

Preparing for the 2020 Bottlemart Smiddy Challenge

#### 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 2020 Bottlemart Smiddy Challenge.

If you have any questions about your training plan please drop Christian Killeen (<a href="mailto:christian.killeen@mater.org.au">christian.killeen@mater.org.au</a>) or Krista Page (<a href="mailto:krista.page@mater.org.au">krista.page@mater.org.au</a>) an email.

See you in the saddle, Christian and Mater Smiling for Smiddy

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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.

# 2020 Mater Smiling for Smiddy training guide

The following is generalised advice regarding preparation for the 2020 Bottlemart Smiddy Challenge 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.

The 2020 Bottlemart Smiddy Challenge will consist of nine consecutive days riding, ranging between 120 km and 200 km per day. However, you don't need to reach these distances each day you train. Instead, by using a 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**

#### 6 - 7 months out from event—Base Load

- Aim in Base Phase is to begin build the volume of cycling hours/km
- Incorporate 3-4 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 (6-7 months from the event)

| Feb - March | Week 1   | Week 2   | Week 3  | Week 4  |  |
|-------------|--|--|---|---|--|
| Monday      | REST but light training can be done. E.g. easy run or walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.   | REST  |  |
| Tuesday     | 60 mins cycle (25 km) Warm up 20 min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20 mins.   | 60 mins cycle (25 km) Warm up 20 min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20 mins.       | 60 mins cycle (25 km) Warm up 20 min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20 mins.        | 60 mins cycle (25 km)  Warm up 20 min spin easy. 1 km efforts on flat road. Ride up hard, roll back easy Repeat 4-5 times. Cool down 20 mins. |  |
| Wednesday   | nesday  (40 km) with some short efforts.  Smiddy River Loop  (40 km) with some short efforts.  Smiddy River Loop  (40 km) with some short efforts.  Smiddy River Loop  Smiddy River Loop |  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.   | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.   |  |
| Thursday    | 60 min cycle (25 km) 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 km) 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 km)  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<br>(30 km)<br>Steady on flat<br>roads.<br>Eg River Loop.   |  |
| Friday      | REST REST core strength core strength exercises exercises  |  | REST<br>core strength<br>exercises  | REST<br>core strength<br>exercises  |  |
| Saturday    | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.   | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.   | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.  | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.  |  |
| Sunday      | 55-70 km Incorporate some hills Steady and consistent pace.  | 60-75 km Incorporate some hills Steady and consistent pace   | 65-80 km Incorporate some hills Steady and consistent pace  | 60 km Incorporate some hills Steady and consistent pace.  |  |
| Total km    | 185-200 km   | 190-205 km   | 195-220 km  | 195 km  |  |

### Training Overview 4-5 months out from event—Base Building

- Continue the build in volume of cycling hours/km
- Cross train 1-2 sessions, also ensure body maintenance (massage/physio), stretching and core strength exercises

| April - May | Week 1   | Week 2   | Week 3  | Week 4  |
|-------------|--|--|---|---|
| Monday      | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.   | REST  |
| Tuesday     | 75 mins cycle (35 km) Warm up 20 min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | 75 mins cycle (35 km) Warm up 20 min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | 75 mins cycle (35 km) Warm up 20 min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins. 75 mins cycle (35 km) Warm up 20 spin eas 1-1.5 km effort flat road. Ride up hard back ea Repeat 6 times. Cool down 20 mins. |   |
| Wednesday   | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.   | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal. |
| Thursday    | 60 min cycle (25 km) 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 km) 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 km) 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  |   |
| Friday      | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises  | REST<br>core strength<br>exercises  |
| Saturday    | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.   | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.   | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.  | 75-90 mins cycle (40 km) with some short efforts. E.g. River Loop, Bay loop.        |
| Sunday      | 65-80 km   | 75-90 km   | 85-100 km   | 85 km   |
|             | Incorporate some hills. Steady and consistent pace.  | Hilly ride – e.g. Mt<br>Nebo.<br>Steady and<br>consistent pace.  | Incorporate some hills. Steady and consistent pace.   | Flat ride Steady and consistent pace.   |
| Total km    | 205-220 km   | 215-230 km   | 225-240 km  | 230 km  |

