Tennis & Nutrition:
How nutrition affects your performance

ATLANTA MIALL - DIETITIAN

YOUR ATHLETICISM

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- Not just training
- Not just talent

OUTLINE

- The importance of diet for your health and performance
- Energy & Macronutrients
- Go Foods - Carbohydrates
- Grow Foods - Protein
- Pre, During and Post Training and Competition Nutrition
- Hydration & Cooling Strategies
- Supplements

Why is Diet Important?

- Provide energy and nutrients for training
- Enhances training adaptations and recovery
- Achieve optimal body weight and composition
- Achieve optimal hydration

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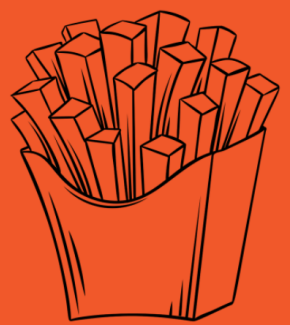
What does a poor diet look like?



Over or under-eating

Can lead to weight gain or lack of energy

Foods with a poor nutrition profile

For example, too much fat or sugar

Short term

Stress, tiredness, limit capacity to perform

Long term

Health complications - obesity, heart disease, diabetes

Everyday Nutrition

- Grains and Cereals
- Vegetables
- Fruit
- Dairy
- Meat and alternatives

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WHAT DOES A HEALTHY BALANCED DIET CONSIST OF?

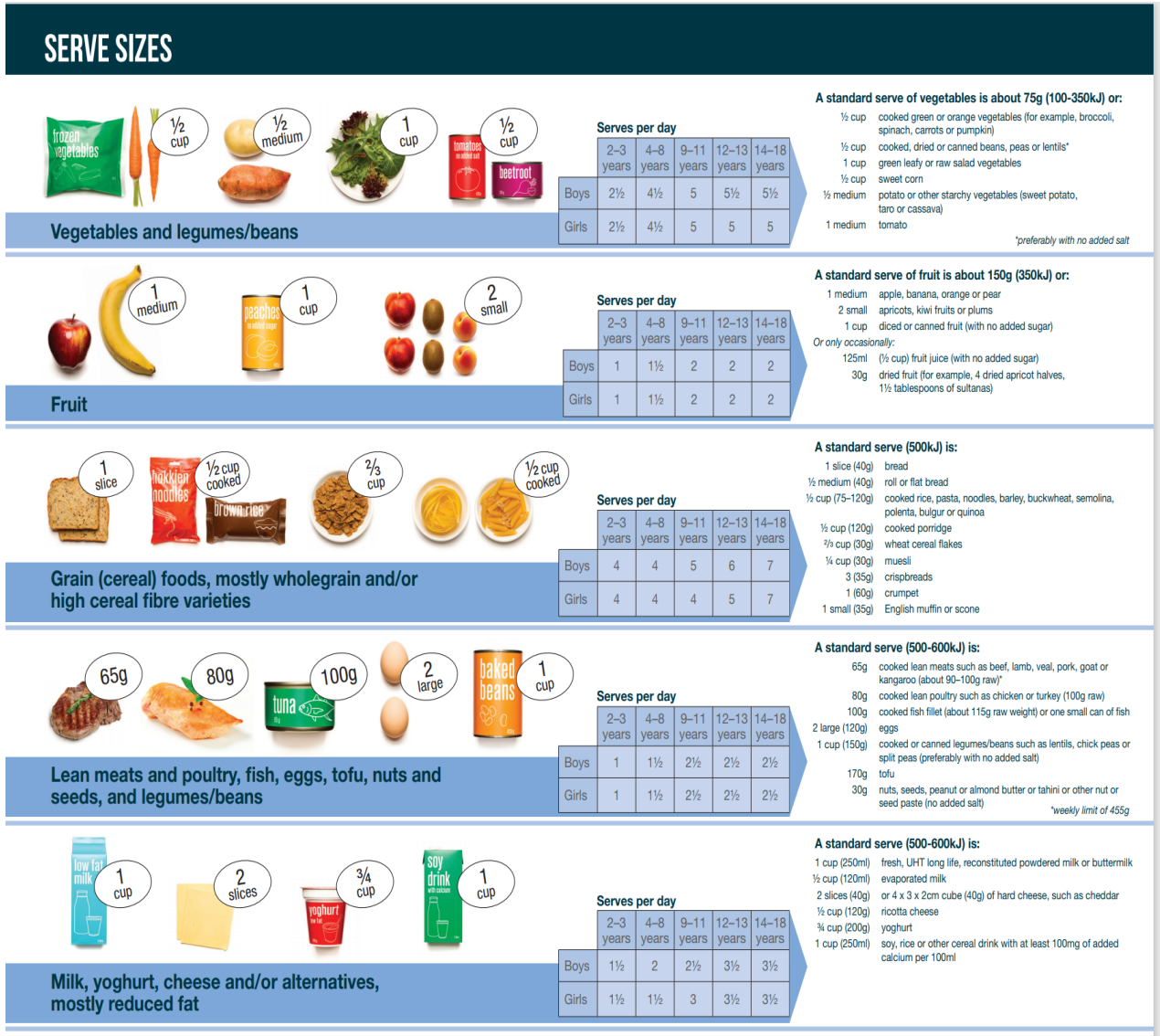
- **Vegetables**
  Girls = 5serves/ day
  Boys= 5.5 serves/day
  (Serve=1/2 cup vegetables or 1 cup salad)

- **Fruit**
  2 serves/ day

- **Wholegrains**
  7 serves / day

- **Lean meat and/or alternatives**
  2.5 Serves/ day

- **Dairy products and/or alternatives**
  3.5 Serves/day



Recommended Day (AGHE)

Breakfast

Morning Tea

Lunch

Afternoon tea

Dinner

Dessert

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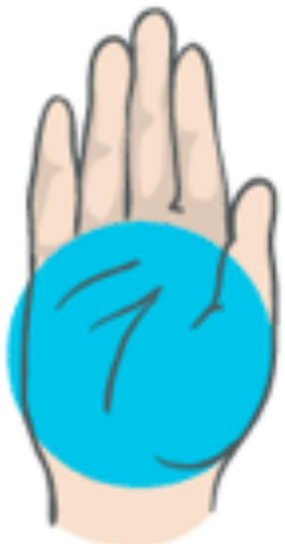
Macronutrients

CARBOHYDRATES PROTEIN FAT

Macronutrients

CARBOHYDRATES

1-2 portions per meal



PROTEIN

1 portion per meal

FAT

1 portion per meal

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TRAINING NUTRITION

Carbohydrates = Go Foods →

Key Roles

- Primary energy source
- Supports training intensity and quality
- Sustains concentration and decision making
- Supports skill execution

- Training with high carbohydrate stores via good meal choices and meal timing ensures training intensity and quality is sustainable throughout the session.

