

# Soft Tissue Therapy eMag

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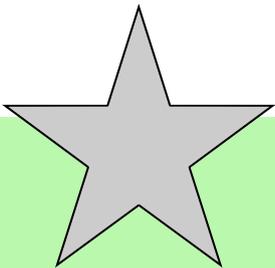
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## Next Issue

**Dry Needling Focus**

**Diversifying your skills**

**Working with Weight Lifting**

**Your comments**

## FROM THE EDITOR

### Welcome to the first edition of Soft Tissue Therapy.

The world of Massage Therapy is a diverse one encompassing a vast array of education, techniques, philosophies and opinions. This magazine focuses on three main areas:

**1. Sport.** What's happening in the field. What opportunities exist? The controversies. Who is doing what, and how, and to whom!

**2. Musculoskeletal pathology, pain, assessment and treatment.** Here we examine common pathologies and approaches to treatment protocols. How pain is perceived and transmitted? Tips on fine tuning assessments, and suggestions for dealing with positive tests. We'll review techniques and summarise their

possible physiological capabilities and limitations.

### **3. Evidence based practice.**

Explore the research that we currently have and analyse it's use clinically, for the greater good of the client and industry. Latest research will be highlighted as it is published. Myths will be debugged and debated. As an example, see the article by Vicki Eustace in this edition on Recovery Massage and Lactic Acid.

The magazine has an obvious bias towards the biomechanical model of treatment strategies. The three aspects of our industry highlighted above are symbiotic with this model. Hopefully the information expressed in this magazine broadens the readers scope of

knowledge on these topics and enables greater communication of current thoughts.

Areas of interest from readers are always welcome. By all means send an email via the [www.softtissuetherapy.com.au](http://www.softtissuetherapy.com.au) website and it will be responded to in the next issue.

The authors associated with this magazine are leaders in their respective fields. They have immense experience and/or knowledge on the topics they cover. All efforts will be made to find the best authors in each area/field. Moreover, health disciplines other than our own will be pursued to provide articles, encouraging integration within our health system.

I hope you enjoy it.

## WWW.SOFTTISSUETHERAPY.COM.AU WEBSITE

The Soft Tissue Therapy website was developed to bookmark relevant research to our industry. This categorized section of the website now has over 500 research abstract links. There is an easy to use search section that allows you to browse your areas of interest. Plus, newly published research is highlighted on the home page of the

website. There is an easy access abbreviations page, a growing definitions page (definitions relevant to our industry), general articles and a very active forum. In just over 9 months the forum has well over 1000 posts to view and add your opinion to. The forum is open to anyone. Ask questions, debate a topic, even

argue!! It's an open but anonymous discussion allowing even the most apprehensive person to post a comment.

The calendar of events covers the UK, New Zealand and Australian workshops and conferences.

Take a browse. Make a comment.

# Soft Tissue Therapy eMag

SEPTEMBER 2006

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## THE ROAD TO BEIJING BEGINS

- Although almost two years away and the memory of Athens still clear, the Beijing preparation is well underway. China will certainly want to show case it's growth as an economic powerhouse with state of the art facilities and gold medal performances. Australia, still gleaming from it's past two Olympic performances will want to spoil the show and continue it's tradition as a sporting giant. Hence, athletes are well into Olympic preparation and from here on in will look to fine tune their skills.
- Nominations for prospective therapists to support the Australian Olympic athletes will soon be called for. The process involves the Australian Olympic Sports nominating the service providers they have been using for national and international travel. This is the only method in which support staff and service providers can be nominated. When allocations of accreditations are finalised by the IOC and AOC, each sport will be given a specified number of service providers they can take. Those service providers nominated may then be approved and take their positions with the team at the Games.
- For those wanting to work at the Games, but don't have experience with an Olympic National Sporting team, your best chance will be with the Olympic Polyclinic. The polyclinic is an international medical centre supplying services for foreign teams. See the IOC website for details.
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Scenes from the Melbourne Commonwealth Games held in March 2006. Bernd Adolph, below, a stalwart of Sports Soft Tissue Therapy in Australia.



## FIRST EDITION SPORTS FOCUS

The first edition of the *Soft Tissue Therapy eMag* will focus on sport. There is a compilation of authors from all aspects of elite sport, from recovery experts to the athletes themselves. Opinion based articles, literature reviews, reports and research.

Each eMag will have a general

focus and a bunch of regular sections for readers interests. The eMag will relate back to the website [www.softtissuetherapy.com.au](http://www.softtissuetherapy.com.au) on a regular basis. This is where the database of information is stored and displayed for all to access whenever they feel the need.

The eMag will be interactive, so don't be afraid to become a part of the process. If you disagree with someone's comments or feel that something is being left out, you have a question, or just want to let some steam off, write to the editor or jump on the live forum. You define the content.

## WORKING WITH ELITE GYMNASTS

NARELLE DAVIS

Narelle has worked at multiple Olympic and Commonwealth campaigns and shares with us her experiences with elite gymnastics.

With 15 years experience, Narelle is a wealth of knowledge.

I have been working as a soft tissue therapist (STT) for the past 15 years. I studied for three years at RMIT in Melbourne, finishing with an Associate Diploma of Applied Science (Myotherapy) in 1991. During my third year of study, I started up my own business from home, which I still run three days per week. I also worked at Olympic Park Sports Medicine Centre for five years, from 1992. Those five years were very important to my development as a STT as I worked with some other fantastic STT's as well as physiotherapists, podiatrists and sports physicians, that were always happy to share their knowledge and experiences.



The first sport I worked with was swimming. I spent many voluntary hours working and organising STT's for Victorian Swimming Championships and any other major swimming championships held in Melbourne. Through my work at Olympic Park, I was asked if I was interested in working with the VIS women's gymnastics program in a voluntary capacity. Luckily for me, the gymnastics venue was around the corner from where I lived and I was very keen to become involved with an elite sport. I started working with the gymnastics program in March of 1993.

Over the last 13 years, the number of therapists and amount of work has changed. I originally started as the sole STT and joined a physiotherapist and doctor that had already been working with the gymnasts for many years. For the first 3 months I worked voluntarily one 2-hour session per week and would see eight girls during this time. Then I became a sub-contractor to VIS and started working 3 hours per week, which was performed over two sessions. One was a 2-hour session as before and the other was a 1-hour session. By my second year with the program I had increased to two, 2-hour sessions.

It soon became obvious that we would need more STT's so in 1995, I organised to supervise RMIT students whenever I worked which meant we could double the number of gymnasts being treated. It has now expanded even further and at the moment we have four employed STT's and two students working over

three nights at the gym. The older gymnasts receive two, half hour treatments per week and the younger gymnasts receive either one or two treatments per week ranging from 20-30 minutes.

A typical STT session at the gymnastics, involves having two qualified STT's and one student working together for a 2-hour session. The two qualified STT's treat four gymnasts for half an hour each and the student treats six gymnasts for 20 minutes each. After the session I would spend time with the student reviewing their treatments. The gymnasts train approximately 35 hours per week over 6 days. On Tuesday nights they have physiotherapy, Wednesday nights - STT, Thursday nights - a doctor attends and Friday nights - STT

Due to the dynamic nature of the sport both overuse and acute injuries are common. The major injury concerns for a STT tend to be the chronic, overuse type of injuries. Usually the areas of most concern are their calves, medial tibial region, peroneals,

***"After the session I would spend time with the student reviewing their treatments"***

hips including gluteals, TFL and psoas, and lumbar and thoracic regions. Severs' disease has a high incidence rate among young female gymnasts and we have seen many cases of this problem in the gym. Severs' disease or calcaneal apophysitis (inflammation of the growth plate) is most common in 8 to 14 year olds. The Achilles tendon can place stress on the calcaneus growth plate, which can cause inflammation and pain in this region. Tenderness is felt at the attachment of the Achilles tendon and the posterior part of the calcaneum. Trying to loosen the calf muscles and stretching the Achilles can help in the treatment of this condition.

To help avoid some of the overuse injuries the gymnasts receive they need to have a very good stretching program, regular soft tissue therapy and physiotherapy. They try to keep hard landings to a minimum and aid the landings by using soft mats to help reduce the impact. Gymnasts need to have a good range of movement to perform optimally and it helps to massage them with their muscles in lengthened positions, to help them achieve and sustain these ranges of movement.

In a perfect world, where money was no object, it would be great if all of the gymnasts had to go through a thorough core stability program when they start gymnastics and continue it throughout their years of training. Many of the gymnasts have poor posture and no basic control of their core muscles. They also don't understand the importance of core stability and how it can help them, as they start to learn basic skills, and also for the future when they need to perform harder and more demanding skills. Education for coaches on core stability and the best way to utilise their medical team would be fantastic. Having access to as much medical support as needed would also be beneficial.

My work with gymnastics has given me many rewards including

## GYMNASTICS CONTINUED

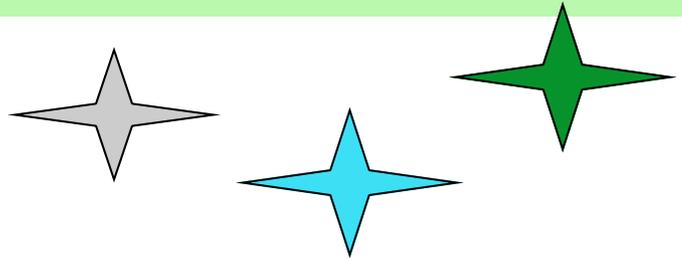
working with a wonderfully dedicated group of girls that are very gracious and appreciative of the work that you do for them. I have also been able to travel with the Victorian team to many National Championships and also work with the Australian team at Pan Pacific Championships, World Championships and other major competitions. My role with gymnastics has allowed me to be selected on two Australian Olympic Teams, and three Commonwealth Games Teams, in which I worked with the gymnasts but also some of the other sports that go to these games. It is hard work but extremely rewarding and every trip has it's own special memories.

***“At the elite end of the sport there are the occasional jobs offered to the right STT's with the right experience and personality for the job”***

People wanting to get involved with the sport of gymnastics need to have a passion for the sport and enjoy working with young athletes. The gymnastic philosophies can be very different to other sports, because you are working with such young athletes and that can sometimes take a while to get used to. Unfortunately, gymnastics in Australia doesn't have a high profile which means money is scarce for paying therapists to work with them. At the elite end of the sport there are the occasional jobs offered to the right STT's, with the right experience and personality for the job.



The editor would like to thank Narelle for her input into the STT eMag. Narelle's longevity in the sport of Gymnastics is a testament of her consistency and dedication to excellence. Thank you Narelle.



## DRUGS IN MUSCULOSKELETAL HEALTH

Is your knowledge of the drugs our clients may be taking up to date? Do you know why they are taking them? The side affects? The benefits? How it should change your management of that client? The indications for these drugs?

For instance, do you know why clients may be put on to a drug called **Endep** for neuropathic pain? Do you know the side affects of Endep? Do you know what the Physician may be trying to achieve by putting this client onto Endep? What pathological process they are trying to alter?

What about the difference between an analgesic that has the suffix 'ol' in comparison with one that has the suffix of 'iene'? Do you know the difference? Do you understand the different affects they have? The over the counter names?

These are considerations we all must deal with in day to day clinical setting. Having a basic understanding of these drugs is obviously a necessary aspect of our treatment strategy.

It is also highly necessary to develop a rapport with our peer industry groups. Just like we expect other industries to have a basic idea of our skill set, so should we of theirs. General Practitioners and Sports Physicians can be major referrers to our industry. Those that understand our industry will do so. If we show some return understanding of the reasoning for certain drug interventions, there will inevitably be due respect shown.

