

**European Shiatsu Congress 2017**  
**Controlling Chronic Pain with Shiatsu**  
**with Leisa Bellmore, Shiatsu Therapist**

**What is Chronic Pain?**

- Pain lasting longer than 3 months or that extends beyond the expected period of healing
- Chronic pain can occur with no injury or bodily damage
- Unlike acute pain, which warns the body of injury, CP has no such purpose
- Sometimes unexplainable; disrupts daily activities and impacts quality of life
- 20-25% of adults experience chronic pain; 1.5 billion people worldwide
- 65% of community dwelling seniors and 80% of seniors in long-term care experience CP
- It is not only the difference in time frame that distinguishes chronic from acute pain, but differences in treatment approaches and goals
- Aim is decreased pain, increased function, decreased disruption to life

**Symptoms of Chronic Pain**

**Physical Symptoms**

- Pain: usually dull, achy or throbbing, though in rare cases it may be burning pain
- Restricted or limited range of motion or mobility
- Decreased coordination
- Fatigue, exhaustion
- Sleep disturbances – affects 86% of those with chronic pain
- Disuse syndrome – causes weakness which further restricts activities
- Side effects of medication

**Psychological Symptoms**

- Frustration, helplessness, hopelessness, anxiety, fear, irritability, anger
- Difficulty concentrating, poor memory; Difficulty making decisions, even simple ones
- Depression affects 77% of those with chronic pain; causes increased perception of pain
- Underestimating recovery (sometimes overestimating recovery)
- Loss of independence; Loss of self-identity

**Socio-economic Impact**

- Many are unable to work or must alter their work schedule or change careers
- Financial constraints can affect health, housing, nutrition, and social activities
- This can lead to increased health risks, lack of suitable healthcare and social isolation

**Impact to Quality of Life**

- Chronic pain has a profound impact on quality of life
- Pain, discomfort, fatigue, and decreased range of motion/mobility can all impact work, familial responsibilities, activities of daily living, social activities, and enjoyment of life

## **Central Sensitization**

- Rather than pain initiating in the periphery, in persons experiencing chronic pain it begins to be initiated and processed within the central nervous system
- This shift makes chronic pain more difficult to manage
- It necessitates different medications along with psychological interventions

## **Pain Psychology**

- **Validation:** calms negative emotions; decreases pain talk; decreases nervous system arousal, which can decrease pain intensity
- **Calm Nervous System:** slows heart rate; calms stress response; decreases pain intensity
- **Distraction:** mind isn't focused on pain; decreases pain intensity

## **Effects of Long-Term Chronic Pain on the Brain**

- MRIs have shown that the brains of those with chronic pain function abnormally
- Long-term chronic pain causes changes to the brain
- Increased activity in area related to emotion
- Excessive activity wears out nerve cells so they die prematurely
- Brain size diminished in those with long-term chronic pain
- Constant nerve activity causes changes to nerve cells involved in communication
- Increased number of connections between areas that process pain, stress and emotions
- Changes impact mental function: difficulty with decision-making, interacting with people
- Changes in part of the brain responsible for sensory stimulation, which plays a role in the sleep-wake cycle
- These changes make it difficult to sleep well at night and stay alert during the day
- Reduced activity in area of brain that controls the response to pain; causes increased anticipation of future pain, therefore increasing anxiety
- Complex wiring changes cause increased emotional reaction to possible future pain

## **Reversing the Changes**

- Chronic pain successfully treated enables to recovery; brains increase to normal size
- Part of brain responsible for pain control repairs itself and functions normally
- Gray matter nerve cells increase; Mental abilities return to normal levels

## **Effects of Long-Term Chronic Pain on the Immune System**

- Changes to DNA in the prefrontal cortex and in T-cells may contribute to chronic pain
- This suggests there may be implications for other bodily systems (Massart et al, 2016)

## **Treatment Options**

### **Biomedical Treatment**

- Prescription pain medication – highly addictive, often have side effects
- Over-the-counter pain medication – addictive, often have side effects
- Anti-inflammatories – often have side effects
- Prescription sleep aids – highly addictive, often have side effects
- Physiotherapy

