mater | Smiling for Smiddy



Training Guide

Multi-day cycling events

smiddy.org.au

Hello.

Mater Smiling for Smiddy wishes to acknowledge and thank Cameron Schembri. A passionate cyclist and practice partner at Allsports Physiotherapy and Sports Medicine Group, Jindalee, Cameron who provided some of the content of this document.

We want you to enjoy your training and have fun along the way, and trust you can apply some or all of the information contained within this guide towards preparation for the Far North Queensland Smiddy Challenge.

If you have any questions about your training plan please drop Christian Killeen (christian.killeen@mater.org.au) or Krista Page (krista.page@mater.org.au) an email.

See you in the saddle,

Christian and the Mater Smiling for Smiddy team

© Mater Hospitals' Appeal Ltd 2021. All rights reserved.
No part of this publication may be reproduced, copied or transmitted in any form or by any means without the prior written permission of the copyright owner. Enquiries should be addressed to Mater Hospitals' Appeal Ltd as trustee for Mater Foundation.
Mater Hospitals' Appeal Ltd, its staff, or its programs, including the Smiling for Smiddy program, shall not be held liable for any injury and/or damage to persons as a result of the information contained in the material in this document.
Nutritional information included is intended to be of a general nature only, it is does not, and is not intended to constitute advice or any statement on which reliance should be placed.
It is strongly recommended event participants consult a medical practitioner before undertaking any training for your endurance event.

Mater Smiling for Smiddy Training Guide

The following is generalised advice regarding preparation for participants joining Challenge in the Tropics and is designed to provide general assistance and guidance in your preparations for the challenge ahead. Not all individuals respond the same way to training loads however some training principles are applicable to us all.

For more personalised advice we recommend you consult with a qualified coach or training specialist. Should you require recommendations on coaches please speak with the Smiddy team.

Periodised Training

Periodised training refers to a methodology of preparing the body for physical activity via structured and organised time periods. Put simply this kind of training provides the body with the stresses which cause adaptation of the body's physiology. It is important to note that the body requires a recovery period from these training stresses so that it can actually adapt and therefore improve functional capacity. If athletes do not allow for adequate recovery in their training then performance gains can be poor and injuries are likely to occur.

Whilst training for your Smiddy event will require some hard work it may also require you to train a little smarter not just more often. A sample periodised training month is shown below.

Mater Smiling for Smiddy event consist of multiple days riding, ranging between 120km and 160kms per day. However, you don't need to reach these distances each day you train. Instead, by using the periodised method, you do smaller amounts on a regular basis with specific types of training focusing on different areas, such as speed, strength and endurance.

The training is structured to focus on the different areas each week allowing for appropriate rest times and will often build over a three week period in distance, then drop back on week four as a 'rest/recovery week'. The idea is to increase distance and/or intensity in stages to gradually build the body's strength and resilience.

Planning your training

While we have made recommendations in the following schedules they are just a suggested guide. It is important that you adjust them to fit into your daily life and routine. For shorter rides working on speed/efforts the use of a wind trainer or exercise bike can be a great substitute for road riding and will help supplement on road training when the schedule does not permit.

Training Overview

Five to Six months out from event—Base Load

- Aim in Base Phase is to begin build the volume of cycling hours/km
- Incorporate 4-5 rides per week
- Start your body's adaptation to multi-day cycling by following your weekly long ride with a recovery ride the next day.
- Cross train 1-2 sessions. More if your body weight (body fat) is an issue.
- Recovery week will be a reduction in both distances and loads. I.e. decrease distances by up to 50% and avoid hills and reduce speed work/efforts.

Example training loading month (five to six months out from event)

5 – 6 months out	Week 1	Week 2	Week 3	Week 4
Monday	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.
Tuesday	60 mins cycle **(25km)** Warm up 20min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20mins.	60 mins cycle **(25km)** Warm up 20min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20mins.	60 mins cycle **(25km)** Warm up 20min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20mins.	60 mins cycle **(25km)** Warm up 20min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20mins.
Wednesday	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.
Thursday	60 min cycle **(25 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60 min cycle **(25 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60 min cycle **(25 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop.
Friday	REST core strength exercises	REST core strength exercises	REST core strength exercises	REST core strength exercises
Saturday	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.
Sunday	**55-60km** Incorporate some hills Steady and consistent pace.	**60-70km** Incorporate some hills Steady and consistent pace	**70-80km** Incorporate some hills Steady and consistent pace	**50 km** Incorporate some hills Steady and consistent pace.
Total Kms	**185-190km**	**190-200km**	**200-210 km**	**185 km**

Example training loading month (three to four months out from event)