STT eMag will highlight a commonly administered drug in each edition, attempting to express the importance of it's indication, side affects and clinical implications.

## WHAT ARE PEOPLE SAYING ON OUR FORUM?

“MANY DESCRIBE A 'GIVE' WHEN STATICALLY HOLDING FASCIA FOR A PROLONGED PERIOD OF TIME. THIS, VIA ALL THE PHYSIOLOGY WE KNOW ABOUT FASCIA, SIMPLY DOESN'T MAKE SENSE,...ALTHOUGH I HAVE FELT IT MYSELF. COULD IT BE THAT THERE IS A 'STRETCH REFLEX' AFFECT SIMILAR TO MUSCLE? COULD IT ACTUALLY BE THAT FASCIA IS SOOOOO IMPLICATED WITH MUSCLE THAT IT IS ACTUALLY A MUSCLE STRETCH REFLEX ACTION? COULD IT BE THAT THERE IS A SMOOTH MUSCLE CONTENT THAT DOES THIS - LIKE THE LATEST RESEARCH AFFECTS?”

WANT TO HAVE YOUR SAY ON OUR FORUM? IT'S COMPLETELY FREE AND ANONYMOUS.

## RECOVERY MASSAGE AND LACTIC ACID

VICKI EUSTACE

Vicki Eustace, Soft Tissue Therapist (STT) who has represented Australia at the Athens Olympic Games, take a look at the science around lactic acid and the possible benefits of massage post event.

**Lactic acid** has been the focus of sports massage therapists for many an athletic season. History tells us that massage 'rids' the body of that evil muscle ravaging, soreness provoking chemical, leaving the body 'recovered' and ready for another exercise bout. However, it should be asked... what exactly is lactic acid? Does it really cause muscle soreness? Does it really sit in the blood stream and muscles for prolonged periods of time after exercise and finally, the all important question; does 'massage' make an iota of difference?

### The Energy Systems.

Before describing lactic acid, it is important to have an understanding of the energy systems the body uses to supply energy to the working muscles. For muscles to contract, they require energy, which is supplied to the muscle cells as molecules of energy called **ATP**. There are three methods the body uses to supply energy in the form of ATP. Two of these methods, called the **ATP/alactic system** and the **Glycolytic/lactate system**, are both considered to be anaerobic systems because they do not require oxygen immediately for their chemical processes. The third system is considered **aerobic** as it relies on a steady supply of oxygen to regenerate the ATP energy molecule. The type of exercise an athlete endures, will determine which of the three energy systems the athlete will use and hence whether lactic acid will be a factor.

#### ATP/alactic energy system

- Power athletes
- Eg., Olympic weightlifters,
- 100-metre sprinters
- No lactic acid formed in this system

Power athletes such as a weightlifter will use the ATP/alactic system for energy. ATP is a molecule found inside muscle cells that when broken down, provides fast and large amounts of energy for muscles to do work. As ATP is broken down, it is simultaneously reformed via a substance called Creatine Phosphate. Throwing, jumping and 100 metre sprints are all events that rely on this ATP-Creatine Phosphate system. A major drawback of this pathway, however, is that it can only produce continuous energy for up to 15 seconds of muscle activity due to a very limited quantity of ATP and Creatine Phosphate being stored within the muscles. If strenuous exercise is to continue beyond this brief period of 15 seconds, the means of replacing lost ATP must come via the second anaerobic system, the glycolysis/lactate system.

This system **does not** produce lactic acid as a part of it's cycle and hence athletes using this energy system will not suffer from excess lactic acid production.

#### Glycolytic/lactate system.

- Intense amount of muscle activity beyond approximately 15 secs and up to 3 minutes (Eg., 100-metre swimming, 400-metre running)
- No oxygen necessary for energy production
- Glucose converted to energy with Pyruvic acid as end product
- Lactic acid produced as bi-product if formation of pyruvic acid is greater than it's removal – exercise intensity too prolonged for our physiological capacity to cope see 'when is lactic acid formed' below

A 400m runner and a 100m swimmer are typical athletes who would rely heavily on glycolysis/lactate system. At this distance requiring an intense amount of muscle activity, the ATP present in the muscle cells would have been almost used up at the start of the race, and now the lactate system has kicked into gear and contributing significantly to the energy required to complete the event. The fuels for glycolysis comes from the molecule glucose that has been circulating in the blood or that have been stored in another form called glycogen in the muscles and liver in the body. These forms of glucose are broken down via a series of ten different chemical reactions into a substance called pyruvic acid. Whilst the energy or ATP released from these reactions is extremely rapid and does not require oxygen, only a small amount of ATP is resynthesised.

Consequently, in events such as the marathon, soccer games and endurance cycling, the pyruvic acid must be shunted into the third energy system to keep providing energy - the aerobic system – described below

#### The Aerobic Energy System.

- Prolonged muscle activity beyond approximately 3 minutes
- Eg., marathon (42 kilometers)
- Oxygen necessary in this system

The Aerobic System is required for any athletic event that extends beyond about 3 minutes in duration, such as a 5km run, 800m swim, or a soccer match. This final, and virtually limitless supply of energy will provide for more than 90% of the energy required for such activities (Anderson, 1997). However the rate of maximal energy production from this system is not as high as from the anaerobic systems and so aerobic events like the marathon are run at a considerably slower pace than a 400m run.

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## Why is lactic acid formed?

The rate at which the glycolytic/lactate system burns, to provide energy in the form of ATP, is critical to the development and maintenance of high power outputs or speed. However, a problem can arise if the product of glycolysis (pyruvic acid) is not being removed and funnelled into the aerobic system for further metabolism, as fast as it is being produced by glycolysis.

If the concentration of pyruvic acid becomes too high it will bring glycolysis to a halt – and the energy it provides. To avoid this dilemma, an enzyme called lactate dehydrogenase steps in and converts some of the pyruvic acid to lactic acid (removing pyruvic acid and half of the free hydrogen ions (H+) produced during glycolysis) and hence ‘buys some time’ to allow glycolysis to continue to reform the ATP molecule.

Once lactic acid has been formed in the working muscle cells, it immediately breaks down into a salt called lactate and hydrogen ions, which are then transported out of the muscle cells and diffuse into the blood and surrounding tissues.

The constant formation of lactic acid in the blood, and then it's removal by various tissues, means that lactic acid levels in both the muscles and blood can remain at constant levels without adverse effects on cell metabolism for long periods of exercise. Lactate can later be reconverted into pyruvate, acting as a fuel source to tissues not working as hard.

For this reason, an athlete such as a marathon runner, will have near resting levels of lactic acid in their blood following a race, due to a balance between the lactic acid that is released into the blood and the rate it is removed from the blood. In addition, because this event relies predominately on the aerobic energy system and oxygen is readily available to allow flow through the aerobic system, very little pyruvic acid is allowed to accumulate due to it's removal into the aerobic system rather than being converted to lactic acid.

## When does the lactic acid become a problem?

At some point of exercise intensity between 55 and 90 percent of VO<sub>2</sub> max (intense muscle activity such as 800 meter running), the ‘lactate threshold’ is passed. Up until this point the lactate is being used by the aerobic system at the same rate is being produced. Now due to physiological shortages (oxygen availability to cells, certain enzymes, or lack of cell mitochondria (the energy houses in cells)) the utilisation of lactate as an energy source is overwhelmed by it's production. Blood lactate levels increase rapidly acidifying the blood (lowering pH) which in turn overwhelm natural pH buffers and eventually block the rate of the glycolytic/lactate system. It is at this stage that lactic acid becomes a problem for the athlete as energy production is decreased and the effects of low pH levels in the blood take effect – the lactic acid ‘burn’.

Hence the only type of athlete that will experience excessive lactic acid levels are those that compete in sports that demand high intensity exercise for prolonged periods of time. Furthermore, these athletes tend to train this glycolytic/lactic system (increased mitochondria, enzyme levels and oxygen supplies) enabling a greater ability to withstand high levels of lactic acid. As a result, the effect of lactic acid is not as great as we might assume.

## WORD PLAY

Anyone ever wondered why tendon pathologies can be defined by different terms? For instance, tendonitis or tendonopathy and even tendinosis? This is a classic example of why it is necessary have a fundamental understanding of prefixes and suffixes.

In this example above, the three different suffixes, ‘-itis’, ‘-opathy’ and ‘-osis’ all help us understand the pathology of the tendon. ‘-itis’, is a suffix meaning inflammation.

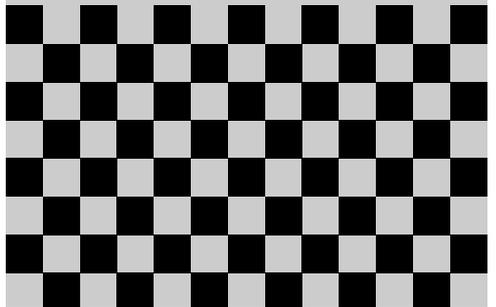
Hence, when you receive a referral with the client currently suffering from a ‘tendonitis’, it means that their tendon is inflamed and you will need to apply techniques that are indicated for inflammation.

‘-Opathy’ is a suffix meaning ‘pathology of’ and hence someone with a tendonopathy, simply has a pathology of a tendon. Practically, this means no-one actually knows what is causing the tendon pain so this term is applied.

‘-Osis’ is a suffix meaning ‘degeneration’ and in the case of a tendon, it means the tendon connective tissue is breaking down. In this case there is rarely inflammation involved.

So suffixes are often used in diagnosis to accurately describe the pathology of the area. Knowing what these suffixes mean helps us accurately choose techniques to alter the tissue state.

See the definitions page on [www.softtissuetherapy.com.au](http://www.softtissuetherapy.com.au)



## MONTHLY POLL

Have you noticed the monthly poll on the STT website? Take a look and make your vote. The responses to our questions so far have been very interesting and certainly give an industry perspective on often neglected topics. For instance, what would you believe the industry voted for with regard to **“What should (Australian) associations focus on— GST (tax), Education, Medicare rebates or Health Insurance coverage?”**

An overwhelming 73 percent of people who voted, wanted our associations to focus on our education. Considering this wouldn't have any immediate affect on individuals or their practices, it shows members are thinking long term.

## What happens to these excessive levels of lactic acid?

Scientific evidence has shown that approximately 70% of the lactic acid formed during any intensity of exercise is converted back to pyruvic acid and is used as a substrate by the heart and skeletal muscle. The efficient action of the body's circulatory system results in lactic acid concentration in the blood being almost at resting levels 30-60 minutes following all intensities and durations of athletic events (Dodd, Powers, Callender & Brooks, 1984). That is, lactic acid levels in the muscle and blood are at physiological resting levels after 60 minutes of rest. Physiologically after intense exercise, excess lactate is reconverted back to glucose in the liver. This newly made glucose can be used to resynthesise glycogen that is depleted during exercise. It takes approximately 20-60 minutes to fully remove lactic acid (lactate and hydrogen ions) produced during maximal exercise.

Muscle soreness that occurs 24-72 hours after exercise is most likely to be delayed onset muscle soreness which is not effected by lactic acid levels.

Given this fact, those sore achy muscles that occur the following day after an especially tough exercise session can hardly be blamed on lactic acid, which is well at resting levels by this time.

## Does massage help remove blood lactate?

What we have seen so far is that lactic acid only affects a small proportion of athletic performance and hence most athletes that present to us will not be affected by excessive levels. Secondly, the normal levels of lactic acid are a good source of energy and a necessary part of the energy production process. Not quite the wicked chemical we make it out to be.

But what about those athletes that do break that lactic acid barrier and endure excessive levels? Does recovery massage help?

