

Sports Science for *Best Performance*



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Year 7-12 Parent Information Night Carousel 2025

Trinity College is committed to continuous improvement.

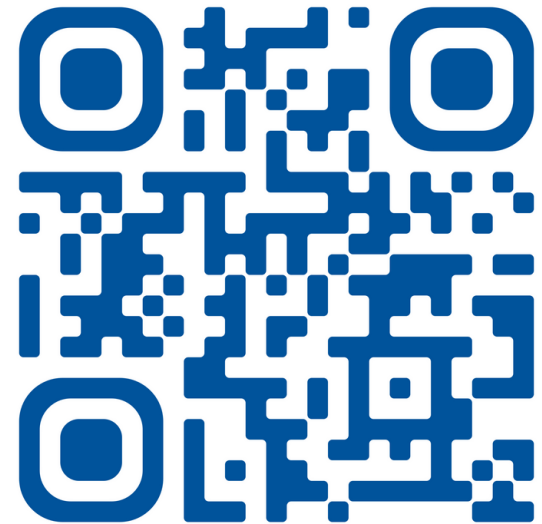
Please help us understand which sessions are most relevant and appropriate to our families at the 2025 Year 7-12 PIN Carousel.

STEP 1:

SCAN THE QR CODE AT EACH SESSION

STEP 2:

SELECT THE SESSION YOU'RE
CURRENTLY ATTENDING



SCAN ME

"PERSONAL BEST"

Optimal performance is made up of 4 components where a deficit in any of these areas can negatively impact the athlete/student to perform at an optimal level.

Tactical

Apply strategies given the strengths and weaknesses (gameplan)

Mental

Utilise mental skills required to succeed/ in pressure situations.

**BEST
Performance**

Physiology

Develop physical attributes through training /nutrition etc.
Meet energy demands

Technical

Demonstrate physical skills to play at the level / understanding content for assessment



OBJECTIVE

- Develop knowledge of key **nutritional considerations** and **mental skills/strategies** applicable for students and parents in maximising performance both academically and on the sporting field.

NUTRITION



Do AFL players need to be very muscular if they are running all game??

Content focuses on specific dietary guidelines to **enhance performance** relating to **energy consumption**, significance of **macronutrients** and **hydration**.

Student Fuel: Key Considerations



- For activity at high intensity for ~60mins+, **Carbohydrate (CHO) is the optimal fuel source.**
- CHO consumption should be optimised (e.g. cereals, wholemeal bread, rice/pasta, grains)
- **Glycaemic Index (GI)** – speed at which glucose is released into bloodstream: consumption dependent on activity duration.
- **Avoid** high fibre & high fat foods → gastrointestinal issues and are harder to break down for energy
- **Increase protein** for muscle repair & growth.
eg. 1 x chicken breast adequate, protein shakes generally not necessary.

Meal Plan

*For events lasting longer than 60min

-Pre / During / Post performance

*CHO - Carbohydrate



✓ PRE: Consume low GI CHO for slow release of glucose = sustained energy. (↑ glycogen stores)

DURING: Consume high GI CHO

E.g. sports bars, jelly beans etc. - *delays depletion of glycogen* & quick release of glucose = ↑ energy.

✓ POST: Consume high GI CHO within 30 minutes & Low GI CHO over next 24 hrs = replenish glycogen stores used within muscle.

✓ Approx. 7-8g/kg of CHO

Consume 1.5g/kg Protein = muscle repair.

Don't skip breakfast! & best to eat regular, smaller meals

DEHYDRATION LEVEL IMPACT

(% OF BODY WEIGHT)



1%
LOSS

Trouble focusing,
impaired ability
to regulate body
temperature,
mild thirst

*1% (Equivalent to ~1-1.5
cups of water for an
average person)*



2-3%
LOSS

Impaired memory
and cognitive
performance,
decreased
reaction times,
dry mouth,
loss of appetite



4%
LOSS

20-30% reduction
in work capacity
(i.e., physical
performance)



5%
LOSS

Difficulty
concentrating,
headache,
sleepiness

HYDRATION



DAILY RECOMMENDATION

- ✓ ~2L of water per day (if minimal activity)

PRE - ACTIVITY

- ✓ 1L *additional* prior to activity recommended
- ✓ Avoid energy drinks (caffeinated) as act as a diuretic and will increase fluid loss.
- ✓ Coffee OK e.g. long black is sufficient

