Training for 800m

A discussion of some ways to train and coach 800m athletes.
Both 400/800 and 800/1500 athletes.

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The Problem

Developing the 400/800 athlete's speed and strength to maximal levels while at the same time developing the endurance qualities required to run two laps fast.

Background Discussion

Many 800m athletes follow a single periodized year in a fashion that involves focusing on different energy systems at different stages of the year. This page presents three possible ways to prepare for high performance as a 400/800/1500 athlete.

1/Traditionally Phased Method

Generally includes the following:

Transition: 4 weeks

Light training to recuperate, includes both fast strides and aerobic running. A mental break more than anything. It is also a time when any injuries are worked on and more emphasis is placed on finding long term solutions.

Early background: 12 weeks with every 4th week lighter

Building up of the volume of Aerobic running: runs of 6km to 16km at varied speeds with some long hard runs. Typically involving:

The build-up to around 60-100km a week involving maybe 2 sessions a day of aerobic running.

Aerobic power speed-work eg 6 x 800m at 5km pace rest 1min

Anaerobic Threshold running (some Cross Country races)

Occasional Speed drills and Sprinting up to 60m

Buildup of Gym training weights and Circuit work

Technical improvement of posture and relaxation

There is no focus on anaerobic tolerance. The focus is on Aerobic development and strength while maintaining the range of movement needed for faster running only.

Maximum speed cannot be improved during this time because the volume of slow running would leave the athlete too tired to be able to practice running at faster rates than ever before. Also the ground contact times during aerobic running are contrary to the ideal training needed for sprinting.

The volume of slow running would drop sprinting speed below real maximum for this reason alone. The high volumes would also even more importantly make it more difficult to practice perfecting movement mechanics even at 800m speed.

Many would ask is real maximum speed required at all?

Yes it needs to be developed carefully to allow for an athlete to be **more relaxed at first lap 800m speed.** In an elite (菁英) International race this means 12.5s per 100m in the Mens & 14.0s per 100m. To make this point another way imagine Michael Johnson in an 800 where they run the first 400m in 49.5s or Marion Jones in a 56.0s first lap. They have the speed to be very relaxed and the opportunity to be efficient.

Pre season preparation: 12 weeks

The maximum volume is reached in the middle of this phase.
When total volume decreases Strength work is increased in volume and intensity and maximum strength for the year is reached late in this phase or early in the next. This may involve gym work and hill running
eg 16 x 100m reps up a 17% hill rests 90sec.

More anaerobic work is introduced and allowed to increase intensity through the phase.
Peak XC racing season or hard longer runs.
Usually anaerobic performances during 400-800 pace reps are well below race season standards because of the long period of absence of this type of training.
No volume of highly anaerobic speed-work at 200-400 speed can be done without undue soreness and injury. This is because of unfamiliarity with the training and because of the volume of other training that has been done at well below race speed.

Early season:12 weeks

Introduction of regular racing.

Further decreases in volume and an increase in speed and anaerobic intensity.
This is the time of peak injury risk , while the body is re-adapting to race speeds.
The typical difficulty is doing the required amount at 200 speed for good 400m performances while at the same time maintaining aerobic power.

Aerobic volume when decreased allows better quality Anaerobic training too be performed. However, the peak of the season is still 10 weeks into the next phase.
It could be suggested that Anaerobic Speed-work is being started too early if aerobic ability drops but it seems to take 3 months of the right anaerobic work to develop the "sustained & repeatable" speed that was lost during the early part of the training year.

Early peak season: 8 weeks

Decreases in volume - no long runs maintenance of aerobic ability by some shorter solid pace runs.
Focus is on race specific endurance and developing 400m type speed.
Most speed-work is longer reps with longer rests
eg 2 x 1000m rest 15min or 3 x 800 rest 15min or 3 x 400 rest 20min
Also some shorter reps with short rests 3 x 3 x 200 rest 30sec

The athlete would normally lead into serious races with a solid session 4 days previous then two days earlier a tempo session with the focus on relaxation at race pace with good rests. This session would be well within themselves. The other days would be either easy strides and relaxed 100s small volume or a 4km solid run (warm-up and warm-down not included)

Athletes may be striving to reach last seasons peak performances at this late stage. Doubts may creep in which could then effect training and racing performance.

