### Prevention of Injury To Massage Therapists By Andy Pitt

# Diploma in Remedial Massage Student at Shellharbour TAFE, ANTA Student Member 7421

In researching this assignment, I have found claims that up to 80% of massage therapists drop out of the industry within the first two years. <sup>1</sup> The reasons seem to be related to physical injury and burnout brought about by being involved in a "healing" industry. It brings to mind the biblical quote from Luke 4.23 – "physician, heal thyself". The massage table salesman who came to give a presentation to our class on the products he represented, was a therapist who had to take a different tack because his hands could no longer perform massage!

The injuries suffered by massage therapists that cause them pain and stress may be physical or psychological.

### What Type of Physical Injuries Affect Massage Therapists?

The soft tissue injuries that affect massage therapists fall into two categories:

- 1. Muscle and Tendon Injuries
- 2. Nerve Impingement Injuries

Both categories can be difficult to diagnose and treat.

Muscle and Tendon Injuries generally come into the overuse syndrome category and result from repetitive stress on tissues without allowing them to recover. They often creep up on practitioners as little niggling complaints but then develop into full-blown chronic conditions that generally affect the thumb, wrist, forearm, elbow, shoulder and lower back. Therapists generally dismiss the initial warning signs. These may include dull aches and pains, tightness and soreness, short-lived pain spasms, loss of strength in a limb, numbness or tingling sensations and sore muscles.

Nerve Impingement Injuries generally occur in areas where nerves lie between hard structures such as bone, or pass through structures that may be unyielding, such as tendons, ligaments and fascia. Thus massage

\_

<sup>&</sup>lt;sup>1</sup> Evans, Maja. The Ultimate Hand Book. San Francisco, CA: Laughing Duck Press, 1992.

therapists may suffer carpal tunnel syndrome (CTS) where the median nerve is impinged at the carpal tunnel at the wrist, or thoracic outlet syndrome (TOS) where the brachial plexus is impinged as it passes through the thoracic outlet and this can affect the spinal nerves C8-T1 which create symptoms in the neck, shoulders, arms and hands and also cause headaches.

### What Type of Psychological Injuries Affect Massage Therapists?

When a massage therapist feels uneasy, they lose their mental edge and thus lose their ability to make correct judgements. Everything becomes "too difficult" and they do not take care of themselves. They convey the wrong messages to their clients. They may burden themselves with the problems of their clients and suffer burnout.

## What Can Massage Therapists Do To Prevent Physical Injury To Themselves?

1. Make sure the massage table is at the correct height. If the table is too high, you use your shoulders and upper body strength to do all the work. You lift your shoulders up towards your neck and cause upper body strain. Since your most powerful muscles are in the hips and legs, you should be employing them to make best use of your force. If you set the table too low, you increase your lumbar curve to compensate and strain your lower back.



It is not as easy as it sounds to set the table at the correct height. When working on the back, you may want the table at a height to put more pressure into the body core than you want working on the calves. A person with a thick torso may need less table height than needed for work on their legs. Or a person receiving side-lying work on their shoulder may need the table-height that is lower than when they are receiving work on their feet. The therapist may not have a hydraulically adjustable table to make quick changes to table height, but a step stool as used in gym/fitness classes and a pair of clogs can make instant height changes that will get much closer to the ideal height. You

just have to think laterally. Sometimes you may have to ask a client to move closer to the edge of the table for you to get the correct position. There is nothing wrong with getting the client involved in their own treatment and the therapist should not be worried in asking the client to position themselves in the most beneficial position for the bodywork being done.

2. Make use of Newton's Laws of Physics to help you. His first law says that a body will remain at rest or in motion in a straight line



unless acted upon by another force. So if you position yourself so that you are aligned from feet to head in the same direction as the tissues you are massaging, your power will all be directed into the tissues and you require less energy. But if your body is not aligned, much of your power is directed into other parts of your body rather than the client and you need to strain harder for the same effect on the client. His third law says that when force is applied by one body on a second body, the second body exerts an equal and opposite force on the first. This can be particularly true for the therapist. You find an area of hard tissue to soften and exert a strong pressure you will find the tissue pushes back and stays hard. But if you ease yourself gradually into the tissue, you can eventually get the same pressure going into the muscle, but the muscle softens and does not push back.