Several studies have shown massage to be no more effective for speeding up lactic acid removal from the blood than simply resting after exercise (Dolgener & Morien, 1993; Hemmings et al., 2000, Gupta et al., 1996).

The failure of massage to benefit lactic acid removal is thought to be because massage like passive recovery, fails to effect any significant change to the volume or rate of blood flow that enters and leaves muscles. (Shoemaker, Tiidus & Mader, 1997). However

it has been widely acknowledged that blood lactate is removed more quickly during active recovery because blood flow remains elevated through the active muscle, which in turn is believed to enhance lactate removal from the muscle cell (Wilmore, 1994).

Quite simply, if blood lactate levels are back to normal levels one hour post exercise no matter what the athlete does post exercise, of course recovery massage does not make a difference to this physiology. So what does recovery massage do?

## So what does recovery massage do?

So, if blood lactic acid removal is unlikely to be one of the benefits of recovery massage post exercise, then what does it do? There are many possible effects, all of which need further study to substantiate what we are trying to achieve with recovery massage. Possibilities:

- 1) It is possible that massage leads to an enhanced rate in the exchange of fluids situated around the cells although as described previously, this is unlikely to occur via an increase in blood flow.
- 2) Normalizing hypertonicity
  - a) decreasing metabolic rate (possibly decreasing fuel usage and metabolic waste production)
  - b) relaxed muscle decreases pressure on surrounding tissues (possibly improving local circulation and lymphatic drainage)
- 3) Neurological calming affects
  - a) reducing hypersensitivity of nerve endings post exercise
  - b) alleviating pain-spasm-pain reflexes
- 4) The release of a cascade of chemical messengers, associated with a parasympathetic response/s.



## What's in a name?

The massage industry is a diverse one. Not only in nature, education and opinion, but quite simply in name.

No matter what suburb, city or country you live in, pick up your local phone directory and take note of the plethora of terms used by our therapists to describe themselves. Masseur, Massage Therapist, Myotherapist, Masseuse, Musculoskeletal Therapist, Soft Tissue Therapist, Body Worker and the list goes on. Then add to this the learning institutions, they are the same. All the one industry, but clinging to their own little piece of uniqueness.

Why did this occur? At what stage and why did our industry feel the need to stray from the norm and define itself differently from it's neighbour? Was it the fact we were never registered so people wondered aimlessly into the never, never without policing? Was it ego or arrogance? Was it because our industry became so diverse that we wanted to define ourselves more concisely or maybe more aptly? Or did some want to distance themselves from the energy workers or the relaxation industry? Or was it because we never had any standard education so schools took it on themselves to continually write new curriculum until they became so different that we hardly recognised each other?

Moreover,...why do we still persist with this division? Does it help us? Or does it confuse us, our consumers, our peer health practitioners, health insurers and governments?

And is it important? Have your say on the forum. Or write to the editor.

[admin@softtissuetherapy.com.au](mailto:admin@softtissuetherapy.com.au)

- release a cascade of chemical messengers associated with parasympathetic responses

A study comparing the effects of passive recovery versus massage to 11 male subjects did demonstrate that mechanical massage applied for 20 minutes by a modified pneumatic intermittent device improved duration of cycling on a subsequent exercise cycling bout (Zelikovski, Kaye and Fink, 1993) and several studies have also confirmed that during the application of massage to the triceps surae muscle group, there is a decrease in muscle tone as measured by a decrease in the H-reflex amplitude, a measure of motor nerve excitability (Morelli et al., 1990, Morelli et al., 1991; Sullivan et al., 1991)

However, these H-reflex amplitudes returned to normal immediately on termination of the massage, so the lasting effects of this tone reduction have yet to be studied.

Whilst there are numerous anecdotal accounts attesting to the positive affect of massage on psychological well being, empirical evidence is scarce and hampered by poor experimental designs and sample sizes. One study has shown massage to have an affect on positive mood state, synonymous with decrease tension, anger, anxiety and depression in physical education students (Weinberg, Jackson & Kodny, 1988). Further, various massage techniques applied to the hamstring muscles has been shown to cause a measurable increase in hip flexion range in (Crossman et al 1984).

Massage therapy has also been shown to increase neck extension range and shoulder abduction in a group of university dancers (Leivadi et al 1999) and shoulder joint internal rotation range in swimmers (Blanch et al 1995).

## In conclusion.

From the above it can be concluded that lactic acid is not the nasty chemical we make it out to be and even when it does create problems to athletes (when in excess) it is quickly restored to resting levels without any intervention. Our challenge as soft tissue therapists is to search for more probable effects that recovery massage no doubt has and hence enable us to explain to the athletes what we actually are trying to achieve. Undoubtable, athlete feedback has provided vast anecdotal evidence supporting recovery massage. However, our challenge as STTs is to discover, understand and impart what is actually physiologically achieved (affected) through application of recovery techniques..

In addition, it is necessary to support these claims, and moreover squash ill founded beliefs, through scientific evidence.

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## QUESTIONS AND MYTHS

1. Ever wondered about that old saying, "Massage the toxins away"? Interesting. If applying some form of massage technique rids the body of evil toxins,...where do they go? And just what type of nasty toxins are we talking about?
2. If a pre event sports massage is supposed to warm people up and get them aroused for activity, why do they lay down to receive such massages when laying down increases cortisol levels which makes you sleepy?
3. With all the research showing that no matter what you do post exercise, all Lactic Acid levels will be back to normal levels after 60 minutes, why do some blame lactic Acid for muscle soreness the next day?
4. If an appointment with a doctor, physiotherapist, chiropractor, osteopath or dentist takes as long as necessary,...why do massage treatments have set times?
5. Why is Massage the only Health Industry where you do not need to achieve a certain high school academic standard to meet entry criteria?
6. If one of the major benefits of massage is to 'increase blood flow',...wouldn't you just get your client to have a hot shower and go for a walk for the same benefit?
7. If muscle spasm post acute injury is to create a splint for the injured site to heal, why do we treat the area with the intent to rid the spasm?

Do you have some myths you would like to bust? Questions to ask? Send them in to our editor and we will publish them for public viewing. Send to [admin@softtissuetherapy.com.au](mailto:admin@softtissuetherapy.com.au)



## SPORTS 'SPECIAL INTEREST GROUP'

What is a **special interest group** you may ask? A special interest group (SIG) is a body of people that share similar interests and skills within an umbrella organisation. There are many examples within Health. For instance, there is the sports physiotherapy group, sports podiatry group, sports physicians, sports psychologists, sports nutrition and so on. All of which have an umbrella organisation of which they fall underneath. SIG's are not limited to sport of course. There are numerous areas of which people hold special skills, education and interest. Palliative care, the elderly, children, mentally ill, infants and so on.

Many health industry associations have implemented specialised education, training and administration to these special interest groups. It **is not** a 'tick the box' scenario and you instantly become a member of these SIG's. The sports physicians for instance have a substantial four year education process before they can obtain the title of 'Sports Physician'. The Sports Physiotherapy group have to be five years graduated before they can enter into their SIG and then have to work through three levels of further education and a masters degree before obtaining their title. Hence, SIG's are a group of people who are willing to put as much into an organisation as they want to get out of it. Each member working as hard as the next to obtain the title.

So why not our industry? Our industry faces a few challenges before we can implement SIG's. First and foremost is our undergraduate education. Across the world, Soft Tissue Therapy (STT) education differs enormously. There is little standardisation. In Australia, there has been a major step forward with the implementation of the National Competency standard. Each educational facility is required to educate their students to the level stipulated within the Training Package. Unfortunately, this is not happening across the board. It is not enforceable by law as Australian Soft Tissue Therapists are not governed by a Government Act and have no registration. Hence, it remains open slather and up to the good will of people educating the industry.

Secondly, Australia still has numerous associations with different agendas and little regard for one another. The amalgamation of seven associations into one large association (AAMT) was certainly a great step forward, but more needs to be done to see further amalgamations. Only then will we have a common goal, purpose and lobby group to influence our government, health insurers and even Medicare.

There is movement however to establish a SIG within the umbrella organisation of Sports Medicine Australia (SMA). This would be an interim set up until our association/s was able to manage such an entity. There are some challenges however. Who will organise the SIG? Where will the money come from? Who will administer it, govern it, create policy and "grow it"? Can we convince people to further educate themselves or at least standardise their knowledge to become members?

A Queensland group has already achieved a mini version of such an SIG. Twenty seven (27) therapists put themselves through an education process, an examination at the end, before becoming recognised members and able to provide paid service to QAS athletes.

Can we achieve this on a national level? I sincerely hope so, and encourage any others out there who would enjoy such an SIG to show your support.

Research certainly isn't for all of us, but for any health industry it is a necessity. One of our greatest challenges as an industry is how we develop a culture that embraces and understands research. From the very roots of our education we need to teach our students why it is so important; how we utilise it as an industry, and as individuals, and how to become involved.

We face some difficulties however. Funding for research is vital. We need to develop relationships with education facilities that have the infrastructure, the experience and the desire to perform the research that our industry needs. We need to attract students that want to go down that path to achieve their Masters' and eventually their PhD's. We need to develop research funding within our associations, that is, pathways for these students to move from graduation to Masters' and beyond. Eventually, why not specific institutions that have the primary purpose of researching our modalities.

Of course, research can be done by anyone in our industry. There are many forms of research. Not everyone needs to be wearing a white coat and flipping around test tubes. In essence, research is collecting data and analyzing it, then, seeing what trends there are and then reporting these to our masses.

There is a lot our industry needs to learn about research. We need to start this process now. It won't be long before insurance companies and governments demand it.

And quite simply, wouldn't it be nice to know exactly what we are achieving.

We do have some research already published. Don't be fooled by others saying we don't. Just check out the research article section on the [www.softtissuetherapy.com.au](http://www.softtissuetherapy.com.au) website.

The next step for this particular body of research is to collate it and present it to bodies who will create job opportunities in that field.

Jump on the sports section of the STT forum and have your say.

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# Sports Medicine Australia

*the team behind the team*



## Why join Sports Medicine Australia?

Sports Medicine Australia (SMA) has a membership of health and science professionals who work with sporting teams, from grass roots to the elite levels, and also with the general community to promote sport and physical activity and the prevention, treatment and management of sporting injuries.

SMA is a multidisciplinary organisation and draws together the expertise of members from a diverse range of occupations and professions. The sharing of skills and knowledge to increase the expertise of all is fundamental to SMA operation.

Membership of Sports Medicine Australia provides:

- Publications ("Sport Health", published quarterly and discounted subscriptions to the Journal of Science and Medicine in Sport, published six times a year).
- National and state conferences.
- Education opportunities in workshops and seminars provided at the local level.
- The opportunity to teach in the Safer Sport Program (teaching Sports Trainers).
- Networking and referral opportunities with members of every health profession.
- Links to the professional organisations of SMA members, such as the Australian College of Sports Physicians, Sports Doctors Australia and Sports Physiotherapy Australia.
- Links to allied organisations, such as Fitness Australia, the Australian Institute of Personal Trainers and the National Heart Foundation.
- Direct access to SMA policies, position statements and guidelines on issues of importance to the sport and recreationally active community.
- Membership Directories.
- Referral opportunities through directories, events, and alliances.
- Research awards.
- Subscription services to international journals.
- Lobbying and public relations campaigns to promote sports medicine and science issues.
- Discounted rates for SMA sponsor products.
- Discounts for members on all services.



Sports Medicine Australia members include dietitians, doctors, exercise scientists, orthopaedic surgeons, osteopaths, physicians, physiotherapists, psychologists, public health professionals, soft tissue therapists and sports trainers, as well as nurses, teachers and parents.

To join SMA, go to [http://www.sma.org.au/pdfdocuments/Application\\_Form.pdf](http://www.sma.org.au/pdfdocuments/Application_Form.pdf) and download an application form.