Peak: 6 weeks

Total focus on racing
Usually anaerobic performances are at the very highest levels demonstrated by the very best 400m performances of the season.

Good 800m race performances follow the dropping of the 400m time.

However , Aerobic power is probably already dropping and is below the ideal level due to the fact that it had to be left behind as a focus long ago (After all that work!)

Even if the athlete does not race at all over 400m their best "400m ability of the season should coincide with their best 800m race performances. (The only reason it would not is if there was sub-optimal aerobic contribution)

Further comments on the Traditional Phased Plan

All aspects of training follow from each other, an injury at any stage may lead to doubts of being able to "peak" this year.

Athletes get bored mid year when they are so far from race type fitness and may be de-motivated early in the race season when race times especially in the 400m are so slow.

How will the athlete ever develop the highly desirable abilities of strength and pure speed to be able to race close to their potential in the 400m.

Adaptation of the abilities required for good 400m running only really occur for the last 6 months of the year when they fit in around tiring endurance training.

400m/800m athletes are probably better off not really racing Cross Country as the risks involved in downhill running combined with the extra recovery required with longer races would make it even more difficult to develop the speed required.

2/ The Alternative Plan:

Aims to:

Improve of all aspects together at the same time in a linear fashion.

Avoid sacrificing some energy systems for a phase to develop another. The athlete could then peak twice a year much easier.

Enable the athlete to be fresh enough to work on pure speed and strength on a regular basis. This would allow for their 400m ability to be more highly developed.

Provide a higher level of anaerobic speed all year which means aerobic development could go on all year instead of having to be lowered in emphasis at some stage to regain lost 400m speed.

Involve developing all aspects of adaptation required for 800m racing in a 4 week cycle.

THE ALTERNATIVE PLAN STRUCTURE

Summary

The plan involves a four weeks cycle where;

Week 1 Speed Focus - The aim is to **develop speed** at the freshest stage of the cycle.

Week 2 Strength - Endurance Focus - The aim is to develop strength in the **Gym** and **specific strength while running hills etc.** There is some overlap with a speed focus early in the week.

Week 3 Speed-Endurance Focus - The aim is to develop all aspects of **endurance including aerobic power, anaerobic power and lactate (乳酸) tolerance.** Some work is done right down to 200 finishing speed all year.

Week 4 Recovery - Easy week to promote recovery. Mostly **less volume** and **less "long contact" running.**

This cycle can be followed all year with adjustments to intensity and volume made to suit the athlete and approaching competitions. They should never be more than 4-8 weeks away from peak shape.

Some coaches have suggested to me that they have seen the frequency of injuries drop due to the lack of "speed shock" at any stage.

The cycle could also be shortened to 3 weeks when in race preparation.

In the early cycles focus can be more on new techniques, running style improvement and performance of all sessions in a relaxed way in volumes that can be handled. The total loading either intensity and/or volume would aim to be increased each cycle.

All systems should either be maintained or developed in each cycle. If anything

goes backwards significantly something needs to be changed. (Of course 400m maximum speed cannot be maintained all year but the qualities that contribute to it should be able to improve-

e.g. a 47.00 runner should not be any slower than 48.00 all year.

The later cycles involve performing the new habits that have been learned well and focusing on creating maximal adaptation of all energy systems. The late cycles are tougher and in the case of race preparation would be less in total volume and higher in intensity.

The content needs to be tailored to the individual athlete.

-They can all absorb unique amounts of the different types of training.
-They all lose the qualities given to them by the different energy systems at a unique rate.

