

## The British Milers＇Club

sponsored by Nike
Founded 1963

## BMC VISION 2000

＂to strive to win all four middle－distance gold medals for Britain in the 2000 Olympics and at each successive games＂

## OFFICERS

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## JOURNAL

BMC News is published twice yearly in April and November by the British Milers＇Club．BMC News is distributed free to all members．Non－members can subscribe for $£ 12$ per annum．
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## $\begin{array}{ll}\text { Editorial Advisors } & \text { Matthew Frase } \\ & \text { Frank Horwill }\end{array}$

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## MEMBERSHIP

Membership is limited to athletes who have achieved the required qualifying times，and to BAF Coaches．Associate membership is granted to those possessing special qualifications likely to benefit the club．
Members receive the BMC News twice a year．They are eligible for reduced entry fees to BMC races and courses，preference in BMC race－seeding， travel expenses to certain BMC races and access to FSA funds．
All applications to join the BMC should be sent to the Membership Secretary with a cheque for $£ 20$（ $£ 25$ overseas）stating vest size and enclosing an A4 SAE．Annual subscriptions of $£ 10$（overseas $£ 15$ ）are due 1 st January each year and should be sent to the Treasurer．

## MERCHANDISE

BMC vests（gold／white－S／M／L／XL－£10），BMC T Shirts（S／M／L／XL－£10） and BMC ties（ $£ 5$ ）are available from the Membership Secretary，William Anderson．Back issues of BMC News（ $£ 2$ each）and the BMC Fitness Testing Booklet（ $£ 1$ ）are available from the Treasurer，Pat Fitzgerald．Please make all cheques payable to＇The British Milers＇Club＇and enclose an A4 SAE．

## INTERNET

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BMC QUALIFYING TIMES （from 1st January 1995）

|  | $\mathbf{8 0 0 m}$ | $1,500 \mathrm{~m}$ | $\mathbf{8 0} \mathrm{~m}$ | $1,500 \mathrm{~m}$ |
| :--- | :--- | :--- | :--- | :--- |
| Senior Men | $1: 56.0$ | $3: 56.0$ | $1: 52.0$ | $3: 49.0$ |
| Under 17 | $2: 10.0$ | $4: 30.0$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Veterans | $2: 10.0$ | $4: 30.0$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
|  |  |  |  |  |
| Senior Women | $2: 20.0$ | $4: 45.0$ | $2: 12.0$ | $4: 30.0$ |
| Under 17 | $2: 25.0$ | $5: 00.0$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Veterans | $2: 25.0$ | $5: 00.0$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |

## Chairman's Notes

## by Glen Grant

Glen Grant, the Chairman of the BMC, steps down after this issue due to work commitments. He has most ably led the BMC through times of rapid expansion and development and will be greatly missed. In his last and most forthright Chairman's Notes he reviews the year and looks forward to the challenges ahead.

By any standards, this has been a good season for the members of the BMC. When I spoke at the last Endurance Conference, I said that the immediate aim of the Club, on route to fulfilling Vision 2000, was to raise the acceptable standard in BMC races. We were stuck at a level of 1:47 and 3:40 for men and 2:04 and 4:15 for women. This summer has seen what I hope to be the first stirrings of a breakthrough. Messrs McKay, Hart and Walker went to 1:46 in BMC races and Rob Hough took the first Grand Prix to 3:39.

In the women's races, we had good competition, and Joanne Pavey took a huge stride towards world class, making her easily the most improved senior women's middle distance runner of the year in GB. Well done Mike Down. Behind this group there were several athletes who looked capable of much faster next year. On the front cover we ask if British Middle Distance athletes are improving?, and can we catch up with world class?. On the evidence of this year I believe that we have made good strides forward and that we can catch up. I stress CAN rather than WILL because I believe that we have some fundamental problems of attitude that we must solve first.

The real problem for British Middle Distance, and therefore the BMC, is that too many athletes, both male and female, and their coaches, remain entrenched in the training standards of yesteryear. It is no good using the argument that Coe did not do this, or Cram did not do that. The world has moved on, especially in the volume of work done, the use of science, and in particular the quality and quantity of strength work. Many athletes still do not follow a regular strength programme and it would appear that the majority of BMC members still do not own, use, or understand pulse watches.

In the past it was possible to get by on trial and error. Now it is not. Coaches must study
physiology and must understand how to use all the facilities and knowledge that are available to them. This means CHANGE. It means doing next year what you may not have done before. It may even mean doing what you have done before and discarded. The only rule is that you must be able to back up any programme you follow with sound evidence. This must be scientific evidence or results backed by the experience of many. What is quite clear is that if success came from hard training alone, then every headbanger would always be successful. They are not. Many get short term success but they cannot sustain consistent overload for more than 3-4 years. After this injury rules. To get the full picture, coaches must take a longer term view of what they see, i.e. 10-12 years not just a weeks snapshot of training. They must view the training programmes of successful athletes as a video, not just as a single frame.

