



Inside this issue:

Shin Pain in Sport	1
Service Profiles	1
Stress Fracture of the Lumbar Spine	2
News at SSMC	2
Sports Quiz	2

Volume 1, Issue 4

1st May, 2008

**Level 2, NSW Institute of Sport Building
6 Figtree Drive
Sydney Olympic Park NSW 2127
Phone: (02) 9764 3131 Fax: (02) 9764 3443 Web: www.ssmc.com.au**

**Shin Pain in Sport: Many Possible Causes
Dr Scott Burne, Sports Physician**

“Did You Know”

Dr Nabeel Ibrahim is now consulting at SSMC and offers a wide range of general surgery, including key-hole surgery for hernia and operative management of athletic groin pain.

New to SSMC
♦ Exercise Physiology
♦ BodyFlow
(see next page for details)



- ♦ Physiotherapists
- ♦ Sports Physicians
- ♦ Podiatrists
- ♦ Massage Therapists
- ♦ Orthopaedic Consultants
- ♦ Dietitians
- ♦ Sports Psychologists
- ♦ General Surgeon
- ♦ Sports Physiologists
- ♦ Exercise Physiologists
- ♦ BodyFlow

Athletes with repetitive heavy landings, (eg runners, basketball, triathletes) are prone to chronic shin pain. Many will be troubled for months by pain that affects training ability and may lead to time off sport. In elite competition even Olympic or World Championship selection can be affected.

The key presenting feature is shin/calf pain. Musculoskeletal diagnoses are usually either: chronic periostitis, stress fracture, and compartment syndrome; these are in separate anatomical areas and present with overlapping, but different, clinical features. All usually have an insidious, slow onset. Other less common causes include vascular, referred pain or local bone pathology.

Periostitis (most so-called “shin splints”), cases have diffuse pain

on inner lower leg (tibia) border. Typically pain on warm-up, improving with activity, and notice-



able on warm-down is typical. Palpation reveals tenderness over 5-15cm, and the diagnosis is clinical. Ice/anti-inflammatories often help symptoms, but do not resolve the condition.

Stress fracture cases have pain, worsening with activity, often noticeable at night. Hopping will often reproduce pain. Tenderness is more focal. Diagnosis is via bone scan, aided by CT.

Chronic exertional compartment syndrome presents with “crescendo” (builds up) pain in the front (anterior) muscles of the shin or the back of the calf (posterior). Often a tightness accompanies pain. The athlete will sometimes notice sensory changes such as paraesthesia and/or numbness, suggestive of nerve compression. Diagnosis is via a compartment pressure test (which can be done at SSMC). Surgery is indicated in persistent cases.

Biomechanical assessment is of utmost importance. Usually it will be appropriate for the athlete to undertake a physiotherapy opinion with recommendations for detected abnormalities. Podiatry is also often utilised to assess and treat foot mechanics, if this is considered a risk factor for further pain.

Service Profiles

Sports Physiotherapy
Treatments using the latest research in stability for shoulders, back/pelvis and hips, including functionally specific exercise and flexibility classes. Treatment of all sport and non-sport related injuries.

Sports Physicians
Provide diagnosis and management of all musculoskeletal problems as well as medical problems associated with sport. All of our Sports Physicians currently look after elite sport-teams and individuals.

Podiatry
Treating dysfunction in the musculoskeletal system arising from foot and lower limb injuries or imbalance. Evaluation of sports shoes and appropriate shoe selection recommendations for each sport.

Massage Therapy
Offering a range of treatment from sports to relaxation massage. Our massage therapists aim to provide relief from muscular complaints due to sports injury through to postural pain. The focus is on specific measurable results to achieve the outcomes you need. All therapists have traveled and trained extensively.

Nutrition
Provide advice on training and competition nutrition, optimising nutrient intake, and treatment of nutritional deficiencies. Diabetic, cholesterol-lowering, high in fibre and specialized counseling for weight control (weight loss/bulking up) are available.

Orthopaedics
Leading Orthopaedic Surgeons offering specialist services for shoulder,

hip, knee and ankle pathology.

Sports Psychology
Assisting athletes with injury management, competition and life management skills.

General Surgery
High profile General Surgeon offering services such as operations for hernia, varicose veins, abdominal wall, breast surgery, laser treatments, and endoscopic carpal tunnel.

Exercise Physiology
Exercise physiologist aim to utilize exercise as an intervention for the management/treatment of chronic conditions ranging from diabetes to osteoporosis. EP's also specialize in improving exercise capacity, weight loss, and developing individualized exercise programs.