-They all respond to the different types of training in a unique way.

Athletes in their early stages of involvement in athletics should focus more on developing the ability to handle a reasonable training load at a lower intensity. They should certainly develop the ability to complete easy aerobic runs of 40-60min comfortably before following a higher intensity program.

They should also learn and practice good biomechanics at race speeds from a young age but keep the repetitions short enough that good form can be maintained eg 60-150m and rests long enough not to make it hold to hold good form.

Example Plan

Background Stage 6 months
(April-September in Australia)
Planned for an athlete capable of
47.30/1:48.01/3:56

Week 1: Speed

Mon - Gym: Focus on trunk stability and postural improvement. No running.

Tue - Track : Mixed warm-up, Speed Drills, Hip Mobility Circuit, maximum speed development eg. 3 x 3 x flying 30m at 95% then 250m relaxed near to 400 goal pace. Warm-down 10 X 100m strides.

Wed - Running Technique improvement and Relaxation practice
eg. Mixed Warm-up 10 x 80m technique strides then 3000m at 90% effort. Warm-down 10 x 100m strides.

Thu - Track: Mixed warm-up, Speed Drills , Relaxed 200m pace
eg Warm-up 3 x 2 x Flying 100s at about 200m finishing speed rests 3min / 7min

Fri - Gym- Focus on trunk stability and postural improvement. No running.

Sat - Track: Mixed warm-up, Speed Drills, Hip Mobility Circuit, maximum speed development eg. 3 x 3 x flying 30m at 95% then 250m on 400 goal pace. Warm-down 10 x100m strides.

Sun - 9 km at a moderate pace 3:45-4:00/km

Week 2: Endurance

Mon - Gym: - Focus on trunk stability and postural improvement.
- Run 6km at a moderate pace.

Tue - Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-Evening- Track: Mixed warm-up, Speed Drills, Hip Mobility Circuit, 3 x 1000 rest 10min circuit exercises. Target each 200m faster starting at 36-35-34-33-32. Done in racing flats.

Wed -Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-Evening- Running Technique improvement and Relaxation practice

e.g. Mixed Warm-up 10 x 80m technique strides then 3000m at 90% effort. Warm-down 10 x 100m strides.

Thu - Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-Evening- Track: Mixed warm-up, Speed Drills, 20 x 200 rest 1min standing in 31 last 2 under 26, Warm-down jog 3km

Fri -Gym: Focus on **trunk stability and postural improvement**.
- Run 6km at a moderate pace.

Sat - Long Hills: Warm-up 4 x 800m up 5% slope rest 8min at equivalent to 3000m effort. Warm-down 4km

Sun - Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-**Evening- Anaerobic Threshold Run**: 10km middle 8k at a solid pace 3:30/km on a rolling hills trail.

Week 3 Endurance

Mon -Morning-Circuit Training (Full-body fitness)
-**Evening -Aerobic Run** 8km at 4:00/km

Tue - - Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
- **Evening-Track**: Mixed warm-up, Speed Drills, Hip Mobility Circuit, 6 x 400 rest 6min active 53/62/53/62/53/62 Warm-down 3km

Wed -Morning- Circuit Training (Full-body fitness)
-Evening -Aerobic Run 8km at 4:00/km

Thurs -Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-**Evening- Track**: Mixed warm-up, Speed Drills, Hip Mobility Circuit, 2 x 5 x 200 Aim sub 26.5 rest walk/jog 200m in 2min 800m jog between sets

Fri - 8km at 4:00/km

Sat - - Morn- Easy run 25min include within it 4 x 60m strides up to 800m pace.
-**Short Hills**: Warm-up 2 x 5 x 100 steep hills 17% rest 1:40, 2 x 400 hills 5% rest 3min warm-down 4km

Sun - Aerobic run 10km at a moderate pace.