## ASICS Conference of Science and Medicine in Sport

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[www.sma.org.au/ACSMS/2006/](http://www.sma.org.au/ACSMS/2006/)

## CASE STUDY

STT eMag envisages at least one case study in each eMag. If you have a case study you would like to present, by all means send it in to our editor. [admin@softtissuetherapy.com.au](mailto:admin@softtissuetherapy.com.au)

### History

#### Current:

18 year old runner, female, presents with three weeks of groin and upper thigh pain. No trauma. She is approximately 165cm in height and 56-58 kg's. Currently a student at University.

#### Subjective Assessment:

Her training has consisted of 75-90km of running for the past 12-14 months. Mostly flat Aerobic style running. 7 weeks ago she changed coaches. Her distance increased immediately to 110km per week. Long slow training decreased (from approx. 80% of her training to 60%) and intervals increased by approx. 20%. Pain began in her upper right thigh about her Rectus Femoris insertion 3 weeks after this change in training. A week after this the pain was also felt in her right groin. The pain begins 5-10 minutes into a training session and aches for 10-15 minutes after running stops. The past two weeks she has modified her training to minimise pain (decreased to 60km's per week of aerobic running – has not employed any cross training such as water running). The past three nights she has experienced pain at night.

She has had no previous history of such pain. Has not changed her footwear in this time but does purchase new shoes every 12 weeks. She has not consulted a doctor. She has not consulted a nutritionist regarding her diet – and is very thin. She does not wear orthotics but has consulted a podiatrist who suggested her feet were adequate to run without them. She has been getting maintenance massage from her 'masseur' once per week for the past three months. With the onset of pain he has worked on the direct area with soft tissue techniques and stretching without any change in running pain. He did not influence her training change, nor suggest any cross training or referral to medical practitioner. He could not reproduce her pain clinically.

#### Objective Assessment:

##### Standing:

Postural stance showed a slight anterior tilt (pelvis) on right side in comparison to left. Slight increase in iliac crest height on right side (3-5 mm). Noticeable posterior tilt overall in pelvis. Standing hip flexion on right showed some hitching (pelvis side bending superiorly through coronal plane rather than posterior tilting through sagittal plane. All other assessments within 'normal' ranges including lumbar and sacral positions.

##### Sitting:

Right iliac crest height not noticeable. Right internal rotation range slightly decreased from left.

##### Supine:

Slight anterior rotation of right hemipelvis. No inflare or outflare noticed. Positive 'squish test' on right side (did not reproduce pain). Her right internal rotation range was 20 degrees less than the left. Only other remarkable finding was marked increased tone about right Rectus Femoris.

#### Consideration:

At this stage of the assessment the major concerns were:

- Very thin, young female runner who had recently increased her training km's and intensity
- Insidious onset pain that has become painful at night
- Unable to reproduce pain with any resistance test, or functional test (hopping, etc)

This population of people with these signs and symptoms suggest the possibility of femoral stress reaction or stress fracture. Hence, a 'hang test' was performed to attempt to reproduce symptoms. Left side was pain free on hang test. The right side did reproduce her pain, although less than after a run. She was very apprehensive during this test. With this, she was referred to a Sports Physician. The Sports Physician ordered a bone scan which returned showing a low grade stress fracture on her right femoral neck.

#### Action:

She was asked to minimise all ground reaction forces for three weeks. This included walking with crutch assistance for the first week, followed by minimal walking only. Three weeks into her recovery she began a water running program. A slow return to weight bearing exercise was monitored until she was given the all clear to return to training (slow return).

She was also asked to seek guidance from a Sports Nutritionist to ensure the most appropriate diet for this type of training.

#### Editors note:

Differential diagnosis is a vital part of any assessment. Always keep in mind the red flags that suggest the possibility of such pathologies as a stress fracture—especially in sport.

In this situation, the red flags have been highlighted by the author (night pain, thin female runner) and the appropriate action was taken—referral to a sports physician.

Stress fractures are a major injury statistic in sport. The symptoms are often vague and misleading. Know your sport, know your population, know your red flags. Each sport has it's typical stress fractures (running and tibial stress fracture for instance), always keep them in mind when assessing an athlete.

If your treatment strategy is not going to plan, go back to your differential diagnosis and entertain the possibility of something else driving the signs and symptoms.

## RECOVERY AT THE AUSTRALIAN INSTITUTE OF SPORT

## SHONA HALSON

## Background- Shona Halson

Shona has been employed as a Senior Recovery Physiologist at the Australian Institute of Sport for almost four years. Shona's role is both as a research scientist and a service provider to elite athletes. She completed a PhD through Queensland University of Technology and the University of Birmingham in the UK. The focus of her previous research has been examining the mechanisms of overtraining from a variety of sources including; hormonal and neural alterations, glycogen depletion, mood disturbance and performance. Her current research focuses on examining various strategies to enhance recovery and increase performance in elite athletes. Shona had also been involved in the design and administration of the new Recovery Centre at the AIS.

Shona shares her expertise and experiences at the Australian Institute of Sport (AIS) in Canberra.

## Recovery research

Recovery is an area within sport science that many athletes and coaches intrinsically believe is an important part of the training process. Recovery strategies have been utilised by athletes for decades, however the strong anecdotal support is in contrast to the lack of scientific investigation. It is important to recognise that there is little scientific research in the area of physical recovery, however this is rapidly changing.

At the AIS we have undertaken and a currently undertaking a number of investigations primarily examining the effects of various hydrotherapies on performance and physiological responses. One of the first studies conducted examined the effects of cold water immersion (ice baths) after cycling in the heat on a number of physiological indicators. Cold water immersion consisted of three, one minute exposures to 11.5°C water. We measured a variety of hormones, muscle damage markers, inflammatory indicators, metabolic by-products (including lactate), skin and core temperature and heart rate. The findings of this study were that cold water immersion significantly reduced heart rate, core and skin temperature, but had no effect on any of the other variables measured. Interestingly, all eleven subjects reported subjective improvements in feelings of fatigue and recovery after completing the cold water immersion compared to no recovery.

Another study we have completed has looked at the best temperature for cold water immersion when used between two bouts of exercise performed in the heat. In this study subjects completed two cycling bouts in 34°C, separated by one hour. Subjects completed five trials and performed cold water immersion between the two bouts of cycling. Each trial incorporated different cold water immersion temperatures or durations; 10°C for 5 minutes, 15°C for 5 minutes, 20°C for five minutes, 20°C for 15 minutes or active recovery (cycling at low intensity). For all ten subjects active recovery was the least effective strategy in terms of maintaining performance. All other temperatures were statistically equally as effective in maintaining performance in the second cycling bout. These results may be useful for sports where repeat performances are required and/ or when a half time break exists in competition.

A PhD student in the Department of Physiology, Jo Vaile is currently conducting two very large studies examining the ability of commonly used hydrotherapy techniques to reduce recovery time between competition or training sessions. She is comparing contrast therapy, cold water immersion, hot water immersion and passive recovery in two situations (1) for several days following severe muscle damage (2) after 5 days of repeated high intensity cycling. It is hoped that the results of these studies will help us to provide information to athletes and coaches on what is the best form of recovery after different forms of exercise.

Finally, we have completed a study examining the effects of cold water immersion performed four times a week for four weeks on rowing performance. In this study AIS rowing scholarship holders were divided into two groups, cold water immersion and placebo. Results showed the group who had regular cold water immersion exposures performed better on a 2000m ergometer test, had higher ratings of recovery, lower ratings of fatigue and improved quality and quantity of sleep.



## Future directions for

## Recovery

As the research in the area of recovery is extremely limited, there are numerous directions for future research. Particular areas of interest at the AIS include: longitudinal studies, examination of compression garments in enhancing recovery, the role of whole-body vibration in enhancing recovery and the effects of soft tissue therapy on cycling performance and muscle tone.

*“ . . . . there is little scientific research in the area of physical recovery, however this is rapidly changing”*

## Australian Institute of Sport Recovery Centre

The new AIS Recovery Centre (AISRC) will open its door to athletes in August 2006. The Centre is focused on developing and implementing worlds best practice recovery strategies and techniques to optimise athlete training and performance. This state of the art facility will provide athletes with cutting edge recovery techniques using a multi-disciplinary approach.

The AISRC has the capacity for researchers to conduct evidence-based research and measurement of outcome effectiveness, which is vital to ensure the scientific validity of recovery is enhanced. Some of the features of the Centre include:

- Three, 10 person spa baths with a variety of jets, a plunge pool, a cold water walk through and a river for active recovery and stretching.
- The hydrotherapy recovery centre will provide recovery options for both active (walking, stretching) and passive recovery in both warm (28-38 °C) and cold water (11 °C).

## RECOVERY CONTINUED

- The centre will also include a nutrition "recoverbar", soft tissue therapy treatment room, floatation tank and areas for stretching and active recovery.
- This facility will allow large numbers of athletes to complete their recovery at any one time as well as providing them with a variety of recovery options. The Recovery Centre will also be a research facility, enabling world leading research to be performed on site.

**Shona Halson**

Australian Institute  
of Sport (AIS)



**From the Editor.** Recovery Massage has been the staple diet for athletes for many decades. With the development of such infrastructure around the world and the strong focus on one of the last frontiers in sporting enhancement, recovery, we have the opportunity to develop relationships with such people as Shona, and develop research protocols to ascertain just what it is we change/alter/remove/reinstate while performing a recovery massage.

For those interested in what research we already have in this area, go to the research section of [www.softtissuetherapy.com.au](http://www.softtissuetherapy.com.au) and use the drop down menu to view STT and recovery, plus many more published research articles and similar topics.

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## SPORTS MASSAGE WORKSHOPS AND SPORTS MEDICINE AUSTRALIA

The Massage Therapy industry has evolved considerably in the past five years with the inception of the first competency standards. These standards were supported and guided by the Australian National Training Authority (ANTA) and are currently being implemented into mainstream Massage Therapy education. The competency standards consist of a Certificate IV to meet 'massage as a relaxation therapy' vocation and then a Diploma level to meet the clinical vocation within our industry.

The development of competency standards was necessary for many reasons. Now that they have been developed, professional associations can set their minimum membership entry criteria to these standards and hence only accept students from education facilities that deliver to that level. This is deemed vital for our professional future as the many 'weekend workshops' and 'short courses' that have plagued our profession with grossly under-educated and clinically under skilled therapists will now hopefully make way for the education these people deserve. Participants in these 'short courses' that do not meet the competency standards will not be able to gain association membership and hence no liability insurance, ethics commitments and so on. As cruel as it sounds, these organisations had to make way for the development of a standardised future that our industry and other health professionals have been wanting, needing and waiting for.

Sports massage was an integral part of the discussions while developing the competency standards. Anyone wanting a future in sports massage needs to meet the same competency standards set out for mainstream Massage Therapy. The industry, in consultation with the sports therapy field, all agreed that sports massage therapists needed all the knowledge and skills (and possibly more) that the competency standards described. This meant that 'sports massage' weekend workshops and 'short courses' were also deemed inappropriate education levels to meet their vocation and responsibilities. It was at this point that SMA's workshops on 'sports massage' came under scrutiny. The Sports Therapists in our industry within Australia, holds SMA in the

highest regard and sincerely appreciates the efforts they have made to continue the success of sports massage, but the weekend (or two weekend) SMA run workshops on sports massage were falling well outside the competency standards. And with such a reputable organisation running these workshops it becomes very difficult to advertise to our future therapists and consumers what our industry has achieved with the inception of the competency standards.

So what has been done to remedy this situation?

