

BULLETIN

SPNZ CONTACT DETAILS

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Welcome to the April edition of the SPNZ Bulletin

Christchurch members

This is the first SPNZ Bulletin to go out to members since the devastating earthquake that struck Christchurch on February 22nd, 2011. This event resulted in significant loss of life, including several members of the medical community. The ongoing aftershocks, loss of property and damage to roads make life in Christchurch a daily challenge, and in addition many have lost their homes, places of work, income and quality of life. We have many members in Christchurch, and we know that many have suffered significant loss. The thoughts of the SPNZ Executive are with you and your families. Please let us know if there is anything we can do, as we have many members all around the country willing to assist in any way possible. For any members wanting to donate to earthquake affected physiotherapists, the link to the Physiotherapy NZ donation site is on page 3 of this Bulletin.

Paralympic Sport

This edition of the Bulletin features paralympic sport and the International Paralympic Committee - Athletics World Championships, that were held at QEII Stadium in Christchurch, just weeks before the earthquake. Paralympics NZ physiotherapist Jacqui Kerins has given us an insight into paralympic sport and shares her experiences working with paralympic athletes, and the IPC Athletics World Championship event. It remains to be seen whether this was the last international event to be held at QEII Stadium, the venue of the 1974 Commonwealth Games (pictured) as the pools, stadium and grounds suffered severe structural damage in the earthquake and the complex faces an uncertain future.



QEII stadium showing liquefaction (left) and damage to the athletics track (right) following the February earthquake.

Clinical and Research Reviews

Our Special Projects Group have reviewed articles relating to physically challenged athletes, prosthetics, and use of technology in paralympic sport. Phillippa Horne has provided a review of the use of manual therapy in the treatment of shoulder impingement, and the 2010 SPNZ Student Research prize winners from AUT University have provided a summary on the use of manual and exercise therapy in the treatment of hip osteoarthritis.

2012 SPNZ Sports Physiotherapy Symposium

Remember to pencil in the date for SPNZ's 2012 Sports Physiotherapy Symposium - "Prevention, Practice, Performance" to be held in Tauranga at the Sebel Trinity Wharf on March 17th and 18th 2012. Jill Cook has been confirmed as our keynote speaker and we continue to put together an exciting multidisciplinary programme.

SPNZ Executive.

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Changes are being proposed to the way health services will be delivered that will have MAJOR implications for physiotherapy. Physiotherapy NZ would like your feedback.

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LATEST NEWS

ASICS Education Fund Recipients - March 2011

Congratulations to Sharon Kearney and Dr Gisela Sole - joint recipients of the SPNZ Asics Education Fund in March 2011.

Sharon Kearney (Silver Ferns physiotherapist) will receive financial support towards research investigating ACL injury in NZ senior netball. Dr Gisela Sole will also receive financial assistance to attend, and present at the Asics Sports Medicine & Science Conference in Fremantle, October 2011.

For information on application dates and criteria go to www.nzsopa.org.nz/education.html

Sports Physical Therapy Section - APTA Home-Based Educational Opportunities

Home-based continuing education courses.

The American Physical Therapy Association - Sports Physical Therapy Section have home-based study courses available to all ISFP members (SPNZ is a member of ISFP). A wide range of courses are on offer on a wide range of topics including female athletes, ageing athletes, emergency response, the spine in sports and rehabilitation for a range of conditions including hip, shoulder and knee. More information on page 19 or go to <http://www.spts.org/home-study-courses>

International Federation of Sports Physiotherapy (IFSP) News.

SPNZ President, Dr Tony Schneiders is nominated for IFSP executive board.

The SPNZ executive have endorsed Dr Tony Schneiders' nomination to the IFSP executive board. Final voting will take place at the World Congress of Physical Therapy (WCPT) conference in Amsterdam in June 2011. Having a NZ representative on the IFSP executive would create an important link between SPNZ and the international sports physiotherapy body.

International Journal of Sports Physical Therapy

Update on feedback requested regarding possible SPNZ subscription to the IJSPT.

We received only 3 responses in the call for feedback regarding whether members feel they would gain added membership value from an increase in fees, to cover a subscription to the International Journal of Sports Physical Therapy (official journal of the IFSP). It was decided there was insufficient feedback to justify purchasing a group subscription. However interested members are still able to purchase an individual subscription through the

journal directly. To purchase a subscription go to the [IJSPT website](#), and click on "[subscriptions](#)". Subscription rate for 2011 is €20.

Special Projects Group

Want to contribute without the commitment of being on the SPNZ Executive?

SPNZ has a small team of volunteers who help the SPNZ Executive with various tasks, projects and article reviews for the SPNZ Research Reviews section that has been published in the last couple of editions of the Bulletin. This group do a fantastic job, and we are always looking for other willing volunteers. Do as much or as little as you like. If you're interested in contributing, or increasing your "professional activities" section of your CPD portfolio, contact Angela Cadogan at acadogan@vodafone.co.nz.

Interested in helping SPNZ?

The Special Projects team could use your help.

This group help the SPNZ Executive with various 'special projects' and assist with contributions to the Bulletin. Do a little, or do lots, it's up to you.

If you're interested in helping or want to know more? Contact

acadogan@vodafone.co.nz

Donations open for earthquake affected physiotherapists.

[Click here](#)

to go to the Physiotherapy NZ donation link.

MAJOR HEALTH WORKFORCE CHANGES!

MUSCULOSKELETAL & AGED CARE WORKFORCE SERVICES REVIEW

The workforce service reviews undertaken by Health Workforce New Zealand (HWNZ) have been completed and will have a major impact on the physiotherapy workforce.

These reviews have huge implications for physiotherapy.

“There is no alternative but for this series of reviews to achieve major change – with increased demand for health services expected to significantly outstrip projected increases in funding, the status quo is not an option.”

Prof Des Gorman - HWNZ Executive Chairman

Physiotherapy NZ request your feedback:

As requested by HWNZ, Physiotherapy New Zealand will be submitting views on “how to progress the development and testing of the recommendations arising from the think tank stage”. We would like to hear from you, particularly if you have experience in the types of innovations proposed by the reviews. Please email Janet Copeland janet.copeland@physiotherapy.org.nz.

Summaries for aged care and musculoskeletal workforce reviews are included below. For full information see:

<http://www.healthworkforce.govt.nz/our-work/workforce-service-reviews/workforce-services-reviews-progress>

Musculoskeletal Workforce Service Review Summary:

Over-arching principles:

“The over arching concept is that **the most appropriate person** should examine and assess the patient in the most appropriate way when they are first referred. Clinic-based assessment of a patient by a surgical specialist should only occur when there is a realistic expectation that that patient could require surgery.

“Paper (virtual) triage of secondary level DHB referrals should be done by the most experienced clinicians (which should include an orthopaedic surgeon, rheumatologists, a GP Liaison officer and advanced physiotherapy practitioners)”

Recommendations: Physiotherapy & Nursing

- Development and consolidation of advanced scopes of practice for physiotherapists by the Physiotherapy Board and recognized by ACC.
- Better integration between DHB-funded community physiotherapy services and DHB clinicians.
- A funding model that incentivises virtual FSAs and use of allied personnel to assess secondary level referrals rather than current model which drives use of consultant specialists to carry out FSAs for patients with minor complaints.
- Extending musculoskeletal training to clinical nurse specialists, ensuring there is an appropriate career path into this area, developing qualifications with financial and other incentives to undertake this extra work would improve and up skill the musculoskeletal workforce.