Week 4 Recovery

Mon -Morning -Swim 20min aerobic.
-**Evening- 6km easy.**

Tue - Track: Warm-up, Technique relaxation strides, Tempo runs at 800 pace,2km eg 6-10 x 200 at 800 pace rest 5min - an easy session.

Wed - Morning-Swim 20min aerobic.
Evening- Running Technique improvement and Relaxation practice
eg. Warm-up 10 x 80m strides then 3000m at 90% effort .Warm-down 800m jog.

Thurs -Track: Warm-up, Technique relaxation strides, Tempo runs at 400 pace, Warm-down e.g. 2 x 200m in 23.4 2 x 3 x flying 100s in 11.5 rests 5min - an easy session

Fri - Swim - light

Sat -Time Trial 300m or 500m or 1000m or low key Race: At an effort that gives good feedback of form not necessarily run all out.

Sun - Rest

<u>Pre-competition</u> (Oct-Nov-Dec in Australia)

The pre-competition phase in this case lasting for 3 months. Consists of 4 x 3 week cycles with an easier week after two cycles. The shift is toward more lactate tolerance work and less fresh time developing pure speed ability. Pure speed will have improved. It is now time to focus more on being able to relax and use a higher % of the maximum speed over a greater distance as it applies to
the 400m and 800m events.

Tough speed resistance work will be done occasionally in this phase and will not be continued past November on a regular basis. It may be done only about 4-5 times in this phase. eg 3 x 3 x 200 rest 30sec/4min in under 27

Recovery runs are at least 3 days a week in the morning.

Precomp
Week 1

Mon - Morning recovery run 4-6km
- Gym: Focus on trunk stability and postural improvement.

Tue - Morning recovery run 4-6km
- Track: Mixed warm-up, Speed Drills
  2 x Fly100 in 11.0 /5min
  2 x 400m in 52 relaxed/5min

2 x 200 in 25 relaxed/5min
Warmdown 10 x 100 strides.

Wed - Morning recovery run 4-6km
-Warmup 3000m at AT pace and 4 x 60m at 800 pace Warmdown

Thu - Morning recovery run 4-6km
Track: Mixed warm-up
10 x 200 in 25.0 (600m race pace) rest 3min (decrease with adaptation)
warm down 10min

Fri -Morning recovery run 4-6km
Gym- Focus on trunk stability and postural improvement.

Sat - Hill session 10min warmup
20 x 100 hills 17 % slope in 18s rest 90sec
15 min warm down

Sun - Warmup 10min
3 x 3 x 400 rest 2min and 8min active
Warmdown 10min

Week 2

Mon - Morning recovery run 4-6km
- Gym: Focus on trunk stability and postural improvement.

Tue - Morning recovery run 4-6km
- Track : Mixed warm-up, Speed Drills
6 x 400 paces at 800/1500/800/1500/800/1500 eg 53/62/53/62/53/62 rests decreasing with adaptation from 8min to 3min?
Warmdown 10 x 100 strides.

Wed - Morning recovery run 4-6km
-Warmup 3000m at AT pace and 4 x 60m at 800 pace Warmdown

Thu - Morning recovery run 4-6km
Track :Mixed warm-up 20 x 200 1-2 seconds under 1500 pace per 200 eg 29 rest 1 min (decrease with adaptation) warmdown

Fri -Morning recovery run 4-6km
Gym- Focus on trunk stability and postural improvement.

Sat - Hill session 10min warmup 20 x 100 hills 17 % slope in 18s rest 90sec 15min warmdown

Sun - Warmup 10min 2 x 4 km rest 5min easy at AT pace about 10km race pace or a little slower. Warmdown 10min

Week 3

Mon - Morning recovery run 4-6km
- Gym: Focus on trunk stability and postural improvement.

Tue - Recovery Run 4-6km
Track: Warm-up, Drills,
1000m at 1500 pace eg 2:33 rest 12min
800m faster than 1500m pace eg 1:58 rest 5min
3 x 200 at quicker than 800m pace eg 26 rest 30sec
Warm-down 2km

Wed - Recovery run 4-6km
Swim 20min aerobic.