DURING ACTIVITY

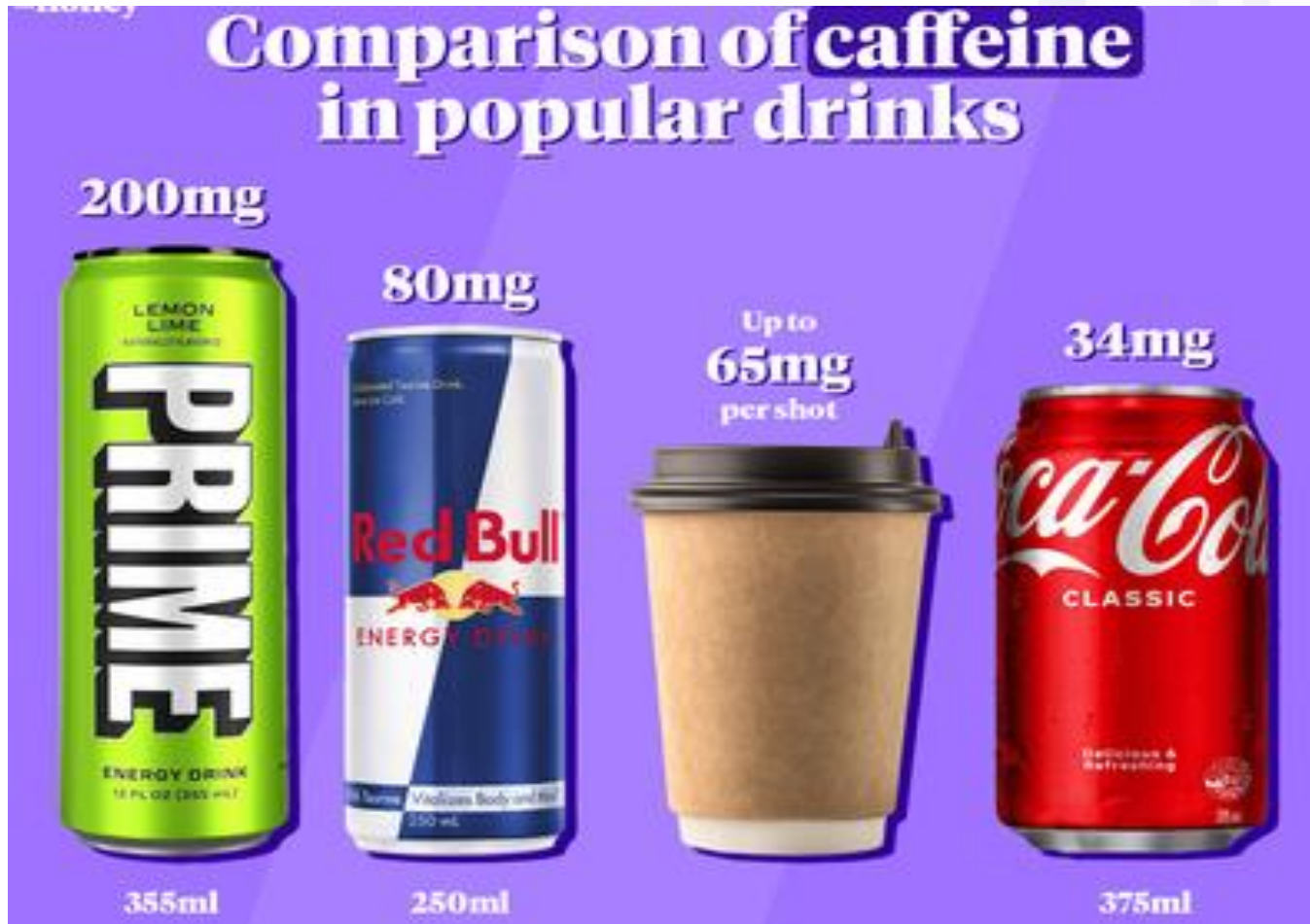
- ✓ Drink ~150ml of water every 15min
- ✓ CHO drinks such as Powerade can benefit if significant sweat lost

RECOVERY

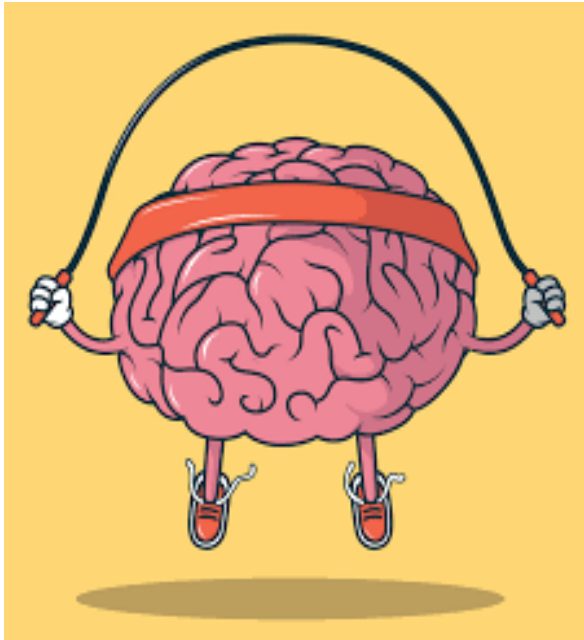
- ✓ Consume 1.5L / every litre of fluid lost
- ✓ Protein supplements/shakes – muscle repair

Recommended Daily Intake (RDI) Caffeine for Adolescents:

~90mgs



MENTAL SKILLS



Key skills/strategies for minimising anxiety/stress as well as enhancing concentration and self-confidence.

