

# SMI Newsletter



## This issue, we're covering:

- *SHOULDER IMPINGEMENT*
- *BOWEL CANCER AWARENESS*
- *CHRISTMAS OPENING HOURS*



In this month's newsletter, SMI's Dr Anna Kropelnicki writes about a common condition seen in clinic, shoulder impingement.

Dr Kropelnicki is a UK trained orthopaedic surgeon who has been accepted into the overseas training program to become a Sports Physician. During this time Practice Principal Dr George Pitsis will be overseeing her training.

Dr Kropelnicki is available in clinic 4 days per week and welcomes appointments by both existing and new patients.

Our second article is from SMI's Dietitian Dr Thea Werkhoven. December is Decembeard month, which aims to highlight the issue of bowel cancer and how diet can play a role in its prevention.

Dr Thea Werkhoven is available in clinic on Saturdays.



## Dr Anna Kropelnicki - Sports Doctor

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The most common cause of pain in the shoulder is due to subacromial impingement, accounting for up to 65% of shoulder disorders. The shoulder is an intrinsically unstable joint with a small shallow glenoid and a large round head. This configuration maximises range of motion of the joint but stability therefore must rely on the soft tissues, specifically the muscles of the rotator cuff and a small number of ligaments.

Subacromial impingement is essentially as a result of compression of the rotator cuff muscles, primarily supraspinatus, by the solid superior structures (acromion, acromioclavicular joint and coracoacromial ligament) leading to inflammation and the development of bursitis. The bursa is a protective bag sitting between the vulnerable soft supraspinatus tendon and the sharp hard bony structures above. When the tendons below are at risk of damage the bursa acts much like the airbag in a car and inflames, expanding rapidly.

Subacromial impingement should not be considered as a diagnosis in isolation but more as a symptom of an underlying disease process that gives rise to the abnormal compression. Examples of underlying causes are rotator cuff tears, acromioclavicular joint (ACJ) arthritis (osteophytes filling the subacromial space or joint inflammation spreading into the surround soft tissue), or abnormal muscle patterning, such as habitual hunching/poor posture or compensation for an unstable joint from traumatic injury or more chronic causes such as rotator cuff tendinopathies.

Characteristic symptoms likely to indicate subacromial impingement are often difficulty with overhead activities, or weight-bearing activities that force the humeral head caudally and anteriorly (upward and forward) thereby reduced the subacromial space, for example triceps dips or lifting oneself out of a bath. Patients also frequently report the affected shoulder becomes very irritable when sleeping on the affected side.

There are at least 130 different tests for examining the shoulder, probably more. Some would suggest that if there are that many tests then few are really useful, and they would be correct. The ideal examination is taken in context of the history then selecting specific tests that you are most familiar with and have the most diagnostic value for your clinical suspicion. Regarding shoulder impingement take note of the movement of the scapula through the range of motion of the shoulder, assessing for a painful arc (pain beginning at around 85 degrees abduction up to around 160 degrees that then goes away with either active or passive movement to 180 degrees - when the humeral head drops therefore releasing the impingement), Hawkins test (impingement), Scarf test (ACJ compression) and testing the strength of each of the rotator cuff muscles is a solid examination foundation.

X-rays are highly recommended to assess bony pathology, with a true AP, lateral and a 30-degree caudal tilt view (useful for showing subacromial spurs). Ultrasound is another option that can be useful as it offers dynamic testing proving impingement of the bursa in abduction. MR imaging is extremely useful for identify problems that have given rise to the impingement, such as rotator cuff pathology. Clinical context alongside imaging is critical as there are incidental findings that may not necessarily be of clinical significance. An example of this is the rotator cuff tear. This is a common incidental finding with age where approximately 30% of those over 60 years old will have a full thickness tear. This figure more than doubles to 65% in those over the age of 70 years.

Whilst the root cause of subacromial impingement should be sought, treatment of the symptoms of impingement can often help in the shorter term predominantly by reducing inflammation and pain. This then allows the patient to perform rotator cuff strengthening exercises that further reduce impingement and pain and often address the fundamental cause of the impingement in the first instance, such as scapular dyskinesia and rotator cuff tendinopathies and weakness. This is particularly important as impingement is considered the first stage of a continuum of rotator cuff disease starting with impingement then partial to full tears, massive rotator cuff tears and finally rotator cuff arthropathy.

Injections are a highly useful adjunct to the clinician as they can be diagnostic and therapeutic. Long-acting local anaesthetics can help identify pain-generating areas that can often appear alongside impingement symptoms or present in a very similar manner.