### **Natural Health Practices**

- Massage, Shiatsu, acupuncture, acupressure
- Studies support use of turmeric (curcumin) and omega-3 fish oil as anti-inflammatories
- Ginger, green tea, willow bark, rosemary, cat's claw and devil's claw are used for inflammation; no evidence to support use of these supplements
- Vitamin D – low levels have been linked to chronic pain

### **Research on Shiatsu and Chronic Pain**

- Significant decrease in low back pain (Brady et al, 2001)
- Significant decrease in back pain at 3 & 6 month follow up (Long, 2008)
- Significant decrease in pain intensity, pressure-pain threshold & symptom impact in Fibromyalgia (Yuan et al, 2013)
- Improvements in CP-related sleep problems with hand self-Shiatsu (Brown et al, 2014)

### **How can Shiatsu help?**

- Take time to talk with client prior to treatment; acknowledge their condition & feelings
- Shiatsu eases stress, calms the nervous system, enhances the relaxation response
- The pressure of shiatsu can distract from pain
- Shiatsu increases the mind-body connection, making one feel in tune with one's body
- Shiatsu aids sleep; improving sleep may decrease pain and increase ability to cope
- Shiatsu can ease anxiety and depression, which are common in those with chronic pain

### **Releasing Holding Patterns**

- Protective holding patterns are common in those experiencing chronic pain
- These unnatural adaptations to posture and movement can cause tightness in muscles, limiting flexibility and restricting range of motion of joints
- Gentle holding of the limbs with subtle movement can encourage a release of the muscles, tendons and ligaments, breaking the holding pattern
- You can then proceed with shiatsu with greater effect, preventing a return of the pattern
- Practice on upper and lower limbs using subtle rotations, vibrations, lifting and releasing
- Slowly increase movements as you feel the area release

### **Working Muscle Origins & Insertions**

- Applying pressure near the origin and insertion of muscles can encourage their release
- This is especially effective for chronically tight muscles that may be sensitive to pressure
- Use gentle pressure near origin & insertion for a longer duration: hold for 10-30 seconds
- Can be used throughout the body, but is very effective for the lower back and neck
- Fits with more anatomical approach of Namikoshi shiatsu, but can be integrated into any shiatsu treatment

### **Shiatsu for Chronic Low Back Pain**

- Lumbar Region: work near origins and insertions of multifidus
- Quadratus Lumborum: work near origin and insertion
- Iliac Crest Region; Sacral Region
- Gluteal Region: work origin and insertion of piriformis muscle

### Working in Sideline

- Allows you to easily access quadratus lumborum, effectively releasing it
- With client lying in recovery position, work lumbar points
- Switch their legs so their upper leg is straight and their lower leg is bent with the hip and knee at 90° angle
- Work quadratus lumborum points
- Switch legs back to continue with other points



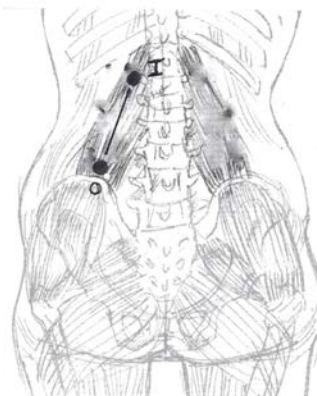
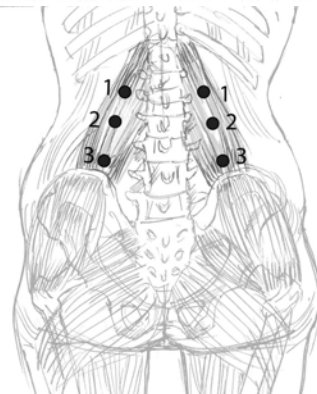
### Lumbar Region