- Poor fuelling can lead to fatigue, poor skill execution and poor recovery.


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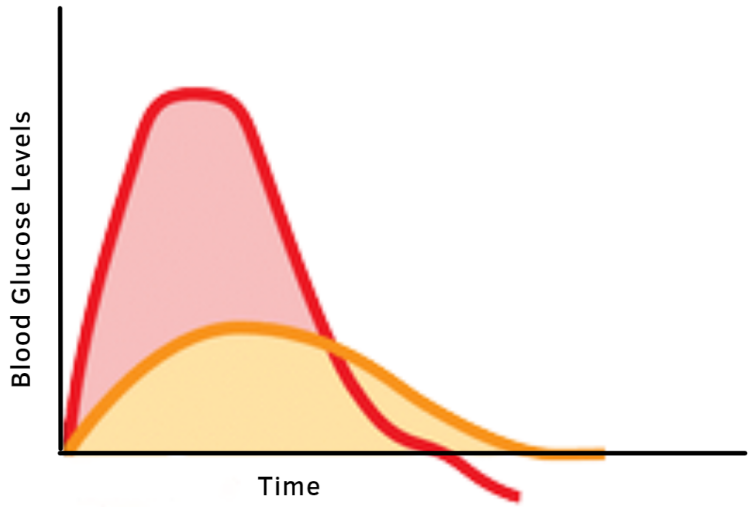


Types of Carbohydrates

Fast Release Carbohydrates

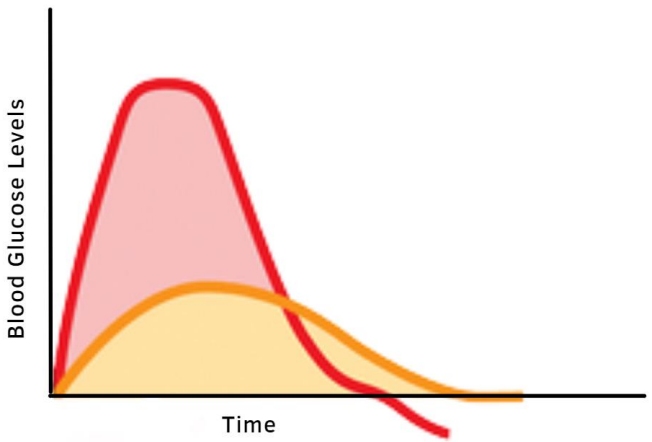
Also known as High GI

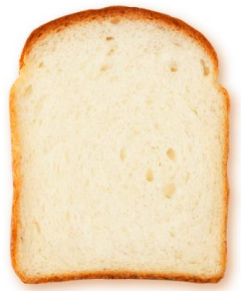
Slow Release Carbohydrates

Also known as Low GI

Fast Release Carbs

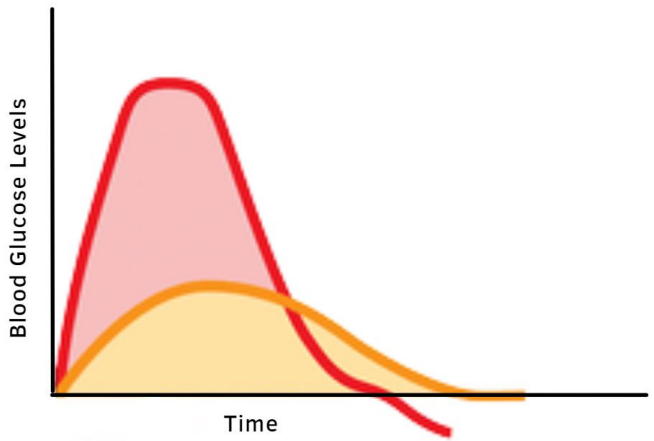
- Digested and absorbed rapidly
- Fast increase in blood sugar and energy levels

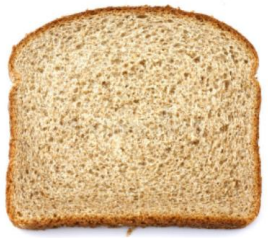




Slow Release Carbs

- Digested and absorbed slowly
- Gradual increase in blood sugar and energy levels





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Matching carbohydrates to training demands

- Often neglected due to the perception that they will cause weight gain
- Low carbohydrate diet - fatigue, lack of focus, poor performance

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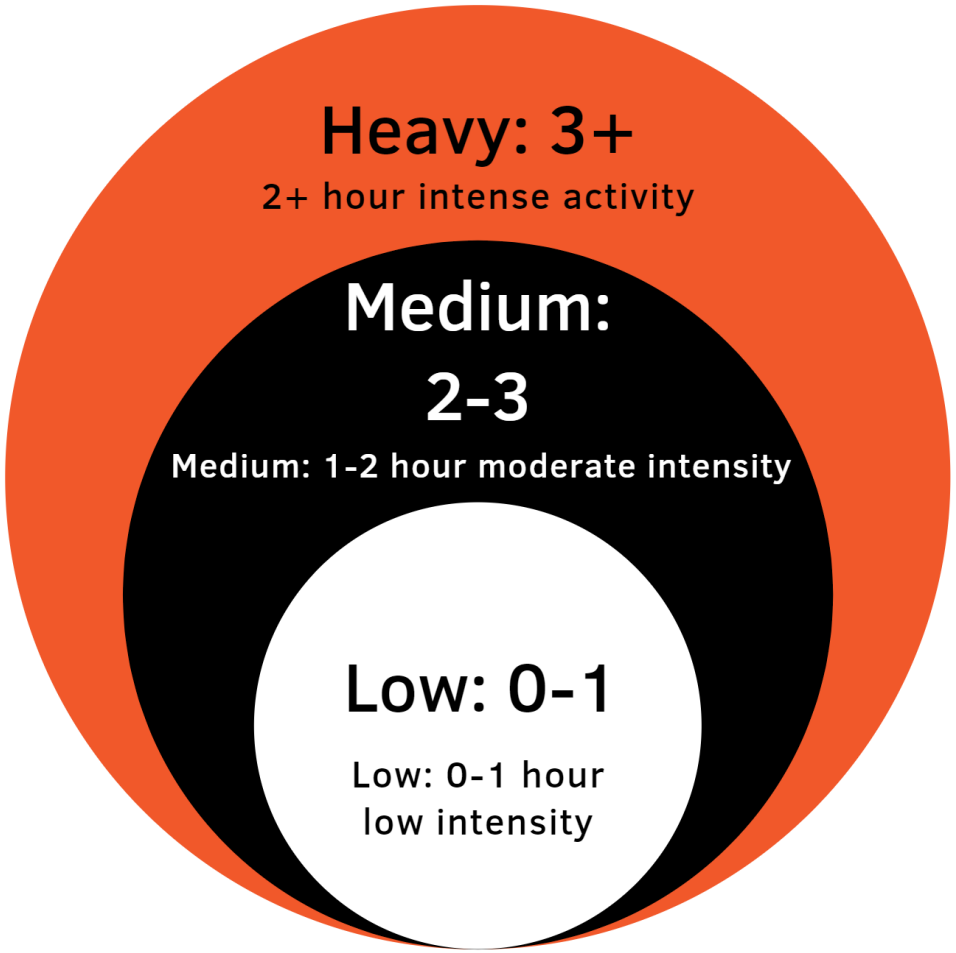

