



# Auroras Benchmarking Guidelines Asians Championships 2024 / 2025

## Introduction

Strength and fitness are fundamental components to safe, strong, sporting performance.

Athletes will be regularly assessed during the selection process and development phase of the campaign to measure commitment and progress towards team strength and fitness goals.

A program will be supplied to all team members upon selection to support their development in benchmarking. Safe, strong sporting performance necessitates a stable, yet mobile body. We acknowledge that every human body is different and therefore one program will not work for all.

Whilst the program provided is specific to your benchmarking, we encourage all athletes to undertake supplementary training that supports a wholistic approach to your personal strength and fitness needs.

Completing the 10-week performance development program will assist you on this journey.

## Benchmark requirements

There are four (4) key benchmarking exercises:

1. Barbell Bench Press
2. Body weight pull ups.
3. Sit ups.
4. 2000m Indoor Row Erg

Each exercise is worth a maximum of 10 points. If you complete the exercise to 100% of the benchmark below you will receive 10 points.

The total maximum point score possible is 40 points.							
Age Division	Gender	BP Weight	Bench Press Max Reps	Pull Ups Max Reps 1'	Sit Ups Max Reps 2'	VO2 max erg 2000m DF - Men - 130 DF - Women - 115	Erg 10 second test. Max Watt (DF - 180)
Total Points			10	10	10	10	
Premier	Female	75% BW	10	W - 9	100	W - 50	Conducted at camp
	Male	100% BW	10	M - 20		M - 53	

**\*\* You will be required to provide video evidence of each of the 4 benchmarks with your EOI application. See EOI document for further information. \*\***





## Guidelines for successful completion of the benchmarking exercises

### BARBELL BENCH PRESS

Technique video: [Barbell bench press with medium grip video](#)

Full range of motion is defined as the following:

- Full extension at the top (do not snap lock out your elbows)
- Men: to touch their chest with the bar
- Women: to finish 40mm from their chest. A sponge may be used to determine this.
- At the bottom of the range of movement, the wrist should be placed directly over the elbow.
- Feet always remain on the floor.
- Stable torso.
- Warm up appropriately and ensure you have a spotter.
- Do not flare your elbows as you bring the bar down. Elbows should finish roughly in line with the lower part of your rib cage.

Breaking form/failure/assistance from spotter terminates the test.

### *Barbell Bench Press FAQ's*

Q: Is there a time limit to complete the exercise?

A: No. There is no time limit to complete this exercise however reps must be completed consecutively.

Q: Can I use a wide hand grip on the bar?

A: No. However we are aware that everyone is different. Your hand grip needs to determine that your chest muscles are activated in preference to your shoulder muscles. We recommend slightly wider than shoulder width (one hand width).

Q: If I cannot lift my designated weight, can I use a lower weight?

A: No. You must do as many as you can with the allocated weight. If you cannot lift 1 rep of your designated weight you must aim for 10 reps of a lighter weight. No points will be awarded but it will be recorded for future reference.

### PULL UPS

Technique: [Pull ups technique video](#)

The test: **maximum consecutive repetitions**

Full range of motion is defined as the following:

- Elbows must pull down to the side of torso.
- Elbows must reach close to full extension. Do not need to disengage latissimus dorsi.
- No swing of torso or legs or kipping.
- No use of shoulders to pull up over the bar.
- *Test:* Maximum consecutive repetitions

Breaking form on two consecutive repetitions/failure/assistance/touching the ground terminates the test.

### *Pull ups FAQs*

Q: Can I do the pull ups with my hands facing towards me?

A: No. Hands must face away from the body.

Q: Can I use a wide grip?

A: No. Hands must be placed at shoulder width or slightly wider to engage the back muscles.

Q: What is the top point of the pull up?

A: Your chin must finish above the bar.

Q: What is the bottom point of the pull up?





A: Arms must extend so that the angle at the elbow is between 120 and 160 degrees.

Q: Can I use my body to swing?

A: No. The body must be steady and controlled throughout the movement.

Q: Can I jump up for the first pull up?

A: No. The body must be steady and controlled throughout the movement.

Q: Can I kick at the end of my pull up?

A: Yes. A slight kick to complete the pull up will be allowed.

## SIT UPS

Technique: [sit ups technique video](#)

An acceptable sit up will be as follows:

- Approx 90-degree angle at knees.
- Hips and feet must stay on the ground.
- Hand positions as listed below must be sustained throughout the exercise.
- Feet may be held.

## Sit ups FAQs

Q: Is this a timed exercise?

A: Yes. You have **2 minutes** to complete as many sit ups as possible.

Q: Can my legs be held at my calf instead of my feet?

A: Yes. You can have your calves held or have someone stand on your feet.

Q: Do my shoulders have to touch the ground at the bottom?

A: No. The shoulder *blade* must touch the ground.

Q: What defines the top point of the sit up?

A: Your elbow must touch your thigh and your hands must be firmly in the designated position. Note: the video does not show elbows touching the thigh.

Q: Where do my hands have to be? Do they have to stay there the whole time?

A: Men – hands must be locked behind the head *or* neck and must remain there the whole time.

Women – hands must close over the ears and must remain there the whole time.

Q: Is there any alternative for people with lower back pain / injury?

A: Yes. With clearance of your divisional coach, you may complete the [7 stages sit up test](#).