- 5 points along either side of spine
- Work from top to bottom
- 5<sup>th</sup> point just above bones of iliac crest
- Points are on the lumbar fascia, serratus posterior inferior, iliocostalis, longissimus, multifidus, intertransversarii and quadratus lumborum
- Do sequence once, then work near origins and insertions of multifidus simultaneously
- Begin with pressure on 2<sup>nd</sup> lumbar point while applying pressure to the dorsal end of the iliac crest
- Next apply pressure to 3<sup>rd</sup> & 4<sup>th</sup> lumbar points while applying pressure to the 1<sup>st</sup> 2<sup>nd</sup> points of the corresponding side of the sacrum



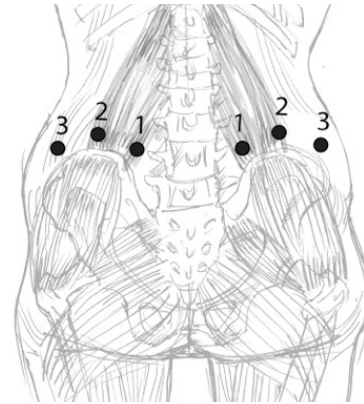
### Quadratus Lumborum

- 3 points along quadratus lumborum muscle
- 1<sup>st</sup> point near superior insertion just inferior to last rib
- 3<sup>rd</sup> point near origin just superior to iliac crest
- Points area at a slight diagonal to the spine
- Points are on the lumbar fascia, latissimus dorsi, quadratus lumborum, erector spinae, multifidus
- Do sequence once, then apply pressure near origin (just superior to iliac crest) and insertion (just inferior to last rib) simultaneously



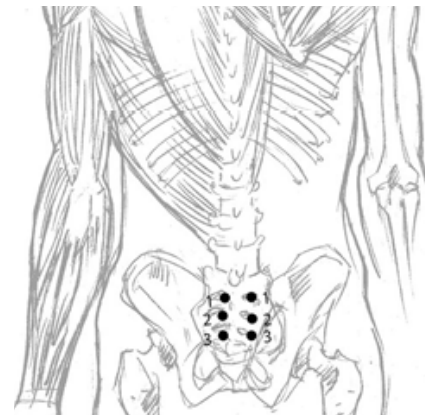
### Iliac Crest Region

- 3 points just superior to iliac crest
- Work medial to lateral
- 1<sup>st</sup> point just lateral to spine
- 3<sup>rd</sup> point just lateral to highest point of iliac crest
- Repeat sequence 3 times
- Point 1 is on the lumbar fascia, quadratus lumborum, iliolumbar ligament; Point 2: lumbar fascia, quadratus lumborum; Point 3: external & internal oblique and transversus abdominus, quadratus lumborum



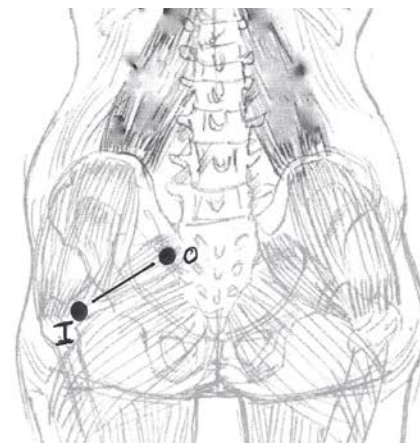
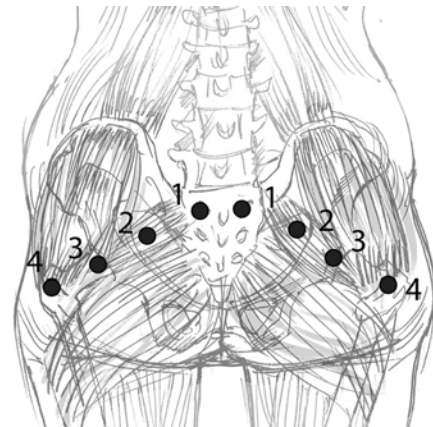
### Sacral Region

- 3 points along each side of sacrum
- Work from superior to inferior
- 1<sup>st</sup> point just below 1<sup>st</sup> posterior sacral foramen
- 3<sup>rd</sup> point just below 3<sup>rd</sup> posterior sacral foramen
- Repeat sequence 3 times
- Points 1 & 2 are on the lumbar fascia, spinalis, multifidus, posterior sacroiliac ligament; Point 3: lumbar fascia, gluteus maximus, spinalis, multifidus, sacrotuberous ligament, posterior sacroiliac ligament