Serving Size:

1 slice of bread
½ a bread roll
½ cup of cooked rice or pasta
½ cup cooked porridge
¼ cup un-toasted muesli
1 medium piece of fruit
2 small pieces of fruit

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Altering Carb Serves

Beef Stir Fry

0 cups rice

0 serves carbohydrate (rest day)

Beef Stir Fry

1 cup rice

2 carbohydrate portions (medium activity)

Beef Stir Fry

1 1/2 cups of rice

3 carbohydrate portions (heavy activity)

Medium Training Day

Breakfast: Omellette

2 slices of toast: 2 serves of carbohydrates

Lunch: Lamb and chickpea salad

1/2 cup rice + 3/4 cup chickpeas: 2-3 serves of carbohydrates

Dinner + Dessert: Grilled Fish and Yoghurt *

1/4 medium sweet potato + 1/2 cup cooked quinoa + 1/2 cup yoghurt: 3 serves of carbohydrates

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Protein

Muscle Growth

Through the production of additional muscle fibres.

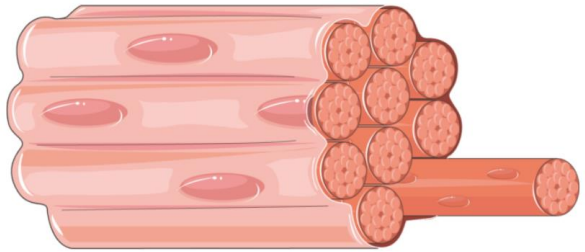
Muscle Repair

Through muscle protein synthesis to repair the microtears caused by exercise.

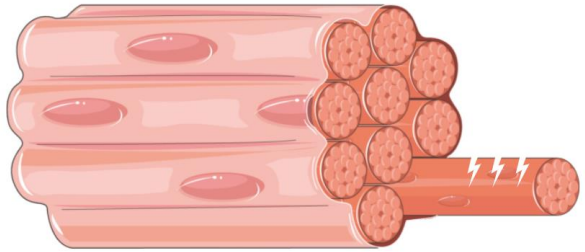
Muscle Recovery

Reduced muscle soreness through rapid muscle repair.