The Sports Therapists within Australia's Massage Therapy industry wanted to keep its strong ties with SMA and even develop our relationship to much higher levels. This was achieved by a couple of philosophical changes:

The first was to ask SMA to recognise the absolute importance of the development of the competency standards and to endorse those levels of education as it has with sports physiotherapy, the sports physicians and so on. This meant a change in strategy when delivering the 'introductory sports massage courses/workshops'. No longer are those workshops appropriate. They simply do not deliver the necessary content (please don't get these workshops confused with the sports trainers pre and post event massage workshops which are an integral part of their vocation and very well run). People who participated in SMA introductory sports massage workshops are left without liability insurance (most important in our current legal climate), without any association to join, bound by no ethics and are simply underdone and dragging down the quality that our industry has strived so hard to achieve.

Secondly, this does not mean SMA turns these people away. Anyone interested in sports massage that approaches SMA can be directed to the many massage therapy educational facilities that run the appropriate courses – there are many.

Alternatively, SMA could refer these people to their incredibly successful sports trainer program. Within this system participants will learn pre and post event massage, the very basics of sports massage. Moreover they will learn many important aspects of the

Sports medicine team, on field first aid, contraindications, referral procedures and more. All of which create a perfect, well-rounded introduction to someone wanting a future in sports massage. The participants can then join the sports trainers association and be a part of SMA. If these people want to further their skills then they can be referred by SMA to that states Massage Therapy association or educational facilities to do so in accordance with the competency standards. This would not only help our cause of developing the standards but also develop a better rapport between SMA and our industry at association and educational levels.

Thirdly, the delivery of SMA run workshops need not subside. Conversely these workshops can prosper by changing the population of people that are targeted for workshops. SMA need not look to educate the beginners of our industry - we have that covered - but look to provide quality lectures/workshops, cutting edge material to the already qualified therapists. Lectures/workshops of this nature are in high demand but rarely organised within the sporting field. Not only stand alone workshops/lectures but also integrating soft tissue lectures into such events as the SMA conference. This will allow our industry to collaborate with our sports medicine peers on a clinical level, something our industry desires. This is where our relationship can grow and prosper.

Discussions have been had with SMA in the past few months regarding these issues. Our industries approach has been hesitant as we see this as a rare opportunity to substantiate the quality of service that is evident within our industry and portray it in a manner that highlights the positives soft tissue work brings to the sports medicine team. The possibility of developing a 'special interest group' within SMA is currently being debated within our ranks and by SMA. If this does occur we hope to create a body of proactive, appropriately educated, professional people who can support the future of our sporting interests. A body that participants strive to be a part of rather than 'tick a box' to join. Hopefully this will encourage the standard we desire, something SMA no doubt embraces.

**WHAT IS A SPORTS PHYSICIAN?**

A **Sports Physician** is a medical practitioner who has gained specialist standard qualifications in sports medicine and holds the qualification of Fellow of the Australasian College of Sports Physicians. The post-nominals (letters at end of name that describe qualifications) that indicate this qualification are FACSP.

Registrars are required to undergo four years of full time clinical training, three of which are supervised and one which is essentially an elective year. Registrars must spend at least one year interstate or, in the case of New Zealand, on the other Island; and can only spend a maximum of two years in any one training practice. In addition registrars attend weekly tutorial sessions; design, conduct, publish and present a piece of original research; attend and present at conferences; complete a series of academic modules and provide high level team and sporting event coverage. Written examinations are part of the entry to the program and both written and viva examinations are part of the exit process.

Sports Physicians are experts in the musculoskeletal field of general practice. Currently they can be found in Australia, New Zealand, the UK and Canada. If you would like to find a Sports Physician to refer to there website <http://www.acsp.org.au/>

With years of further education in this specialist field, this group is a vital link in our sports medicine or musculoskeletal team. If you don't have a Sports Physician in your referral network, do yourself a favour and find one now.

While General Practitioners have limited education with regard to musculoskeletal injury and treatment, Sports Physicians are experts. Utilise their knowledge for any joint or myofascial pain that does not subside or shows strange symptoms on presentation.

Sports Physicians utilise many investigations to come to an accurate diagnosis and treatment protocol. They may choose to treat themselves or refer to the sports/musculoskeletal medical team depending on the pathology. Soft Tissue Therapy is a major receiver of these referrals.

Unfortunately the number of Sports Physicians in country areas is minimal. Even in heavily populated areas the numbers are low to none. Hopefully as the numbers of Sports Physicians increase, their presence in the country will follow.

## STIFF THORACIC SPINE? WWW.FITSHOP.COM.AU

The advertisement for FitShop is divided into several sections. At the top, the text 'STIFF THORACIC SPINE?' and 'WWW.FITSHOP.COM.AU' is displayed in large, bold, dark letters on a light background. Below this, there are four main images: 1) A white, curved device labeled 'Portacoverly Australia' with a black handle. 2) A person lying on their back on a mat, using the device under their chest. 3) A close-up of a person's back being massaged by two hands. 4) A person in red gear playing hockey on a green field. At the bottom left, the 'FitShop Fitness Equipment Online' logo is visible. At the bottom right, the text 'Soft Tissue Therapy eMag September 2006' is written in a cursive font.

## AUSTRALIAN TEAM AT THE COMMONWEALTH GAMES BRAD HISKINS

Another Commonwealth Games and another sporting triumph. Melbourne was simply awesome.

The memories are numerous and of many emotions. The triumph and the devastation. The wild celebrations, to commiserations. The anxiety and the relief. And among all this, we toiled away providing the best possible service provision we could to ensure maximum preparation, maintenance and recovery.

Our Australian Soft Tissue Therapy (STT) team consisted of those working in Australian Medical Head Quarters and those who worked with specific Australian Teams. The Head Quarters team consisted of four Sports Physicians headed by Professor Peter Fricker from the Australian Institute of Sport (AIS), five Physiotherapists headed by Craig Purdam from the AIS and the backbone (slight bias...) seven STT's headed by Brad Hiskins. And I can't forget our incredibly hard working administrative officer, Linda Philpot, also from the AIS. The entire team of Head Quarters STT's were:

**Bernd Adolph.** Bernd is from Perth and runs a major Sports Massage clinic in Subiaco. He has extensive travel over more than a decade with numerous national teams.



**Tony Bond.** Tony is from the AIS in Canberra and is a very experienced traveler with elite sport.

**Barry Cooper.** Barry is the stalwart of the team and also from the AIS. A previous head of service at the Olympic Games, Barry's CV needs to be carried in a wheelbarrow. Barry plays a vital role in our team as he is our only qualified Acupuncturist – a highly used modality at the games.

**Tricia Jenkins.** Tricia is our only representative from NSW in Head Quarters. Tricia has traveled with numerous national sports internationally including the Olympic Games.

**Narelle Davis.** Narelle is from Victoria and has over ten years experience with our national Gymnastics team.

**Jim Stevanovski.** Jim is from Melbourne and works at the VIS among other ventures. Jim experience lies within the weight category sports.

**Brad Hiskins.** Brad is from the mighty ACT where he runs a clinic. Formerly of the AIS, this is Brad's second Head of Service position for the Commonwealth Games and he also headed the Olympic Games in Athens.

***“Both Swimming and Athletics regularly take STT's with them to national and international events”***

Two other large sports took their own STT's. Both Swimming and Athletics regularly take STT's with them to national and international events. Swimming STT's were:

**Jo-Anne Yeoman-Hare.** Jo has been involved with swimming at a national level for many years, including Olympic Games representation. Jo works in Melbourne.

**Paul Clinch.** Paul is from Katoomba and has extensive travel and experience with the National swimming team including the World Championships last year in Japan.

**Katie Pettifer.** Katie is from Melbourne and works with the Victorian based swimmers. Katie enjoyed her first Commonwealth Games as a young member of the swimming medical team.

Athletics STT's were:

**Malcolm Calcutt** from Perth. Malcolm runs a clinic in Perth and works closely with the Athletics population, especially the Pole Vaulters. Malcolm is an experienced campaigner with Olympic representation.

**Bruno Rizzo** from Queensland. Bruno works in Brisbane and has numerous ties with sport in that region. Bruno has travelled extensively with Athletics including the Athens Games.

**Vince Cavallo.** Vince has his own clinic in Vic and was an athlete himself. Has worked with VIS athletics, World Juniors and travelled with the senior team since 03 going to Paris worlds and Athens

**Rebecca Swain.** Rebecca works in Adelaide and has experience with the Australian cricket team World champs in 03 with Athletics.



Note that there was also a 'Polyclinic' that provided Soft Tissue Therapy services to teams other than Australian athletes. The Polyclinic Soft Tissue Team was headed by Rob Granter who was Head of Service for the Australian Soft Tissue team at the Atlanta and Sydney Olympic Games. The Polyclinic is a regular service that the home team provides for incoming countries. This service provides a vast array of medical expertise from Podiatry to Dental to Nursing. All aspects of sports medicine and beyond are covered. Interestingly, those less fortunate athletes and staff from particular countries will go home looking and feeling (and often seeing!!) a whole lot better than what they arrived!



There was also a recovery centre that was available to all countries. There were five portable ice baths provided by Warren Lowry, fellow Soft Tissue Therapist. Five stationary bikes, recovery massage services and showers. Recovery has become a major part of every athlete's weekly routine. The recovery centre at Melbourne was used extensively by athletes of all shapes, sizes, and sports.

On a side note, a number of innovative recovery techniques are being provided by our very own industry, not only massage. Among those successes we should embrace and be proud of, is Warren Lowry, who has spent five years developing his portable recovery pools ([www.portacorecovery.com](http://www.portacorecovery.com)) . . . check it out, it's amazing ! When medical and health personnel see the fantastic work, professionalism, and innovation within our industry, it stands all of us in good stead. Let's support these developments, and develop more !

The village set up was the best I have seen. Maybe a tad on the small side with regard to the gym set up, but beyond that it was very well done. The rooms were very comfortable, the food was the best I have encountered, and the volunteers were fantastic!!

Our medical room was no palace but was sufficient for 20 days. Under the one small demountable roof we had the four sport physicians, five physiotherapists and seven of us working side by side (including Barry with his acupuncture). And I mean side by side. Discussions on athlete treatment protocols were openly aired for all to consume and comment – athlete privacy considered of course. The atmosphere was one of complete unison, with the athletes best interest constantly the major priority. It certainly is a great pleasure to see professional politics put aside for the greater good. It is amazing what a team of professionals can achieve when working together.

In twenty days we (STT's only) provided over 650 treatment sessions plus 65 acupuncture sessions. This doesn't include the sessions provided by the swimming and athletics group. To ensure we didn't burn anyone out we stuck to a structured roster system. These varied between 4 hours of hands on, to ten hours, in any one day.

The type of treatment provided at any games varies markedly. From recovery sessions, to flexibility, to pain manage-



ment — add some athlete anxiety, nervous energy and vulnerability. As a result, not only are your assessment and skill set on show, but your ability to handle intense emotional situations is tested. All a part of the fantastic experience.

***“Our industry and the service we provide are the most sort after at major games, the Melbourne Commonwealth Games being no exception. Thank you to those that donated their time and effort to make this experience a memorable one.”***

**Brad Hiskins**

**Head of Service, Soft Tissue Therapy**

**Athens, Beijing Olympics**

**Manchester, Melbourne Commonwealth Games**



## THE ATHLETES POINT OF VIEW

BRENDAN COLE

400M HURDLE 5TH PLACE, COMMONWEALTH GAMES 2006

As an athlete, especially a track and field one, we are always looking for 'the edge'. This is so often said, but it's getting to the point of losing sight of what is truly important and essential, to get as close as possible to maximal performance. We are bombarded with products, new physiologically based training methods, the latest research on performance enhancing supplements, and the endless list goes on...

