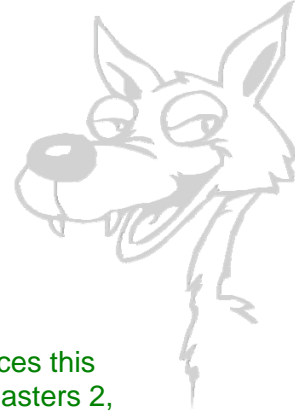


THE COYOTE EXPRESS

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Newsletter #7 - 20th July 2009



RACING NEWS & REVIEWS

Weekend Results

Nundah

Saturday morning saw the holding of the HPRW club championships. The races this year were held in an age group format with Coyotes racing in grades Elite, Masters 2, 3, 4 and 5.

Dave Langley went it alone in the Elite division and raced well to finish with the lead pack in 6th place. Dave rode strongly and did more than his fair share of the workload.

In Masters 2 we had Warren, Mick, Brett and Scotty. There was a much bigger field in this race which was broken up at various stages by some really strong riders. At the end Warren just missed succeeding in a breakaway when he was caught in the home straight and finished in the lead bunch with Brett being the fastest Coyote home. Mick also finished in the lead pack. Brett is certainly starting to show some good form for a guy who only started riding last October.

In Masters 3 we had Kyle, Rob, Michael, Charlesy and Robbo. With Robbo in this grade this was the most important one for us to work properly as a team and our best chance in this race was to keep the pack together for him in the sprint. The boys sacrificed themselves one by one and then finally Rob and Kyle decided they would hit the turf together as well – lucky it was only grass. There were only 7 guys left at the end including Robbo and he used his trademark late sprint to get the win from a good mountain biker named Aaron. It was Robbo's first club championship win at HPRW – well done mate.

In Masters 4 we had Chris and John... We also welcomed back Kiwi for his first race in quite a while – he is evidence of the fact that if you put a lot of work in for years that you can come back to reasonable form pretty quickly even after an extended layoff...All three guys rode really well with Chris finishing really strong in the sprint to take 3rd place. He had a tough field with Tim Bartlett taking out the race – Tim started his sprint 800m out!

In Masters 5 Garry had to unfortunately go it alone. He also had a strong field to contend with. He was well positioned coming around the last corner back into the wind but was taken off on to the grass which ruined his chance of a podium spot – at least he managed to keep it upright (and you looked good in the kit Garry).

Also good to see Frankie out at the race after his op. He was walking okay and should be back on the bike soon. Look after that hip Frankie. Also thanks to Chilly

for coming out and supporting us even though he wasn't racing – Chilly, CQ are waiting for your online registration soon!!

Afternoon – Spike Races

After relaxing in our new team tent for a few hours (and a couple of the boys drinking what I'm told are low carb beers) we lined up again with Chris racing in B grade and Charlesy, Warren, Dave and Robbo racing in A grade.

Chris had his work cut out for him in a pack of 35 riders with one team having at least 8 riders. Despite being tired from the morning race he covered all of the early breaks himself and then placed himself well in the sprint to grab second place and few bottles of wine. It was an exceptional example of smart hard riding – no wonder Charlesy has still never beaten him in a road race!

In the A grade race we had just over 20 riders with two other teams having about 7 riders each. Dave and Warren hovered around the front to cover the breaks again in the hope of setting up a bunch sprint for Robbo. The pace was hard and Warren, whilst covering any attempted breakaways, managed to get himself away in a group of three.

Because each of the other two major teams had a rider in the break the pack shut the pace down. One rider managed to muscle his way across to the break with about 2 laps to go and we should be thankful he wasn't the Aussie Home loan's team rider in the break initially as he was extremely strong to ride across a gap of more than 400m. The effort however in getting across took the sting out of his legs and when the youngest guy lead out, Warren finished strongly grabbing second place. It was a really strong ride. More wine for the boys!!

We discovered during the day that Warren has previously ridden the Tour of Southland as a pro so we shouldn't be surprised when he demonstrated that sort of strength and speed at the end of his second hard race of the day.

All up we finished the race with a club champion in Masters 3 and two second and one third place finishes. A great effort all round and it was good having the tent up and spending the day out there on a clear 22 degree day with a bunch of good guys and girls – Life doesn't get any better..