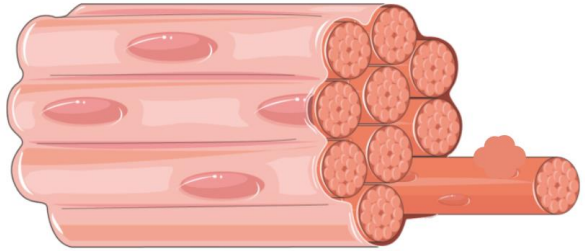
Micro-Tears



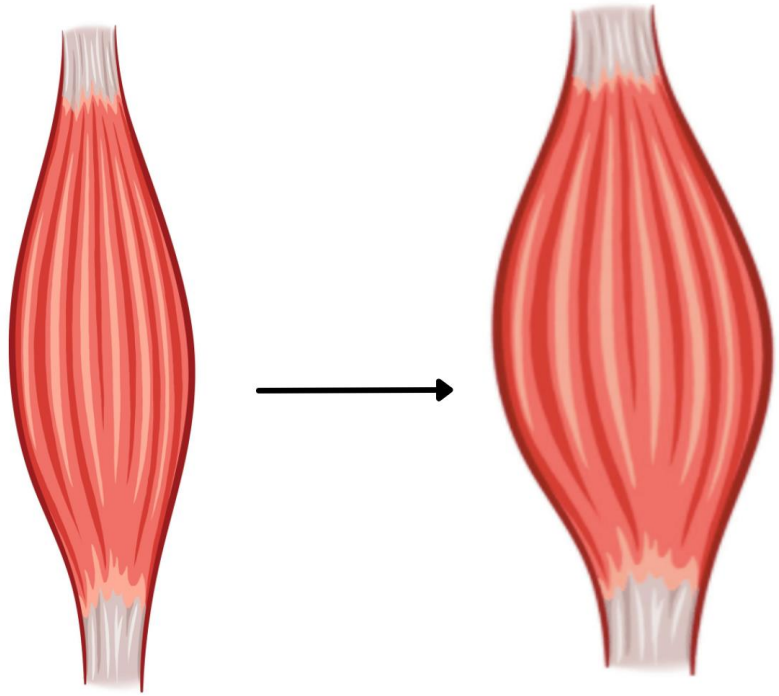
- Pre exercise



- Microscopic tears



- Increased muscle tissue for repair



Protein Requirements

- Highly Individual
- 1.2-1.6g/kg body weight
- Consistency and frequency

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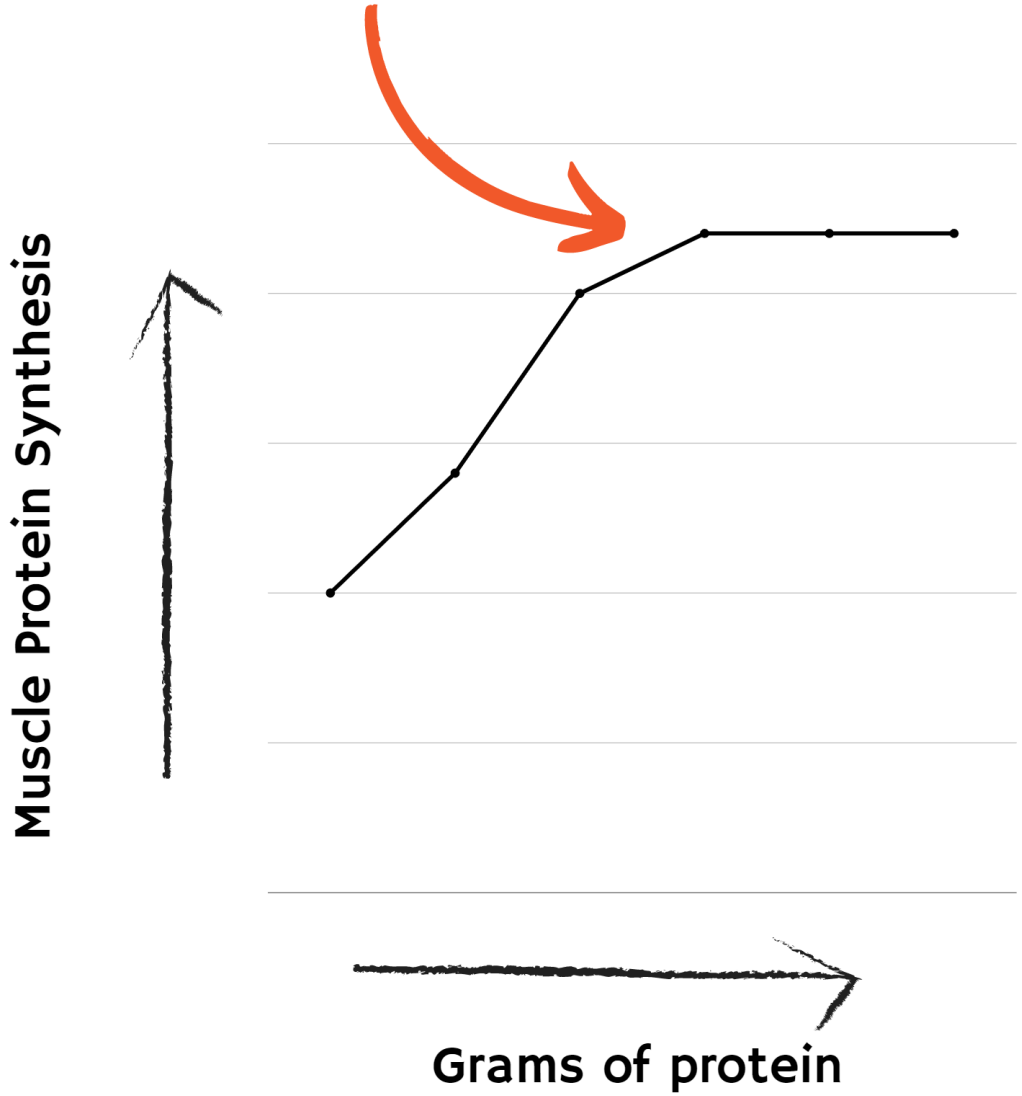

How much Protein?

20-30g per meal

20g per snack

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What is 20g?

3 Eggs

570mL Milk

100g Red Meat

70g Cheese

120g Tofu

70g Chicken

100g Salmon

80g Tuna

200g Greek Yoghurt

100g Almonds

Training Days -

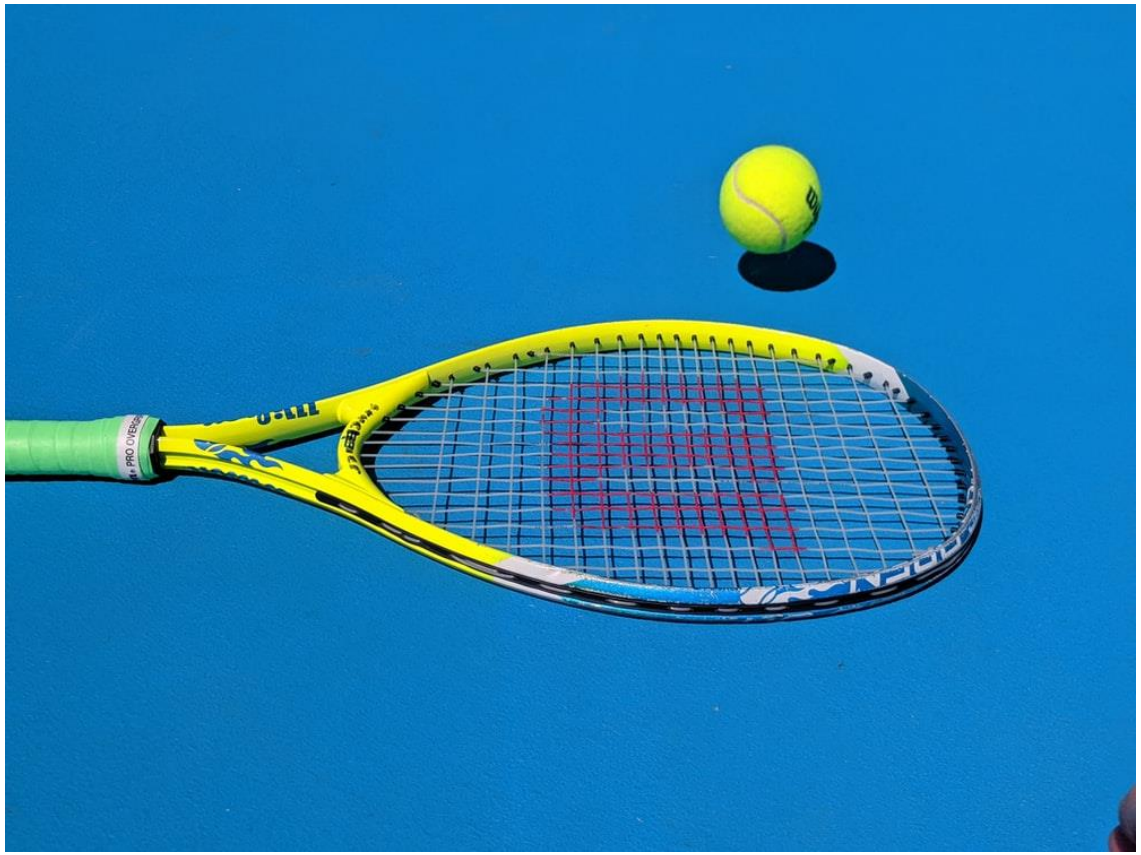
Meal Timing is Key

Pre-Training

1. Regular Balanced Meal (protein, carbs and fat)

   3-4 hours prior

- Carbohydrates digest quickly
- Protein and fat slow down digestion



Pre-Training

[redacted]

3-4 hours prior

2 Regular balanced meal (protein, carbs and fat)

Night before

3 Energy boost (carb based)

1 hour prior

Dinner + Dessert: Grilled Fish and Yoghurt

1/4 medium sweet potato + 1/2 cup cooked quinoa + 1/2 cup yoghurt + a piece of fruit: 4 serves of carbohydrates

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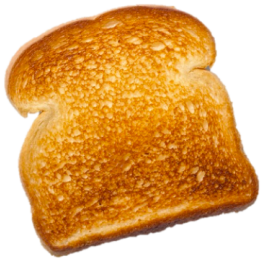
Pre Training Energy Boost

LIGHT BREAKFAST (CARBOHYDRATE BASED)



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HYDRATION

Why is fluid important during exercise?