Being in the slightly more 'experienced' category of athlete, I have found myself becoming more aware of the things that work, and the things that don't. With this in mind, I believe that in this endless search for excellence, more often than not, we should put the latest issue of the Scandinavian Journal of Exercise and Sports Science away and go back to one of the first things our coach said to us when we were 8 years old and just starting athletics. **KISS:** Keep It Simple Stupid. Going back to basics is something that is not done enough in elite sport, and in this age of growing technology and advancements in the sciences that fuel our industry, I think we can get ahead of ourselves.

An example of this is the way we look after ourselves from a musculo-skeletal point of view. That is, making sure we are as pain free as possible and our muscles are working efficiently and effectively. One example of how we do this is via Soft Tissue Therapy. Some call this massage, or massage therapy, or rubs, or numerous other descriptions depending on where you grew up. Too many, one treatment is as good as the next, as it once was to me. But it took a chance meeting and then treatment from two very talented and well respected therapists to learn that there was a big difference between what you get on a wooden bench at half time of the Greensborough thirds footy game on Saturday afternoon, and Soft Tissue Therapy from those that pride themselves on educating themselves and staying at the forefront of this industry.

The distinction comes from a number of aspects of this type of treatment. Firstly, as stated above, it is my opinion that the level of education of the therapist is paramount. The Soft Tissue Therapy I have received has been laden with theoretical knowledge to back it. The therapists understanding and knowledge of anatomy and the gait cycle has been outstanding. Their ability to relate this to my sport of hurdles has been vital to accurate treatment protocol.



Secondly, this treatment may seem a little different to the traditional stereotypes of a 'massage'. You will get put in weird positions, you may not get doused in massage oil (weird, I know!), you'll probably have to get off the table quite a lot to re-test things, you may not get both legs done, and finally, you may go through considerable pain. The third, final, and definitely most important distinctive aspect of Soft Tissue Therapy from the well educated is that it is very, very effective.

I reinforce this last point with the fact that I am very annoyed with myself for not finding these types of therapists earlier. As most track athletes will tell you, I have had my fair share of injuries; and almost all of them have been overuse related. Add to this being in a sport where consistent, uninterrupted training is of paramount importance. If something is not right in our bodies, it's not the kind of thing that just goes away. Exposure to such concepts of muscle tone, the ability of our nerves to work and move properly, the importance of posture, and what pain does to surrounding areas in the body has made me a better athlete more so than adding three more sessions per week to my training program could do.

And it makes sense! Out of the unbelievable amount of time we spend on treatment tables as athletes getting all sorts of weird and wonderful treatments, you spend by far the most with your trusty Soft Tissue Therapist. So why shouldn't the one you see have the most knowledge about your body, how it works, and what types of treatments help or hinder your performance? Obviously this is rhetorical, because he or she should most certainly have this knowledge. This knowledge is going to come from extensive assessment and re-assessment, trying different treatments and techniques, and generally thinking outside the stereotypical 'massage' box. This is the approach I have come to distinctly recognise as belonging to a good Soft Tissue Therapist.

To apply what I am talking about here, I'd like to share my past 18 months in some detail as somewhat of an example. Besides the odd 'niggle' here and there, I have remained relatively uninjured, missing about 3-4 sessions in total because of pain. Coming off about two years on the sidelines and surgery, I think this quite a feat. Learning more about how to train smart and look after myself, lead to this considerable period of uninterrupted training. I can also say that getting good, weekly Soft Tissue Therapy meant in this 18 months period I didn't need to see a physiotherapist, doctor, osteopath or anyone else with relation to training related problems. The culmination of this period was the Commonwealth Games earlier this year, where I managed to get 5<sup>th</sup> place in the final. The previous 6 months saw me take one and a half seconds off my personal best in the 400m hurdles, and jump from a world ranking well outside 100, to top 25.

...continued page 19

"As an athlete, especially a track and field one, we are always looking for 'the edge'"

Now I would never put this result down to any one thing, but I realise how important this consistent period of training was, and getting good treatment was a large part of looking after myself.

Having said all this, I realise that I may be seemingly bias to this type of treatment at the expense of such professionals as physiotherapists, osteopaths and sports physicians – not at all. I think all of these professions are an integral part of sports medicine, and if I saw the need to consult one of these people I would not hesitate to do so. However, in my adventures and explorations in the wonderful world that is high performance sport, I feel the need to impart my wisdom to any receiving ears. And in this world, I have found good Soft Tissue Therapists can be quite the hidden treasure.

Depending on my training regime and the state of my body, my wants and needs from my STT may change. Predominantly I look for an assessment to gauge how my pelvis and hips are. Strength and mobility tests and then treatment based around these findings. Having a therapist who has a thorough knowledge of my sport is imperative. The functional ranges of motion that I need are well outside the 'norm'. Thoracic rotation is vital and my posterior oblique slings need to be as resistance free as possible. If all this is in good shape then a basic flush is always well received.

#### Editors point.

We would like to thank Brendan for his insight into the athletic mind. It is rare that we actually ask the experienced athlete what they want or need from our service, let alone their perception of our service provision. Of course each athlete, depending on their environment, the people and professionals who have influenced them, will have a different opinion.

If you have any questions for Brendan, send them to [admin@softtissuetherapy.com.au](mailto:admin@softtissuetherapy.com.au)



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## RESEARCH AN INTERVIEW WITH MARTHA BROWN

Martha Brown Menard is Director of Research at the Potomac Massage Training Institute in Washington DC and author of "Making Sense of Research: A Guide to Research Literacy for Complementary Therapists."

She serves on the Board of Trustees of The Massage Therapy Foundation, an organisation dedicated to advancing the knowledge and practice of massage therapy by supporting scientific research, education and community service.

She holds a Masters in Clinical Psychology and a PhD in Education and maintains a private practice in Virginia.

Martha will be in Australia in October to deliver the keynote address at the AMT NSW Annual Conference in Sydney. In this interview with Susie Davis, Martha discusses the role of research and the task ahead for the profession in promoting both the art and science of massage therapy.

### How long have you been involved in research?

Since I went back to graduate school in 1992 - I began designing the randomised controlled trial that became my dissertation study during my first year in the PhD program.

### What are your principal research interests at the moment?

At Potomac Massage Training Institute, we are just starting a pilot demographic survey of our clinics to identify the various populations we serve. This study will provide important background information that will help us develop clinical studies focused on various health conditions.

We will also begin a study later this year on the development of professional identity in massage therapy students.

My own research interests are focused on fundamental questions of how massage affects physiology in healthy people. Very little research has been done on the actual effects of massage: many of the studies upon which we base our claims of physiological effects are decades old. With more sophisticated measurement instruments and outcome measures, we could learn much more about how massage actually works, and put massage on a more scientific foundation.

I believe that it's equally important to look at the role of psychosocial factors as mediating variables that affect an individual's response to massage - we know that the interpersonal relationship between client and therapist can be an important component of successful treatment. Once we know more about the effects of massage, we can better apply it to specific conditions.

*In your article in the Summer 1994 AMTA Massage Therapy Journal, you talk about the importance of collaboration between massage therapists and scientists to advance the art and science of our profession. How is this being achieved in 2006?*

Very few conventional MDs or academic researchers understand the practice of massage as we do. It's important that massage therapists be involved in the design of research so that it makes sense from a practitioner's perspective. To do that we need to be research literate so that we can communicate more effectively with scientists and explain our point of view in a way they can understand and respect. We need to speak their language in order to teach them ours.

A big step in the US happened when COMTA, the Commission on Massage Training and Accreditation, included research literacy as a standard that schools needed to include in their curricula for COMTA approval. There are certainly many more massage therapists currently who are research literate than there were 12 years ago. And more massage schools are developing research capacity, for example, the schools that initiated the Massage Therapy Research Consortium. Another initiative that is being launched in the US by the National Centre for Complementary and Alternative Medicine (NCCAM) is the creation of developmental centers for CAM research that promote collaboration between research universities and CAM institutions.

*Clearly, research has come a long way in the last decade. Your Massage Therapy Journal article in Spring 2006 on research literacy discusses the way in which massage therapists evaluate research to benefit their practice. Can you give a summary of these issues?*

First, research is a great resource for finding out what other people are doing, and to see what works or doesn't work. It can function as a form of continuing education. Second, it is a useful common language for communicating with other health care providers. It's crucial to be able to discuss the strengths and weaknesses of recent research articles in your field with other professionals and with your clients - flawed studies do get published and do get media attention. Finally, I believe that everyone needs to be able to critically evaluate research so that we can be active participants in our own healthcare.

### **"Very little research has been done on the actual effects of massage"**

*You have been in private practice since 1982. How has the information you have gained from research affected the way you practice?*

It's certainly made me more skeptical about believing everything I read. I also find that it's given me more confidence in my ability to discuss research with physicians, and to answer questions from clients.

*Your book is titled, Making Sense of Research. Is it difficult to make sense of massage therapy research?*

Yes and no. Massage research is scattered across several different health disciplines - medicine, nursing, psychology, even education. So that makes it a little more difficult to find all the relevant studies on a given topic.

In areas where there may be a number of studies, there are relatively few high quality studies that can be pooled to definitively answer a question. Many studies have flaws such as small sample size that allow no firm conclusion to be drawn from them. Basically, we need more good research.

Understanding research is really just applying common sense. The thing is that it's systematically applied common sense. The systematic part is important.

What can general massage therapists do to contribute to research in the context of their regular practice?

Keep complete and detailed notes of your sessions. These can become the basis of a good case study. Stay current in the research literature and be able to critically evaluate the studies you read.

Do you have any ideas or thoughts on Australia's contribution to massage therapy research at this time?

Not at this time - ask me again after the conference and I can give you a better answer.

***“many of the studies upon which we base our claims of physiological effects are decades old”***

Are there established ways that Australians can contribute, connect or be funded in international research?

The Massage Therapy Foundation has awarded grants to researchers outside North America. For example, in 2003 and 2004, the Foundation awarded grants to investigators from New Zealand. Good case studies are a great way to be involved and contribute to research and are a feasible type of research for practitioners to engage in, within their own, or as part of a group practice. These days, especially with electronic publication and forums for discussion, research is international. One group that is trying to foster communication among CAM researchers is the International Society for Complementary Medicine Research (ISCMR). See their website at [www.iscmr.org](http://www.iscmr.org)

At the CAM Research Conference in Albuquerque last year John Balletto, the then president, said that research is the one area that could unify all massage therapists around the world. What are your feelings on this?

Well, science is an international language, and it gives all of us - massage therapists as well as other health care providers - a common tongue.

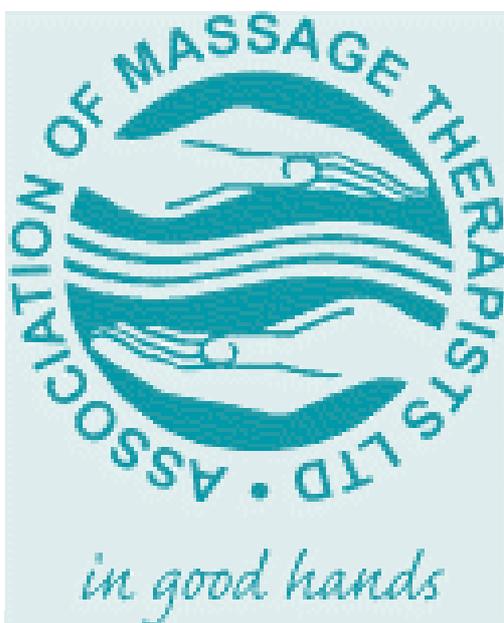
Finally, we are very much looking forward to your visit. Have you visited Australia before?