NB. Stress is the body's response when there is an imbalance between the demand and the body's ability to meet the demand when failure has consequences.

MENTAL SKILLS



Strategies for **improving concentration** and **attending to relevant cues, ignoring distraction**

1. **Self – talk:** repeating key words/phrases during/pre performance e.g. “follow through”, “read the question”, “kick through the ball”
2. **Imagery:** Visualise a past successful outcome whether practice or competition (sight/sound)
3. **Performance Routine:** Complete a ritual before every performance to enhance ability to attend to relevant cues (requirements) eg. Bounce ball 5 times, complete practice assessments, do quizzes, listen to music

6 MENTAL SKILLS ALL ATHLETES SHOULD DEVELOP

MENTAL IMAGERY

EMOTION REGULATION

GOAL SETTING

RELAXATION

SELF-TALK

SELF-EFFICACY



IN THE ZONE

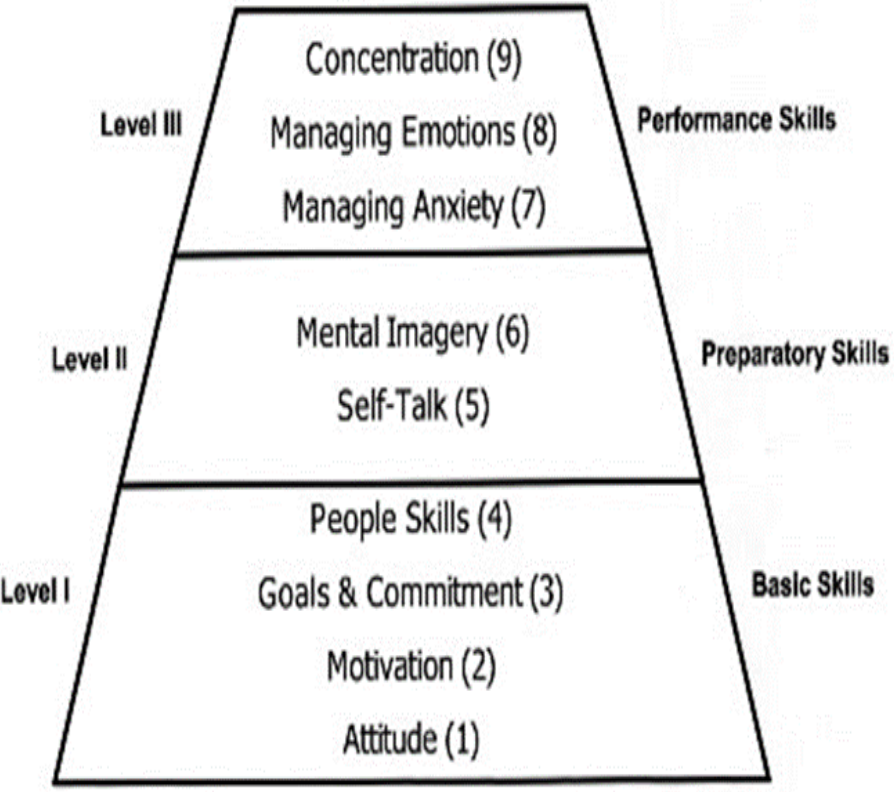
Strategies for **minimising anxiety** & **maximising self-confidence**

- 1. Self – talk:** repeating key words and phrases during/pre performance. *Positive = 'good feeling'*
e.g. "I've nailed this kick 100 times" = *increased self-belief*
- 2. Relaxation:** activities undertaken to reduce feelings of anxiety eg. Music, deep breathing
-remove feeling of imbalance & consequences
- 3. Goal Setting:** Deciding on objective/s, when by & how to do it. **Process goal > outcome goal**
ie. Complete revision booklets / 3 past papers, never miss training, do 50 free-throws... **not 75%+**

ATAR/COMPETITION READINESS

ATAR → AFL?

Correlation between overcoming challenges/ stresses in sport & academic success



Pavlich partially credited his sustained AFL success to preparing for the demands of study post school. Developed improved levels of discipline.



Sports Science for Best Performance

Room – M204
(Sports Centre 1st floor)