### Gluteal Region

- 4 points on oblique angle in gluteal region
- 1<sup>st</sup> point on 1<sup>st</sup> posterior sacral foramen
- 4<sup>th</sup> point just medial to greater trochanter
- Point 1 is on gluteus maximus & medius, sacrotuberous & posterior sacroiliac ligaments; Points 2 & 3: gluteus maximus & medius, sacrotuberous ligament (2), piriformis, gluteus minimus; Point 4: gluteus maximus & minimus, piriformis, superior gemellus, obturator internus, ischiofemoral ligament
- Do sequence once, then apply pressure near origin (point 2, just lateral to sacrum) and insertion (point 4, just medial to superior border of greater trochanter) of piriformis muscle simultaneously

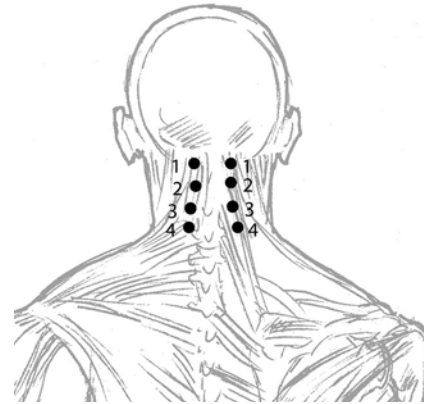


## Shiatsu for Chronic Shoulder Pain

- Posterior Cervical Region: work origin and insertion of levator scapulae
- Supra-scapular Region: work origin and insertion of upper trapezius
- Inter-scapular Region: work origin and insertion of rhomboids major

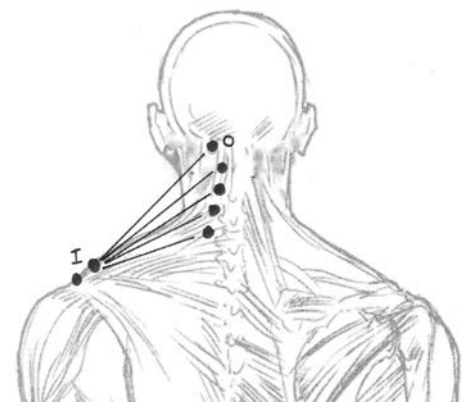
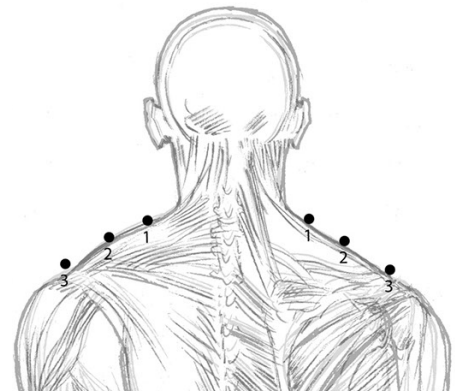
### Posterior Cervical Region

- 4 points lateral and parallel to spine
- 1<sup>st</sup> point just inferior to occipital bone
- 4<sup>th</sup> point at base of neck
- Points 1 & 2 are on trapezius, splenius capitis, levator scapulae, iliocostalis cervicis, longissimus capitis, semispinalis capitis (1), semispinalis cervicis (2), obliquus capitis inferior (1), multifidus (2), intertransversarii;
- Points 3 & 4: splenius cervicis, longissimus cervicis, semispinalis cervicis, multifidus, intertransversarii
- Do sequence once, then work near origin (just lateral to points 1 & 2) and insertion (just superior to vertebral border, lateral to point 4) of levator scapulae simultaneously