Aged Care Workforce Service Review Summary:

A number of common themes were identified:

... “significant improvements will have to be made in preventive and rehabilitative care AND significant numbers of older adults will need to receive care in a community and primary care setting.”

“The changes in the workforce required to support these changes include:

- More consistent focus on preventing and delaying loss of function and restoration of function where that potential exists
- Focus on needs assessment and care planning (focusing on how to best meet the needs and optimise the potential of the individual rather than simply assessing their eligibility for available services)
- Co-ordination and active management of care plans with older people, so that the various and usually multiple components of their care plan are well-integrated
- Building on the expertise of the small group of health practitioners (nurse practitioners, geriatricians, allied health professionals etc) with specialist expertise in care of older people.

Recommendations of the review group include:

- That “An increased focus is directed to home and community-based prevention and rehabilitative service options for older people”.
- ... “a ‘network information strategy’ based on ensuring ready access to all data relevant to the individual person by anyone who needs this to provide optimal care.”

Full document [click here](#)

Feedback to janet.copeland@physiotherapy.org.nz

FEATURE

2011 IPC ATHLETICS WORLD CHAMPIONSHIPS

The International Paralympic Committee hosted the 2011 Athletics World Championships at QEII Stadium in Christchurch during January 2011.



Sports Physiotherapy NZ member Jacqui Kerins is the physiotherapist and medical coordinator for Paralympics New Zealand, and was physiotherapist for the NZ team competing at the IPC Athletics World Champs held at QEII stadium, Christchurch in January 2011.

The event welcomed 1200 international athletes and 900 officials from over 70 countries, and was the first time the event had been held outside Europe. Events included track and field events for athletes with disabilities such as amputees, spinal cord injury, cerebral palsy and visually impaired. The event received significant local and central government support, as well as significant commitment from Athletics NZ, Paralympics NZ, SPARC, Christchurch City Council and NZ Major Events. It is the second largest sporting event held for athletes with disabilities. Sadly the venue, QEII Stadium in Christchurch was severely damaged in the February 2011 earthquake and faces an uncertain future. It was great to see such a World Class Event hosted at the Stadium and hopefully it won't be the last!

Pictured: Tim Prendergast, NZ men's track T-13 competitor at the opening ceremony.



JACQUI KERINS

Dip Phys, Dip MT, Postgraduate Diploma Sports Medicine.

Physiotherapist & Medical Coordinator Paralympics NZ

Jacqui is a Dunedin trained physiotherapist and in her 20 years of clinical practice has worked extensively with sports teams including rugby, netball, swimming, as well as being appointed to positions on HealthTeams at World University Games and Australian Youth Olympic Festivals. As an accredited provider with the NZ Academy of Sport she developed an interest in paralympic sport while working with some of the carded paralympic athletes in her area. As a result she applied for the position of physiotherapist with the NZ Paralympics team for the 2008 Beijing Paralympic Games and was appointed to the team for this event.

Jacqui is currently the Physiotherapist and Medical Coordinator for Paralympics NZ, and contracts part-time to Physiotherapy & Rehabilitation in Levin. She works with all paralympic carded athletes, and the majority of her clinical time is spent working with the paralympic swimming team.

Background to Paralympic Sport

The Paralympic Games are the largest elite sports event for athletes with disabilities. These games are about high performance. The Governing body is the International Paralympic Committee (IPC). 'Paralympic' refers to the Games being run 'in parallel' with the Olympic Games. All Olympic host cities are now obliged to also host Paralympic Games. Paralympic sport originated after the 2nd world war and has grown to the point where the 2008 Beijing Paralympic Games hosted 4000 athletes from 146 countries. There are other amazing events for athletes with disabilities that focus on participation e.g. Special Olympics that are run by separate organizations. In NZ, Paralympic Sport is funded by SPARC and is accountable for its funding, the same as other High Performance Sports are, by producing world class results.

What are your main roles when travelling Paralympic teams and squads?

When travelling with a team, it was my job to be familiar with the athlete's histories prior to leaving, and to assess and treat any injuries that presented while away. The role does include a component of massage. On occasions

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where I am the only medical support person, I would be the first point of contact for everything medical at which point I could arrange the appropriate medical support via either the event Medical Director or a Team Doctor from a nearby friendly country. On return I would report to the athletes own providers to facilitate follow up.

What does the position of Medical Coordinator involve?

The Medical Coordinators position has been developed to better coordinate injury and illness tracking for all Paralympic carded athletes. Making sure the right people get the right information.

What Paralympic sports are you specifically involved with?

I have had most involvement with Swimming and more recently athletics at the IPC Athletics World Champs in Christchurch in January At the Beijing Games, there was only myself as Team Physiotherapist so I was involved with athletes from all the 7 sports we had there.

Can you explain the 'classification' system used in paralympic sport?

The Classification System is a complex, evidence based system. Classes indicate type of sport and levels of health and function. In the case of athletics:

- T for track, F for field,
- 10's Visually impaired
- 20's Intellectual disability
- 30's Cerebral Palsy
- 40's Limbs affected e.g. amputees and congenital short limbs

50's Spinal Cord injured and affected e.g spina bifida

The higher the number the more function. Tim Prendergast is classified as T13 (running 1500m, Visually impaired), Jess Hamil F34, (Shot put and Javelin, Cerebral Palsy,).

What are some of the specific physiotherapy challenges in dealing with paralympic sport?

In general I see these athletes just like able bodied athletes with often the same problems, e.g. thrower shoulders or runners Achilles tendons. So diagnosis is the same but why the injuries occurred and how to fix them can be more tricky.

One example is a wheelchair athlete with shoulder pain. It is super important that shoulders are looked after as not only is the training or competing affected but daily life. Independence and daily activities are affected if they cannot transfer out of a wheelchair due to shoulder pain.

Rehab exercises do need adapting, some exercises e.g. ballistic stretching can increase muscle tone in an athlete with CP and so much for core stability being the be all and end all, when some athletes have no abdominal muscle activity! What is amazing to be reminded of is that so much can be achieved in spite of not having symmetry and perfect muscle balance.

When working with any athlete there is often a point where what they want to do with their bodies is just going to put them at risk. I see my job as doing the best I can to get them in a physically optimum condition, being honest and objective about what I think the risks are and leaving



From left: Tim Prendergast, Jessica Hamil and Holly Robinson, NZ Paralympic Athletics.
Photos from Google Images

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the final decision to them. What is neat about that is that I am often pleasantly surprised and sometimes relieved at what can be achieved.

With respect to returning to competition after an injury, the same applies. It can be a bit of a group effort, with input from coaches and consideration of risks in relation to consequences and upcoming pinnacle events.

What are challenges of dealing with paralympic sport in general and how do you overcome them?

That there is so much to know about a wide variety of things. The knowledge is out there but not all in one place, Neuro Physio's don't tend to be involved in Sports Physio and visa versa, Seating and Prosthetics are specialty areas and yet it is helpful to know a bit about it all or at least who you can refer to. I just do a lot of talking, asking questions and being curious.

Highlight of working with paralympic athletes?

Definitely the people, all the athletes, coaches and support staff are inspiring talented and dedicated. It's great to be a part of.

IPC Athletics World Championships 2011.

It is shocking what has happened in Christchurch as a result of the February earthquake. Among the many thoughts about it has been "How would we have kept our athletes and friends safe? Hotels and roads are inaccessible to wheelchairs and the track at QEII is wrecked, I am grateful we were not there, mindful of those that were and very interested about how to be as prepared as possible for whatever, wherever we are as a team in the future.