Sports Quiz

1. Where were the 1964 Olympics held?
2. Who won the 1977 NSW Rugby League grand-final?
3. Who is the last Aussie male to win the Australian Tennis Open?
4. Which Olympics held the inaugural Women's marathon?
5. Which relocated AFL team is now the Brisbane Lions?

Answers at bottom of page

Exercise Physiology

is a new addition to the services at Sydney Sports Medicine Centre. Exercise physiology is a leading allied health profession addressing exercise based interventions in the treatment and prevention of complex and chronic disease.

What do you want to get out of your Exercise Program?

- Weight loss
- Getting back in to regular exercise
- Strength and Conditioning
- Improve fitness and exercise capacity
- Exercise lifestyle management

Sub maximal bike VO₂Max fitness testing is Now Available

Fitness Appraisal and Prescription packages are available these range from basic to deluxe PLUS.

Private Exercise Consultations are also available for the development of home based exercise programs. Personal Training is also available.

Contact Sydney Sports Medicine Centre for more details.

Gymnasts, cricket fast bowlers and divers and are prone to stress fractures of the lumbar spine, from repetitive extension and rotation. Incidence is up to 60% in these sports.



The presenting feature is low, usually one-sided, back pain, worsened with activity and relieved by rest, usually with no referral of pain. Tenderness may be elicited, but can be absent.

Practitioners, coaches and athletes should have a low index of suspicion, as the window of opportunity for healing is small.

Investigation of suspected cases includes x-rays. This

may show an established lesion, usually in the 'pars interarticularis', but sometimes in the pedicle, but really the athlete needs a bone scan (nuclear medicine test) that will show the presence of fracture (or not) and the level.

Once diagnosed, a CT scan will determine if the fracture is healing: either 'early', 'progressive' or 'terminal'. Terminal lesions will not heal. Earlier lesions may heal, and require strictly no extension activities for up to 12 weeks.

Established, non-healed fractures are termed 'pars defects'. These are present in about 5% of the community, 2/3 (without symptoms) at age 5, but a second peak is at 15, when the pars is still immature and activity levels are high.

Athletes with stress fractures need to be assessed for biomechanical factors that may be contributing, such as tightness in the pelvic/leg/lower back region; weakness in the 'core'

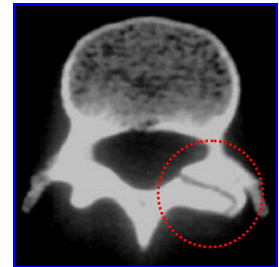
and pelvic areas; leg length differences and so forth. This often involves physiotherapy and sometimes podiatry.

Return to sport is determined by absence of pain and correction of the biomechanical factors.

Ideally athletes should be screened for risk, especially those at high-risk.

Technique correction is often an important factor, such as cricket bowlers where 'mixed action' is a major risk for stress factor.

Some pars defects, if present on both sides can lead to slip of one vertebra on another.



Pars defect

NEWS at SSMC

PODIATRY

Emily Smith and Trent Sal-kavich, have joined the team at Sydney Sports Medicine Centre. They are excited to offer general podiatry, as well as continue to provide expertise in the prevention and management of lower limb injury, including orthotic therapy. General podiatry care includes treatment of ingrown toenails, warts, corns and calluses and will be only available on Monday and Saturday's. Emily has opened a convenient Saturday clinic, 8am- 1 pm and Trent will practice on Mondays 7am - 7pm.

SPORTS COVER

Dr Ameer Ibrahim—Sports Physician has been working with the TV show "The Biggest Loser" whilst Physiotherapy, Massage Therapy and Dr Ibrahim have been working together with the TV show "Gladiators". Many of the participants in these shows suffer from both acute as well as overuse sports injuries and they have been pleased to assist in keeping the participants active in the shows.

Our Sports Physicians, Physiotherapists and Massage Therapists are currently gearing up for their active roles in the 2008 Beijing Olympic Games which commences in August. They will be travelling to Beijing with the Australian Team.

BODYFLOW THERAPY

Bodyflow Therapy has been introduced at Sydney Sports Medicine Centre. Bodyflow Therapy is a unique and technologically advanced treatment that enables athletes and patients to recover from injuries faster. Bodyflow Therapy promotes the flow of body fluids such as blood and lymph by stimulation of smooth muscle within veins, arteries and lymphatic vessels using a very specific patented electro-stimulation frequency. Clinical Trials have proven Bodyflow effective for the treatment of Secondary Lymphoedema, Sports Recovery and Blood Flow, Fibrinolysis and Anti-Procoagulant Activity.

Answers to quiz:

1. Tokyo
2. St George
3. Mark Edmundson,
4. Los Angeles, 1984
5. Fitzroy