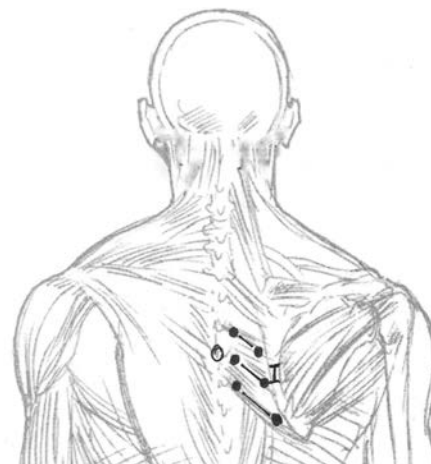
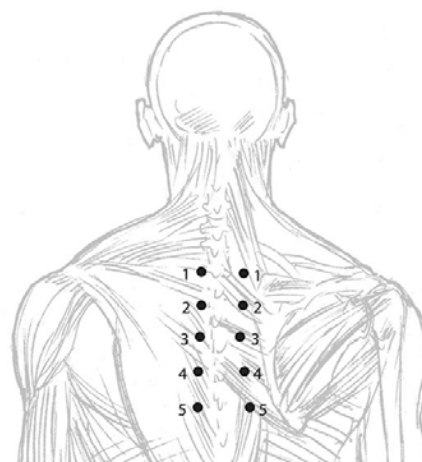
### Supra-scapular Region

- 3 points along the highest point of the shoulder
- Work medial to lateral
- 1<sup>st</sup> point just lateral to base of neck
- 3<sup>rd</sup> point just medial to acromion, posterior to clavicle
- Work points once then work origin (focusing on external occipital protuberance and then working just lateral to cervical vertebrae) and insertion (just medial to acromion, posterior to clavicle) of upper trapezius simultaneously
- Points are on trapezius, supraspinatus



### Inter-scapular Region

- 5 points just lateral to thoracic spine
- 1<sup>st</sup> point parallel to superior border of scapula
- 5<sup>th</sup> point parallel to inferior angle of scapula
- Do points once, then work origin (just lateral to 2<sup>nd</sup>-5<sup>th</sup> thoracic vertebrae) and insertion (just lateral to medial border of scapula from spine to inferior angle) of rhomboids major simultaneously



### Importance of Taking an Active Role

- Research shows many patients with chronic health conditions feel powerless to effect change over their situation, uncertain about their future, helpless and hopeless
- Research has also shown that self-management approaches can help patients to regain feelings of control over their condition and their lives
- More and more, healthcare interventions for chronic conditions are aiming to actively engage the patient, addressing their bio-psycho-social needs
- By becoming actively involved, feelings of helplessness and hopelessness are decreased
- No one knows better than the patient how they are feeling – sharing this information can give great insight into their condition and lead to more effective treatment
- When the client is actively involved they are their own strongest advocate, ensuring they will get the help they need and get the best treatment possible
- When the client is actively involved they are part of the decision-making process; they become an active part of their care team
- This ensures care is tailored to their specific needs and how they respond to care

## Importance of Self-Care

- Physical benefits vary depending on focus of self-care: decreased pain, increased mobility/ROM, increased energy levels, improved sleep, increased function, decreased frequency of flare-ups
- Psychological benefits are equally important: decreased feelings of hopelessness or helplessness, decreased frustration, increased optimism, decreased stress
- Those with chronic conditions can have feeling of being detached from their body – self-care can increase the connection to one's body
- Even minor improvements in their condition may be noticed
- Leads to increased feelings of mastery and control, leading to improved health outcomes
- Increased feeling of control can lead to a more positive attitude which can in turn have a positive impact on our health
- Positive attitude may make pain, limited ROM/mobility, lack of function seem less severe
- With regular self-care, client will see benefits and have the knowledge that they are having a positive impact on their condition

## Self-Care Strategies for Chronic Pain

- Epsom salts (in bath or in compresses); Heat/ice
- Essential oils in bath (no more than 8 drops total, 6 for those with sensitive skin): Back pain – chamomile roman, clary sage (C/I in pregnancy), cypress, marjoram; Joint pain – lavender, cedarwood (C/I in pregnancy, children under 18), rosemary (C/I in pregnancy, epilepsy); Muscle pain – eucalyptus globulus (C/I in children under 12), marjoram, pine (C/I for those with sensitive skin); Neuralgia – chamomile roman or german, geranium
- Gentle exercise – walking, Tai Chi, Qi Gong, stretching, swimming, gentle yoga
- Manage stress – meditation, mindfulness, deep breathing, Progressive Muscle Relaxation
- Support – both formal and informal
- Pain Diary – focus on positive info, for example activities accomplished daily
- Acupressure, self-shiatsu, self-massage