Warren Forbes 2nd Spike Crit

Next Weekend

Next weekend there is a number of options including:

Saturday – 7.30 am – B grade – Murarrie

Saturday - 12.00pm – 100km handicap race (thought to be at Laidley but not confirmed yet). Terry Bourne of HPRW needs 30 confirmed riders before they can hold the event so if you're keen on racing send an email to Terry.

Sunday – Interclub – 8am – 65km at Ipswich for both A and B grades.

For everyone who's planning on racing one of these races can you send Charley an email so he can send around an update later in the week so you'll know who to look out for at each race.

TRAINING

After last week's easy week we are back into another 3 weeks of strength work starting with the TT session on Tuesday. It will be interesting to see the TT times after a good solid month of training for some of the guys. Anybody who wants to give the TT a go on the computrainer, just send Charlesy an email.

Clive's Corner

Breaking away – Part Three

The third part of this series of articles on breaking away will look at chasing breaks, blocking and getting people out of breaks.

Prior to the race set out a plan according to the race and how it normally develops. Your plan should include which riders mark the early breaks, who is a protected rider and identify a road captain who is able to make calls on the road - ideally this should be someone strong enough to be there at the end with plenty of race experience although not necessarily the team leader for the day (i.e. Hincapie does this role very well for Columbia-HTC). This way the riders know who to turn to make decisions on the road and deciding when to chase.

Ok so now its time to chase - initially send a couple of riders to the front and maybe the rest of the team sit a little way back hoping to encourage others to come forward and chase the break - normally these are the weaker riders on the team as you want to save your stronger riders for later in the day. As the chase goes on you start to send more and more riders to the front to work whilst keeping at least 2 riders in reserve for the finish the sprinter and lead out man.

In reverse of the breakaway, when leading a chase you start off with long turns and get shorter as the chase goes on - remember when riding as a team every rider has a role and it is not a failure to not finish if you do your job for the team.

In the situation where you have a few riders in the break ahead and you want it to stay away how can you help them from the bunch or blocking and also how can you mark a break and block its success. There are lots of ways of doing this from riding right across the front of the group and preventing a chase starting down to the more subtle methods - be aware some of these methods may result in some abuse coming your way and may not win you many friends. As you will be riding mainly in club races best stick to the ones that don't lose you any friends. At the end of the day you are not racing for sheep stations.

1. Put a rider in the pace line and when they get to the front slow the chase down - has to be done gradually for best affect - this can work for maybe 3-6 rotations and can reduce the speed by around 1km/hr
2. When your rider comes through come through hard - this puts the riders both before and after in trouble as they have to work extra hard as well as disrupting the rhythm of the chase - often with the chase falling apart.
3. Have riders join in the pace line and when they get to 2nd or third wheels either pull off or refuse to go through - again disrupts.
4. Attack the chase - not a full on attack as the idea is to take as many people as possible with you to swamp the chase, can only be used when there is a decent gap between the break and the chase group.

5. From within the break i.e. you are marking the break for the team - you would start off just sitting in telling the others why - this can often be enough for a break to fall apart. If that has not worked you can start helping the break but slowly easing the pace down - if done well you can bring it down a few km/hr over about 10min. When they have figured that out there is nothing left but to attack the break - again disrupts the rhythm of the break. They are unlikely to let you into the line after they have worked out the first plan. Of everything, these tactics will make you the most unpopular as the riders in the break have worked there butts off to get there and you're breaking it up.
6. Getting riders out of breaks - this could be because they are not contributing to the break and their presence is disrupting the rest of the break or their presence is likely to make the main field chase harder (i.e. Cadel Evans in this years TDF - Cadel was politely told to get lost from a break he started because there was no way the break would survive with him in as the GC team would have to chase it down). That approach may not work that well all the time so maybe its time to start dropping riders out the back - this works when the rider he is following sits up forcing him to chase back on or get dropped - after the first time it may be worth telling the rider what you want be it to work or for them to go back to the pack - hopefully they get the message as after two or three times through this they will.

Have fun and hope you enjoyed the recovery week.

NUTRITION WITH JO

This week Charlesy dared to go where others fear to tread in asking Jo about the benefits or otherwise of Phosphate loading. Some people are big proponents of the benefits whilst others scoff at the possible benefits. The only way to make your own informed decision is to read as much material on the subject and make up your own mind. Whether you decide to give it a go is totally up to you.

Sodium Phosphate Loading... You make up your mind....