What were your main responsibilities during this event?

Medical Support i.e. first contact for any medical issues and Physiotherapy Treatment. I had support from Yvette Latta, Massage Therapist. After the event reporting, to athletes providers for follow up.

What did a typical event-day consist of for you?

Early start to be ready for anyone needing treatment before their event, then usually go to the venue for some treatments and just to be available. It can be a juggle to be where the athletes are when they need you most. We did schedule treatment sessions so we got some down time. Back to hotel at lunchtime and repeat for the afternoon.

Did you find your physiotherapy training prepared you for the requirements of working with paralympic sport?

I am fortunate to have a few years under my belt, just doing the time helps. I have learnt so very much since my initial Physiotherapy Diploma in, my advice is be a lifelong learner. I wouldn't have got here without my post grad study. PG Dip. Manipulative Physiotherapy, PG Dip. Sports Medicine, some Acupuncture, Pilates, and Breathing Rehab courses among others.

I am grateful to Paralympics NZ and SPARC for supporting me with a Prime Minister's Scholarship last year for which I studied Breathing Performance and Rehabilitation at AUT.

A big thanks to my colleagues, Physiotherapists and other members of the Health Teams I have worked with who have been generous with their knowledge and support. Working with good people makes the job fun, is good for the profession and ultimately good for the athletes

What did you have to learn 'on the job'?

You always learn something new, sometimes from athletes, sometimes from other members of the support team, just soak it all up.

What are the main personal attributes you feel are necessary for working in paralympic sport?

You need an attitude that 'the athletes come first', you need to be able to work with a team of individuals, and just do what needs doing.

For more information on NZs Paralympic athletes, events, results and classification systems go to:

<http://www.paralympics.org.nz/>

CLINICAL REVIEW

The effectiveness of manual therapy in the treatment of shoulder impingement.

Phillippa Horne

BPHTY, Otago

PG Cert (acupuncture) Otago, PG Cert (Physiotherapy) Otago

Weld Street Physiotherapy Clinic

Feilding

This narrative review was completed by Phillippa Horne towards partial fulfillment of the Musculoskeletal Physiotherapy paper at the University of Otago.

Introduction

Shoulder impingement is a common form of shoulder pain most frequently seen in overhead activities where the subacromial structures become impinged between the humeral head and the acromium resulting in loss of forward flexion, inflammation, pain and loss of function (Bang & Deyle, 2000). Primary shoulder impingement can be either atraumatic or traumatic in onset and can be due to both intrinsic and extrinsic factors. Intrinsic factors include inflammation of the rotator cuff tendon, bursitis, rotator cuff degenerative tendinopathy and posterior capsule tightness. Extrinsic factors can include an acromial spur, hooking of the acromium and postural dysfunction (Kachingwe, Philips, Sletten, & Plunkett, 2008).

It has been suggested that shoulder impingement is due to tightening of the posterior structures, which causes a shift of the humerus in an anterior superior direction leading to impingement of the subacromial space and pain (Teys, Blisset & Vinchinzino, 2006). Treatment focused on improving the gliding of the humerus as well as the surrounding structures has been implemented in physiotherapy rehabilitation of this subgroup. However the effectiveness of these interventions for impingement syndrome is not well documented.

The aim of this literature review is to review the literature on the effects of manual therapy in the management of shoulder impingement. Articles were included in this study if they used manual therapy techniques, applied to the cervical/thoracic spine or shoulder area. Twelve studies met these criteria.

Manual Therapy

Mobilisation of the glenohumeral joint

Manual mobilisation techniques are used frequently in the treatment of glenohumeral impingement with the aim of restoring normal joint kinematics. The position of the humeral head during overhead tasks may become suboptimal due to changes in the structures around the joint namely the capsule and the surrounding musculature. Impairments of glenohumeral gliding can lead to the formation of abnormal cross linking of the tissues (Conroy & Hayes, 1998) and a reduced capability of the humerus to glide posteriorly during arm motion. A posteriorly directed mobilisation of the humerus is proposed to

stretch the periarticular tissues, which if adequately addressed may lead to dramatic changes in pain and function (Senbursa, Baltaci, & Atay, 2007). The change in pain may also be explained by the pain gate theory where stimulation of mechanoreceptors inhibits nociceptive signals and as a consequence a decreased level of perceived pain is felt (Kachingwe et al., 2008, Bang & Deyle, 2000, Conroy & Hayes, 1998).

Two articles were identified which assessed the effectiveness of a Mobilisation With Movement (MWM) of the shoulder in subjects with shoulder impingement. Teys et al. (2006) found a significant increase in range of motion following a posterolateral glide applied to the glenohumeral joint. The authors examined 24 subjects randomly allocated to a control group (sham anterior glide), or a MWM group. Each group received three treatments of the selected intervention. Results showed a statistically significant increase in range of motion in the MWM group compared to the control group ($P=0.04$). The authors also found a statistically significant improvement in pressure pain threshold ($P=0.03$) in the MWM group when compared to the control group. The authors concluded that a MWM to the shoulder may improve pain and increase range of motion compared to a sham anterior glide, and that a MWM may be a beneficial manual therapy technique in subjects with a painful limitation of shoulder elevation.

More recently Kachingwe et al. (2008) compared manual therapy techniques to exercise in a double blind Randomised Controlled Trial (RCT) pilot study. 33 subjects with shoulder impingement were randomised into four groups: posterolateral MWM of the shoulder plus exercise, glenohumeral mobilisation plus exercise, exercise alone and a control group. Following intervention the authors found statistically significant changes in pain in all groups for pre and post test results. However, they did not find any changes when comparing the four groups. The MWM and mobilisation groups did show an increased percentage change in range of motion compared to the other groups, however this did not reach statistical significance. All three intervention groups also had a higher percentage change compared to the control group on the SPADI questionnaire. The authors concluded that both mobilisation of the glenohumeral joint and a MWM performed at the shoulder might be beneficial as adjuncts to exercise therapy for patients with shoulder impingement.

Both articles concluded that there was some benefit from the use of a MWM for decreasing pain and increasing range of motion. However Kachingwe et al. (2008) showed that this result was not significant. This may be due to the fact that exercise was used in

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CLINICAL REVIEW CONTINUED...

this study in conjunction with the MWM procedure. Exercise may be a factor to consider when looking at rehabilitation of this population. Also smaller groups in this study may lead to some bias. Small sample numbers may further limit the power of both studies.

Three studies have assessed the effectiveness of glenohumeral accessory glides. Conroy and Hayes (1998) examined 14 subjects randomly assigned to either a mobilisation group (mobilisation/exercise/massage) or a control group (exercise/massage). Groups were seen a total of nine times over three weeks. Results showed a statistically significant improvement in the mobilisation group for pain after 24 hours ($P=0.008$) as well as pain on subacromial compression testing ($P=0.032$), when compared to the control group. However, they did not find any changes in functional outcome or any changes in range of motion between the control and intervention groups.

Another larger study by Bang and Deyle (2000) examined 52 subjects randomised into a manual therapy group and an exercise group. Intervention consisted of six visits over two weeks. Following intervention the authors found significant improvements in function, pain and strength following the use of mobilisation to the upper quadrant when compared to the control group. The authors concluded that manual therapy plus exercise was more effective than exercise alone for decreasing pain and increasing strength and function.