## Strategies for Getting the Client Involved

- **Educate your client:** about chronic pain and its effects; about treatment options and self-care options; about risk factors that may impact their health
- **Create a dialogue:** allow time for discussion before treatment, encourage feedback during/after treatment; solicit info on symptom severity, other treatments, diagnostics; encourage client to discuss health status & CAM treatments w/other healthcare providers
- **Recognize limitations:** encourage client to be realistic about their situation, recognize they're facing challenges; set functional goals and work towards minimizing limitations
- **Adapt lifestyle:** encourage client to adapt lifestyle to accommodate condition – eat healthier, get more rest and regular, appropriate exercise, pace themselves
- **Manage stress:** chronic pain is stressful and stress aggravates chronic pain; educate client about stress-management techniques that are within their abilities
- **Support & encouragement:** encourage them to take an active role; encourage dialogue w/health care providers & self-care; stress importance of formal & informal support
- **Recognize progress:** make note of progress (from treatment and self-care) and draw their attention to this; often people with chronic conditions underestimate their progress



## **Setting Goals**

- With the client determine both short-term (for each session or within two weeks) and long-term (within the next two-three months) treatment goals
- Link goals to client's specific activities (activities of daily living, work, etc.) so they become functional goals – these can be based on broader goals of increasing strength, range of motion, endurance, etc.
- Ensure that both treatment and self-care support working toward set goals
- If goals are realistic, it's more likely they'll be achievable and client will have the satisfaction of knowing they accomplished their goal
- When goals are met, acknowledge this and set new ones

## **Monitoring Progress**

- Proper documentation is essential in evaluating and monitoring treatment outcomes
- Tracking changes allows you and the client to clearly see their progress
- It provides you with clear, concise information to share with other health care providers (with the client's consent)
- Useful tools to track progress: muscle testing; range of motion testing; pain/sleep diaries

## **Chronic Pain Resources**

- International Association for the Study of Pain – brings together scientists, healthcare providers and policymakers and aims to support the study of pain; [www.iasp-pain.org](http://www.iasp-pain.org)
- The Arthritis Society – excellent resource on arthritis including specific information on treatment of chronic pain, online self-management courses, chronic pain management workshops and printed publications; [www.arthritis.ca](http://www.arthritis.ca)
- Medline Plus – excellent resource on back pain including diagnosis, treatment and research and patient handouts; [www.nlm.nih.gov/medlineplus/backpain.html](http://www.nlm.nih.gov/medlineplus/backpain.html)
- Centre for Effective Practice – develops and implements evidence-based programs and tools (includes CORE back tool and CORE back guide); [www.effectivepractice.org](http://www.effectivepractice.org)
- TED Talk: How does your brain respond to pain;  
[www.youtube.com/watch?v=17wfDenj6C7&list=PLeaL\\_GAHxKLR2PJgJfgR2gtleg\\_musQY](http://www.youtube.com/watch?v=17wfDenj6C7&list=PLeaL_GAHxKLR2PJgJfgR2gtleg_musQY)

## **Research Resources**

- International Society for Complementary Medicine Research: [www.iscmr.org](http://www.iscmr.org)
- Massage Therapy Foundation: [www.massagetherapyfoundation.org](http://www.massagetherapyfoundation.org)
- International Journal of Therapeutic Massage & Bodywork: [www.ijtmb.org](http://www.ijtmb.org)
- Shiatsu Research Foundation: [www.shiatsu-research.net](http://www.shiatsu-research.net)
- Research Gate: [www.researchgate.net](http://www.researchgate.net)
- National Center for Complementary & Integrative Health: [www.nccih.nih.gov](http://www.nccih.nih.gov)

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