I have also been saddened by the number of coaches who seem to have decided that every successful foreign athlete is either on drugs or is blessed with some superhuman gene that allows them to do better. This is the policy of failure because it eats away at motivation and determination. In a way it also harkens back to the days of the Raj. It assumes that foreigners are different or are cheating. The truth is that at the moment in UK we have lost the upper hand because we are not training as cleverly as others. We are certainly not using the facilities that God has given us in this country. Too few coaches use the moors, mountains and sand dunes to full effect.

Peter Coe has gone on record as saying that the majority of athletes in UK have little understanding of the sheer physical requirements of world class racing. The recent BMC training day went a long way to confirming this, not only in the results of those who were there, but in the sheer folly of those who stayed away. Many, because they said that they had to run in local league cross country races the day before. Cross country league races are two a penny and racing in yet another will have little long term effect. However, the knowledge that was available on the training day, if used properly, will.

We also need a sea change in our understanding of the transition from successful junior to senior. It is clear from the many phone calls I receive as chairman that
many coaches with juniors do not realise that natural growth and age has as much, and perhaps more, to do with the progress of their athletes than the training they have undertaken. To continue to thrash them into senior age is a guarantee of failure. They do not progress and they become disheartened. The progress of strength improvement that came with maturity needs to be continued. (In some cases started!) The years of high lactate training that was washed away by youthful muscles cannot go on. It must be replaced by a more aerobic programme that takes account of the vast capacity that aerobic work can give. Failure to understand this, ensures injury from stress caused by the lack of elasticity in degraded muscle tissue in the early years of senior competition

This year, joining the BMC, we have seen an influx of brilliant juniors, some as young as 12. I watched four of them on the recent training day and their age was no barrier to a professional performance. Given a steady build up of aerobic work and a sensible strength training programme we have athletes to challenge the world. Both they and their coaches have made a good move by joining the BMC early and we look forward to seeing them in the lower races in next years Grand Prix.

This is my last Chairman's notes, as I stand down in December because of work commitments. It has been a great honour to serve the club and I trust that you will support my successor with VISION 2000 as well as you did me. Farewell to Tim Grose the Editor of the BMC News. You have done a great job. My thanks also go to all the members of the committee, the area secretaries and the race organisers who work long and hard hours with often only criticism as a reward. You are a special bunch. I hope that this year we will get some more volunteers to join you to continue the good work.

The final point that I wish to leave you with, is that this sport of ours is a hard and cruel taskmaster. To achieve success you have to approach it with exactly the same level of thoroughness that you would if you were planning to conquer Everest alone. You have to live your preparations 24 hours a day, not just the hour or more you have dedicated to training. Ruthless application is the only path to success. No less will do. Good luck.

## BMC News...News...News...

## 1997 RACE PROGRAMME

In the first year of sponsorship from Nike, the 1997 Race Programme comprised some 192 races of membership standard at 53 meetings at 26 venues. 1187 membership standards were set by 529 athletes ( 328 of whom were members), which included 508 gold standard performances by 213 athletes (156 of whom were members).

An unprecedented 17 BMC records were set during the season - ample proof that Nike sponsorship had provided the necessary step-change for the BMC to work effectively towards "Vision 2000". The records were:

- Linda Staines set a BMC 600 m record at the opening meeting of the summer season at Battersea Park on 19th April.
- David Taylor set a BMC $10,000 \mathrm{~m}$ record of 29:32.8 at the opening BAEI race at Watford on 30th April.
- Carol Galea of Malta set a BMC $10,000 \mathrm{~m}$ of 34:25.1 in the women's race at Watford.
- Ian Gillespie took just over 10 seconds from Alan Blinston's 27 year old 2 mile BMC record at Millfield on 5th May, and was at the time a world leading performance.
- Rob Hough equalled Neil Caddy's BMC Members' record over 1500 m with 3:39.1 at Wythenshawe on 14th May.
- Andrew Pearson ran 13:42.2 for a new $5,000 \mathrm{~m}$ BMC record at Loughborough on 18th May.
- At the Loughborough Grand Prix on 3rd June, Theresa Duffy of Ireland ran 33:33.7 to break Carol Galea's short-lived BMC $10,000 \mathrm{~m}$ record.
- Behind Duffy, Heather Heasman ran 34:44.9 to set a BMC Members' record.
- On June 11th, again at Loughborough, Vicki McPherson set a BMC Members' record of 15:56.8 in a mixed $5,000 \mathrm{~m}$ race.
- At Battersea Park on June 15th, Patrick Ndururi of Kenya, at the time an unknown Kenyan, set a personal best when he ran 1:45.2 to break Paul McMullen's two-year-old BMC record. Ndururi of course went on to run 1:42.62 at Zurich!
- Behind Ndururi, and incredibly only in 4th place, Andy Hart finally broke Seb Coe's 21 year old BMC members' record with 1:46.8.
- On 17th June, Sarah Bentley broke her own BMC 3,000m members' record with 9:08.8 in a mixed race at Stretford.
- Seamus Power broke Andrew Pearson's two-month-old $5,000 \mathrm{~m}$ record when he ran 13:40.5 at Watford on July 30th.
- Omitted from the GB team for the world
championships, Anthony Whiteman had a point to prove to the selectors and ran a staggering 3:37.5 to break Dave Lewis' 14 year-old $1,500 \mathrm{~m}$ record at Swindon on August 7th. 9 days later Whiteman ran 3:32.34 at Monaco.
- Also at Swindon, Rob Whalley became the first person to break his own BMC record when he ran 7:51.4 for $3,000 \mathrm{~m}$.
- Rob Whalley then went on to set a BMC Members' $5,000 \mathrm{~m}$ mark at Bristol on August 30th with 13:41.08.
- Also at Bristol, in the final Grand Prix race of the season, Joanne Pavey at last broke Mia Gommers' 28 year old BMC Women's Mile Record with 4:30.77.
We are delighted to announce that Nike have increased the money available to the BMC to allow automatic timing of, and increased publicity for, our Grand Prix meetings in 1998.