### Training Overview 3 months out from event—Base Building

- Coming into cooler months consistency will be the key.
- Continue the build-up of distance and cross train 1-2 sessions, also ensure body maintenance (massage/physio), stretching and core strength exercises

| June      | Week 1   | Week 2   | Week 3  | Week 4  |  |
|-----------|--|--|---|---|--|
| Monday    | REST but light training can be done. E.g. easy run or walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.   | REST  |  |
| Tuesday   | 75 mins cycle (35 km) Warm up 20 min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | 75 mins cycle (35 km) Warm up 20 min spin easy. 1-1.5 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | spin easy.  1-1.5 km efforts on flat road.  Ride up hard, roll back easy spin ea 1-1.5 km eff flat road. Ride up hard, roll back easy s. Repeat 6 times. Repeat 6 |   |  |
| Wednesday | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | short efforts. short effo   |   |  |
| Thursday  | 75 min cycle (30 km) 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 km) 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 | effort. Repeat 3 times  |   |  |
| Friday    | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises  | REST<br>core strength<br>exercises                      |  |
| Saturday  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | short efforts. short efforts. E.g. longer River E.g. longer   |   |  |
| Sunday    | 100–110 km Incorporate some hills. Steady and consistent pace.   | 110-125 km  Hilly Ride e.g. Mt Nebo + Mt Coot-tha. Steady and consistent pace.   | incorporate some hills.  Steady and consistent pace.  | 100 km Flat, e.g. Redcliffe Steady and consistent pace. |  |
| Total km  | 195-210 km   | 205-225 km   | 210-230 km  | 170 km  |  |

### Training Overview 2 months out from event—Final Build Phase

- Continue longer rides good time to practice your nutrition and understand how much food you need to get through 130+ km
- Cross train 1-2 sessions, also ensure body maintenance (massage/physio), stretching and core strength exercises.
- Don't train with cold or flu allow your body to get over it. A few days off is okay.

| July      | Week 1   | Week 2  | Week 3   | Week 4   |  |
|-----------|--|---|--|--|--|
| Monday    | REST but light training can be done. E.g. easy run or walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.   | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST   |  |
| Tuesday   | 75 mins cycle (40 km) Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | (40km)(40km)Warm up 20 minWarm up 20 minspin easy.spin easy.1.5-2 km efforts on<br>flat road.1.5-2 km efforts on<br>flat road.Ride up hard, roll<br>back easy<br>Repeat 6 times.Ride up hard, roll<br>back easy<br>Repeat 6 times.Ride up hard, roll<br>back easy |  | 75 mins cycle (40km)  Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins. |  |
| Wednesday | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.   | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | e (40 km) with some<br>short efforts.<br>p Smiddy River Loop   |  |
| Thursday  | 75 min cycle (30 km) 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 km) 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 km) 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 (30 km) Steady on flat roads. E.g. River Loop.  |  |
| Friday    | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises  | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   |  |
| Saturday  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.   | Day 1 – Smiddy<br>Training Weekend.<br>150 km undulating<br>to hilly.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  |  |
| Sunday    | 125–140 km Incorporate some hills. Steady and consistent pace.   | 130-145 km  Hilly Ride e.g. Mt  Nebo +  Mt Coot-tha.  Steady and  consistent pace.  | Day 2 – Smiddy<br>Training Weekend.<br>150 km flat to<br>undulating.   | 110 km Flat, e.g. Redcliffe Steady and consistent pace.  |  |

| Total km | 285-300 km | 290-305 km | 410 km | 270 km |
|----------|------------|------------|--------|--------|
|          |            |            |        |        |

### Training Overview 1 month out from event—Maintenance Phase

- Continue longer rides good time to practice your nutrition and understand how much food you need to get through 130+ km
- Cross train 1-2 sessions, also ensure body maintenance (massage/physio), stretching and core strength exercises.
- Don't train with cold or flu allow your body to get over it. A few days off is okay.

