

BSC Newsletter

May 2019



ATTENTION ALL SQUADS 2019 PB CHALLENGE DATES:

**TBA we are currently
in negotiations with
GLC regarding the
best time for PB
challenges. We will
let you know the
outcome ASAP**

Coaching Contacts

For all coaching enquiries please
contact:

Head Coach
Andrew Sexton

headcoach-
andrew@busseltonswim
mingclub.com.au

Useful Links

Swimming WA:
www.wa.swimming.org.au
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BSC PB Meet entries:
[glenayfarms@bigpond.
com](mailto:glenayfarms@bigpond.com)

Committee Message

Welcome to Term 2 especially to all our new swimmers joining us. The committee is pleased to announce the Busselton Swim Team Captain for the 2019/20 season is **Maddy Johnston-Walker**. Maddy has swum with the club for 7 years and is a fantastic ambassador for our sport. Congratulations Maddy.

It has been a huge month since the April newsletter was issued. Busselton swimming club has seen swimmers participate at the Nationals in Adelaide as well as the Junior State Championships in Perth, followed by swimmers and coaches taking a well-deserved break for a couple of weeks.

This hasn't stopped our volunteers who have been hard at work through the holidays with plenty of fundraising, culminating in the draw of our raffle taking place on April 30th and the Busselton Half Ironman event on May 4th. Thank you to everyone who sold their raffle books and lent a hand at raffle stalls or the Ironman event, it all makes a big difference to the successful running of our club.

Term 2 is now in full swing with swimmer numbers high and the addition of yet another new squad. Coach Amber has added early morning training as an option for Junior 4 swimmers. Those who have chosen this alternative are enjoying their new afternoon freedom to pursue other winter sports and the extra time to do their homework (we hope!!).

The committee is proud of all our swimmers and we hope to continue the great momentum we have at the moment. We are always looking for extra helpers to run our club successfully, if you think you could be of benefit to the club in any way please let us know at secretary@busseltonswimmingclub.com.au.

Just keep swimming.

BSC Committee

Congratulations raffle winners

Our Secretary Anna-Lise Murch won 2nd place and we could not think of a better recipient, given all her hard work in recent months. We hope you have a lovely time Anna-Lise!



Coach's Corner

Here is the nutrition article we promised last month, happy reading.....

Nutrition and sport (specifically swimming)

(Certain information has been taken from “The Science of Swimming Faster” by Riewald PhD and Rodeo PhD, 2015 from a chapter written by Swimming USA’s main nutritionist)

One of the most important aspects of athletic performance is understanding how nutrients and body chemistry combine to fuel an athlete’s performance. There are a lot of myths and inaccuracies in modern dietary fads that while they may result in weight loss in your average person, can actually be extremely detrimental to athletes. I would like to bring these to your attention. But first things first...

The components of training

Everything that I do is based on sound and up to date scientific knowledge. In Busselton, we do not have the luxury of time and training availability during the week that other clubs in the cities have to train. As an example, our performance squad trains about 11-12 hours in the water each week, while clubs in bigger centers will have the ability to do up to 15-16 hours per week.

Clearly, there is a deficiency there that needs to be made up using intelligent and balanced training methods that promote the most effective training response in the athletes’ bodies, and making sure that the athlete is properly fueled is imperative to prevent tiredness and ineffective sessions.

There are 5 important systems that need attention during training:

- ATP renewal process where the body uses adenosine triphosphate to power the muscular system (or anaerobic conditioning)
- Enhancing the body’s ability to tolerate or delay the accumulation of lactic acid
- Enhance the oxygen-carrying capacity of the blood (aerobic conditioning)
- Enhance the size and number of mitochondria in working muscles (another part of aerobic conditioning) and capillary density (blood flow)
- Improve the neural impulses that initiate movement (power training) and optimise the size and density of muscle fibres (another aspect of power)

What is ignored is that FUELING IS A SKILL that needs to be mastered to ensure that the above systems can be trained properly.