The following is based on extracts from various research bodies and forums discussing Sodium Phosphate loading. As always there are no definitive answers and lots of counter claims/arguments behind the effectiveness of pre race loading. A bit of the research is a technically 'heavy' so get your thinking caps on. However, once again, educating yourselves is the key it really can come down to personal choice and reaction/response to training and products.

Phosphates: also known as Potassium phosphate, sodium phosphate.

What is it?

Phosphate supplements have a number of benefits. Studies show an increased delivery of oxygen to working muscles, increasing stamina and endurance by up to 20%. Phosphates also reduce fatigue and the sensation of pain during exercise, allowing you to exercise for longer at a higher level before becoming fatigued.

Who should use it?

Phosphate supplements are suitable for anyone wanting to reduce the time it takes to complete endurance exercise, including long-distance runners, cyclists and triathletes. Footballers, rugby players and anyone who regularly participates in physical exercise lasting 30 minutes or longer will also benefit from greater resistance to fatigue and more energy.

How does it work?

Your muscles use phosphates to make ATP and CP, two high-energy chemicals which provide the energy necessary for muscles to work. Surplus phosphates also prevent unwanted increases in muscle acidity. Phosphates are also required for proper formation of a compound called 2,3-diphosphoglycerate (2,3-DPG). This is found in red blood cells and facilitates the release of oxygen from the blood to the tissues. Higher levels of 2,3-DPG enable a faster delivery of oxygen to muscles during exercise and enhance endurance performance.

Interest in phosphate supplements began when University of Florida researchers discovered that supplementation with sodium phosphate each day for three days lowered lactic acid levels and increased the endurance and aerobic capacity of 10 well-trained distance runners [3]. A similar investigation at Old Dominion University found that consuming four grams of sodium phosphate for three consecutive days strengthened cardiac activity, lifted lactate threshold by 10% and increased V02max by 9%.

These improvements in aerobic capacity meant that, on average, the triathletes were able to knock 35 seconds off their best 5-mile performance time [2]. There are anecdotal reports of some cyclists knocking over 3 minutes off the time taken

to complete a 40-kilometer time-trial. Australian researchers also report that following a loading phase using phosphates, cyclists were able to exercise 16% longer than subjects using nothing [1].

One of the major limiting factors in endurance exercise is the accumulation of lactic acid in the working muscles. Phosphates offer a system that buffers lactic acid effectively. This reduces the burning sensation associated with the accumulation of lactic acid. Phosphates may also increase VO₂max by increasing 2,3 DPG levels in the blood. Phosphate loading is not illegal, and there are currently no known adverse effects. (!!!!See below)

How should I use it?

The precise amount of phosphates required to enhance performance has not been established. Some experts believe that as little as 150 milligrams daily will be effective when consumed for several weeks. For those seeking rapid (less than 5 days) improvements in performance, 3-4 grams daily is generally considered to be the correct dosage. During periods of intense training or competition, elite athletes will often use up to 7 grams daily.

What results should I expect?

Phosphates have been shown in research to increase oxygen uptake by 10% within 3-7 days in well-trained athletes. An increase of this type would normally take several months of intense training to achieve. Most users note a rapid reduction in feelings of fatigue and tiredness during a race or training session. They also have more energy throughout the day.

ALSO.....Another separate Study...

Sodium Phosphate Loading Improves Cycling Performance

Sodium phosphate acts as an acid buffer in human tissue. Increased muscular acidity is associated with fatigue during high-intensity exercise. Thus, some endurance athletes have practiced pre-race sodium phosphate loading in hopes of improving their competitive performance. But definitive proof of its effectiveness is lacking. A new study from Loughborough University provides the best evidence yet that sodium phosphate loading is indeed effective.

Six trained male cyclists took part in the study, which had a double blind, randomized, crossover design. The subjects completed an initial 10-mile cycling time trial under laboratory conditions and then ingested either 1 gram of tribasic dodecahydrate sodium phosphate or lactose placebo four times daily for 6 days prior to performing a second time trial under laboratory conditions. Two weeks later, the time trial was completed one last time, with those cyclists having received sodium phosphate initially switching to the placebo for 6 days and those cyclists having received the placebo switching to sodium phosphate.

Compared to placebo, sodium phosphate improved mean power output during the time trial by 9.8 percent on average and improved time to completion by an average of 3 percent among the six study participants. The results of the study will be published in the *Journal of Science and Medicine in Sport*.