No, this will be my first visit and I hope it will not be the only one. I'm very excited - it's a part of the world that I've always wanted to see. My stepson's immediate comment when I told him that I'd been invited to speak at your conference was 'I'm going!' So he and my husband will be coming with me. We are planning to stay and travel for a couple of weeks after the conference. If people have suggestions for places to visit or good restaurants, especially in the Sydney area, I'd love to hear from you. Please email me at [marthamenard@earthlink.net](mailto:marthamenard@earthlink.net).

Thanks to AMT for allowing the reprint of this fantastic interview.

People like Martha are vital to the future of our industry. Her research will bring new insight and confirm our anecdotes. It is rare that we have access to such a learned international in our country. I hope all that can take the opportunity to listen to Martha do so. Even if you have no intention of researching yourself, at least educate yourself in the reasons why it is our future. Show support.

For those who would like to see Martha, AMT's presenter list is to the right of this column.



## Association of Massage Therapists

### Annual Conference and 40th Anniversary Celebrations

AMT presents the presenters below at this years annual conference:

#### Martha Brown Menard

Keynote address & Lecture: Developing a case study

#### Judy Lovas

Plenary: To research or not to research, that is the question

Lecture: Massage and Spinal Cord Injury

#### Alison Bell

Muscle Energy Technique

#### Elsebeth Perry

Workshop: Lymphatic Drainage

#### Paul Doney

Workshop: The Pelvic Floor

#### Richard Hill

Workshop: Massage and the Mind - effects and behavioral responses

#### Ron Phelan

Workshop: Pelvic Stability/ TMJ

#### Susan Davis

Lecture: Biological Responses during Massage Therapy

#### Leonie Dale

Lecture: Dispelling the Myths: Massage and Cancer

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## SPORTS MESSAGE ASSOCIATION—UNITED KINGDOM

By Stephen Cluney – Non Executive Director of Sports Massage Association. – Any views are those expressed by the author and not necessarily reflective of the SMA.

### Background

The Sports Massage Association was launched in January 2002 as a result of a proposal submitted to Sport England. The aims of the proposals were:

1. to ensure that the English Institute of Sport has access to Sports Massage Practitioners who are appropriately trained, qualified, and insured, to deliver high quality, safe sports massage services to athletes (*in all sports*).
2. To achieve the above by accelerating the establishment of a professional body for Sports Massage Practitioners through the Sports Massage Association.

The English Institute of Sport along with the other home country Institutes and Sports Governing Bodies found that there was a significant demand for sports massage, amongst sports participants. There was however a great deal of confusion as to who was appropriately qualified, even amongst other health professionals working within sport.

The (now defunct) National Sports Medicine Institute of the United Kingdom (NSMI) established a Sports Massage Advisory Group in 1999 to investigate the whole area. A working group was formed under the chair of Joan Watt M.A. Grad. Dip. Phys., M.C.S.P., S.R.P), a qualified Sports Massage Practitioner, the group was formed to define the minimum course standards, and a core curriculum. The Sports Massage Advisory Group (SMAG) invited representatives from a wide spectrum of those parties interested in providing good quality Spots Massage treatment.

This process involved QCA (Qualifications and Curriculum Authority) and SPIRITO (the national training body for sport and recreation- now defunct). Those achieving membership of the SMA will have achieved the training and examination requirements of the Association. Training establishments wishing to offer courses that will enable their students to seek membership once qualified, will also have to annually satisfy the standards and core curriculum established by the SMA.

**Thus, those seeking treatment from SMA members will know these Practitioners are fully qualified and insured to offer treatment to an acceptable standard.**

### Role of the SMA

The SMA as the Professional Body has established a minimum Core Curriculum requirement for the Providers, who are separate bodies from the Association itself. It has also established the criteria that all examinations are externally validated to ensure they meet minimum standards. Requirements necessary to be a Professional Body have been established, and there is an on going process of development of the criteria.

### SMA Structure

Briefly, there is a Board of Directors, area Representatives, and a Council. The Council is where the SMA attempts to invite any interested representative bodies including recognised and potential training providers, Educational and Vocational Standards Agencies, and NGB's (National Governing Bodies of various sports) to express their views and update them on the processes the SMA is undertaking. A number of sub committees operate, each being the express responsibility of one of the Non-Executive Directors. The SMA is a registered charitable body and the Directors receive no remuneration. The office function is contracted out to an agency and through this we have a Company Secretary and staff who operate the daily business.

### Insurance

Membership of the SMA provides cover for personal liability up to £5 million for appropriately qualified practitioners and this includes a number of facilities such as a period of cover when working overseas with teams and a run off clause, and the cover accurately reflects members massage skills. The level of Insurance provided by the SMA is designed to give greater confidence to patients, and the practitioner knows the cover is an industry standard.

### The Future

In 2003 the UK government created a new regulatory body the Health Professional Council (HPC), to oversee health professionals (excluding doctors), with an overall remit to "protect the public", and in January 2004 the SMA commenced the exploratory process of applying for membership and thus regulation by this Government Body. One of it's roles is protection of the title for various practitioners. Amongst the titles the SMA are considering presenting are Sports Massage Practitioner (SMP) for SMA members, in order to further enhance their standing within professional circles. Members are encouraged to use the initials MSMA after their name to identify their membership of the SMA, and the Level to which they are currently qualified. Unfortunately, as the process of registration involves the presentation and approval of each discipline by the Houses of Parliament after long consultation periods at each stage this is a lengthy process taking years rather than months.

We are in parallel investigating an alternative process of self regulation being introduced and overseen by the Prince's Trust for Complimentary Medicine, this is a process that is being pursued by a number of other therapies and skills.

The standards required by the SMA are now recognised by many NGB's, and by all the individual UK National Institutes of Sport, plus a range of National, Olympic, and Professional Bodies. National, representative, and professional teams are now not only recognising the standards established by the SMA, but are also advertising their Sports Massage positions through the SMA, and many require membership of the SMA as a precursor to filling these positions.

As a Professional Body it is the SMA's role to both protect the public and to negotiate on behalf of it's members as these members feel appropriate. One obvious route is to seek recognition from Medical Insurers, a process that we are led to believe will only be universally acceptable following appropriate regulatory recognition. Another is investigating reciprocal recognition from overseas massage Associations, these and many other benefits are currently being pursued. Thus membership of a professional body will assist the protection and development of Sports Massage not merely for Practitioners, but equally as importantly for the recipients of treatment.

Continual development of the SMA website ([www.sportsmassageassociation.org](http://www.sportsmassageassociation.org)) has allowed the Association to more easily disseminate information to members and the public on a wide range of subjects, such as Continuous Professional Development (CPD) and the available courses for associated education. In addition it enables the public to access a search engine to find their local SMA Practitioner and to inform them about the standards expected of practitioners.

We have also introduced a regular internet newsletter during the summer of 2006 to update members on all aspects of their profession and SMA activities on their behalf. Local Reps are also being recruited to organise various styles of local meetings, of both an educational and informal basis. These we hope will also provide an avenue for continual constructive feedback, along with regular nationwide road shows from members on

... continued on page 23

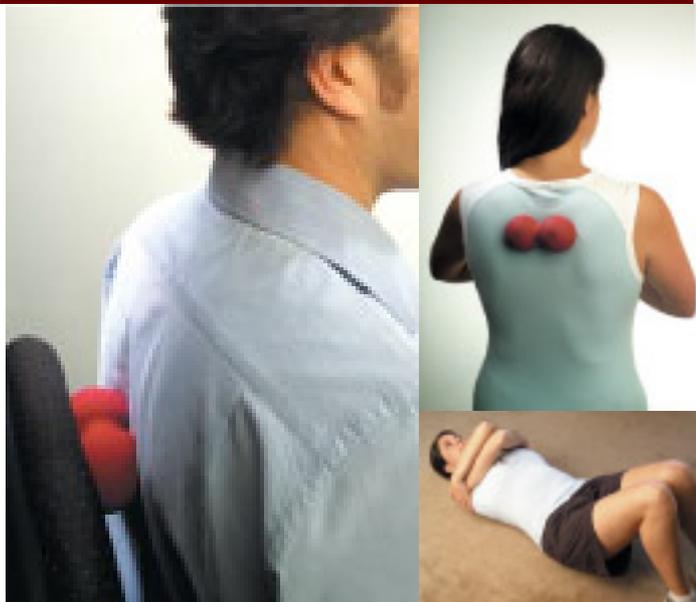


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their needs, concerns, and views on the direction they want their association to take. Having originally established a minimum Core Curriculum for membership, one that will be regularly reviewed, we have also become aware as events progress of the need to make the SMA an inclusive Association representing all levels of 'sports massage.' In line with this we have recently restructured the membership (probably the first of a number as the educational process develops) to recognize SMA Level 4 and SMA Level 3 members.

**Level 4** consists those who have passed externally validated exams at or above the minimum curriculum level, or have qualified through the initial 'grandfathering clause' that was originally available to established practitioners.

Whilst the new **Level 3** is open to those who have qualified through processes not yet deemed to fully attain the minimum Core Curriculum requirements, and one of our current tasks is to facilitate these members to attain the L4 standard through appropriate additional education, and assessment routes are being established.

With the award of the 2012 Olympic Games, and the subsequent requirement of a large number of sufficiently qualified and experienced SMP to service the needs of the elite sporting participants both in the lead up and during the Games the NGB's have begun to recognise the need for SMP not only at the minimum levels but on how to identify those with experience with elite level performers.

Thus the discussion has now started on how to identify these practitioners, this we intend to try and do by creating a transparent Career Pathway. This will have a two fold effect, firstly the identification of those qualified at the higher levels and secondly for practitioners a recognisable career route of progressing through the profession, offering higher recognised competence as an SMP, regardless of the sphere you choose to work in, and the transference of your skills between areas.

Currently the sports massage courses run in local colleges and funded through Government agencies do not meet the minimum SMA standards — those courses that do meet SMA requirements are all privately run so we are currently working with a number of Government Agencies to help develop these vocational training standards to not only meet the minimum SMA standards, but to also provide progression through the new career pathway that we are assisting to develop, thus helping practitioners to develop their skills to the highest levels. In addition we are trying to develop links to other professions such as physiotherapy and osteopathy.

The courses in the UK that do meet the SMA standards are all run privately, and as such one of the SMA's roles is to try and deal with the differing opinions of these competing companies and the characters within them.

With this new impetus Skills Active (a Government Body) invited the SMA and a variety of allied professionals to two steering group meetings to discuss the possibility of creating a Career Pathway for Sports Massage and allied professions. In keeping with these perceived requirements it would increase the number of Levels of NOS (National Occupational Standards). The new proposals from the initial steering meetings are to encompass anything from 6 to 8 levels. It is hoped the submission to be made this autumn (2006) will be accepted and the work will then commence.

... continued page 24

## UK SPORTS CONTINUED

Given the size of the undertaking and the obvious need to be well positioned for at least 2012, it is hoped the resultant framework will be in place by 2008/9.

During the SMA's own initial review last year (2005) of the situation, we have looked at not only the level and content of courses in the UK, but also at overseas massage associations. The intent being that at some point in the new framework a number of major countries would have similar levels and hopefully establish reciprocal recognition of practitioners in across countries to facilitate the ability of these practitioners to operate on a cross border basis.

Currently there has been much discussion regarding the title 'Sports Massage', and what and who does it represent. It certainly does not imply we treat only sportsmen or women but more accurately refers to the techniques we employ to treat any needy recipient. As things develop it may be appropriate to rethink the titles of the practitioners we represent as we review development overseas but currently we are most concerned with developing a professional career pathway with an allied educational framework.