Thurs - Morning recovery run 4-6km
Track: Warmup 10min , Drills,
8 x 300 42/40/38/42/40/38/42/36 rest 3min
Warmdown 10min

Friday- Morning recovery run 4-6km
Swim - relaxed

Sat - Time Trial or Race.

Sun - Recovery day. Rest or easy run.

Comments - **My experiences using the alternative plan.**

During the 97/98 Season I coached 3 athletes using the plan:

Athlete 1 –
Improved steadily through the first 5 months of the Background Stage of the plan (4 week cycles) and was in great shape in all areas without really tapering or bringing in the more intense work.
As progress was made into the Competition preparation phase the athlete had increasingly more difficulty backing up session to session and developed some injuries that spoiled the season.
Athlete 2 –
Improved noticeably though the Background Stage in smoothness at race speed and steadily improved in all areas.
Just before entering the competition preparation period the athlete did a two week aerobic backup period of higher volume steady running. Once in Competition preparation training rapid improvement was evident which I feel put the athlete into peaking mode far too early. However with some adjustment the athlete managed to run 1:51.10 in November and 1:51.07 in March.

Athlete 3 –
Improved steadily in all areas throughout the year having a few troubles with a virus in September. An incredible ability to run fast easy 200m reps was evident but the athlete seemed to be having increasing difficulty in backing up in training or races. This I have guessed my have been due to a steadily dropping fat burning ability causing the athlete to be more easily glycogen (肝糖) depleted (耗盡). The female athlete ran PBs at 400 and a 2:08 in December but could not peak in March.
At the end of the season it was felt that it was the basic stamina (活力; 精力) ability that had been the aspect that had let the athlete down.

Summary

The alternative plan was a success in bringing about gains in efficiency and a good consistent level of performance. The athletes however were not easily able to peak.

I now feel that the program is better suited to athletes who already have a high level of general stamina (fat burning ability). I think of general stamina as "all day walk fitness".

I have also wondered about the way that the high levels of lactic acid as experienced in some of the sessions may effect the state of the aerobic system. Some research has suggested that there is a strong possibility that high lactate levels (or maybe more likely high concentrations of hydrogen ions) on a regular basis may decrease

VO2MAX. If the research is true then the Alternative plan may have a big weakness in this area. The sessions like 6 x 400 rest 4min at 800/1500 would generate high lactate levels as would 4 x 1000 rest 10min if the reps are run at a rate that needs a large input from the anaerobic energy systems.

The Traditional Plan may avoid the problem to an extent but high levels of lactate still need to be experienced for the athlete to develop sustained speed endurance and also co-ordinate good motor patterns at high lactate levels. The question to be asked is how often and to what value of lactate is a problem?

Note: Some have suggested taking care with the regularity of sessions that produce lactate levels of higher than 12 units (except when in competition preparation mode)

Coaching Resource

Combination Plan for 800m Training.

My latest favorite mix
(updated July 2002)

April-May-June

Early in the Training year eg in Australia

Variety of Steady running up to 60min maximum (mostly two runs a day up to 40min) Early in career athletes should aim to increase volume at a steady pace **BUT as a good tolerance to higher workloads develops they should gradually they should aim for a higher % of total running at a faster pace** eg. In an athlete with 32min 10km ability this could mean a number of runs at 3:20-3:40/km.

Encourage some all day walks etc to boost fat burning ability. Early in the year especially in individuals who have lived a more sedentary lifestyle.

Body weight circuit exercises for basic conditioning. Advancing to develop maximum strength related to specific muscles. Example ideas:
- Weighted Step ups (alternate) focusing on performing them in a specific way. 1 x 8 , 3 x 4 (I have 120lb female athletes doing up to 200lb)
- Pullups 3 x max effort eg 10+
- Standing Vert Press with Dumbbells
- Weighted Swiss Ball crunches 3 x 8 (partner resisted to an equivalent of over 100lb)

Gym sessions are mostly free weights and as much as possible are standing exercises.

