



# Injury Prevention

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2026 South32 Rottnest Channel Swim





# Welcome

- Past President of Rottnest Channel Swim Association
- Volunteer and member for SCA and FICS
- Sports Chiropractor
- 5 x RSC solo crossings

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# AICE Sport and Exercise

**AICE Sport and Exercise** is Australia's national organisation for sports chiropractic and is a not-for-profit, clinical interest group of the Australian Chiropractors Association.

We help to coordinate sports chiropractic treatment at community, state and national level sporting events. We use a combination of different modalities in our treatment including soft tissue therapy (massage), joint mobilisation/manipulation, stretching, strengthening, dry needling, rehabilitation and lifestyle/performance advice.



**AICE Sport and Exercise will be on the finish line proving complimentary post race care to all swimmers.**

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# Demographic



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# Overview



- What injuries can occur
- How they occur
- How to prevent them



# Injury Types

- Acute injury vs **chronic injury**
- Chronic injury = accumulation of small repetitive loads placed on the body that the body is not adequately conditioned for.



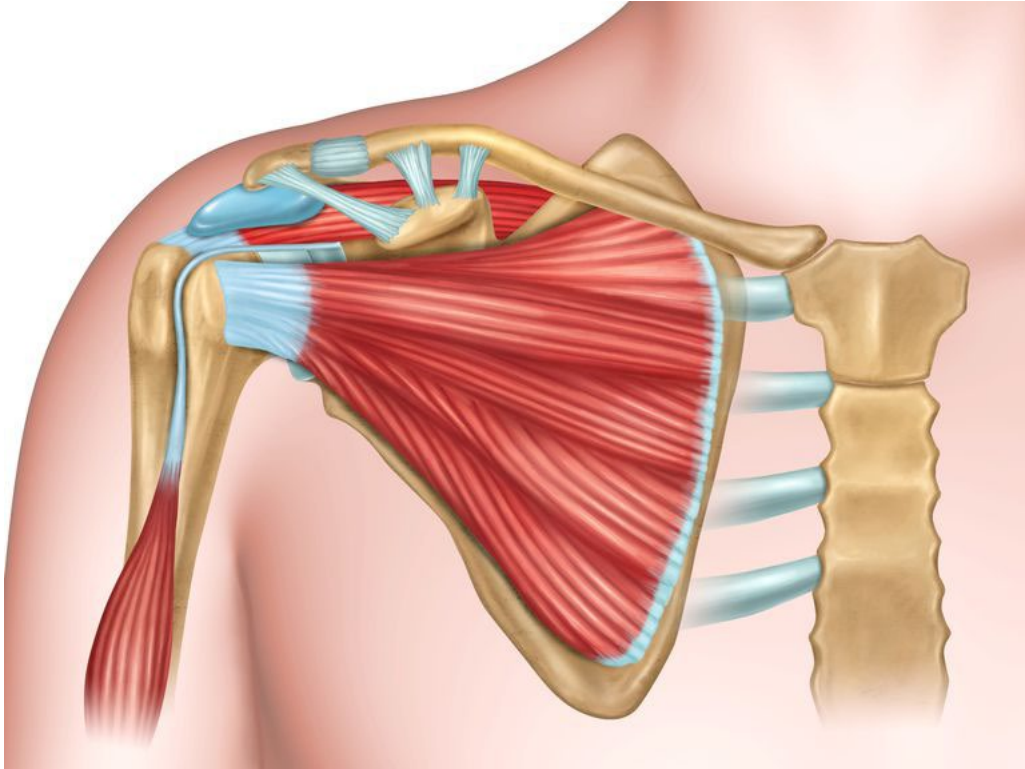
# Common Injuries in Open Water

- Shoulder, neck, low back, ankles
- Shoulders are by far the most common in distance swimming