3 – 4 Months out	Week 1	Week 2	Week 3	Week 4
Monday	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.
Tuesday	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.
Wednesday	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.
Thursday	60 min cycle **(25 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60 min cycle **(25 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop.
Friday	REST core strength exercises	REST core strength exercises	REST core strength exercises	REST core strength exercises
Saturday	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.	75-90 mins cycle **(40km)** with some short efforts. Eg River Loop, Bay loop.
Sunday	**75km** Incorporate some hills Steady and consistent pace.	**85 km** Incorporate some hills Steady and consistent pace	**100 km** Incorporate some hills Steady and consistent pace	**80 km** Incorporate some hills Steady and consistent pace.
Total Kms	**215 km**	**225 km**	**245 km**	**225 km**

Example training loading month (two months out from event)

1 – 2 months out	Week 1	Week 2	Week 3	Week 4
Monday	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.
Tuesday	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.
Wednesday	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.
Thursday	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop.
Friday	REST core strength exercises	REST core strength exercises	REST core strength exercises	REST core strength exercises
Saturday	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.
Sunday	**110km** Incorporate some hills Steady and consistent pace.	**120 km** Incorporate some hills Steady and consistent pace	**130 km** Incorporate some hills Steady and consistent pace	**80 km** Incorporate some hills Steady and consistent pace.
Total Kms	**265 km**	**275 km**	**285 km**	**235 km**

Example training loading month (one month out from event)

Final month	Week 1	Week 2	Week 3 2 weeks before event	Week 4 1 week before event
Monday	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.	REST but light training can be done. E.g. easy run or walk, swim.
Tuesday	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	75 mins cycle **(35km)** Warm up 20min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20mins.	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop
Wednesday	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.	75-90 mins cycle **(40km)** with some short efforts. Smiddy River Loop would be ideal.
Thursday	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	75 min cycle **(30 kms)** Warm up 20 mins spin easy. 1.5 km effort climbing. Ride up solid, approx. 80% of max effort. Repeat 3 times Cool down 20 mins	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop.	60-75 mins cycle **(30km)** Steady on flat roads. Eg River Loop.
Friday	REST core strength exercises	REST core strength exercises	REST core strength exercises	REST core strength exercises
Saturday	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.	2 hrs cycle **(50km)** with some short efforts. Eg longer River Loop, Bay loop.
Sunday	**125 km** Incorporate some hills Steady and consistent pace	**130 km** Incorporate some hills Steady and consistent pace	**110 km** Incorporate some hills Steady and consistent pace	**75 km** Incorporate some hills Steady and consistent pace.
Total Kms	**280 km**	**285 km**	**265 km**	**225 km**

Helpful information

Setting you Heart rate zones for cycling

Although there are more accurate ways of measuring training intensities i.e. using a power meter, not all of us are equipped with one on our bikes. Most of us are equipped with a GPS based bike computer that comes with a heart rate monitor.

This will be a sound way of determining training intensity. The following is a basic guide to help you dial in your workout intensities using your heart rate monitor. Note that the lactate threshold heart rate (LTHR) test is best done early in the base period of your training.

Step 1.
Determine your LTHR with the following short test. This is a more accurate test than the old rule of thumb 220 minus your age to find maximum heart rate (HR), as this is likely to be wrong.

- The LTHR test is a 30 minute time trial best performed by yourself (i.e. no training partner(s) and not in a race). This be best performed on a criterion circuit and/or more accurately performed on a wind trainer. The time trial should be ridden and paced as if you are in a race for the entire 30 minutes
- Begin with a sufficient warm up of approximately 10 minutes to prepare your body and adequately warm-up all muscles including your heart. In this warm-up be sure to progressively add load and reduce load in preparation for the test
- Begin the test making sure you pace yourself early. You don't want to go out too hard too early that you can't complete the 30 minute test (don't go too easy though)
- At the 10 minute mark, click the lap button on your HR monitor/GPS and begin to pick up the pace/load
- Once completed check your average HR for the last 20 minutes of the test. That average HR is an approximation of your LTHR
- The more times you perform the test the more accurate your LTHR as you will learn to pace yourself evenly throughout the test i.e. not go too hard too early in the test in that you slowdown in the final 5-10 minutes

Step 2.
Establish your training zones using the following guide:

ZONE 1	< 81% LTHR
ZONE 2	81%-89% LTHR
ZONE 3	90%-93% LTHR
ZONE 4	94%-99% LTHR
ZONE 5A	100%-102% LTHR
ZONE 5B	103%-106% LTHR
ZONE 5C	>106% LTHR

(Joe Freil)

N.B. There will be a slight delay in heart rate response to cycling load whilst training

Nutrition

It is important that your long rides simulate Smiddy event days. Most days a Smiddy event will involve 60-70kms prior to a morning tea break of 20 minutes. Therefore your long training ride should replicate these distances and time limits for breaks.