- Water has many important roles in the body and is required to maintain blood volume and regulate body temperature.

- During exercise the body cools itself by sweating but this ultimately results in a loss of body fluid which, if not replaced, can lead to dehydration.

- As dehydration increases, there is a reduction in physical and mental performance. Impaired skill level can also occur, along with mental fatigue that can impact concentration and decision making.

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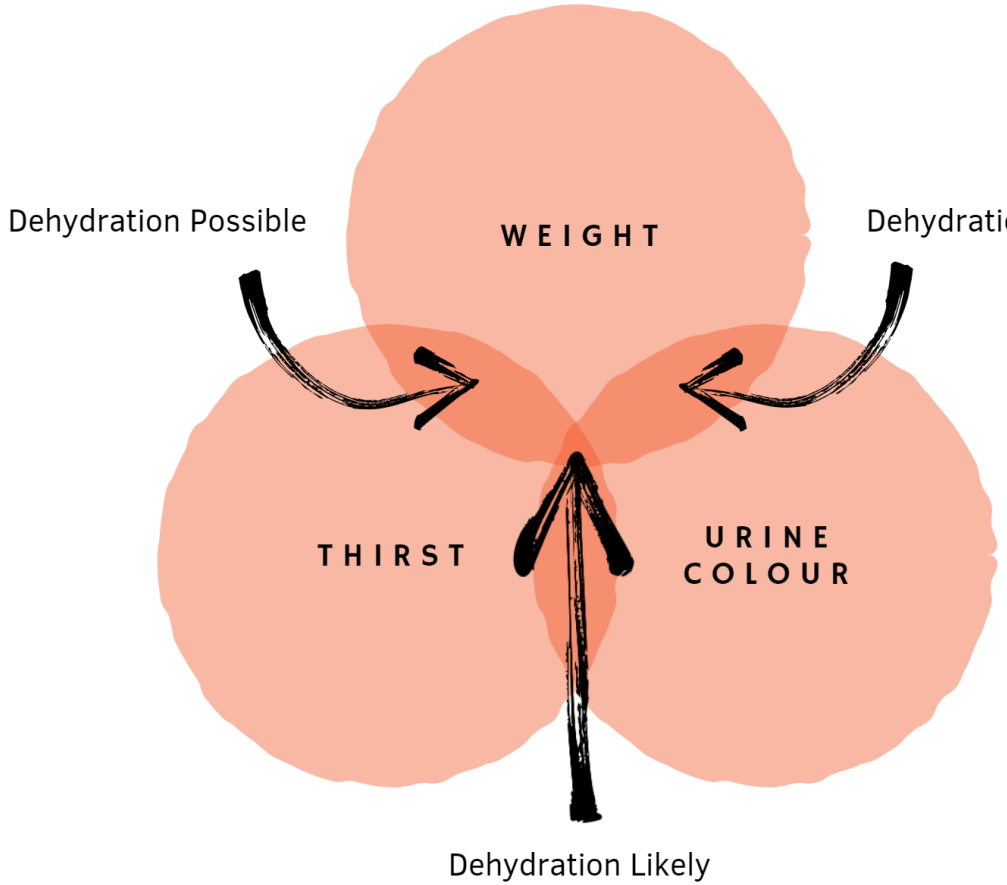
Pre Training: Hydration



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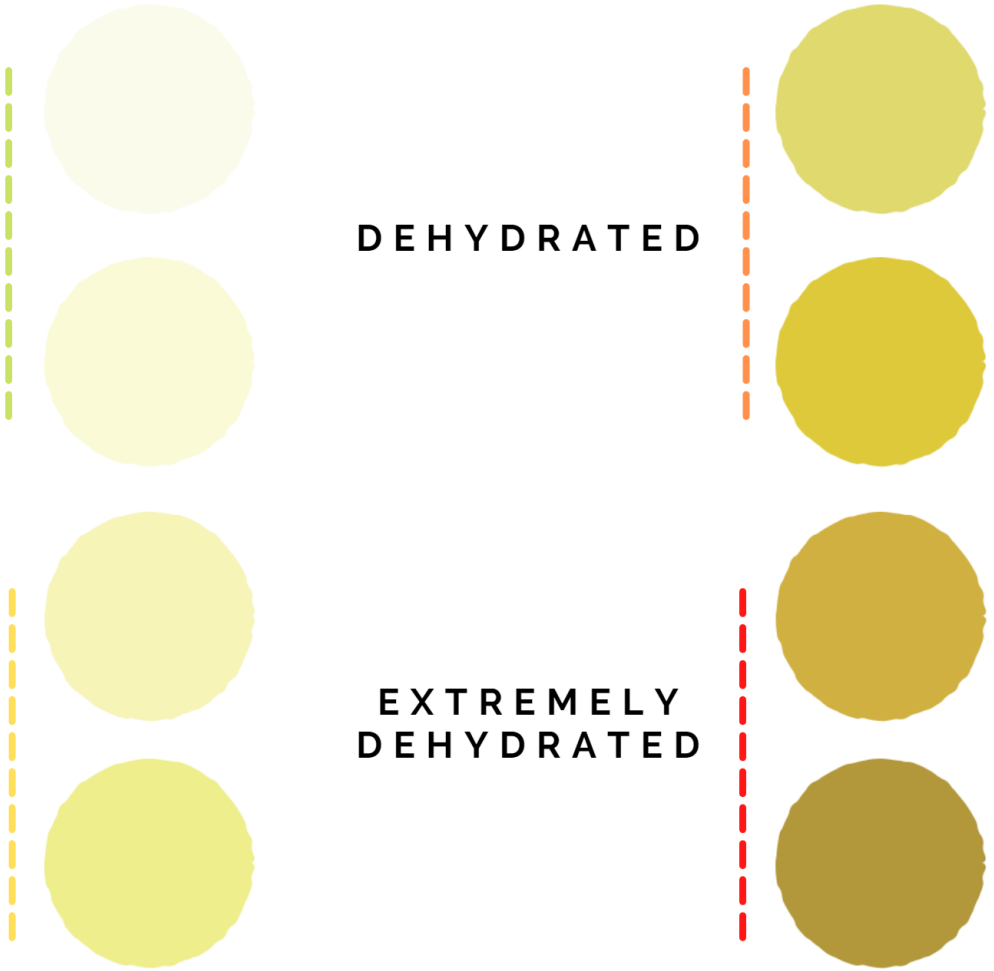
Urine Colour Scale

HYDRATED

DEHYDRATED

MILDLY DEHYDRATED

EXTREMELY DEHYDRATED



HYDRATION IN THE HEAT

- Exercising in hot weather puts extra stress on your body

- If you don't take care when exercising in the heat, you risk serious illness.