Polymetrics (sprinkled through each 3 week cycle).
Standing start and running start alternate leg bounds over 5 steps into a sandpit. We do up to 6 sets. We measure each one and aim to improve the distance.
We also do a larger amount of bounces in the sandpit eg 4 x 10 double leg, 4 x 10 hops with almost no rest.
Hill Bounding - There are variations but a common one is 20 x 60m hill with 20m bound-20m run-20m bound) rest between each is 60-90s.

This is all to develop "ease of speed". El Guerrouge can run 54s laps like it is easy. Women that want to run under 2:00 in an 800 need to find that 28.0 per 200 can be run smoothly with very little effort and have the strength to maintain this pace under fatigue.

There is a very strong focus on a variety of trunk and core conditioning exercises.

My squad does 4-6 sessions of either Swiss ball (20min) or Pilates (20min) each week. The aim is to have it steadily improving and transferring into running.

Once an athletes has established good levels of core conditioning they can decrease the volume of this work permanently and simply focus on maintenance.

Every 3 - 4 weeks is an easier week. (I am using every 3rd week of less than 50% total volume but with some elements more intense)

Race, testing or Time Trial every 4-6 weeks over a range of distances from 60m to 5km

Track work aims at the start of each training year to boost the stroke volume of the heart and to raise Anaerobic Threshold pace. However at the same time the elements that contribute to increased power and speed are being developed. Later in the year the program gradually becomes more intense. This is difficult to explain. However the basic idea is to create an opportunity for steadily increasing intensity eventually at the expense of total training volume. The final stages of the very highest intensity training requires that total weekly volume is decreased by a large amount.

<u>Small but frequent volumes of fast running to stay familiar with speed</u>
this is maintained all year.

Example Plan

Early in Training Year - April-July in Australia

Up to 100km/week depending on the Athlete.

3 Weeks Cycle

Week 1

Mon- Morn- 20-40min easy

-Afternoon- Track Session- Drills - 3-4 x 1500m rest 3min then sandpit bounces, hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy

Afternoon - 30-40min moderate

Later in evening- Gym Session 2

Wed- Afternoon- Track

Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10-15min solid run then 6-8 x 400m rest 1min Rests between 4min. Then heels/toes, hurdle hip drills - Warmdown

Thu-Morn - 20-40min easy run

-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.

-Pilates

Sat- Track Session- Warmup including drills- Plyo session - run 10min then 20-30 x 60m hills rest 60s (20m bound+ 20m run + 20m bound) then run 10min and 3 x 150m tempo runs and hurdle hips, heels toes

Later in evening- Pilates 20min

Sun- Morn- 40-60min with last 20min solid

-Afternoon- Gym 3

Later in evening- Swiss Ball 20min

Week 2

Mon- Morn- 20-40min easy

-Afternoon- Track Session- Drills - 5-8 x 800m rest 3min then sandpit bounces,

hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy
Afternoon - 30-40min moderate
Later in evening- Gym Session 2

Wed- Afternoon- Track
Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10-15min solid run then 6-8 x 400m rest 1min Rests between 4min. Then heels/toes, hurdle hip drills - Warmdown

Thu-Morn - 20-40min easy run

-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.
-Pilates

Sat- Track Session- Warmup including drills- Poly session - run 10min then 5-10 laps of (40m bound jog 100m - walk downhill 50m- run 200m smooth downhill faster (not overstriding)- run strong up the first part of the hill for 80m and start another lap. Afterward a recovery of an easy 10min and then 3 x 200m tempo runs at about 600m race pace and then a variety of hurdle hip drills, plus heel & toe walking
Later in evening- Pilates 20min

