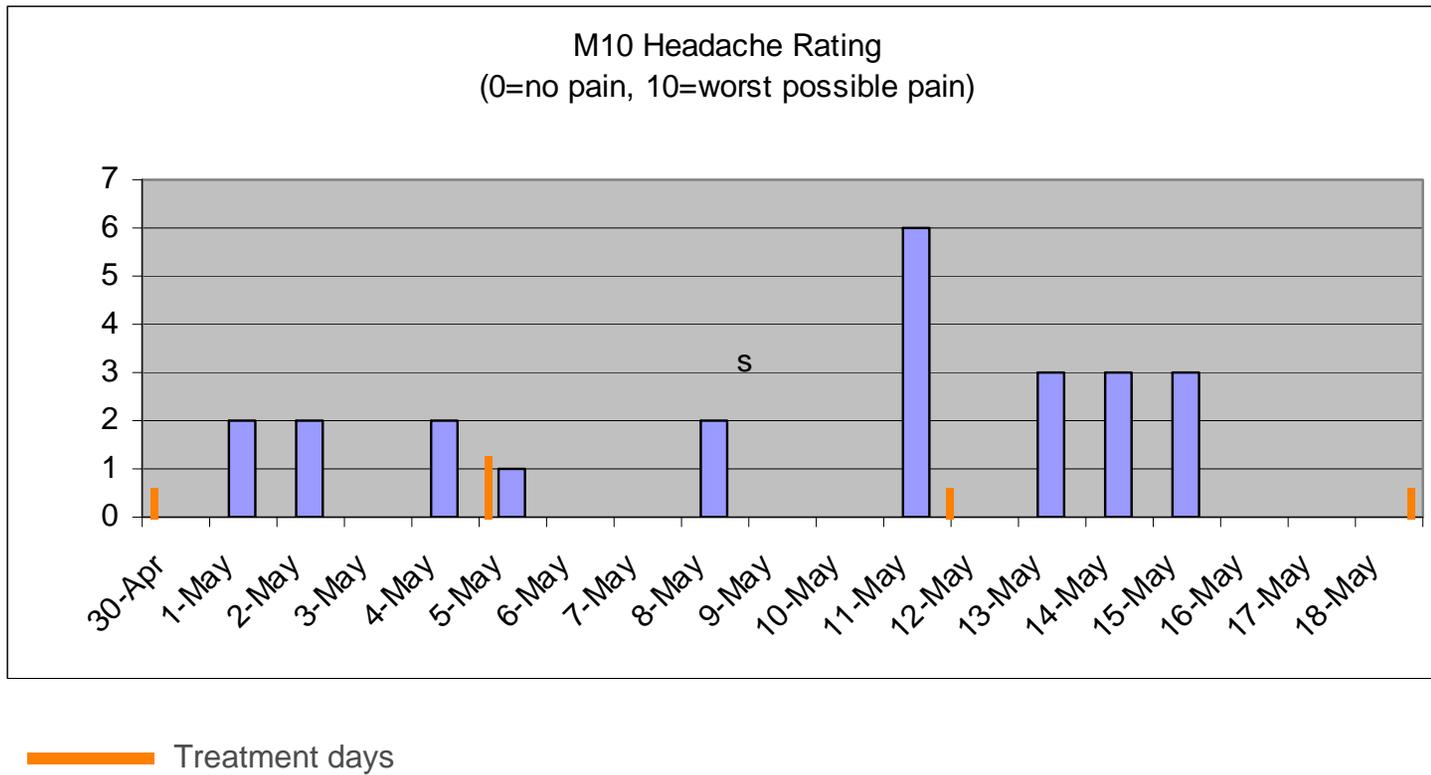
- Benefits from CST:
  - Relief from daily headaches
  - More energy
  - Less depression; improved mood

*Almost completely relieved daily headaches from my days, more energy and better mood.*

*I have made an appointment with my regular doctor to get antidepressants. I am to go see her tomorrow and I am going to tell her that I don't need them, now." "I feel clearer - like a fog has been lifted, and more energetic.*

# M10 Daily Log

- Relief from daily headaches



# M11 Results

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- Migraine history
  - Headaches started in 3<sup>rd</sup> grade and were severe
  - Father also had migraines
- Migraines in past month
  - 2 migraines last month
  - Each lasted about 3 days
  - Migraines triggered by stress, lack of sleep and heat

*I feel much more relaxed after CST than I do after a regular massage.*

- Benefits from CST:
  - Didn't collect daily log
  - Improved sleep
  - Fewer headaches
  - Reduced pain in shoulder and neck

*Definitely sleeping better. I have been taking sleeping pills every night and then still wake up in the night and can't get back to sleep. It's been one month since my last CST treatment and I am still sleeping through the night without taking any sleeping pills at all.*

*Headaches are less frequent. The last one I had was one month ago.*

*After first treatment, the pain in my shoulder and neck is gone.*

## M12 Results

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- Migraine history
  - L4/L5 fusion
  - C4/C5 bulging disc
  - Pelvic congestion syndrome
- Migraines in past month
  - 5 migraines/month
  - Last 1-2 days
  - Pain level at 3-4

- Benefits from CST:
  - Didn't collect daily log
  - Relaxation
  - Stress relief

*I really liked the way I felt when I left your office.*

# Appendix

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Pre-Questionnaire  
Post-Questionnaire  
Daily Log Sheet

# Pre-study Questionnaire

Name: \_\_\_\_\_

## CST STUDY PRE-QUESTIONNAIRE

The following list contains some sentences that people have used to describe themselves when they have chronic pain. Please rate each statement on how well it applies to you by circling the appropriate number.