| August    | Week 1   | Week 2   | Week 3   | Week 4   | Week 5  |
|-----------|--|--|--|--|---|
| Augusi    | Week I   | Week 2   | (2 weeks out)  | (1 week out)   | (Ride Week)   |
| Monday    | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST<br>but light training<br>can be done.<br>E.g. easy run or<br>walk, swim.  | REST   | REST  |
| Tuesday   | 75 mins cycle (40 km) Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | 75 mins cycle (40 km) Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins.     | 75 mins cycle (40 km) Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins. | 75 mins cycle (40 km) Warm up 20 min spin easy. 1.5-2 km efforts on flat road. Ride up hard, roll back easy Repeat 6 times. Cool down 20 mins. | 75-90 min<br>cycle<br><b>(40 km)</b><br>River loop<br>or similar.     |
| Wednesday | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle (40 km) with some short efforts. Smiddy River Loop would be ideal.  | 75-90 mins cycle <b>(40 km)</b> with some short efforts. Smiddy River Loop would be ideal.   | 75-90 mins<br>cycle <b>(40</b><br><b>km)</b><br>Smiddy<br>River loop. |
| Thursday  | 75 min cycle (30 km) 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 km) 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<br>(30 km)<br>Steady on flat<br>roads.<br>E.g. River Loop.  | 60-75 mins cycle (30 km) Steady on flat roads. E.g. River Loop.  | REST  |
| Friday    | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   | REST<br>core strength<br>exercises   | Day 1   |
| Saturday  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | 2 hr cycle (50 km) with some short efforts. E.g. longer River Loop, Bay loop.  | Day 2   |
| Sunday    | 125–140 km<br>Some hills. Steady<br>and consistent<br>pace   | 125–140 km<br>Some hills. Steady<br>and consistent<br>pace   | 110 km<br>Flat, Steady and<br>consistent pace  | 100 km<br>Flat, Steady and<br>consistent pace  | Day 3   |

| Total km | 285-300 km | 285-300 km | 270 km | 260 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   |
| <b>ZONE 5A</b> | 100%-102% LTHR |
| ZONE 5B        | 103%-106% LTHR |
| <b>ZONE 5C</b> | >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 60-70 km 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 60-70 km 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).

## **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 200+ km day in the saddle with a 10% grade 3–4 km 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 Mater Smiling for Smiddy Peloton Guide (covering riding etiquette) has been included on your USB. If you need another copy, please email the team at <a href="mailto:smiddy@mater.org.au">smiddy@mater.org.au</a> and we'll send it to you.

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 <u>Training Overview</u> 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 to 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 40-50 km rides. However with endurance training any such problems become magnified and can quickly cause you problems.

Common overuse injuries include;

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

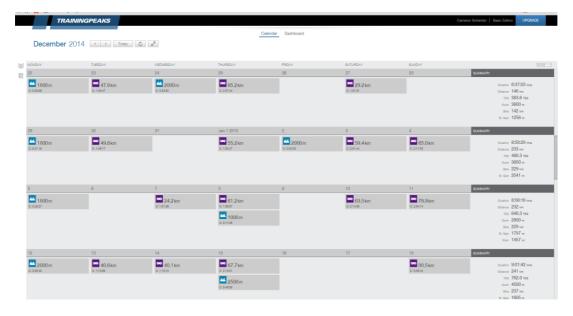
The use of an ITB roller and golf ball or similar self-trigger points to lateral thigh area will help keep friction ITB syndrome at bay.

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 and tension with increased training volumes.

### **Notes**

 The use of a training log (e.g. Training Peaks) and other common websites/apps, including Strava and Garmin Connect, are 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 and nutritional needs down to how often you need to sip water/electrolytes and ingest foods in solid, gel or liquid form

## **Hydration**

Hydration is critical in the Queensland climate, even in the winter months. The accepted guideline is 800 mL-1000 mL 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 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 1000 mg sodium/L, and a typical sports drink has 440 mg 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 professionals 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, you'll also need 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 the body. Your body becomes acclimatized to this intake, and "needs" more sodium to maintain this level to function. However, athletic performance drives up the loss of sodium through sweating.

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 you can customize your dose based on individual need.

Information on salt loss and its impact is available at: <u>The Math of Salt Loss</u> Slowtwitch Oct 2009

(http://www.slowtwitch.com/Training/General Physiology/The Math of salt loss 1093.html)

# **Final Word**

If you prepare for this 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 the team at <a href="mailto:smiddy@mater.org.au">smiddy@mater.org.au</a> or phone us on 07 3163 8000.

Happy training! I look forward to catching up with you on the road.

#### **Christian Killeen**

Mater Smiling for Smiddy Fundraising Manager