What to eat and when

The problem with most young people is inadequate attention to their eating program that results in wild fluctuations in blood sugar, especially by the end of the day. This normally arises as a result of infrequent or overly large morning meals followed by large evening meals, normally heavy in the wrong dietary components. There has been much negative information about carbohydrates recently, but unprocessed carbs are ESSENTIAL for athletic performance. There is a huge difference between required carbohydrate/protein/fat consumption and total caloric consumption, which is normally where the average person needs to direct their attention (in the absence of a specific medical condition).

Data sheet 1: Rough daily guidelines are as follows:

Carbs Protein Fats

Coach's Corner

45kg swimmer	450g	77grams	see equation below
68kg swimmer	682g	116grams	
90kg swimmer	909g	155grams	

The TOTAL caloric calculation is called the Harris-Benedict equation:

For boys:

$$BMR = 66.5 + (13.75 \times \text{weight in kg}) + (5 \times \text{height in cm}) - (6.78 \times \text{age})$$

For girls:

$$BMR = 655.1 + (9.56 \times \text{weight in kg}) + (1.85 \times \text{height in cm}) - (4.676 \times \text{age in years})$$

This BMR is then adjusted as follows to calculate the total calories needed per day:

BMR x 1.2 for little to no exercise

BMR x 1.375 for light exercise (1 to 3 days per week)

BMR x 1.55 for moderate exercise (3 to 5 days per week)

BMR x 1.725 for heavy exercise (6 to 7 times per week)

BMR x 1.9 for elite training (twice per day, heavy workloads)

An example: a 60 kg boy versus 60kg girl both 165cm tall and 15 years old who trains 6 times per week.

Boy: $66.5 + (13.75 \times 60\text{kg}) + (5 \times 165\text{cm}) - (6.78 \times 15) = 1,614\text{cal} \times 1.725 = 2,785$ calories per day

Girl: $655.1 + (9.56 \times 60\text{kg}) + (1.85 \times 165\text{cm}) - (4.676 \times 15) = 1,463.81 \times 1.725 = 2,525$ calories per day

(For our performance squad training twice a day they would need about 3,000 to 3500 calories per day and more depending on the intensity of the training and their weight.)

Remember, Michael Phelps in heavy training of up to 15km per day was consuming up to 10,000 calories – eating is essential!!!! But so is making sure that all the other snacks that we sneak into our days are properly counted towards this total – unhealthy eating leads to unhelpful results!)

Why carbohydrates!?

Carbohydrates (unprocessed) are necessary for:

- Maintaining glycogen stores and therefore plasma and glutamine stores. Glutamine fuels immune system cells.
- Reduce the effects of cortisol response. Cortisol is a stress hormone released when under emotional and physical pressure.
- While fasting training can be useful to create a resistance response to blood sugar levels, adequate post-workout refuelling is imperative. Without this, the body turns to fat storage, and while losing weight is sometimes beneficial when trying to increase power to weight ratios with proper guidance and control, the effectiveness of training can be greatly affected, both physically and emotionally.

The benefits of eating fat!!

For extremely hard-working athletes, fat intake is essential due to its caloric density (Read – unsaturated fats!!! I am not advocating saturated fat intake!). Fat provides about 9 calories per gram and a healthy intake of olive oil, peanut butter, fish and avocados is really important to meeting the caloric requirements of the equations above.

As a comparison, protein and carbs are roughly 4 calories per gram.

Coach's Corner

Proteins

Proteins are significantly more important to older kids who are doing strength workouts in the gym, or advance strength training (paddles, bungies) in the pool. Muscle tissue breakdown (called catabolism) is essential in order to rebuild and strengthen the muscles, and adequate protein is essential to assist the body back into an anabolic (building) state.

Vitamins and minerals

A healthy diet normally has enough of the required minerals (calcium, magnesium, potassium, etc) for both boys and girls.