Ensure you take sufficient calories and fluids on the bike to survive a 60-70km morning ride, prior to a 20 minute break. By training your body to accept calories and fluids on the go and selecting the fluids and food types/supplement bars, gels, etc. that you like, will provide beneficial nutrients and energy to get your body through the event.

It does not necessarily mean you need expensive gels and bars for training rides, simple carbohydrate foods wrapped in foil will suffice (foods like banana, muesli bars, and slices are all suitable for this purpose).

Training Specificity

Training rides should also be conducted over similar terrain to your Smiddy event. Two or three city loops or bayside rides per week will not adequately prepare you for a 200km+ day in the saddle with a 10% grade 3–4km climb. Training specificity is vital for you to successfully gain the body adaptations that you will need to complete your event in 2018.

Eighty kilometres of hilly terrain will have significantly different heart rate and muscle strength demands than the same distance of flat and undulating terrain. These differences are magnified as the kilometres increased.

Training for an endurance cycling event over multiple days will require many kilometres in the saddle in preparation. However, **not all your training** should be long slow kilometre rides.

Speed will still be a valuable asset even though the **Smiddy events are not races**. Speed will allow you to adapt to the changes of pace and the ability to close gaps as they occur in the peloton. If all your training is slow and steady then your ability to adapt to sudden speed changes on the road will be compromised. So get in some pace-line work once a week or ride with others who are faster and sit-in or get yourself to a spin class/wind trainer/roller session.

Peloton / Group Rides

Smiddy events are conducted in sizeable pelotons, so if you are not used to riding in close quarters with others then join some groups or form your own group to ensure some of your training is within a peloton. The Smiling for Smiddy Peloton Guide (covering riding etiquette) has been included on your USB. If you need another copy, please email Christian.killeen@mater.org.au and I'll send it over.

As previously mentioned, your training will need to prepare you in all aspects of your upcoming endurance ride.

Complete Body Preparation

Cycling should not be your only form of training in preparation for your event. Cross training once or twice a week incorporating some swimming/core stability/pilates, etc. will help in the total preparation of your body's systems.

The Training Overview provided some sample training weeks that you can use to design your own training loads based on the principles discussed and the framework outlined below. A periodised program incorporating three loading weeks (microcycles) and one recovery week (microcycle) should work for most people. If you are an experienced rider

then you will have your own training programs but these principles will still assist you as you prepare for your Smiddy endurance event.

Overuse Injuries

Be aware that correct bike fit, cleat alignment and quality knicks and saddle will be essential in riding the many training kilometres as part of your Smiddy preparation.

Poor bike fit, seat height, equipment and saddle can be accommodated in a training week of two or three 40 -50km rides. However with endurance training any such problems become magnified and can quickly cause you problems.
Common overuse injuries include;

- Friction of the Ilio Tibial Band(ITB) on the outside of the knee
- Low back pain/neck pain
- Tendon irritation
- Patella-femoral mal-alignment

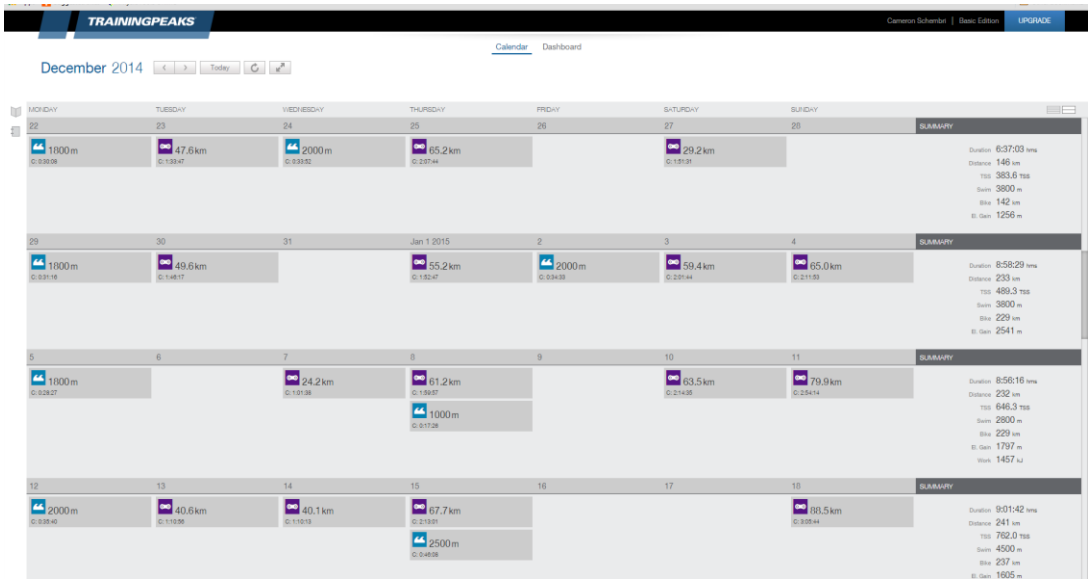
The use of an ITB roller and golf ball or similar self-trigger points to lateral thigh area will help keep friction ITB syndrome at bay.