The 2 most common are biceps tendonitis/tendinopathy and ACJ arthritis. For treatment, injections should be used as an adjunct within a multi-disciplinary treatment plan particularly with a solid rotator cuff strengthening program and not used in isolation. Corticosteroids have a powerful anti-inflammatory effect thus rapidly reducing pain. The rate and length of success of the corticosteroid injection depends on many factors including the chronicity and severity of the impingement, and associated mechanical components and biomechanical predisposing causes being addressed. For a small number of patients there may be no benefit experienced at all. Caution should be used with corticosteroid injections. Whilst complications are uncommon the number of injections should be limited to 2 or 3 in the same region as evidence suggests that excessive corticosteroid injections may contribute to tendon attrition and harm articular cartilage cells.

More recently, platelet-rich plasma (PRP) injections have emerged as an effective way of addressing both reducing inflammation and promoting the initiation of healing. There are increasing numbers of Level 1 studies that show PRP to be safe and effective in reducing pain, inflammation and promoting healing of underlying rotator cuff tears and tendinopathy. The prevailing evidence for PRP is in combination with physiotherapy where the effect appears to be sustained well beyond that from corticosteroid use. However, without physiotherapy, PRP in isolation appears to be as effective as corticosteroid.

Surgery for the relief of impingement symptoms is an acromioplasty and subacromial decompression (ASAD). Predicting the outcome of undergoing a subacromial decompression is multi-factorial largely depending upon the root cause of the impingement. Those patients with anxiety and/or depression and those involved with worker's compensation show consistently poor post-operative outcomes.



Further, some experience a recurrence of symptoms due to the underlying root cause of the impingement not having been addressed, for example, poor biomechanics. The vast majority (80%) of patients with impingement symptoms improve with the medical managements discussed above. Thus, it is uncommon for surgery to proceed prior to a full multi-disciplinary medical management programme of at least 4-6 months. Recent evidence is showing subacromial decompression outcomes are not as good as previously believed. A large multi-centre randomised controlled trial of ASAD compared with diagnostic arthroscopy was published by the Lancet (2018). This showed little difference in the outcomes between the 2 surgeries and postulate that perhaps the post-operative physiotherapy was the key factor rather than the surgery per se.

#### References

[www.shoulderdoc.com](http://www.shoulderdoc.com)  
Beard DJ et al. Arthroscopic subacromial decompression for subacromial shoulder pain (CSAW): a multi-centre, pragmatic, parallel group, placebo-controlled, three-group, randomised surgical trial. The Lancet 2018 391, 10118: 329-338



## Dr Thea Werkhoven - Dietitian PhD APD AN

December is upon us, and it's "Decembeard". Raising awareness for bowel cancer, a disease that made up 10% of all new cancer diagnoses in Australia this year.

Bowel cancer risk is increased if there is family history of the disease, if someone is over 50, has an inflammatory bowel disease or has had polyps in the bowel. Nutritionally, diet plays a part in risk as well. High intake of processed foods like salami and alcohol are linked to bowel cancer, as is being at a higher weight whilst being inactive.

So what can you do to reduce your risk? Cancer Australia recommends achieving and maintaining a healthy body weight within a BMI range of 18.5 to 25 kg/m<sup>2</sup> to reduce cancer risk and a waist circumference below 94 cm for men and below 80 cm for women. Similarly, they recommend aiming for at least 30 minutes of moderate-intensity physical activity every day and limiting sedentary habits, such as watching television, to reduce cancer risk.

Increasing dietary fibre in daily meals can also help reduce the likelihood of bowel cancer and this should include adding unprocessed grains and pulses to the diet. Aiming for two serves of fruits per day and 5 serves of vegetables, where 1 serve of fruit is one large piece and 1 cup of leafy green salad is one serve of vegetables.

Red meat consumption is also a focus, with the current recommendations advising to consume less than 500 grams of cooked red meat each week and totally avoiding processed meats like spam, devon, salami, ham and mortadella in the diet. Of course, there will be special occasions and they should be enjoyed, but not made into a habit.

If you notice yourself adding salt to most of your meals or buying lots of takeaway foods, these too are risks. So talk to your doctor today if you're worried about the condition and if you would like to improve your diet, book an appointment with our dietitian Thea who can help improve your diet without removing the fun. Especially with Christmas around the corner and new year resolutions looming, if you start making changes now, they are more likely to stick and be sustainable.



# Merry Christmas & A Happy New Year!

*from the Sports Medicine Institute*

LIMITED MEDICAL SERVICES AVAILABLE ON THESE DAYS



*Holiday*

## Opening Hours

25th & 26th December	Closed
27th & 28th December	10am - 4pm
29th & 30th December	8am - 5.30pm
31st December	9am - 1pm
1st, 2nd & 3rd January	Closed
4th & 5th January	7am - 7pm