One area that is essential to take care of though is folate and iron supplements for athletes of both sexes as iron depletion is extremely debilitating in athletes, especially in pubescent girls who are training very hard.

Example:

For the 65kg athlete above who requires 3,700 calories per day (training twice per day for 90 mins):

Protein (4 cal/g)	+ 115g	=	460 calories	(from data sheet 1 above)
Carbohydrates (4cal/g)	+ 650g	=	2,600 calories	(from data sheet 1 above)
Fat (9 cal/g)	80g	=	720 calories	
Total			3,780 calories	

Making sure the balance of food is correct is really important!

WATER AND HYDRATION

A VERY important element of nutrition is adequate hydration. Swimming raises body temperature even in the pool and swimmers in warm conditions can lose 350ml of sweat per hour, depending on effort. Unfortunately, even a 2% reduction in body fluid can have a 15% reduction in performance. It really does make a huge difference.

VERY NB: Water is not good enough on its own for anything more than 60mins. A 6-8% carbohydrate/electrolyte mix is optimal (eg Bindi, but Gatorade/Powerade are fine)

Indicative drinking requirements (for 90 min session):

Pre- workout

5ml per kg of body weight taken as 2 cups 2 hours before, 1 cup 1 hour before, ½ cup 15 mins before

During workout

250 - 350 ml/ hour based on size as ½ mouthfuls every 20 mins

Post workout

450ml over first two hours after session, especially after a very hard workout

SUMMARY

Eating or drinking in response to hunger or thirst is not enough to ensure adequate fuel for performance training. Competitive swimmers of all ages must be encouraged to take their dietary plans to sophisticated levels in order to achieve their best possible results.

Nutrition is a skill like any other, and need discipline, training and attention to detail.

If you would like any further information please discuss it with your coach and they will assist you and provide further information!

Lucinda's National Bid



Many congratulations to Lucinda Jones on her performance at the National Age Championships in Adelaide. Lucinda swam in two events with two PBs breaking the 1.00 min barrier in the 100m free for the first time and rocketing 35 places up the rankings in her 200m free.

As we saw in the last newsletter, this has taken a lot of dedication travelling to and from Margaret River up to 7 times per week. We should all be proud of her achievement.

Congratulations

to Maddy Johnston-Walker and Ethan Buckland who have been named in the WA school sports team to travel to Melbourne in July.

Junior State Championships

Congratulations to our six competitors at the junior state championships April 13th-14th. Conor Barbour was our first swimmer off the blocks with 2 solid PBs. Ruby McLellan displayed grit and determination getting out there and battling through the flu.

Congratulations to Ruby Eastaugh who took out silver in the 50m breast. Ella Hitching at her first states achieved 6 Pbs including an impressive 8 second drop in her 100m backstroke. Sienna Currie sliced 0.62 off her 50m freestyle. Jaz Currie kept his chin high despite being pipped by 0.01 for bronze in the 100m backstroke, also claiming 5 PBs.





Upcoming Target Swim Meets:

- 22-23rd June: Swimming WA Short course Qualifying Meet 1.
- 27-28th July: Swimming WA Short course Qualifying Meet 2.
- 6th-8th September: Swimming WA State Age and Open Short Course Championships.
- 21st-22nd September: Swimming WA Junior Short Course Championships.

Getting to know our swimmers

Name: Ethan Buckland

Squad: Performance

How long have you been swimming? 5 years

What is your favourite swim meet? Country Champs

What is your main swimming goal? Make it to Nationals

Who is your hero/heroine? My Mother and Father

What do you think about when you are swimming (during races and hard training)? Don't Quit, keep going.

What is your favourite music/movie? Pump It by The Black Eye Peas

What do you enjoy doing in your spare time? Hangout with the family.

What is something about you that we would be surprised to know? I can walk on my hands.



Busselton Swimming Club would like to thank the following sponsors and supporters:



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