Pay Attention to the Warning Signs

- Muscle cramps
- Nausea or vomiting
- Weakness
- Fatigue
- Headache
- Excessive sweating
- Dizziness or lightheadedness
- Confusion
- Irritability
- Low blood pressure
- Increased heart rate
- Visual problems

Practical cooling strategies include:

- Add ice to water bottles and store in eskies to keep cool
- Use individual bottles to keep track of fluid intake
- Choose higher electrolyte fluids as the sodium content promotes effective rehydration.
- Use cool towels around the neck and face
- Sit in front of fans during breaks if possible

ON THE COURT

Good snacks to have in your tennis bag include:

- fruit
- dried fruit
- muesli bars
- sandwiches with honey or jam.
- sports drinks
- gels

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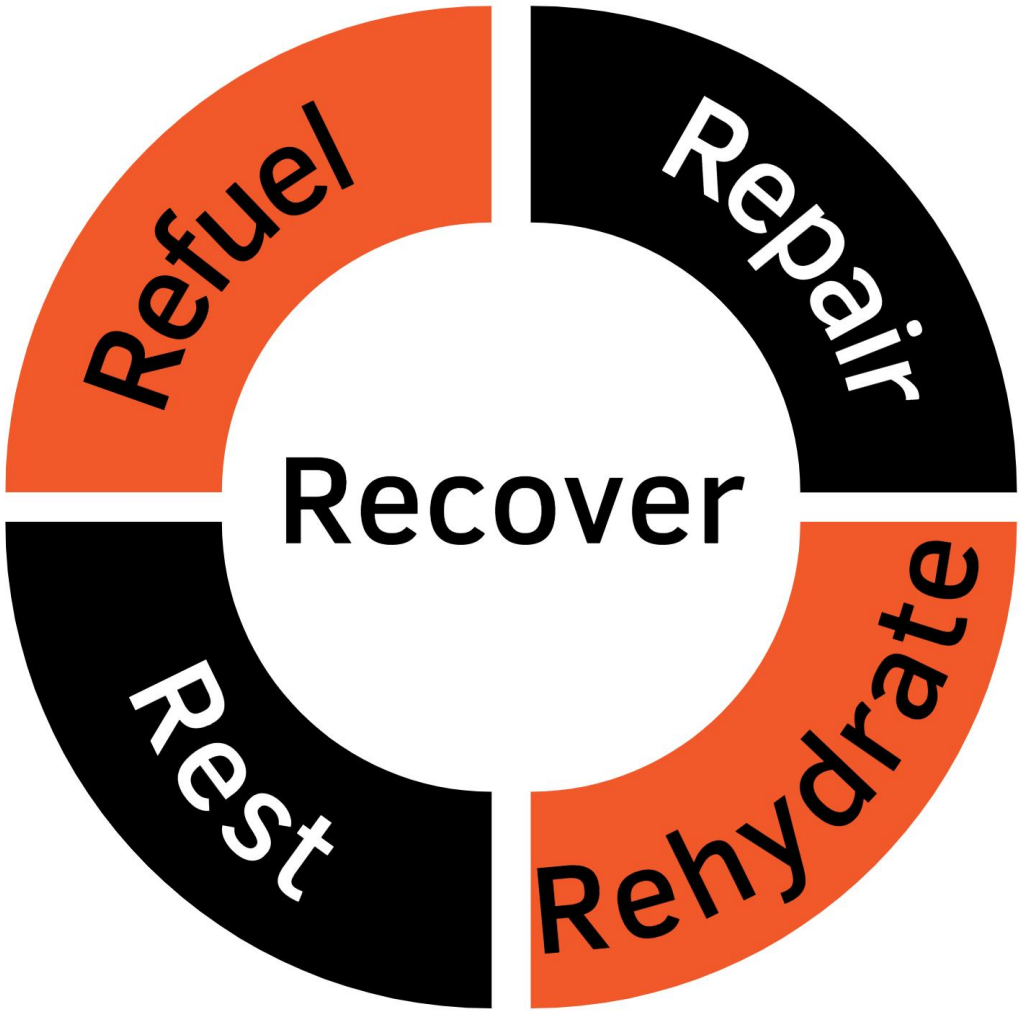
Post training



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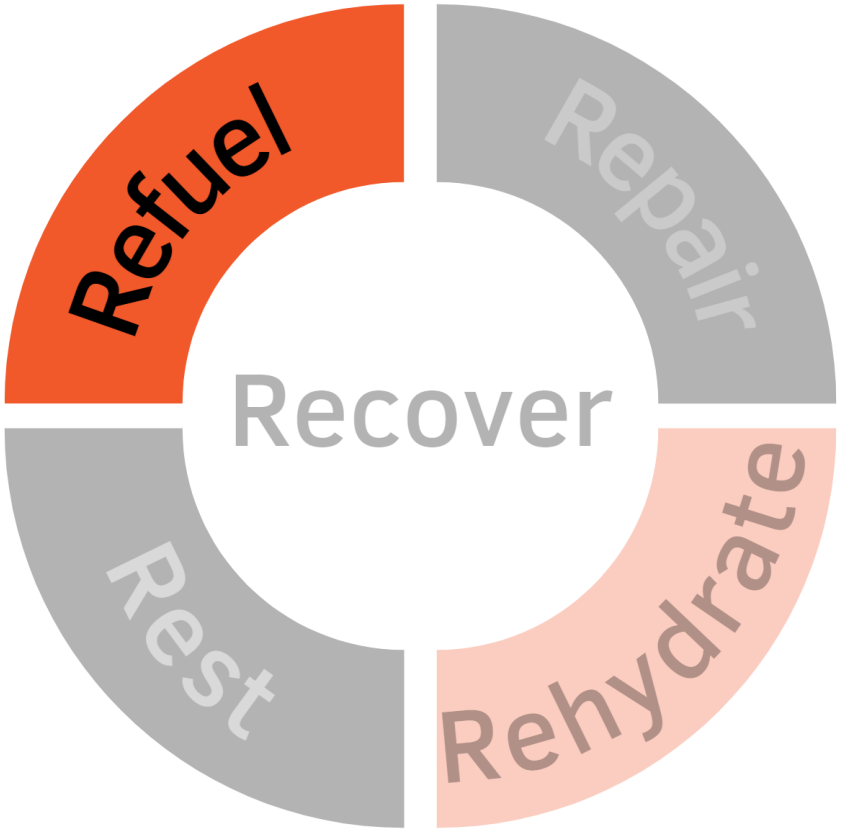