Differences in functional outcome seen in the two studies may reflect the different types of manual therapy used. Bang and Deyle (2000) included techniques to any area of the upper quadrant focussing on addressing movement limitation. Conroy and Hayes (1998) on the other hand used a specific mobilisation technique directed at the humerus. They also used glides, which were performed in mid ranges. This may explain the lack of statistically significant changes in range of motion and function in this study. A mobilisation at end range is more likely to result in capsular deformation therefore the technique in Conroy and Hayes (1998) may not have caused adequate stretch to the capsule and hence not made improvements in range of motion (Kachingwe et al., 2008, Conroy & Hayes, 1998).

A prospective RCT by Senbursa et al. (2007) compared manual therapy (including glenohumeral joint mobilisation) to a self training group in 30 subjects diagnosed with outlet impingement syndrome of the shoulder. Study results showed a significant improvement in NEER questionnaire ($P=0.008$) in the manual therapy group compared to the self training group. Range of motion was also significantly improved in the manual therapy group through flexion/abduction and external rotation.

One limitation of this study is its generalised use of manual therapy. It is difficult to attribute the results in the manual therapy group to the use of shoulder mobilisations alone, as multi-modal manual therapy techniques were given to the manual therapy group. This may reflect the nature of physiotherapy itself where it is not often that one treatment is used in isolation. Clinical studies comparing multiple techniques may more accurately reflect current physiotherapy practice.

Spinal Manipulation

The rationale for the use of spinal manipulation in the treatment

of shoulder impingement is based around the theory of interdependence where a dysfunction in one area of the body is proposed to cause a dysfunction in another area (Walser, Meserve, & Boucher, 2009). In the cervical spine it has been found that reduced mobility of the cervical segments often accompanies shoulder symptoms (Bergman et al., 2004). In the thoracic spine there is also evidence to show that reduced mobility in the upper thoracic segments is related to neck-shoulder pain (Walser et al., 2009).

Spinal manipulation for shoulder impingement was assessed in four studies. A systematic review by Walser et al. (2009) examined thirteen studies of which three included thoracic spinal manipulation (two medium quality and one high quality study) for the treatment of shoulder impingement. The authors concluded that thoracic spinal manipulation may accelerate improvements in conditions treated in the short term.

An exploratory pretest/posttest study by Boyles et al. (2009) also examined the effectiveness of thoracic manipulation in 56 subjects diagnosed with subacromial impingement syndrome. Subjects underwent a manipulation performed to the mid thoracic spine as well as the cervicothoracic junction over one session. Results showed a statistically significant decrease in pain ($P<0.05$) and functional scores using the SPADI questionnaire ($P<0.05$), 48 hours following manipulation.

It is hypothesised that manipulation produces an analgesic effect through activation of the descending inhibitory pathways (Walser et al., 2009). This may explain the short term results gained by Boyles et al. (2009). However it is unclear whether these results would produce improvements in long term outcomes for shoulder impingement, due to the lack of ongoing observation.

This study also lacked a control group. Without a control group it is unclear whether results are due to placebo effect or due to the treatment offered. Results may therefore be biased. Both studies advocate the use of thoracic manipulation in subjects with shoulder impingement for reducing pain and improving functional outcome in the short term.

Both Winters, Sobel, Groenier, Arandzen and Jong (1997) and Bergeman et al. (2004) examined the effectiveness of spinal manipulation (thoracic, cervical spine, or rib manipulation) in the outcomes of shoulder impingement. Winters et al. (1997) examined 172 patients diagnosed with anterior impingement of the shoulder randomised to a cortisone injection group, physiotherapy exercises/massage, or a manipulation group. Results showed a significant reduction in pain in both treatment groups when compared to the cortisone group.

Bergeman et al. (2004) also found a significant change in shoulder pain following spinal manipulation. They randomised 150 subjects with anterior shoulder pain into usual GP care or a manual therapy group consisting of manipulation/mobilisation of the cervical/thoracic or rib area. Results showed a statistically significant reduction in shoulder pain (difference, 2.0 points [CI, 0.3 to 3.7 points]) in the manual therapy group at 12 weeks compared to the control group, and at 52 weeks follow up. Function was improved in the manual therapy group, with a significant number of patients reported full recovery or a large improvement in symptoms.

CLINICAL SECTION

CLINICAL REVIEW CONTINUED...

Winters et al. (1997) and Bergeman et al. (2004) concluded that manipulation for the cervicothoracic spine and adjacent ribs accelerated recovery of shoulder symptoms.

Spinal Mobilisation

McClatchie et al. (2008) compared the addition of a cervical lateral glide versus a placebo treatment in a cross over study of 21 subjects with shoulder pain. Subjects were treated initially with one treatment then returned within four days to have the other treatment. The cervical lateral glide was performed to C5, C6 and C7 for a total of two minutes. Outcomes measured included: pain using the VAS score, active cervical spine range of motion and manual muscle testing of shoulder abduction at 90°. The authors found significant differences in both shoulder pain intensity ($P < 0.001$) measured by VAS before and after the mobilisation treatment. Pain scores did not change following the placebo treatment. Overall a significant difference was seen between the control and placebo groups ($P = 0.0002$). The authors concluded that a cervical lateral glide of a two minute duration could effect changes in shoulder pain beyond that of placebo treatment.

This study highlights the fact that although the cervical spine may be asymptomatic on testing, mobilisation of it may provide changes in symptoms in the shoulder impingement population. Therefore it is important that the cervical spine is not ruled out as a potential source of shoulder symptoms.

Soft Tissue Therapy

Soft tissue massage is proposed to improve shoulder mechanics by increasing the viscoelastic property of muscles. This change is thought to amount to improved range of motion in the muscle fibres and decreased pain. (Dolder & Roberts, 2003).

Soft tissue massage was performed in Dolder and Roberts (2003) study of 29 subjects with shoulder pain randomised into a soft tissue massage group or a control group who received no treatment. Following two weeks of intervention the authors found significant improvements in the soft tissue massage group for pain intensity ($P = 0.02$), functional disability ($P < 0.001$) and active range of motion ($P < 0.001$) through flexion and abduction ranges compared to the control group. The authors concluded that soft tissue massage was effective at improving pain, function and range of motion in subjects with shoulder pain.

Another study by Godges, Mattson-Bell, Thorpe and Shah (2003) assessed the effectiveness of soft tissue massage plus proprioceptive neuromuscular facilitation in 20 subjects with limited external rotation and overhead reach. Subjects were randomized to either a treatment group or a control group who received no treatment. Treatment was

received over a ten minute duration. Results showed a statistically significant increase in external rotation range ($P < 0.0005$), and overhead reach ($P = 0.009$), in the treatment group when compared to the control group.

Both studies advocate the use of soft tissue massage in the treatment of pain and reduced range of motion in the shoulder. However both studies failed to use a comparable control group so it is difficult to attribute results gained to the treatment received as treatment results may partly be explained by a placebo effect.

Neurodynamic Stretching

Senbursa et al. (2007) compared the effectiveness of self care (stretching strengthening exercises) versus manual therapy, which included radial nerve stretching. The authors found significant improvements in the manual therapy group when compared to the self care group for range of motion including flexion/abduction and external rotation following 4 weeks of intervention. The manual therapy group also showed statistically significant improvements compared to the self care group for the Neer questionnaire ($P > 0.05$). This study concluded that manual therapy was more effective at improving range of motion and reducing pain than self care exercises.

Unfortunately these results cannot be extrapolated to any one manual therapy technique as multiple techniques were used in the manual therapy group. Therefore the use of radial nerve stretching in combination with other manual therapy techniques may be beneficial in improving range of motion and pain in subjects with shoulder impingement.