# Shoulder Injuries

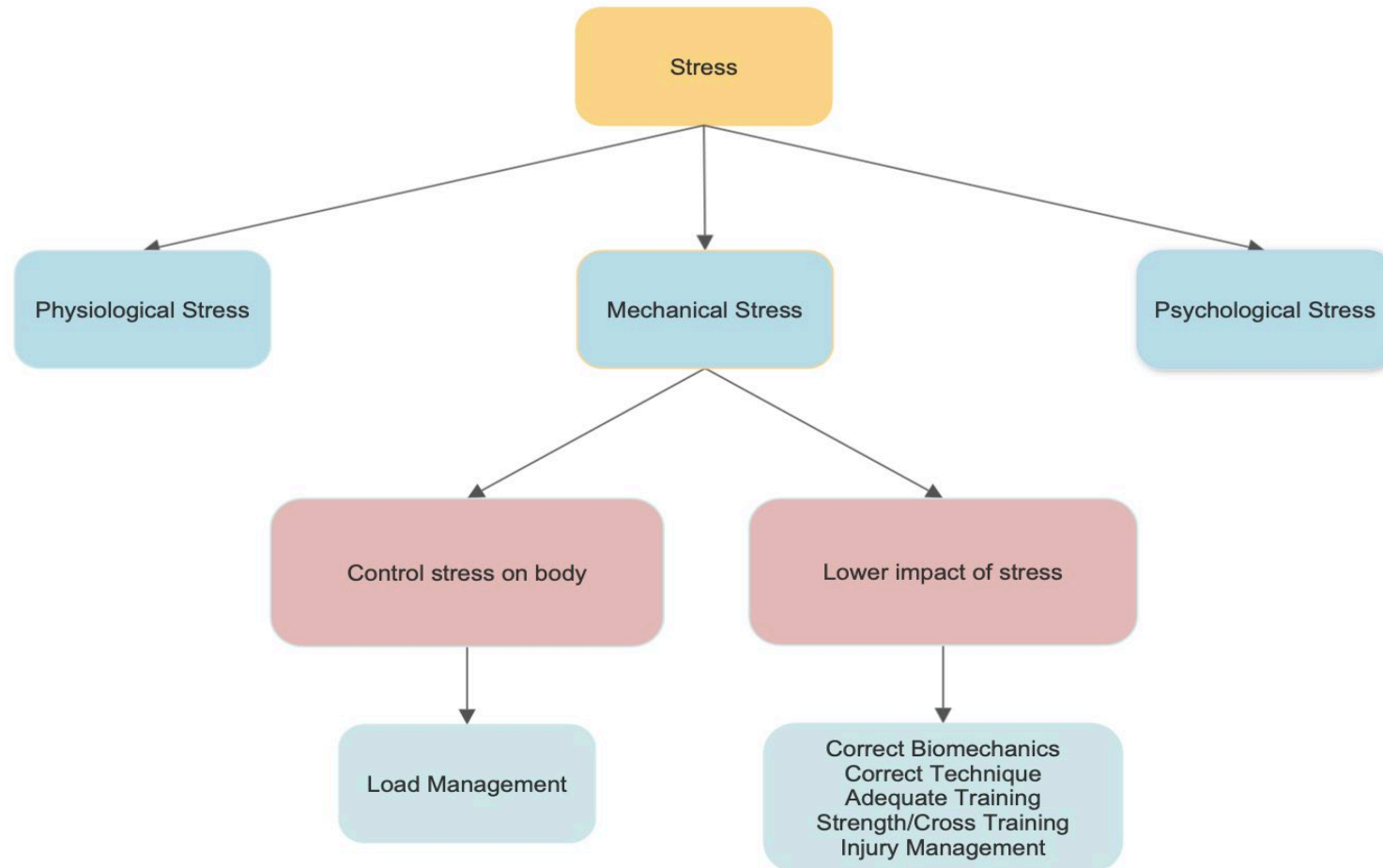


- Up to 90% of swimmers will suffer shoulder pain
- Shoulder is inherently an unstable joint with complex anatomy
- Most common injury is Swimmer's Shoulder





# Causes of Injury





# Areas of Injury Prevention

1. Load management
2. Correcting biomechanics
3. Correcting technique
4. Adequate training
5. Strength/cross training
6. Injury management