- 3. Understand that all the body's structures are linked and one misalignment can affect others structures. So it is, that when massaging, you must be aware of your own alignment. To maintain your own alignment:
  - a. Place your feet facing in the direction of the stroke. If they are turned out, the pelvis is stable, but immobile. The pelvis must be able to move forward with no rotational split.
  - b. **Keep your spinal curves intact**. Observed anteriorly, it is convex at the cervical spine, becoming concave at the thoracic spine and then becoming convex again at the lumbar spine. When the rib cage gets displaced either

forward or backward, disruptions in the normal curve of the thoracic spine disengage the scapula. Strength in the upper body is lost and the work being done is taken over by the muscles of the arms which can be tiring and damage the shoulder joint, shoulder girdle and neck. Too much lumbar curve overworks the erector spinae muscles resulting in lower back pain. Too little curve results in overstretching and weakness in the lower back. Too little cervical curve caused by the therapist looking down compresses and contracts the pectoralis minor and scalenes, which can put pressure on the brachial plexus and cause impingement in the thoracic outlet.

c. Line up your body directly behind your hands. There is a



great tendency for therapists to hyperextend the wrist, thumb and finger joints and to abduct or adduct the wrist. The wrists should be kept long and extended and torque on wrist joints should be

avoided as carpal bones can easily dislocate. To keep your wrists straight, you will need to bend at the waist or the knees and adjust the position of your feet away from the table using the back foot as a lever.



- d. **Keep the thumb close to the fingers**. If you use your thumbs to press down, they will hyperextend and this can cause inflammation. If they are kept close to the fingers, the thumbs will bear the weight in a direction that moves in line with the rest of the joint.
- e. **Avoid hyper-extending the elbows and knees** as these are hinge joints and should be slightly flexed to prevent problems that result from locked knees and elbows viz inflammation and tearing.
- f. Feel the shoulder blades swinging easily from the spine. If your shoulders are rotated in or out too far, the rotator cuff muscles are stressed because they work in unison to stabilize the glenohumeral joint. This can result in chronic shoulder problems.
- 4. **Be Sure To Breathe**. Deep rhythmic breathing is relaxing and supports your internal muscles as you stand and move. Breathe normally as loss of tone will occur if you hold your breath or forget to breathe.

- 5. **Aim For Balance**. When you massage try to be balanced. Maintain the flow so that you are not too fast or too slow, not too weak or too strong and do not favour one side over the other.
- 6. Weight Transfer. Use the bones as levers to transfer weight from one leg to the other. This is done by bending at the ankle and waist to achieve more downward pressure, not by moving the pelvis forward. Other things to avoid are hyper-extending the knees which puts pressure on the hinge joint, balancing on one hip or the other which changes the angle of the pelvis causing back pain, and rising onto the toes during weight transfer which stresses the calf muscles.
- 7. Consider Your Base of Support. Generally, feet should be hip-width apart with one foot slightly in front of the other to add length to the base of support. How much length will depend on the stroke. A long gliding stroke will need a lot of reach, but a stroke that sinks into muscles or fascia will require a shorter length. It is important that when you change the direction of your stroke, you must realign the whole of your body to accommodate the change. Deep work will require you to stand further away from the table.
- 8. Let your weight pass through as many joints in a relatively straight line (but not locked) as feasible to avoid the tissue stress and muscle tension of both flexion and hyperextension. This maximises the stability and the "softness' of the pressure that is applied.
- 9. Since your shoulder joint (glenohumeral) is the primary joint for transmitting weight from the torso to the arm or hand, **keep your scapula rotated downward**. If it is rotated upward, the weight of the torso has to be communicated indirectly by pulling downward on the joint, while if it is rotated downward, the torso is above and behind the joint and communicates the weight directly through the joints.
- 10. Move into and out of pressure slowly as slow movements are less jarring to both your own and your client's tissues
- 11.**Look After the Tools You Use**. Though the hands are of primary importance as tools, they are not the only ones and massage therapists should learn to look after their hands and also vary the other parts of their body to use as massage tools.
  - a. Avoid abducted, adducted, hyperextended and hyperflexed wrists.



b. Avoid extended, abducted and unsupported thumbs. Thumbs are meant to oppose the hands and not to be forced out to the side to bear all the weight of releasing



muscles by themselves. Thumbs can be supported by other fingers or by being interlocked with the other thumb.

- c. Fingers should be braced by other fingers or thumbs.
- d. Use the heel of the hand to apply broad compression over larger muscles and over large bony areas but avoid hyperextension of the wrist



- e. Use the closed fist to apply broad compression over large muscles, but again, avoid hyperextension of the wrist.
- f. Use the elbow (olecranon process of ulna) for compression, but beware of using excess force or using it in sensitive areas such as the neck, face and groin.
- g. Use the forearm to give deep gliding compression to long, straight muscles.