HOWEVER.....Be Advised

Ingestion of sodium phosphate as an ergogenic aid. It is claimed that phosphate loading increases the availability of phosphates for oxidative phosphorylation (production of ATP) and increases the potential for aerobic exercise performance. These, and other effects, are thought to improve energy capacity and endurance. Research findings are inconclusive: some studies as stated above show significant improvements in $VO_2\text{max}$, others show no significant beneficial effect.

Some of the studies and experiments on the topic underscore that ingestion of buffering agents is associated with high levels of digestive system upset. If buffers make you sick, they may end up reducing overall performance more than they help.

AND...

New research on the causes of fatigue undercuts the premise behind phosphate loading - "One of the major limiting factors in endurance exercise is the accumulation of lactic acid in the working muscles. Phosphates offer a system that buffers lactic acid effectively." In fact, lactic acid or acidity may not be the limiter after all (indeed acidity may enhance performance). If that is true phosphate loading or other buffering will not work.

The latest research suggests that lactic acid build up (known as acidosis) is a relatively weak contributor to muscle fatigue at high intensities. It now seems that a much stronger cause is a type of neuromotor fatigue, specifically, depolarization of the muscle cells resulting from a shift in calcium-potassium balance.

Here's the new theory: Muscle contractions are stimulated by electrical currents that flow throughout the body via minerals including sodium and potassium. Each muscle cell contraction involves a lightning-fast exchange in which potassium molecules inside the muscle cell and sodium molecules outside the muscle cell switch places. These exchanges are most efficient when there is a high degree of polarization (a difference in the strength of the electrical charge) between the spaces inside and outside the cells. At the beginning of high-intensity exercise, the inside of the muscle cell has a much stronger positive charge than the area outside the muscle cell. This difference in charge strength makes it easy for sodium and potassium to cross the cell membrane. During sustained high-intensity activity, potassium is released from the muscle cells faster than it can be taken up outside the muscle cells. The resulting build up of potassium outside the muscle cells causes a progressive lessening of the difference in charge strength between the intracellular and intercellular spaces, hence weaker and less efficient muscle contractions (i.e., fatigue).

Training leads to several adaptations that enhance a runner's resistance to muscle cell depolarization. One of them is an increase in slow-twitch muscle fibre characteristics. Fast-twitch muscle fibres are more susceptible to depolarization. Training also increases potassium storage within muscle cells and the density and efficiency of the so-called calcium-potassium pumps that are responsible for those lightning-fast calcium-potassium exchanges.

An interesting fact is that muscle cell depolarization almost always occurs at the same time as muscular acidosis (lactic acid build up) even though the mechanisms are distinct. This is what led scientists to believe for so long that acidosis was a major cause of fatigue. One of the strongest predictors of distance running performance is the ability to keep blood lactate levels low at higher

running speeds (a phenomenon referred to as a high lactate threshold or a high anaerobic threshold). One study found that a high anaerobic threshold speed explained 87 percent of the variability in 3,000-meter running performance in a group of high-level runners. However, it is now understood that this is mostly a coincidence. It's not the low lactic acid levels themselves but the corresponding low levels of intercellular potassium build up that matter. Nevertheless, since it's not possible to measure potassium build up in humans during exercise, and since lactic acid build up and potassium build up correspond so closely, blood lactate measurements will probably continue to be used to assess aerobic strength and performance potential.

THERE ARE POTENTIAL SIDE EFFECTS...

Safety is another issue. A 4 g daily dose of phosphates is likely to be safe in the short term, but it increases calcium loss. That suggests phosphate loading is not for long-term use, even in athletes who have found phosphate loading to be useful for performance. Researchers at the University of California at San Francisco and other institutions have suggested that an excess of dietary phosphates is one of the factors that contributes to bone loss with aging, and possibly to muscle loss.

GENERAL NEWS

New Members

We have two new members in the team – Grant Titman and Daryn Shepherd (Sheepy). For anyone who doesn't know Grant he went to Hawaii last year and ripped the legs of Charlesy on the bike leg (and quite a few other more talented riders). Most of you guys will know Sheepy. He'll be a great addition to our next MTB team and hopefully our road team if we can get him out on the track.

Thanks!!

Just a quick note of thanks once again to Ivo & Andrew Charles for providing the tent and seating and Jo Langley for bringing us all lunch. It's an awesome feeling having all the support and based on the weekends results the team is really starting to come together.



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