Sun- Morn- 40-60min with last 20min solid

-Afternoon- Gym 3

Later in evening- Swiss Ball 20min

Week 3

Mon- Morn- 20-40 min easy

-Afternoon- Track Session- Drills - 3 x 1000m rest 3min then sandpit bounces, hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy
Later in evening- Gym Session 2

Wed- Afternoon- Track
Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10min solid run then 4 x 400m rest 1min Rests between 4min. Then heels/toes, hurdle hip drills - Warmdown

Thu-
-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.
-Pilates

Sat- Track Session- Warmup including drills- Poly session - run 10min then 20 x 60m hills rest 60s (20m bound+ 20m run + 20m bound) then run 10min and 3 x 150m tempo runs and a good quantity of hurdle hip drills, heels-toes
Later in evening- Pilates 20min

Sometimes a time trial day eg 3-4km XC etc.

Sun- Morn- 40min moderate
-Afternoon- Gym 3
Later in evening- Swiss Ball 20min

July-October

Aim to see steady increases in volume and of speed of continuous runs. The speed work should avoid being highly lactic and should mostly stimulate increases in ease of speed and Anaerobic threshold. More work on developing V02max should be done with increasing intensity harder repetitions eg 4-6 x 1000m or 3-4 x 1500m with longer rests. This is best suited to athletes that can hold really good form under fatigue over these distances.

Some athletes may compete at Cross Country Races during this period but care needs to be taken on courses with downhills to avoid injury.

Sample for a Female sub2: 10 800m athlete

Week 1

Mon- Morn- 20-40min easy

-Afternoon- Track Session- Drills - 3 x 1500m rest 3min in under 5min then sandpit bounces, hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy
Afternoon - 30-40min moderate
Later in evening- Gym Session 2

Wed- Afternoon- Track

Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10-15min solid run then 6-8 x 400m rest 1min in under 71s Rests between 4min. Then heels/toes , hurdle hip drills - Warmdown

Thu-Morn - 20-40min easy run

-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.
-Pilates

Sat- Track Session- Warmup including drills- Poly session - run 10min then 20 x 60m hills rest 60s (20m bound+ 20m run + 20m bound) then run 10min and 3 x 150m tempo runs and hurdle hips, heels toes
Later in evening- Pilates 20min

Sun- Morn- 40-60min with last 20min solid

-Afternoon- Gym 3
Later in evening- Swiss Ball 20min

Week 2

Mon- Morn- 20-40min easy

-Afternoon- Track Session- Drills - 5-7 x 800m rest 3min in abt 2:30 then sandpit bounces, hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy
Afternoon - 30-40min moderate
Later in evening- Gym Session 2

Wed- Afternoon- Track

Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10-15min solid run then 3 x 3 x 200m rest 60s in around 30s .4min between sets - recovery jog 10min then heels/toes , hurdle hip drills - Warmdown

Thu-Morn - 20-40min easy run

-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.
-Pilates

Sat- Track Session- Warmup including drills- Plyo session - run 10min then 5-8 laps of (40m bound jog 100m - walk downhill - run 200m smooth downhill faster - run strong up 80m) continuous then easy 10min and 3 x 200m tempo runs and hurdle hips, heels toes

Later in evening- Pilates 20min

Sun- Morn- 40-60min with last 20min solid

-Afternoon- Gym 3

Later in evening- Swiss Ball 20min

Recovery Week

Mon- Morn- 20-40min easy

-Afternoon- Track Session- Drills - 3 x 1000m rest 3min in around 3:10 then sandpit bounces, hurdle hip drills and heels/toes walks.