### What Can Massage Therapists Do To Prevent Psychological Injury To Themselves?

Any massage therapist will acknowledge that clients are not just a jumble of sore muscles and injured joints but people who need nurturing of their bodies, hearts, minds and souls.

Communication between therapist and client is essential to prevent misunderstandings.

There is great potential for misunderstanding and inappropriate behaviour within the confines of a massage session. It is important that the therapist explains what the treatment involves, uses appropriate draping and gets permission for the treatment to be given. Explaining why a muscle in a sensitive area (eg pectoralis major) may need treatment but having a female client holding her breast away from the muscle, allowing the male therapist access, gives the message that the muscle, not the breast is what

the therapist is interested in treating and lessens any feeling that boundaries have been crossed.

The therapist should make it clear at the outset that the therapist or the client can halt the session if either feel uncomfortable. It is important to communicate professional boundaries with the client. The client is entitled to know what type of treatment the therapist offers, the therapist's training, policies with regard to appointments and payments, what parts of the body you intend to work on, how they will be draped and covered, how undressed to get under the drape and what type of lubricant is to be used. It should be communicated that sexual misconduct is always unethical and inappropriate in a massage situation. This can be done tactfully either on the information sheet the therapist asks the client to fill in, or during the interview process. Establishing these clear boundaries lessens the chance of complaints against the therapist that could cause psychological distress forcing them out of the industry.

Another cause of psychological stress is confronting scope of practice boundaries. When a therapist is confronted with symptoms that may indicate a medical condition that may be contraindicated, it is important to refer the client to a specialist such as a GP or osteopath. It is a relief for the client to return with either a clearance for massage or for the original suspicion confirmed by the more qualified practitioner.

Massage therapists may suffer burnout, which is a depletion of energy and feeling of being overwhelmed by other's problems. In fact, this is common in many helping professions. Some worry about remuneration, others about clients' pain or pressures of time.

Interaction with other professionals through workshops organised by ANTA or other professional organizations, helps therapists to remain fascinated by their work and keen to incorporate new techniques into their therapies. Involvement with community events may give new dimensions to a therapist's work. This may be working with a sporting team, a volunteer position with a community organization eg surf club, offering services to a community event such as the MS Sydney to the Gong Bike Ride etc.

### Some Tips on Staying Healthy and Productive

1. Improve your fitness, both aerobic and strength. This will improve circulation and help rebuild damaged tissue faster

- 2. Watch what you do with your hands away from massage. Don't put them under pressure with activities like building or spending long hours at a keyboard or trying to unscrew tight fittings.
- 3. Work on your body mechanics by keeping upright and your joints aligned. Develop weight in massage through using your body weight, not the muscles in your arms.
- 4. Vary your massage techniques to use other body parts besides your hands.
- 5. Give yourself some recovery time between massages and have a tub of cold water to immerse your hands in between massages to minimise inflammation of any micro-tears.
- 6. Warm your hands before you massage and do some stretches to improve circulation.
- 7. Have realistic expectations overstressing your body and mind will lead to burnout.
- 8. Be careful not to give the wrong signals to clients. Don't try to be a psychologist or a counsellor or take on the burdens of your clients. Make sure that they understand the boundaries you set.
- 9. If you do get an injury, don't just keep working through it. Treat it before if becomes chronic.
- 10. If you can afford and electric table, get one because you can easily vary the height throughout the massage according to the situation and minimise the poor body mechanics inherent in a table that can't be adjusted during the massage.

#### **Web References**

http://www.upublish.info/Article/The-Shocking-Truth-About-Widespread-Injuries-to-Massage-Therapists/67611

http://www.massageandbodywork.com/Articles/FebMar2005/injury.html

http://www.ultimatewatermassage.com/massage-practice-injuries.htm

http://www.massagemag.com/Magazine/selfcare.php

http://www.massagetherapy.com/articles/index.php/article\_id/823

### **Monograph References**

Save Your Hands! Injury Prevention for Massage Therapists by Lauriann Greene and Robert A. Greene (Paperback - April 11, 2000)

Foundations of Massage (2<sup>nd</sup> Edition) Charles Tuchtan, Vicki Tuchtan, David Stelfox (Elsevier 2004)

Basic Clinical Massage Therapy Integrating Anatomy and Treatment by James H Clay & David M Pounds (Lippincott Williams & Wilkins 2003)

Body Mechanics and Self-Care Manual by Marian Wolfe Dixon (Prentice Hall 2001)

#### Video Reference

Heal Your Wrist Pain Naturally by Sean Riehl (Real Bodywork 2006)