Carbohydrate based meal to refuel stores

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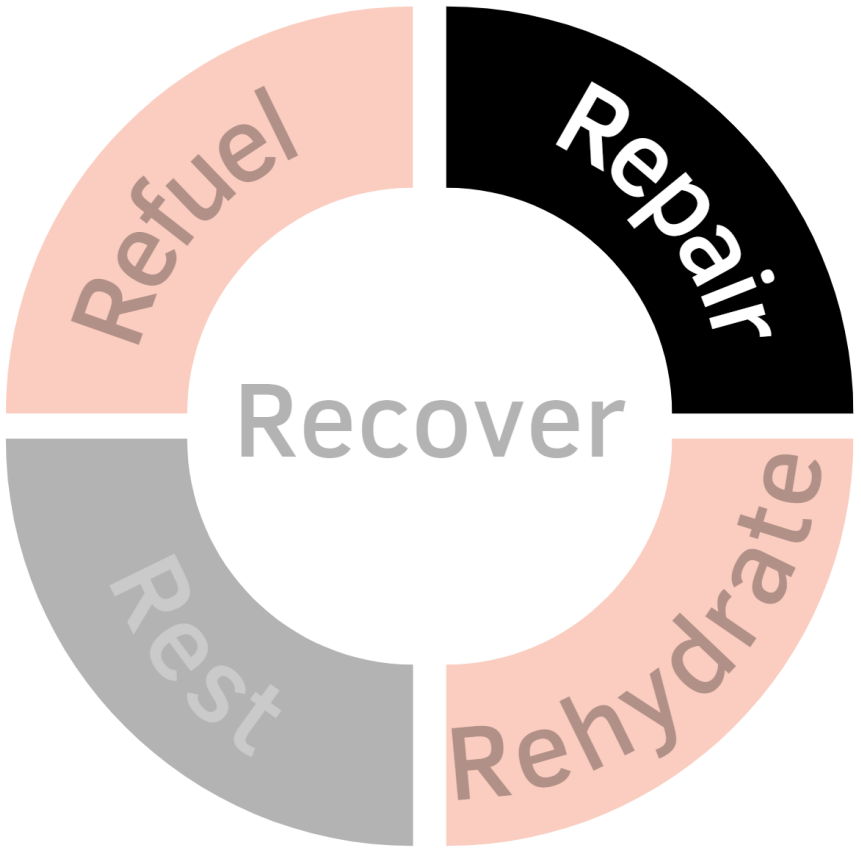

- Build muscle tissue
- Micro-tear repair
- 30 min window - enhanced recovery
- 20-30g

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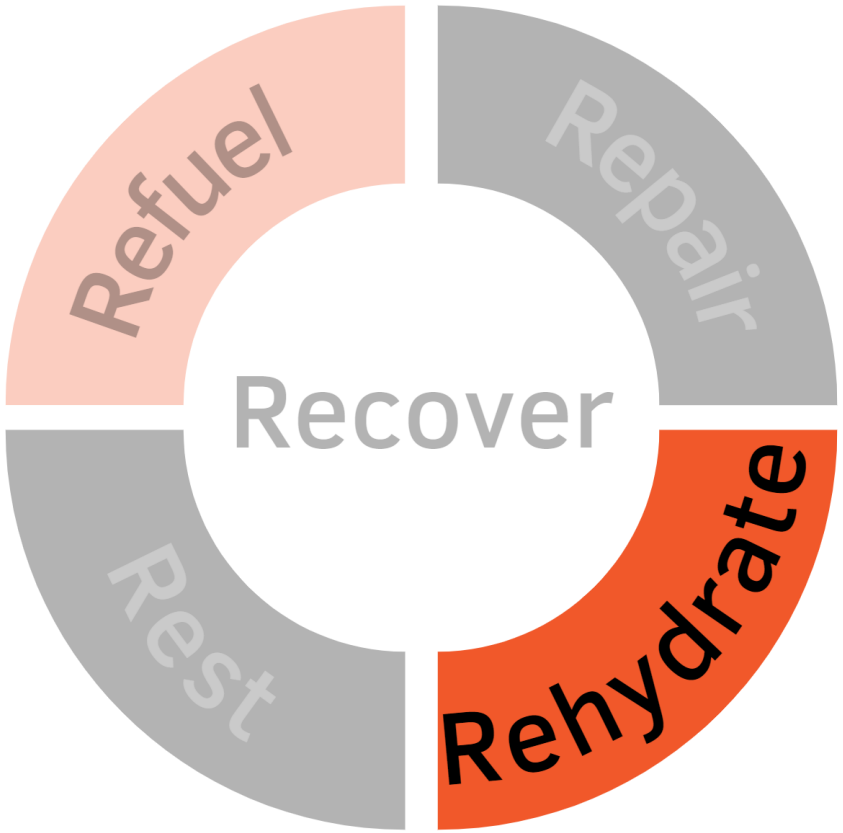


- Weight
- Urine
- Thirst

Post training: Rehydration

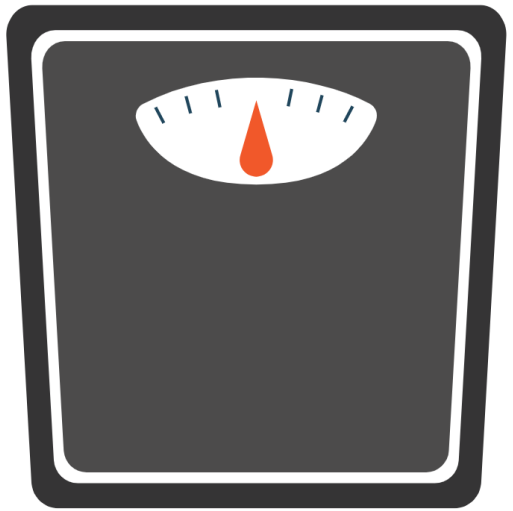
Body weight indicator

Weigh yourself before and after a training session.