Correct cleat alignment and bike fit will help to eliminate other injuries so it is worth seeing a reputable bike store or specific bike fitter for an accurate fit.

Regular massage will assist the body's ability to maintain muscle range + tension with increased training volumes.

Notes

- The use of a training log (eg Training Peaks) and other common websites/apps including Strava and Garmin Connect is a great way to log your kilometres, hours and training stress.



- The use of indoor wind trainer / group indoor sessions on computrainers will allow you to perform specific sessions that you carry out with local demographics and or in the case of bad weather.
- Use long rides to test hydration an nutritional needs down to often you need to sip water/electrolytes and ingest foods in solid, gel of liquid form

Hydration

Hydration is critical in the Queensland climate even in the winter months. The accepted guideline is 800mL-1000mL of fluid for every hour on the bike. Remember to hydrate when training!

Your Smiddy challenge will allow ample opportunity to refuel and rehydrate during the event.

Your training rides should follow these guidelines so your body's digestive system adapts along with the remainder of the physiological systems to training stress.
Salt Science (***http://saltstick.com/products/sscaps/cscience.htm***)

Why do many athletes need electrolyte supplementation?

Hyponatremia, a medical condition marked by low blood sodium levels, can lead to nausea, fatigue, cramping, vomiting, weakness, sleepiness, and in rare severe cases, even death. Five electrolytes in particular play a pivotal role in maintaining normal human muscle function: sodium, potassium, magnesium, calcium, and chloride.

A shortage of any of these electrolytes will affect athletic performance through a range a subtle to serious side effects. Sweat typically has about 1000mg sodium/L, a typical sports drink has 440mg sodium/L. If, during the course of training, you ingest nothing but sports drinks (or worse, water), you will become hyponatremic at some point.

Additionally, many sports drinks do not address any form of supplementation of the other key electrolytes, potentially causing yet further cramping and muscle issues. A popular and simple solution to electrolyte shortage due to sweating is supplementation using electrolyte capsules.

Why do I need more than just sodium? Table salt is easy to find and cheap to add to my drink mix...?

While sodium is the predominant electrolyte lost in sweat, a quartet of other electrolytes (potassium, magnesium, calcium, and chloride) performs crucial roles in muscle contraction, relaxation, and performance. Loss of these electrolytes over time will impair your muscles to function normally. Table salt only contains sodium chloride. Furthermore, adding too much salt to a drink will make it unpalatable and you will be less likely to actually drink it. A capsule delivers the electrolytes you need without tasting bad.

If I take salt capsules, where will I get my carbohydrates?

A strategy that has worked for countless pros and age groupers is to separate your electrolytes from your energy sources so that you can customize the dose of each group. This means to obtain electrolyte supplementation through capsules alone, and an energy source through solid or gel foods and/or complex carb drinks (e.g. maltodextrin).

A low sodium diet...
Scientific research maintains that the average Western diet is already too high in sodium and would benefit from a reduction in sodium intake. As sodium consumption increases, output in sweat also increases to maintain a healthy level in our body. Your body becomes acclimatized to this intake, and "needs" more sodium to maintain this level of function. However, athletic performance drives up the loss of sodium through sweat. If your diet already contains a lot of sodium, you'll need to maintain a higher level of sodium in your body to keep homeostasis (balance) and your ability to function under athletic stress. This can be accomplished by higher doses of electrolyte supplementation. If your diet is lower in sodium, you will still lose electrolytes through sweat, but you can maintain your appropriate blood electrolyte level with less supplementation. In many respects, the ideal situation is to live a low-sodium diet and supplement during heavy training and racing as

needed. Using a supplementary electrolyte powder or capsule, e.g. SaltStick Caps, will allow you to do this easily, and to customize your dose based on individual need.

Information on salt loss and its impact is available at: The Math of Salt Loss Slowtwitch Oct 2009 (http://www.slowtwitch.com/Training/General_Physiology/The_Math_of_salt_loss_1093.html)

Final Word

If you prepare for your challenge event with a periodised training approach, remain disciplined, train smarter not just longer and seek support from myself, Krista or past Smiddy riders then you will achieve your goals.

Remember, it will not come easy and training will take some sacrifice but that is why the Smiddy rides are called a "challenge".

If you have any questions, please email me on Christian.Killeen@mater.org.au.
Happy training and looking forward to catching up with you on the road.

Christian Killeen
Campaign Manager – Mater Smiling for Smiddy