Statement	1=Strongly Disagree; 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
1. I am aware of the headache pain most all the time.	1-----2-----3-----4-----5
2. My sleep patterns are disrupted due to the headache pain.	1-----2-----3-----4-----5
3. Because of headache pain, I am not able to do many of the tasks that I used to do.	1-----2-----3-----4-----5
4. Because of the headache pain, I am more discouraged or depressed than usual.	1-----2-----3-----4-----5
5. My social activities are very restricted due to the headache pain.	1-----2-----3-----4-----5

6. How many times during the past month did you experience a migraine or headache?

7. In the past month, how long did the headaches typically last?

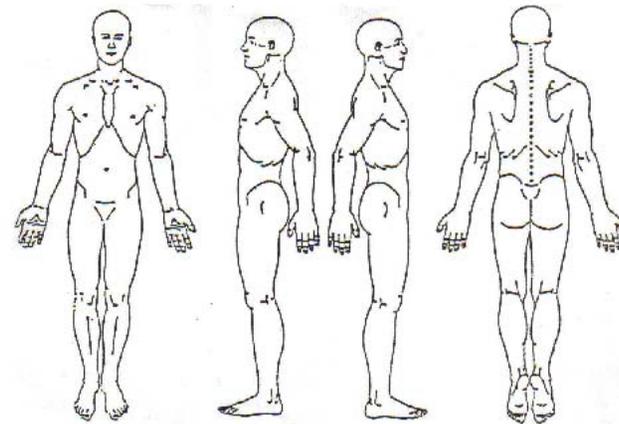
8. What types of headaches do you experience?

- Migraine
- Cluster
- Tension
- Other: \_\_\_\_\_

9. Have you had a major head injury? If yes, please describe.

1

10. Please circle the areas on the body where you have experienced pain in the past month. For each area, rate the pain on a scale of 0-10, where 0=no pain and 10=pain as bad as it could be.



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# Post-study Questionnaire

Name: \_\_\_\_\_

## CST STUDY POST-QUESTIONNAIRE

The following list contains some sentences that people have used to describe themselves when they have chronic pain. Please rate each statement on how well it applies to you by circling the appropriate number.

Statement	1=Strongly Disagree; 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree
1. I am aware of the headache pain most all the time.	1-----2-----3-----4-----5
2. My sleep patterns are disrupted due to the headache pain.	1-----2-----3-----4-----5
3. Because of headache pain, I am not able to do many of the tasks that I used to do.	1-----2-----3-----4-----5
4. Because of the headache pain, I am more <i>discouraged or depressed</i> than usual.	1-----2-----3-----4-----5
5. My social activities are very restricted due to the headache pain.	1-----2-----3-----4-----5

6. What benefits, if any, did you receive from the CST treatments?

7. Do you think the CST treatments helped you, and how?

8. What was your favorite aspect of the CST treatments?

9. What was your *least* favorite aspect of the CST treatments?

10. Would you recommend CST to your friends or to your physician?

# Daily Log Sheet

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Date: _____	Date: _____
1. Did you experience a migraine or headache pain today? ____ yes ____ no (skip to question #5)	1. Did you experience a migraine or headache pain today? ____ yes ____ no (skip to question #5)
2. Please rate the headache pain on a scale of 0-10 : ____ 0=no pain, 10=pain as bad as it could be	2. Please rate the headache pain on a scale of 0-10 : ____ 0=no pain, 10=pain as bad as it could be
3. How long did the migraine or headache last? _____	3. How long did the migraine or headache last? _____
4. Describe any changes in your headache pain throughout the day. <i>(optional)</i>	4. Describe any changes in your headache pain throughout the day. <i>(optional)</i>
5. In general, how would you describe your energy level today?	5. In general, how would you describe your energy level today?
6. Describe anything you noticed different today in terms of your functional ability or your emotional feelings. <i>(optional)</i>	6. Describe anything you noticed different today in terms of your functional ability or your emotional feelings. <i>(optional)</i>

## Contact Us

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- For more information about the CST study results, contact Paula or Cinthy
- If you're interested in experiencing CST for yourself, contact any of us:
  - Renee Choury, 970.558.3255, Fort Collins, CO
  - Paula Curtis, 970.310.9171, Windsor, CO, [www.innerbalance-healing.com](http://www.innerbalance-healing.com)
  - Jane Houck, 970.232.5145, Fort Collins, CO
  - Cinthy Pierce, 970.217.3458, Fort Collins, CO

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