-Evening or Midday- Pilates 20min

Tue- Morning -20-40min easy
Later in evening- Gym Session 2

Wed- Afternoon- Track
Relaxing warmup- Med Ball conditioning - some fast 30m sprints or flying start 30m then 10min solid run then 4 x 400m rest 1min in about 70s. Rests between 4min. Then heels/toes, hurdle hip drills - Warmdown

Thu-

-Evening- Swiss Ball + Gym Session 1

Fri- Recovery Day - Massage etc.
-Pilates

Sat- Track Session- Warmup including drills- Poly session - run 10min then 20 x 60m hills rest 60s (20m bound+ 20m run + 20m bound) then run 10min and 3 x 150m tempo runs and hurdle hips, heels toes
Later in evening- Pilates 20min

sometimes a time trial day eg 3-4km XC etc.

Sun- Morn- 40min moderate
-Afternoon- Gym 3
Later in evening- Swiss Ball 20min

November-December

Early Race season

Race preparation- Varied track work -decreasing volume. The time of the largest amount of intense anaerobic work.
Anaerobic work is a careful mix of
Short reps with short rests at above race pace eg
3 x 3 x 200 rest 45s at 600m race pace (some hill sessions can be performed with a similar effect)
or
Long Reps with Long rests eg.
3 x 600 rest 12min or 3 x 400 rest 12min
or
600-rest 15min- 400-rest 5min-200-rest 5min -200
or
2 x (600-rest 1min -150) rest 15min

January-February-March

Main race season

Leading into a peak.
Rest well, practice rhythm and Race enough.

Our Gym Training

The Middle Distance group follow the same periodization as the Sprinters.
It looks something like this
May with

- May - hypertrophy (eg 3-4 sets of 8-12 rests 2min) for 9 weeks
- mid July -focusing on strength (eg.3-5 sets of 4-6 rests 3min) then
- August - focus is on power eg less volume, less load , more explosiveness and more intense poly work. The total running volume stabilizes and is tuned to make sure power work is safe.
- Sept - another 6 weeks is spent on hypertrophy type weights while total running volume is increased to maximum over the next 9 weeks.
- mid October - Strength phase 2 for 4 weeks - stabilized running volume.
- mid November- December is Power Phase 2 - decreasing running volume - more high level glycolytic training.
- January - Strength Phase 3 for 4 weeks - maintained volume at a lower level.
- February - Power phase and tapering for peak - Plyo stops 6 weeks before key race season.

  The program in the way that it applies to MD aths does not go into anything in extremes. The above plan simply describes changing emphasis. The total volume does not change rapidly or dramatically at any stage until reaching the period in February.

  I believe that the co-development of hypertrophy gym and total running volume will create the best adaptation of muscle for the event. The high volume during this phase will prevent excessive hyoertrophy but will allow for increased strength in the next phase. Hypertrophy gym is most like endurance training anyway. We do not do endurance exercises in the gym as I feel we can better train endurance and strength endurance by running and bounding hills or in other ways like solid medicine ball sessions and drills like hurdle drills. We also like to do resisted drills while holding really good form. Much of these ideas are detailed in Maintaining Form.

Some Ideas

Steady Training runs may be best done on rough uneven surfaces to encourage the use of a greater range of muscle fibres than the stimulus presented by a constant smooth surface like road or bike path. Certainly the African athletes train mostly on uneven

surfaces. Athletes need endurance in a great range of muscles across the entire fibre spectrum. (I have heard that Type 1, 2a & 2b is in reality an over simplification in fact there is a spectrum of muscle fibres).

Avoid frequent doses of long contact time running eg Sand, Hills it may cause the athlete to change their motor pattern in such a way as too decrease stride frequency at all running speeds. The change in running biomechanics will happen over a long period of time and decrease efficiency.

Training focus needs to be stimulating improvements in **relaxed speed.** *Relaxation needs to be practiced constantly*. An athlete that can relax at 51.0 in a fast male 800m may have more useable speed than an athlete that is faster over 400m but is not relaxed at 51.0 speed. Efficiency is very important in Middle Distance Races. Athletes that a nice movers last longer and more of them actually stay uninjured in the sport long enough to reach their potential.

Athletes need to be able to change their style and change gears. This needs to be practiced on a regular basis throughout the year.