Conclusions

In conclusion, there is some evidence to show that a MWM of the glenohumeral joint effects positive changes in both pain and range of motion. There is also some evidence to suggest that an accessory glide performed on the glenohumeral joint is as effective as a MWM. However the studies in this literature review used glenohumeral mobilisations in mid ranges where the capsule was not in a stretched position. Mobilisation in a capsular stretch position may effect even greater improvements. Further research into the effectiveness of glides performed in a stretch position is required.

The use of thoracic manipulation may be effective at improving pain in the short term, however if range of motion is a priority then this technique may not be as beneficial. Mobilisation of the asymptomatic cervical spine may help to improve range of motion and pain in the shoulder, although again this technique may only be beneficial in the short term.

CLINICAL REVIEW CONTINUED...

Massage therapy performed around the shoulder may be effective at improving changes in range of motion when compared to no treatment. However there has not been enough research performed to advocate this technique over other manual therapy techniques

The studies in this literature review suggest that the management of patients with shoulder impingement must be multifactorial. One technique alone does not seem to be beneficial above others. It seems that the combination of these techniques may be more beneficial than the techniques by themselves.

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van den Dolder, P. A., & Roberts, D. L. (2003). A trial into the effectiveness of soft tissue massage in the treatment of shoulder pain. *Australian Journal of Physiotherapy*, 49, 183-188.

Godges, J. J., Mattson-Bell, M., Thorpe, D., & Shah, D. (2003). The immediate effects of soft tissue mobilization with proprioceptive neuromuscular facilitation on glenohumeral external rotation and overhead reach. *Journal of Orthopaedic & Sports Physical Therapy*, 33 (12), 713-718.

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RESEARCH SECTION

SPNZ PHYSIOTHERAPY RESEARCH REVIEWS

SPORT & THE PHYSICALLY CHALLENGED ATHLETE.

In keeping with the feature on the Paralympics Athletics World Championships in this edition, the SPNZ Special Projects Group have compiled a list of research reviews on sport and musculoskeletal pain in the disabled athlete. Research reviews will be posted on the website for future reference

www.nzsopa.org.nz/resources.html

Reviews by Monique Baigent, Wayne Fausett, Nathan Wharerimu and Amanda O'Reilly.

Sport Participation by Physically and Cognitively Challenged Young Athletes.

Patel, D.R. & Greydanus, D. E. (2010). *Pediatric Clinics of North America*, 57(3), 795–817.

doi:10.1016/j.pcl.2010.03.002

Article Summary

There have been increased sporting opportunities and participation for athletes with disabilities over the past few decades. This review outlines disability-specific medical and orthopaedic conditions to be considered when working with these athletes. It also details which sports are appropriate for a specific disability, and the type of training/conditioning that they may require.

There are 3 international sport organisations for the disabled athlete. These are the Paralympics Sports for athletes who have predominantly physical disabilities; the Special Olympics for those with intellectual disability (8years and over) and the Deaflympics Organized sports for deaf athletes. Most athletes with disabilities can participate safely in several sports if appropriately matched; this can lead to extensive psychological and medical benefits. This summary touches on Cerebral palsy, wheelchair athletes, down syndrome and amputee athletes, for more information about these and on spinal cord injury (SCI), myelomeningocele, visually impaired, deaf and intellectually disabled athletes look up the full text.

It is important to be aware that cerebral palsy patients have progressively decreasing flexibility and muscle strength, and increased tone; this can contribute to the development of joint contractures. Athletes with cerebral palsy are at increased risk for overuse syndromes, muscle strains, chronic knee pain, patellofemoral problems, and chondromalacia patellae. Hip flexion contractures and tight hamstrings can lead to increased lumbar lordosis, chronic back pain, and spondylolysis.

Overuse is the most common cause of injury in wheelchair athletes; the majority of this occurs in the shoulders and wrists. Peripheral entrapment neuropathy is also common, the most frequent of which is carpal tunnel syndrome, this is reported in up to 50% to 75% of the athletes.

When working with amputees, prostheses can increase local skin pressure and contribute to abrasions, blisters, and skin rash. Socket irritation in below knee amputees can lead to prepatellar, infrapatellar, and pretibial bursitis. It is useful to note that athletes with lower-limb amputation compensate by increasing lateral flexion and extension of the lumbar spine, which can potentially lead to back pain.

Atlantoaxial instability (AAI) has been reported in 15% of persons with Down syndrome. Persons with Down syndrome have abnormal collagen that results in increased ligamentous laxity and decreased muscle tone. Asymptomatic AAI can lead to subluxation, resulting in SCI during sport participation. For these reasons they are closely monitored and do not participate in contact sports. Persons who have Down syndrome tend to have lower VO₂ peak values and lower peak heart rates; some studies however suggest that exercise training may improve these values.

Clinical Significance

Epidemiologic studies have shown that disabled athletes have similar injury incidence and patterns to those without disabilities. Physiotherapy has its place in conditioning and treating these athletes to help them perform in their chosen sport.

RESEARCH SECTION

SPNZ PHYSIOTHERAPY RESEARCH REVIEWS CONTINUED.....

Association of shoulder pain with the use of mobility devices in persons with chronic spinal cord injury.

Jain NB, Higgins LD, Katz JN, & Garshick E. (2010) *Physical Medicine and Rehabilitation*; 2 (10): 896-900
doi: 10.1016/j.pmrj.2010.05.004

Article Summary

Using a cross-sectional analysis, within a cohort, this study assessed the prevalence of shoulder pain and its association with use of mobility devices in people with chronic (>1 year) spinal cord injury (SCI). 93 participants completed health and pain questionnaires, with shoulder pain, as described by the McGill Pain diagram, in the previous 6 months the primary outcome measure. The most commonly reported sites of pain were legs (47% of participants), back (45%), and shoulders (40%). 37 participants reported the shoulder as one site of pain. In the 6 months previous, 48% of participants using crutches/canes, and 47% of motorised wheelchair users, reported shoulder pain. 35% of manual wheelchair users reported shoulder pain, which is similar to participants who do not use any device (33%). When stratified by motor level, complete C5-C8 SCI had the highest prevalence of shoulder pain. The authors concluded shoulder pain is highly prevalent in people with chronic SCI.

Clinical Significance

This paper provides evidence shoulder pain in SCI is not limited to manual wheelchair users, as the majority of previous research has suggested. The cause of shoulder pain, other than manual wheelchair use, was attributed to excessive use of the upper limb for ADLs, transfers, and reaching from a seated position. One can certainly see how users of crutches and canes could develop shoulder pain over time, but it is interesting to note the percentage of motorised wheelchair users with shoulder pain. Users of motorised chairs often have higher levels of motor impairment (mid to lower cervical), which are responsible for innervation of the local and global stabilisers of the glenohumeral joint. Denervation of these muscles could lead to decreased functional stability of the glenohumeral and scapulothoracic joints. Although no attempt was made to diagnose causes of shoulder pain in this study, the authors did discuss previous studies which report cuff tears and instability as reasons for shoulder pain in SCI.