Please Note:

Athletes will also be asked to complete the 7 stages sit up test during the campaign.

Please ensure you are aware of and confident to complete this test.



## INDOOR ROW

Ideally, complete your row on a Concept 2 Indoor Row Machine.



### Drag Factor

All machines will be calibrated differently. To ensure a level playing field, the machine can be set to a pre-determined 'drag factor'. Follow the [instruction video](#) on how to do this.

Set a drag factor as follows:

- Men – 130
- Women - 115

### Foot Pedals

Adjust the foot straps so that your feet fit firmly into position and enable you to drive with your legs through the stroke.

### Reading the display

You can select different display set ups by clicking on the display button.

The image here gives you a good summary of the data you can see. Scroll through and choose the screen that best suits you. The display here shows the following information:

**:14** – this is a timer showing how long you have been rowing. In this case, 14 seconds.

**28** – stroke rate. In this case 28 strokes per minute

**2:28** – current power output. This is a measure of how long it will take to paddle 500m at your current rate of power. In this case 2min28sec

**42m** – how far you have travelled.

**110** – heart rate. This will only work if you have a heart rate monitor on, synced to the machine.

**2:42.6** – average power. A measure of how long it will take to paddle 500m based on overall power.

**42** – how far you have travelled per split. This is dependent on how the splits are defined.

**6202m** – projected distance you would cover if you were to row for 30min.

:14	28 <sup>1/2</sup> /m
<b>2:28</b>	/500m
42 m	110 <sup>1/2</sup>
2:42.6	ave /500m
42	split meters
6202	projected m 30:00

### Selecting workouts

The machines are pre-programmed with five **standard workouts**, and five **custom workouts**. You can use these to support your training on the indoor row.

1. Click on the menu button on the monitor.
2. On the Main Menu, choose **Select Workout**.
3. Select **Standard List**.
4. The 2000m program is a standard workout. Select this for your trial.



### Completing your Indoor Row

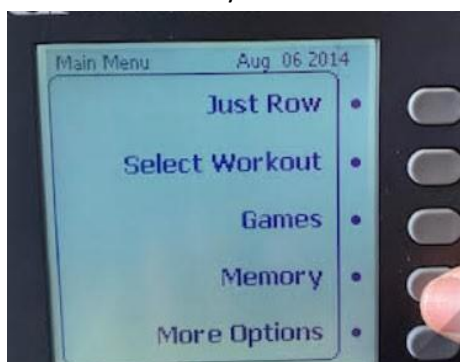
Warm up appropriately before completing your row. This may include similar exercises as undertaken before water training. Warm up the shoulders, hips, back, legs. Elevate the heart rate slightly and increase the blood flow to your muscles. You are now ready.

1. Set the drag factor as per the values listed above.
2. Adjust the foot pedals to enable leg drive.
3. Set the machine to the required distance.
4. Warm up and complete your time trial.

### Capturing your results

Step to take find and record your final result:

1. Click on Main Menu
2. Click on Memory



3. Click on List by Date. Select your row.



4. Take a screen shot of the splits.



5. Calculate your [VO2 max score](#) (See below for details)
6. Submit your results on the EOI form provided.
7. Take a screenshot your results and upload it to Sharepoint for review (See EOI document for further information.).

## Support Resources

[Technical tips for indoor row technique](#)

[How to measure your cardiovascular fitness using your indoor row score. VO2 Max](#)

## What is VO2 Max and how to find it

VO2 Max is defined as the maximum or optimum rate at which the heart, lungs, and muscles can effectively use oxygen during exercise. It is used as a way of measuring a person's individual aerobic capacity. Whilst this enables us to understand how our fitness may be declining or improving, it is only one measure of fitness and should be used as a guide only.

To determine your VO2 max you need to reach a point where your oxygen levels are starting to run out and your heart rate is high (trying to pump more oxygen to your muscles).

[Find out more about VO2 max scores and how to determine yours here.](#)

Enter the information below and press Submit to see your estimated VO2max.

Body Weight

Pounds  OR  Kilograms

Best 2000m Time

Minutes  : Seconds

Gender

☒ Male ☐ Female

Training Level What does this mean?

☒ Highly Trained ☐ Not Highly Trained

**CALCULATE VO2MAX**

0

Your Estimated VO2max

## Cardiovascular Fitness Calculations

Based on VO2max (mL\*kg<sup>-1</sup>\*min<sup>-1</sup>)

Gender	Age	Poor	Fair	Average	Good	Excellent
Men	< 29	< 24.9	25-33.9	34-43.9	44-52.9	> 53
	30-39	< 22.9	23-30.9	31-41.9	42-49.9	> 50
	40-49	< 19.9	20-26.9	27-38.9	39-44.9	> 45
	50-59	< 17.9	18-24.9	25-37.9	38-42.9	> 43
	60-69	< 15.9	16-22.9	23-35.9	36-40.9	> 41
Women	< 29	23.9	24-30.9	31-38.9	39-48.9	> 50
	30-39	< 19.9	20-27.9	28-36.9	37-44.9	> 45
	40-49	< 16.9	17-24.9	25-34.9	35-41.9	> 42
	50-59	< 14.9	15-21.9	22-33.9	34-39.9	> 40
	60-69	< 12.9	13-20.9	21-32.9	33-36.9	> 37