

Masters Swimming NSW Workshop

Injury Management and Dryland

Presenter Gary Odewahn

Slide 1 Blank

Slide 2 About me – My background

Slide 3 Coaching Achievements

Slide 4 Overview of the content to cover

- **Screen and Injury Management what to look for**
- **The anatomy**
- **Common injuries**
- **Prescription**
- **Questions**

Slide 5 Screening

Starts on land, that's walking, standing, stretching even sitting.

SAID's Principle – Specific Adaptions to Imposed Demands

Look at the athlete, Symmetry is the goal, not seeing anything then functional assessment can be great. Proprioception investigation easy for assessing the shoulder and ankles.

Slide 6-What to look for on Land?

Look at your athlete, observe, the information is there for you to decipher.

- Balance
- Symmetry
- Tightness, strength, loose, weakness
- Favourite side, position stroke
- Avoidances
- Behaviours (stretching, warm up, talk, races, cool downs, trends)

- Muscle balance
- Stroke

Slide 7 In the water

- What are we looking for?
- Stroke symmetry
- Breathing
- Performance
- Ability to back up
- Arm position
- Hips
- Skills
- Errors/imperfections in strokes

Note: Always be careful with cyclical based sports

Note: Bottom Swim Image, The Flexed Teres minor/Infraspin external rotation of the humerus not/minimum lat dorsi flex.

In the Water

As a coach it is super important to address anything you feel will/may harm the athlete at any point. Remember, major things present easily. Minor things become major issues

Slide 8 Injury Management Overview

- Pre Injury is better than post injury if you are looking you usually will see an injury before it manifests.
- Pre Injury screening can be done postural, functional, behavioural, pre and post training, pre and post racing.
- Post Injury: avoid pain, remove pain, restore ROM, restore strength, prevention protocol. Ideally, complete most of the step before, before moving on to the next. Seek assistance from the team around your athlete. Film, discuss, refer .

Personal Referral List:

<https://www.brucesportsmedicine.com.au/dr-wilson-lo.html>

<https://www.drdamiani.com.au/>

<https://www.canberrabodyclinic.com.au/dr-matt-monus/>

<https://darlingcornerosteopathy.com.au/our-team/timothy-taylor/>

Slide 9 Gil Hedley – Understanding the body and the tissue

Understanding what goes on inside the body?

- Changes in the Soft Tissue,
- Fascial changes,
- Ability to move, ROM
- What to do to assist with restoring?
- Gil Hedley <https://www.gilhedley.com/>

Slide 10 Injury List:

- **Seek good advice, not all doctor and physios are created equal**
- **Understand the injury ask more questions**
- **The Rotator Cuff Tendonitis/tear headache**
- **How was it diagnosed? Testing, ultrasound, mri, xray, ct scan, Who diagnosed it**

<https://www.drdamiani.com.au/shoulder/>

<https://www.massgeneral.org/assets/mgh/pdf/orthopaedics/sports-medicine/physical-therapy/rehabilitation-protocol-for-rotator-cuff-repair.pdf>

<https://orthoinfo.aaos.org/>

Slide 11-12 Shoulder and Thoracic mobility

- Big muscles vs little muscles
- Underlying structure the skeletal system
- Posture and the importance on mm function
- Cant blame 1 little muscle or action remember

Slide 13 Video Rotator Cuff

Below Contents from <https://www.kenhub.com/en/library/anatomy/the-rotator-cuff>

Supraspinatus muscle	<p>Origin: supraspinatous fossa of scapula Insertion: greater tubercle of humerus Innervation: suprascapular nerve (C4, C6) Function: initiation of abduction of arm to 15° at glenohumeral joint; stabilization of humeral head in glenoid cavity.</p>
Infraspinatus muscle	<p>Origin: infraspinatous fossa of scapula Insertion: greater tubercle of humerus Innervation: suprascapular nerve (C5, C6) Function: external rotation of arm at glenohumeral joint; stabilization of the humeral head in glenoid cavity.</p>
Teres minor muscle	<p>Origin: lateral border of scapula Insertion: greater tubercle of humerus Innervation: axillary nerve (C5, C6) Function: external rotation and adduction of arm at glenohumeral joint; stabilization of the humeral head in glenoid cavity.</p>
Subscapularis muscle	<p>Origin: medial two-third of the subscapular fossa Insertion: lesser tubercle of the humerus Innervation: upper and lower subscapular nerves (C5, C7) Function: internal rotation of arm; stabilization of humeral head in glenoid cavity.</p>
Mnemonic	<p>Rotator cuff SITS on the shoulder (Supraspinatus, Infraspinatus, Teres minor, Subscapularis)</p>

Slide 14 – In the water discussion

- **The recovery action (poor rotation)**
- **The catch phase (Elbow is king)**
-



Stretches by Form



Free	Back	Breast	Fly	IM
Spinal Rot	Pecs	Ski Stretch	Spinal Rot	McKenzie
Thoracic	Thoracic	Quads	Thoracic	Thoracic
Lats	Tib Ant	Lats	Lats	Lats
Triceps	Iliopsoas	Glutes	McKenzie	Ski Stretch
Biceps	Quads	Hams	Quads	Quads
Tib Ant	Forearms	McKenzie	Tib Ant	Hams
Forearms	Triceps	Adductors	Upper Traps	Glutes



Stretches by Body Part



Hips	Shoulders	Spine	Neck	Arms	Legs/Ankles
Illiopsoas	Delts	Spinal Rot	Upper Traps	Rot. Cuff	Ski Stretch
Glutes	Traps	McKenzie	SCM	Triceps	Soleus
Piriformis	Lev Scap	Ski Stretch	Splenis Cap	Forearm Flex	Hams
Hams	Bicep	Flexion		Forearm Ext	Calves
Quads	Lats	Thoracic	Platysma	Biceps	Plantar Fascia
Ski Stretch	Pecs	QL			Tib Ant
Adductors	Rot. Cuff				

61



Frequency of Dryland



	Rehab/Prehab	Beginners	Intermediate	Advanced
Duration:	15-30mins	30-45mins	45mins	60mins
Frequency:	EOD/Daily	2	2-3	3-4
Stretch Types:	Static, Prescrip	Static, Active	St, Active, Ballistic	All + PNF
Strength Type:	Injury management/P revention			General, Plyo, Congugate
Purpose:	Decrease P	Increase Body IQ	Decrease Injury Risk	Strength Integration
	Restore ROM	Core Development	Body IQ/Stroke IQ	Strength and Flexibility Dev
	Restore PF ROM			Increase in Endurance
				Decrease Injury Risk

62