Defining advantage and athletic performance: The case of Oscar Pistorius

Jones C, Wilson C (2009). *European Journal of Sport Science*; 9(2): 125-131
DOI: 10.1080/17461390802635483

Article Summary

Oscar Pistorius is a successful paraolympian from South Africa who has a double below knee amputation. He expressed a desire to compete in the 400 metre race in the Olympics but was prohibited from competing at any International Amateur Athletics Federation (IAAF) competition on grounds of fairness. The IAAF argued that Pistorius's highly specialized prosthetic limbs gave him an unfair advantage over able bodied athletes who were unable to use such devices. This decision was subsequently overturned by the Court of Arbitration for Sport following an appeal by Pistorius. This article explores the empirical and ethical difficulties associated with the application of the principle of fairness in sport using the case of Pistorius as an example.

Clinical Significance

The case of Pistorius really opened a can of worms in regards to fair play in sport. The authors have done a great job of taking a complex topic fraught with legal jargon and presenting it in a clear, easy to read, interesting way. As with most ethical dilemmas there are sound arguments presented both for and against. For example Pistorius has high tech prosthetic blades that give a clear mechanical advantage during running however he has no calf muscles and is also unable to crouch so acceleration during the start is compromised. It is very difficult to weigh up the two to determine if he is more at an advantage or not. Pistorius is aiming for the 2014 Olympics. It will be interesting to follow this case and see how it pans out.



RESEARCH SECTION

SPNZ PHYSIOTHERAPY RESEARCH REVIEWS CONTINUED.....

Upper extremity musculoskeletal pain during and after rehabilitation in wheelchair-using persons with a spinal cord injury.

van Drongelen S, de Groot S, Veeger HEJ, Angenot ELD, Dallmeijer AJ, Post MWM, van der Woude LHV (2006). *Spinal Cord*; 44: 152–159

DOI 10.1038/sj.sc.3101826

Article Summary

This prospective study conducted in the Netherlands, investigated musculoskeletal pain during and after rehabilitation in wheelchair-using subjects with a spinal cord injury (SCI) and its relation with lesion characteristics, muscle strength and functional outcome. Using questionnaires administered four times during rehabilitation and one year after rehabilitation, the number, frequency and seriousness of musculoskeletal pain complaints of the wrist, elbow and shoulder, a pain score calculated and an overall score was obtained by adding the scores of the three joints of both upper extremities. Muscle strength was determined by manual muscle testing. The motor score of the functional independence measure provided a functional outcome. Subjects with tetraplegia showed more musculoskeletal pain than subjects with paraplegia ($P < 0.001$). Upper extremity pain and shoulder pain were significantly inversely related to functional outcome ($P < 0.001$). Muscle strength was significantly inversely related to shoulder pain ($P < 0.001$). Musculoskeletal pain at the beginning of rehabilitation and BMI were strong predictors for pain 1 year after in-patient rehabilitation ($P < 0.001$).

Clinical Significance

Results of this study suggest subjects with TP are at a higher risk for upper extremity musculoskeletal pain and for shoulder pain than subjects with paraplegia, and that higher muscle strength and higher functional outcome are related to fewer upper extremity complaints. Shoulder, elbow or wrist pain can pose a significant threat to the functional ability and independence in performing transfers and ADLs' for tetraplegic and paraplegic patients. Whether working in the in-patient/rehabilitation phase, or treating a patient in private practice, any upper extremity symptoms must be taken seriously and all possible contributing factors assessed, modified and treated as appropriate. When pain free, emphasis should move to ongoing strengthening and body-weight management in order to prevent future occurrences of upper extremity pain.

Sports medicine for the disabled. The time for specialization in prosthetics and orthotics is now.

Gailey RS, Cooper RA. (2009). *Prosthetics and Orthotics International*; 33(3):187-191

DOI: 10.1080/03093640903083934

Article Summary

Sports as medicine/rehabilitation has been a speciality within medicine since the time of gladiators and soldiers wounded during battle. 1988 saw the first amputees run with a 'sports prosthesis'; the carbon fibre J-shaped foot. As speciality in prosthetics and orthotics is relatively new compared to other healthcare professions, there is limited research with regards to sports prosthetics. This limits any debate needed to determine equality between disabled and able bodied athletes such as in the Oscar Pistorius case; a young South African bilateral transtibial amputee who wished to compete against able-bodied athletes. He was accused of having an advantage over these athletes when competing with the Cheetah Flex-Foot. However, there are plausible reasons for the lack of evidence; the population is considerably smaller, there are numerous levels of physical disabilities and the geographical distribution of elite athletes makes information gathering extremely difficult. The cost and rate of technology developments makes high quality research difficult to justify. There are numerous orthotists that are extremely skilled in the fabrication of adaptive sports technology. It is now time to create a certification programme acknowledging qualified sports medicine specialists in this area so that athletes can be ensured they are being cared for by a knowledgeable clinician who has demonstrated a minimal level of competency.

Clinical Significance

Currently there is no certification for sports medicine specialist in the area of prosthetics and orthotics. Other healthcare professionals who specialize in sports medicine require additional training and a mechanism to certify competency. Disabled athletes will continue to demand advancements in sports equipment for better fitness, recreational pursuits and competition. It is now time to create a certification programme acknowledging qualified sports medicine specialists skilled in the fabrication of adaptive sports technology so that athletes can be ensured they are being cared for by a knowledgeable clinician who has demonstrated a minimal level of competency. We as colleagues and allied healthcare professionals would also be able to identify specialists within the community of whom we could confidently refer our patients to.

RESEARCH SECTION

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April 2011; Volume 41, Issue 4

[RESEARCH REPORTS]

Thoracic Spine Thrust Manipulation Versus Cervical Spine Thrust Manipulation in Patients With Acute Neck Pain: A Randomized Clinical Trial



Emilio J. Puentedura, Merrill R. Landers, Joshua A. Cleland, Paul E. Mintken, Peter Huijbregts, César Fernández-de-las-Peñas

Thoracic Spine Extension Mobility in Young Adults: Influence of Subject Position and Spinal Curvature



Stephen J. Edmondston, Robert Waller, Peter Vallin, Andreas Holthe, Andrea Noebauer, Enda King

The Short-Term Effects of Treating Plantar Fasciitis With a Temporary Custom Foot Orthosis and Stretching

Michelle Drake, Caryn Bittenbender, Robert E. Boyles

Using Outcome Measure Results to Facilitate Clinical Decisions the First Year After Total Hip Arthroplasty

Deborah M. Kennedy, Paul W. Stratford, Susan Roberts, Jeffrey D. Gollish

Patellofemoral Joint Forces and Stress During Forward Step-up, Lateral Step-up, and Forward Step-down Exercises

Chatchada Chinkulprasert, Roongtiwa Vachalathiti, Christopher M. Powers

[RESEARCH REPORTS]

Fear-Avoidance Beliefs and Clinical Outcomes for Patients Seeking Outpatient Physical Therapy for Musculoskeletal Pain Conditions

Steven Z. George, Sandra E. Stryker

Lower Trapezius Muscle Strength in Individuals With Unilateral Neck Pain

Shannon M. Petersen, Sarah N. Wyatt

[PERSPECTIVES FOR PATIENTS]

Total Hip Replacement: How Long Does It Take to Recover?