### The Present

In September this year the SMA in association with **Sportex** magazine will be hosting it's third annual conference, again at Loughborough University, and as last year, this will be a 2 day event with guest overseas speakers, thanks to financial assistance from **UK Sport**.

Last year Stuart Hinds from Australia was one of the principal speakers. This year the Conference is entitled "The Myofascial Matrix," and we will be welcoming Tom Myers from the USA, Dr. Leon Chaitow, Liz Holey, Prof. Eyal Lederman, and Warren Hutson.

Like any association in it's infancy we have had teething troubles but we continue to pursue the aim of creating a strong professional association that can both represent it's participants whilst also serving to protect the public from bad practices wherever they may occur.

August 2006

**Stephen Cluney** has agreed to answer your questions regarding this initiative in the UK. Write an email to the editor and we will have Stephen's responses in the next issue of the STT eMag.

[admin@softtissuetherapy.com.au](mailto:admin@softtissuetherapy.com.au)



**VIEWPOINT** The results of this study further indicate the use of 'Massage Therapy' for infants in this category. Tiffany Fields has led research in this area for some time and it is great to see other places in the world furthering her studies. Research in this area is becoming strong. It surely can't be long before a decent literature review is done in this area and hospitals take notice of the findings. Lets encourage someone to do the review!

## LATEST RESEARCH

### Title

Massage therapy and sleep behaviour in infants born with low birth weight.

### Author(s)

Kelmanson IA, Adulas EI.

### Published

Aug, 2006

### Published In

Complement Ther Clin Pract. 2006 Aug;12(3):200-5. Epub 2006 Feb 7

### Abstract

St. Petersburg State Paediatric Medical Academy, Litovskaya 2, St. Petersburg, 194 100, Russia. This study attempts to evaluate the impact of massage therapy on sleep behaviour in infants born with low birth weight (LBW) in St. Petersburg, Russia. Fifty infants (22 boys, 28 girls) who were born in St. Petersburg between 2000 and 2002 and defined as LBW babies (<2500g at birth) were enrolled onto the study at the age of 2 months. Of these, 41 (19 boys, 22 girls) were light and pre-term infants (gestational age 36 weeks), and 9 (3 boys, 6 girls) born light at term. The control group consisted of 50 healthy infants born with LBW who were cross-matched with an experimental group of babies and controlled for gender, gestational age, weight and date of birth. The groups were also matched for proximal geographical distribution in the city. Babies in the experimental group were assigned massage intervention therapy that include gentle rubbing, stroking, passive movements of the limbs and other means of kinaesthetic stimulation performed by professionals until the infant is 8 months old. The findings suggest that 8-month-old LBW infants who received massage intervention were less likely to snore during sleep, required less feeding on waking-up at night, and appeared more alert during the day. These apparent correlations remained significant after adjustment was made for major potential confounders. No statistically significant difference was found in sleep behaviour between LBW infants exposed to massage therapy who were either born pre-term or at term. It is suggested that massage may be a valuable approach to improve quality of sleep and reduce sleep-disordered breathing in infants born with LBW. It is acknowledged that whilst this study does not represent a large sample, it is felt that the findings suggest further investigation and offer an insight into an area previously relatively unexplored.

## LATEST RESEARCH

**Title**

A randomized, controlled trial of massage therapy as a treatment for migraine.

**Author(s)**

Lawler SP, Cameron LD.

**Published**

Aug, 2006

**Published In**

Ann Behav Med. 2006 Aug; 32(1):50-9

**Abstract**

Department of Psychology, The University of Auckland and Cancer Prevention Research Centre, University of Queensland. Background: Migraine is a distressing disorder that is often triggered by stress and poor sleep. Only one randomized controlled trial (RCT) has assessed the effects of massage therapy on migraine experiences, which yielded some promising findings. Purpose: An RCT was designed to replicate and extend the earlier findings using a larger sample, additional stress-related indicators, and assessments past the final session to identify longer-term effects of massage therapy on stress and migraine experiences. Methods: Migraine sufferers (N = 47) who were randomly assigned to massage or control conditions completed daily assessments of migraine experiences and sleep patterns for 13 weeks. Massage participants attended weekly massage sessions during Weeks 5 to 10. State anxiety, heart rates, and salivary cortisol were assessed before and after the sessions. Perceived stress and coping efficacy were assessed at Weeks 4, 10, and 13. Results: Compared to control participants, massage participants exhibited greater improvements in migraine frequency and sleep quality during the intervention weeks and the 3 follow-up weeks. Trends for beneficial effects of massage therapy on perceived stress and coping efficacy were observed. During sessions, massage induced decreases in state anxiety, heart rate, and cortisol. Conclusions: The findings provide preliminary support for the utility of massage therapy as a nonpharmacologic treatment for individuals suffering from migraines.

**VIEWPOINT** Lawler and Cameron have produced more research backing Massage Therapy and migraines. This study backs the claims of past research and strengthens the argument to utilise this service provision for ongoing treatment.

**Title**

Development of a taxonomy to describe massage treatments for musculoskeletal pain.

**Author(s)**

Sherman KJ, Dixon MW, Thompson D, Cherkin DC

**Published**

Jun, 2006

**Published In**

BMC Complement Altern Med. 2006 Jun 23;6(1):

**Abstract**

ABSTRACT: BACKGROUND: One of the challenges in conducting research in the field of massage and bodywork is the lack of consistent terminology for describing the treatments given by massage therapists. The objective of this study was to develop a taxonomy to describe what massage therapists actually do when giving a massage to patients with musculoskeletal pain. METHODS: After conducting a review of the massage treatment literature for musculoskeletal pain, a list of candidate techniques was generated for possible inclusion in the taxonomy. This list was modified after discussions with a senior massage therapist educator and seven experienced massage therapists participating in a study of massage for neck pain. RESULTS: The taxonomy was conceptualized as a three level classification system, principal goals of treatment, styles, and techniques. Four categories described the principal goal of treatment (i.e., relaxation massage, clinical massage, movement re-education and energy work). Each principal goal of treatment could be met using a number of different styles, with each style consisting of a number of specific techniques. A total of 36 distinct techniques were identified and described, many of which could be included in multiple styles. CONCLUSIONS: A new classification system is presented whereby practitioners using different styles of massage can describe the techniques they employ using consistent terminology. This system could help facilitate standardized reporting of massage interventions.

**VIEWPOINT** The research depicted here is the plague of our industry — no unified system. This research recognises this problem and attempts to standardise our terminology. Of course the people interviewed were only from one region of one country, hence the system will not reflect the entire industry, but it is a start.



## LATEST RESEARCH

### Title

The relationship between myofascial trigger points of gastrocnemius muscle and nocturnal calf cramps.

### Author(s)

Prateepavanich P, Kupniratsaikul V, Charoensak T.

### Published

May, 1999

### Published In

J Med Assoc Thai. 1999 May;82(5):451-9

### Abstract

Department of Physical Medicine and Rehabilitation, Siriraj Hospital, Mahidol University, Bangkok, Thailand.

To support that myofascial pain syndrome (MPS) of gastrocnemius muscle is one cause of nocturnal calf cramps, quantitative assessment of the efficacy of trigger point (TrP) injection compared with oral quinine in the treatment of nocturnal calf cramps (NCC) associated with MPS of gastrocnemius muscle was designed. Twenty four subjects with NCC and gastrocnemius TrPs were randomly divided into two groups of twelve for each treatment. Patients in group 1 were treated with xylocaine injection at the gastrocnemius TrP, and 300 mg of quinine sulfate p.o. was prescribed for patients of group 2. The treatment period was four weeks with a follow-up 4 weeks later. Cramps were assessed quantitatively (in terms of frequency, duration, pain intensity, cramp index, and pain threshold of the gastrocnemius TrPs) before treatment, after treatment and at the end of the follow-up respectively. The outcome of treatment in both groups showed a statistically significant reduction in all quantitative aspects of cramps (95% confidence interval). Also the pain threshold of the gastrocnemius TrP was significantly increased in group 1 only when comparing the pre-treatment and at the end of follow-up. In comparing the two groups we found no statistical difference during the period of treatment. The benefit of both strategies lasted up to four weeks following cessation of the treatment but the outcome of all measures (except pain threshold) were found to be significantly better in the group treated with TrP injection. The results of this study support that gastrocnemius trigger point is one cause of NCC and show that the TrP injection strategy for NCC associated with myofascial pain is not only as effective as oral quinine during the treatment period but also better in the prolonged effect at follow-up.

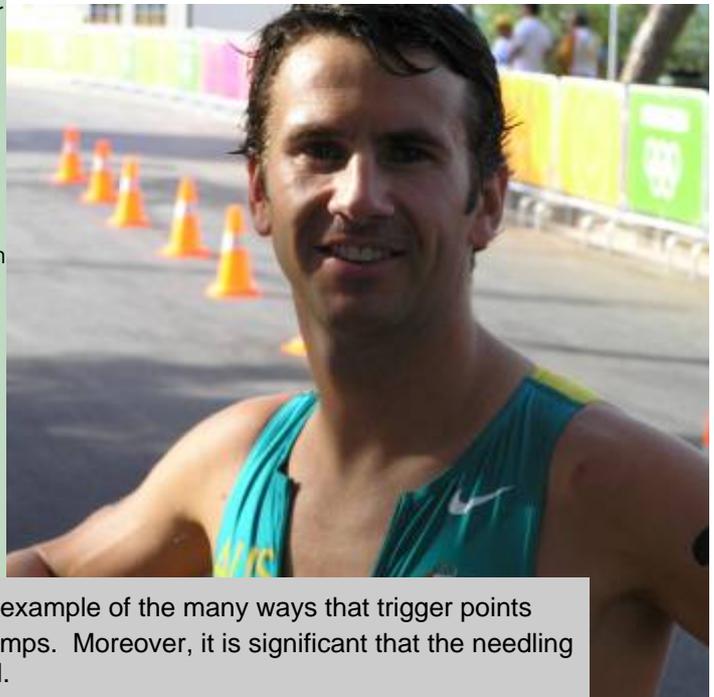
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**VIEWPOINT** This first research gives an example of the many ways that trigger points may be treated. In this case nocturnal calf cramps. Moreover, it is significant that the needling method lasted longer than the quinine protocol.

What should be considered however is what the needling process would have done to the trigger points without local anesthetic being used.

This should be investigated to ascertain if the needling itself created this effect rather than the anesthetic. Moreover, it would be beneficial if more conservative methods, such as manual hand techniques, were also used to desensitize trigger points to ascertain the effectiveness of each modality.



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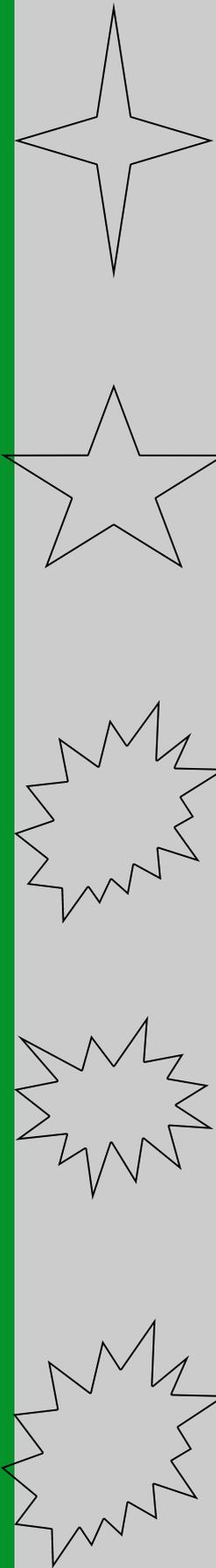
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