Example:
Pre training weight: 60kg
Post training weight: 59kg

Weight loss: 1kg (~1L water)
Need to drink 1.5x weight lost

Need to drink: 1.5L to rehydrate



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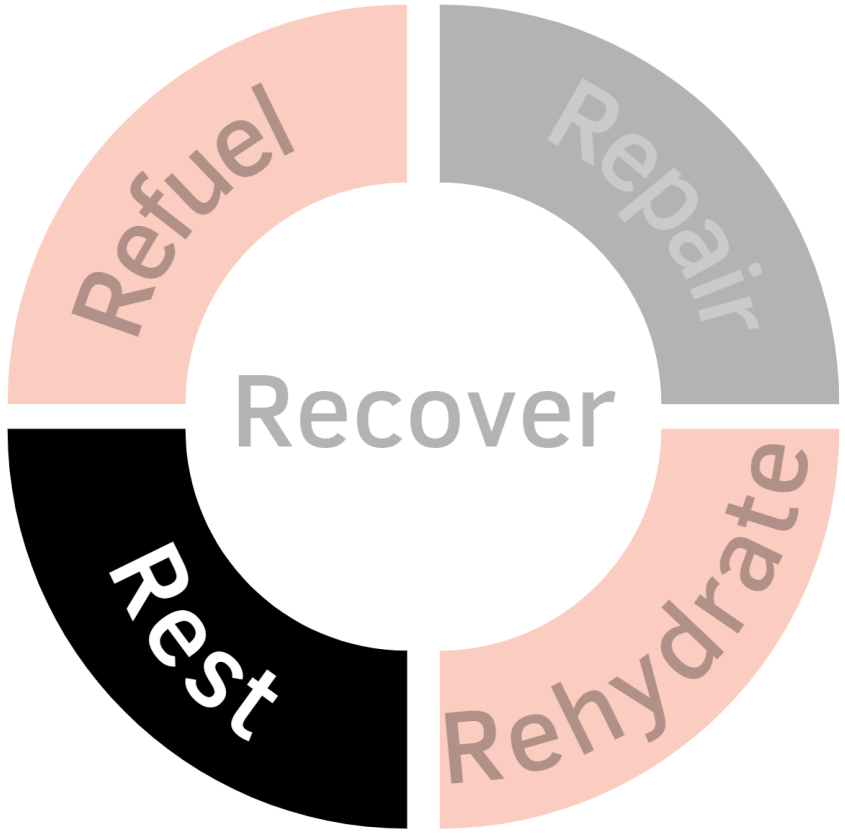

- Good nights sleep (~7-8 hours)
- Avoid stimulants eg. Caffeine

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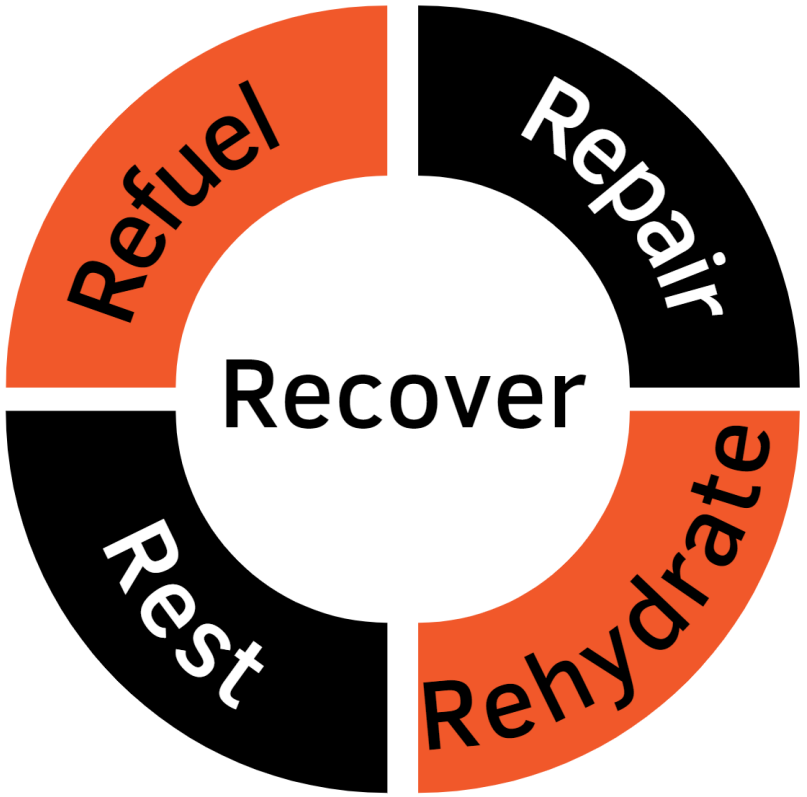

What should you eat?

Recovery through rehydration

Nutrient rich fluids: fluid, protein and carbohydrates

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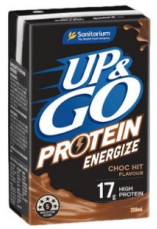
High Protein Recovery Snacks

Pre planning: refrigeration, lunchbox with ice brick



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Day on a plate

Balanced dinner

Pre training breakfast/energy boost

In training hydration

Post training recovery

Balanced lunch

High protein snacks

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Match Day

- Same meal timing principles
- Different for everyone
- Strategic planning

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Breakfast

2-4 hours prior

High carbohydrate meal

Fluid for hydration

Low fat and fibre (avoid stomach upset)

Familiar foods!!

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Nervous?

Pre-competition nerves

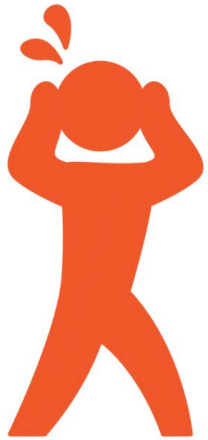
Can make stomaching a full meal difficult

Slow release carbs

Often contain more fibre - can cause stomach discomfort

Finding a balance

Between slow and fast release carbs



Pre-Match

High GI Carb Top Up

Hungry?
1hr Before Match



Not Hungry?
30mins Prior to Match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Match

High GI Carb Top Up

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Between Matches

30-60 minutes

Liquid carb options

Easy to digest

Solid carb options

Less easy to digest

Between Matches

1-2 hours

Carbohydrate based

More substantial with more fibre

Between Matches

2+ hours

More substantial meal

Protein, carbs and fat
Plenty of fluids




Post competition

Substantial, balanced meal

4 Rs - refuel, rebuild, rehydrate, rest

Supplements

1 in 5 Australian supplements are contaminated with heavy metals or banned substances

Supplement Testing

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WE TEST · YOU TRUST

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WHAT YOU CAN START DOING TODAY

- **Increase your carbohydrates to match your training volume**
- **Have a fluid and Cooling strategy in Place of Hot/Humid Training and/or Competition**
- **Refuel/ Repair/Rehydrate and Rest**

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WHY SEE A DIETITIAN?

Precision Athletica are offering **50% off** your initial dietitian consultation for any Voyager Tennis Player.
Quote ‘VOYAGER SEMINAR’ when booking

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CONTACT DETAILS

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If you want to contact me directly

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STAY CONNECTED

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CONTACT US!

Jason Oei

Jason has been tennis coaching since he was 15 years old, Jason uses his playing background, coaching knowledge and Exercise Physiology degree to head the Tennis Performance Program for Precision Athletica.

In addition, Jason is a Certified Tennis Performance Specialist (CTPS) from the International Tennis Performance Association (ITPA).

For any enquiries regarding tennis performance and training contact Jason directly.

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QUESTIONS?

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