[MUSCULOSKELETAL IMAGING]

Differential Diagnosis in a Patient With Dizziness

Tracy J. Brudvig, Mary Fletcher

Thoracic Syrinx in a Patient With Balance Difficulties

Shanan L. Richard, Sharon S. Wang, Timothy J. Georgelas

[TECHNICAL NOTE]

A New Device for Assessing Ankle Dorsiflexion Motion: Reliability and Validity

Jason Wilken, Smita Rao, Miriam Estin, Charles L. Saltzman, H. John Yack

[BOOK REVIEWS]

April 2011 Book Reviews

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- Foreign travel and CTX-M-type
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- Intraoperative methadone for pain after spine surgery
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AWARDS SECTION

2010 SPNZ STUDENT RESEARCH AWARD

Recipients of the **2010 SPNZ Student Research Award** from AUT University were Ishaan Castelino and Dhara Wijayaratne (pictured). Congratulations to Ishaan and Dhara on their winning review of “The effectiveness of manual and exercise therapy in the treatment of hip osteoarthritis”. A summary of their review findings is printed in this edition of the SPNZ Bulletin.



The effectiveness of manual and/or exercise therapy in the treatment of hip osteoarthritis.

Ishaan Castelino and Dhara Wijayaratne
(AUT University)

OVERVIEW

This study is a systematic review of current literature evaluating the effectiveness of manual and exercise therapy in the treatment of hip OA pain. Five clinical trials out of two hundred and twenty six research articles met the inclusion criteria. The methodological quality of each article was critically analysed and scored using the PEDro scale and the Internal Validity Score (IVS).

Four articles assessing exercise therapy and one article studying manual therapy were found which were of moderate methodological quality. Exercise therapy included both hydro and land based programmes while manual therapy included stretching, tractions and joint glides.

Results showed mild to moderate improvements in pain with exercise therapy compared to no intervention. Within exercise treatment, hydrotherapy demonstrated better outcomes in pain compared to land based exercises. In comparison, the only study examining effects of manual therapy illustrated significant improvements in pain compared to exercise therapy.

CLINICAL SIGNIFICANCE

This study supports the use of exercise therapy in the treatment of hip OA pain. Although there is insufficient evidence to support the use of manual therapy alone, it is recommended to use it in conjunction with exercise. Reduced pain in turn may help improve a patient’s functional abilities thus enabling them to maintain independence and carry out activities of daily living.



BOOK REVIEW

Pharmacology for the Physical Therapist

Peter C. Panus, Erin E. Jobst, Susan B. Masters, Bertram Katzung, Suzanne L. Tinsley, Anthony J. Trevor:

Publisher: McGraw-Hill
Date: 2009.
Format: Hardback, 608 pages
ISBN: 0071460438 / 9780071460439

[for more information about the book - click here](#)

The First Pharmacology Book

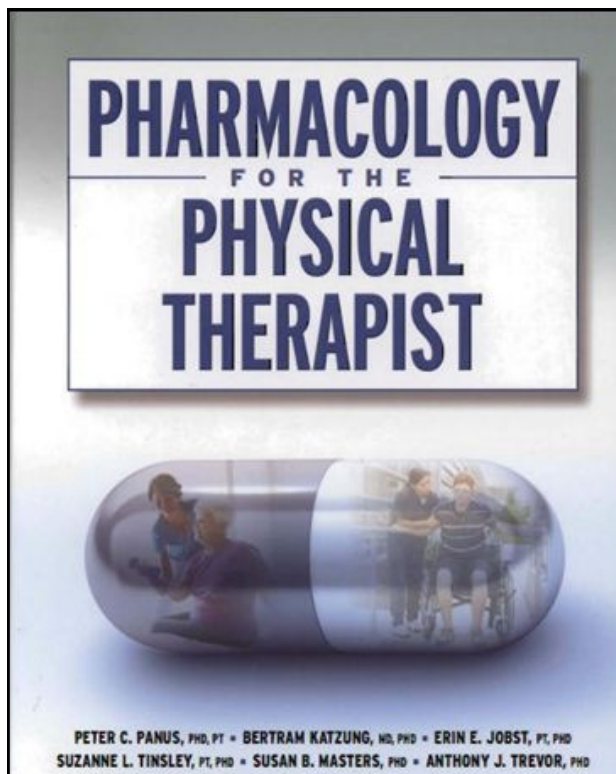
The first pharmacology book for physical therapists written by physical therapists and PhD pharmacologists. Based on the classic Katzung's Basic and Clinical Pharmacology, this ground-breaking book illuminates the ever-expanding role of pharmacology in rehabilitation practice. In it you'll find unmatched insights on the full range of pharmacology topics, from drug receptor pharmacodynamics and general anesthetics, to cancer chemotherapy -all told from the vantage point of the authors' extensive first-hand experience. This 608-page book covers the pharmacology of all drug categories used in modern medicine, ranging from antibiotics, analgesics, cancer drugs, etc.

Well...that's what the publisher's say... and they would... wouldn't they! However the big question for Sports and Musculoskeletal Physiotherapists' is... would it inform clinical practice and should I buy it? Read on...

The book is divided into seven sections, based on the intended effects of the drugs on the cardiovascular, central nervous, endocrine, chemotherapeutic, and musculoskeletal systems, however, the musculoskeletal overview is a very small component of a very comprehensive book. While it is 2 chapters, it is only 10 pages of 608 and focuses on skeletal muscle relaxants and drugs affecting eicosanoid metabolism, disease-modifying antirheumatic drugs and drugs used in gout. Not much there for sports physiotherapists unfortunately. The muscle relaxant section are focused on drugs that would be used for neurological conditions (e.g. Baclofen, Botox). The eicosanoid metabolism chapter (#34) is better and focuses on the inflammatory cascade, from arachidonic acid, a normal constituent of cell membranes. This part of the chapter is very well explained with clear figures and diagrams, but unfortunately the section on NSAIDs is only 3 pages long before it moves on to Gout.

In general, the book is well written and extremely comprehensive in its approach. The book does not make for easy reading, especially for novice students, as it quickly assumes a thorough understanding of intricacies of biochemistry, physiology, and molecular biology. However, it is important to note that physiotherapy students these days have a strong grounding in the basic sciences including physiology, pathology and pharmacology.

Additionally, it can serve as a good reference for any therapist who wishes to understand more about the action of a certain drug. As such it would be a useful addition to a physical therapist's library especially for those who have already acquired a working knowledge of pharmacotherapy. In summary, this would be a great book for a physiotherapy student, educator or generalist physiotherapist, however the content is limited for sports and musculoskeletal physiotherapists'.



Dr Tony Schneiders
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30 April	Polestar Pilates - PF	Auckland Wellington	polestarpilates.co.nz/forms.php
3-4 May	Agencies for Nutrition Action 2011 National Conference	Auckland	http://www.ana.org.nz/conference11/
7 May	Kinesio Taping Course KT 1 - 2	Wellington	www.kinesiocourses.co.nz/courses
7 May	Mulligan Part A Course	Whakatane	susan.langdon@bopdhb.govt.nz
7 May	NZ Manipulative Physiotherapists Association Lumbar Instability, MSB and Hip	Wellington	nzmpa.org.nz
6 & 7 August	NZ Manipulative Physiotherapists Association Knee and Exercise Prescription	Wellington	nzmpa.org.nz
27 & 28 August	NZ Manipulative Physiotherapists Association Scientific Conference: "The Role of Exercise in the Management of Muscu- loskeletal Pain & Dysfunction"	Rotorua	http://www.nzmpa.org.nz/2011-conference
2012			
March 17 & 18	Sports Physiotherapy NZ "Prevention, Practice & Performance"	Sebel Trinity Wharf, Tauranga	www.nzsopa.org.nz

INTERNATIONAL COURSES & CONFERENCES

When?	What?	Where?	More information
2011			
24 -26 June	Discover the Sports Thorax—LJ Lee	Sydney	physiohealing.com.au
19-22 October	Australian Conference of Science and Medicine in Sport	Freemantle, Perth	ACSMS Conference
27-30 October	Australian Physiotherapy Association 2011 Conference	Brisbane	http://physiotherapy.asn.au/conference2011/
10-12 Nov	Discover the Sports Pelvis—LJ Lee	Sydney	physiohealing.com.au
2012			
30 Sep - 5 Oct	IFOMPT 2012: Rendez-vous of Hands and Minds	Quebec, Canada	www.ifomptconference.org

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Each Home Study Course (HSC) consists of five or six chapters (monographs) along with a final examination. Chapters are approximately 15-30 pages in length and require 4 to 6 hours to complete. The final examination consists of approximately 5 questions from each chapter. To purchase, click on the link to the course you would like, or go directly to the

[SPTS Store](#).