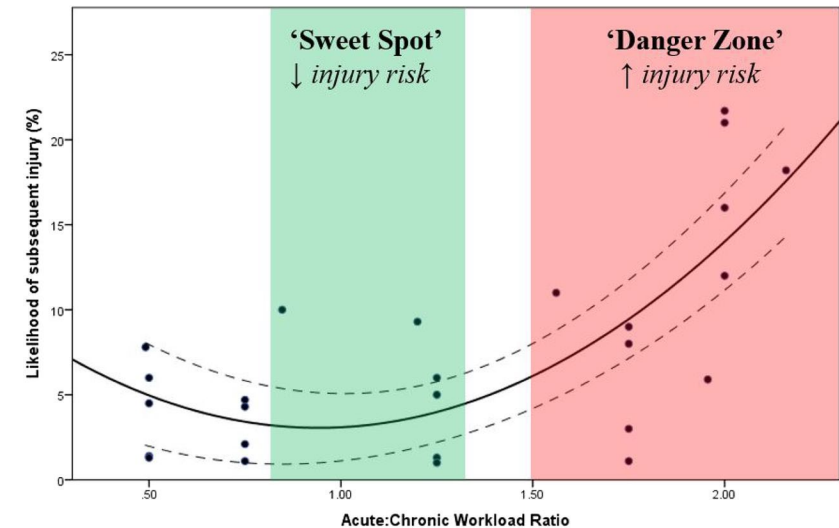


# 1 Load Management

Slowly and progressively increase our load as to not overload the body

$$\begin{array}{c} \text{Acute/Chronic Workload Ratio} \\ = \\ \text{Acute Training Load} / \text{Chronic Training Load} \end{array}$$

<0.8 = deconditioning  
0.8 – 1 = rest  
1 – 1.3 = 'sweet spot'  
>1.5 = overload



Gabbett TJ. The training—injury prevention paradox: should athletes be training smarter *and* harder?  
*British Journal of Sports Medicine* 2016



# 1 Load Management

Example:

Acute training load 12km (week 5)

Chronic training load 6km (week 1-4)

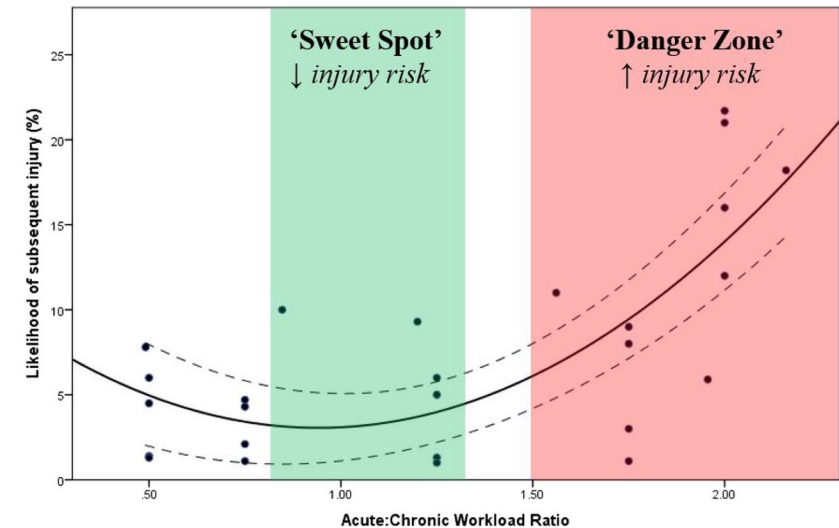
$$12 / 6 = 2 \text{ (ACWR)}$$

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## 2 Correct Biomechanics

- Biomechanics is how our body functions
- Issues we may encounter as swimmers:
  - Loss of range of motion
  - Instability, hypermobility, laxity
  - Scapular position
  - Altered muscle patterns (tightness/weakness)
  - Strength imbalance
  - Limited thoracic mobility
- See your medical professional







# 3. Correct Technique

- Importance of good technique:
  - 45 strokes per 50m, 15 breaths
  - Average training session (4km) = 3600 strokes, 1200 breaths
  - Event day (19.7km) = 17 730 strokes, 5 910 breaths





# 3. Correct Technique

Some areas to focus on include:

- Hand entry (neutral, not crossing midline)
- Elbow position on pull (high elbow)
- Head position (not too high, not too low)
- Pull phase (incomplete pull reduces efficiency, increases stroke rate)
- Body rotation (body roll to ensure less pressure on shoulders)
- Breathing (bilateral breathing to share load on neck and shoulders)





# 4. Adequate Training

- Ensure you train in all conditions
- Ocean vs pool
- Poor conditions place very different stress on the body





# 5. Strength/ Cross Training

Benefits of strength/cross training:

- Active recovery
- Fitness
- Mental health
- Rehabilitation





# 5. Strength/ Cross Training

Ideas:

- Water walking/running/different strokes
- Gym/strength-based workouts
- Running
- Yoga
- Pilates







# 6. Injury Management

- Please ensure you seek help if you have an injury or pain.
- The faster you seek help when pain or injury occurs, the better the prognosis
- Talk to me after if you need to be pointed in the right direction





# Summary

## 1. Load management

Increase load appropriately and factor in recovery. Have a plan but listen to your body

## 2. Correct body biomechanics

How our body functions, have an assessment by a medical professional

## 3. Stroke correction

Bilateral breathing, correct hand entry, adequate body roll, complete pull

## 4. Adequate training

Train in all weather conditions and temperatures to ensure you are both mentally and physically prepared

## 5. Strength/cross training

Active recovery, fitness, mental status, rehabilitation

## 6. Injury management

Have injury assessed and managed by professional

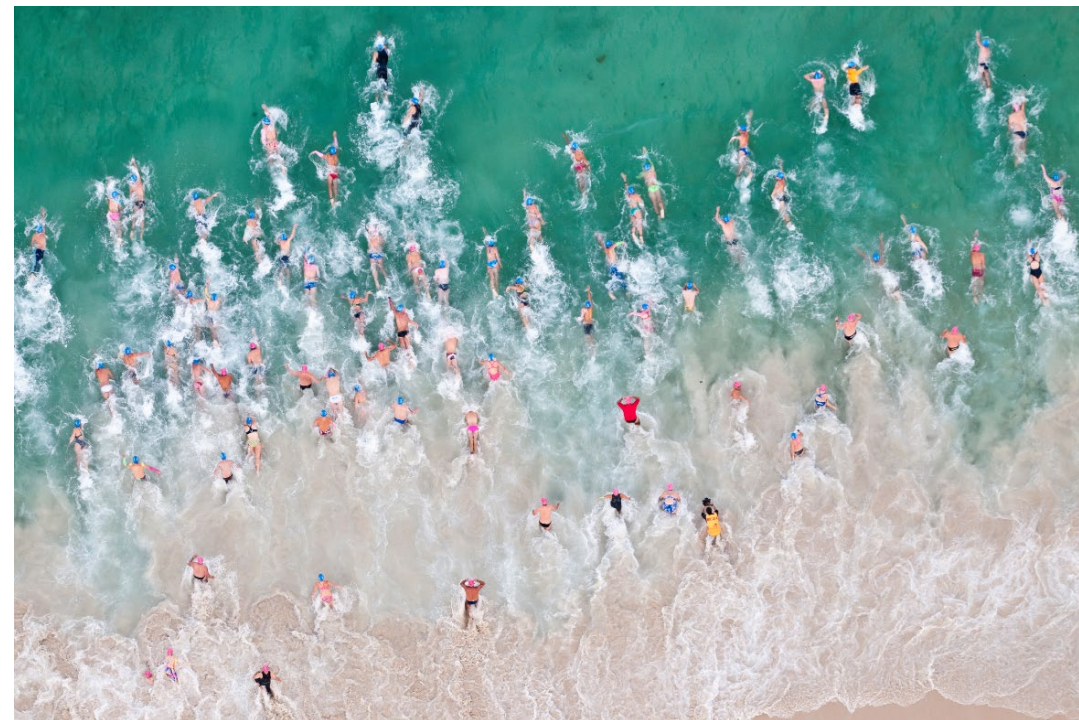


# Thank You

## Questions?

Any further questions, email me:

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