CLASSIFIEDS

PRIVATE PRACTICE POSITIONS

HOBSONVILLE

Part time position (20-30 hours per week)

- Are you looking for a position that rewards your efforts, pays top industry rates, provides incentives to achieve excellence and fosters your professional and business development?
- Are you a people person, infectiously friendly, empathetic, loyal, trustworthy, self driven, goes the extra mile and a good listener?
- Do you have ambitions of running your own practice in the future?
- Do you enjoy working with sports teams?
- Can you work independently?

If you can say yes to most of these, then I would like to talk to you. We have a tight team that works in a developing area in a newly refurbished clinic with onsite gymnasium. We plan to grow, come join us.

Correspondence to: Craig
physio@hobsonvillephysio.co.nz

HAMILTON

Full time & Part time Physiotherapist Position

- Great Opportunity Available for Enthusiastic and Motivated Physiotherapists to Join Our Team!
- We are a long standing, busy and dynamic accredited private practice.
- We treat a variety of clientele, from acute, sports, post operative and general musculoskeletal conditions to more chronic and complex cases. We offer Gym & Hydrotherapy Rehabilitation with Activity Based Clientele.
- We work with Sports Teams: Waikato Senior Men's University Rugby Teams, Hillary Scholars, Rugby 7s, Netball and Track.
- Coaching and Mentoring is an Essential Part of our Physiotherapy Practice. We hold a regular In-service Programme which includes guest speakers.
- A Top Rate Remuneration Package available including Funding for Courses.

Please e-mail your CV to:
performanceplusphysio@xtra.co.nz

or mail to:

PERFORMANCE PLUS PHYSIO LTD
 280 Peachgrove Road, Hamilton.

SPORTS TEAM POSITION

AUCKLAND POLICE RUGBY LEAGUE

Physiotherapist needed

Auckland Police Rugby League, The Fencibles are looking for a suitably qualified physiotherapist to join them on their tour to the east coast of America in May this year.

The team will be traveling to Philadelphia, Washington D.C., Jacksonville Florida and New York playing 9's rugby league in various tournaments.

The successful person will be expected to be responsible for the strapping and sports medicine advice/treatment for all players at training, game time and after tournament times. All travel and strapping /medical supply costs will be met. There will be many social engagements and excursions planned for the team during the tour as the trip coincides with Police Memorial Day in Washington D.C.

Travel dates are from May 14th – June 3rd and all contact should be made to David Beattie physio@xtra.co.nz phone: 021 419 819. Please contact David ASAP to indicate your interest in travelling with the Fencible team to America this year.

PRACTICE FOR SALE

GISBORNE

Physiotherapy/Acupuncture clinic in Gisborne.

Great opportunity to combine work and lifestyle

Gisborne is well known for its stunning coastline, surf, mild climate. The Physical Therapy Centre is an established accredited practice. High visibility on a main road 5 minutes walk from town. Partner in a local PHO we have strong relationships with local G.Ps and orthopaedic surgeons. Currently physiotherapy, acupuncture and massage provided. Open for 7 years the clinic has an extensive loyal client base. Situated in a renovated villa the clinic has a large reception area, 4 treatment rooms, free parking, and a long fixed term lease. Current owner happy to assist transition period.

Genuine enquiries: physicaltherapy@ihug.co.nz

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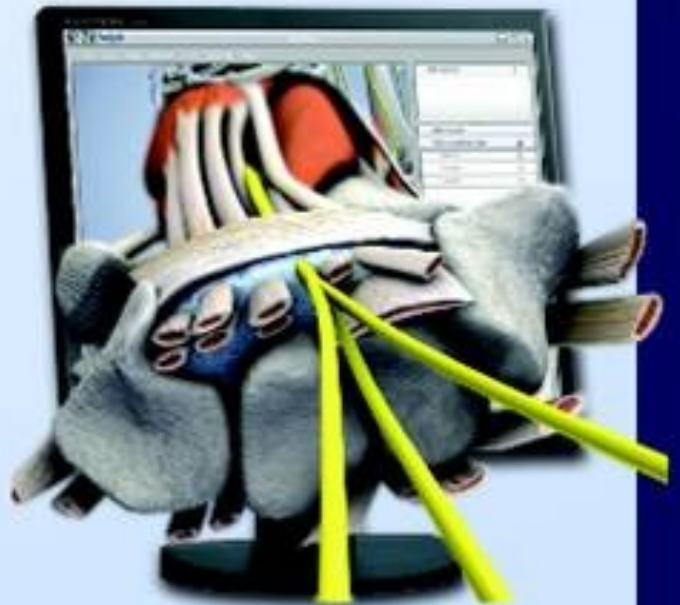
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ADVERTISING

Manaka Associates 2011 Japanese Acupuncture Seminar Series

Japanese acupuncture has become very popular in the West. Well received by clients and practitioners the Japanese styles use thinner gauge needles, shallow insertions and less stimulation than the Chinese styles to produce effective yet painless treatments.

Yoshio Manaka was a classical Japanese acupuncturist who practiced acupuncture in Japan following the 2nd world war. Manaka developed a treatment protocol using hara (abdominal) patterns to assist diagnosis and monitor treatments.

The **5 Step Manaka** protocol is a powerful treatment tool effective for a wide range of musculoskeletal and internal organ pathologies. The Introductory weekend will introduce basic Steps 1-4. The following 3 weekends will further develop the work, allow for practice and greater mastery of techniques, introducing alternative options for each step.

Weekend 1 (May 21/22)

- Hara (abdominal) palpation to identify Hara patterns
- Manaka treatment protocol (Steps 1-4). Kyotoshin (needle head moxa), Intradermals for symptomatic treatments, Sotai (Japanese muscle rebalancing)

Weekend 2 (Jun 18/19)

- Alternative Hara patterns Steps 1 and 2
 - Specialized moxa treatments-direct, cone, needle head
- Manaka hammer-for symptomatic treatments

Weekend 3 (Jul 9/10)

- Whiplash and hepatitis treatments
 - Polar Pairs, open points
- Pain, numbness and burns treatments with IPC.

Weekend 4 (Aug 20/21)

- Home therapies introduced-sotai exercises, tiger warmer, dietary advise
- Blood letting and cupping

Teacher - Tracey Walker, Dip Oriental Therapies (Syd), Cert Manaka Prot, Registered Toyohari Practitioner, B.App.Sc. (Physio),

Course Fee: \$ 350 - per weekend Student Fee: \$300 -per weekend

Venue: All courses will run in Wellington. Venue to be confirmed

Weekend 1 is a pre-requisite to all following courses. Students with prior Manaka training are welcome to participate in any weekend they choose.

Registrations/Enquiries - Jacci Williams, physicaltherapy@ihug.co.nz