## FASTEST RACES IN BRITAIN 1997

This year saw the BMC putting on races just as fast as BAF promotions and their National Championships. The fastest races staged in Britain in 1997 were:

- M800 BMC Battersea Park 1:45.2
- M1000 BMC Stretford 2:19.4
- M1500 BMC Swindon 3:37.5
- M Mile BAF Emsley Carr 3:53.28
- W800 BAF British Champs 1:58.59
- W1000 Busellato, Leeds 2:32.55
- W1500 BAF GP1 Sheffield 3:58.07
- W Mile BMC Bristol 4:30.77

In summary it was BMC 4, BAF 3 and Andy Norman 1. Also pleasing was the fact that both the mile races in the BMC Grand Prix Final were faster than their counterparts in the IAAF Grand Prix Final in Tokyo a couple of weeks later.

## BMC RELAY MEETINGS

Two BMC relay meetings were held at Watford during 1997.
$4 \times 1500 \mathrm{~m}$ relays were held on 30 th April.
In the men's races the BMC National Junior Squad of Ross Fittall, Neil Speaight, Richard Vint and Lee Garrett set a British and European record of $15: 52.0$ and the BMC National Veteran squad of Peter Molloy, Glen Grant, Dave Bedwell and Dave Wilcock set a world veteran record of 16:41.1.

In the women's race the BMC National Squad of Elinor Doubell, Joanne Pavey, Michelle Faherty and Lynn Gibson set a

British, Commonwealth and All-Comers record of 17:41.0, and behind them the BMC National Junior Squad of Ellen O'Hare, Camilla Waite, Rachael Ogden and Jody Swallow set a British and European Junior Record of 18:38.0. The BMC National Veterans of Deborah Howard, Pat Gallagher, Kim Davison and Liz Craig set a world veterans record of 20:13.0. Indeed each of the six teams in the race achieved the record they were aiming for!
$4 \times 1$ Mile relays were held on 11th June where the BMC National Junior Squad of Caroline Walsh, Camilla Waite, Rachael Ogden and Jody Swallow set a world junior record of 20:16.2. In the men's race our veteran squad of Peter Molloy, Keith McLellan, Dave Bedwell and Dave Wilcock set their fourth world record with 18:08.5!

Twelve world best performances have now been set in BMC relay meetings in the last 5 years. We now have the complete set of 6 British Junior records from $4 \times 800 \mathrm{~m}$ to $4 \times 1$ Mile (three of them are world records), and the complete set of 4 world veteran records over $4 \times 1500 \mathrm{~m}$ and $4 \times 1$ Mile.

## BMC DEVELOPMENT OFFICER'S AWARD

This award is made to the athlete who, in the opinion of the BMC National Committee, made the outstanding contribution to the British Milers' Club in 1997. The committee were unanimous in their selection of Joanne Pavey who broke through to international level as UK Champion and then reached the semi-finals of the world championships. Joanne has run in 16 BMC races in the last two years.

Also recognised by the Committee were: Alice Beecroft, Sarah Bentley, Clive Gilby, Brad Glenton, Steve Green, Andy Hart, Ian Gillespie, Matthew Kloiber, Kevin McKay, Helen Pattinson, Penny Thackray, Claire Raven, Jason Thompson, Linda Staines, Andrew Young and Rob Whalley.

## COACH OF THE YEAR

Once again the Committee recognised the achievements of Mike Down, coach to Ian Gillespie, Rob Whalley and Joanne Pavey. All three of these were crowned BMC Champions and ranked top of the BMC merit rankings in their particular events. This time the rule that Mike was not eligible for the award as he is a member of the BMC committee was waived unanimously!

## BMC News...News...News...

## BMC NIKE GRAND PRIX

The first year of the BMC Nike Grand Prix comprised 5 meetings. The first was the traditional Wythenshawe meeting on May 14th and the event winners were:

- M800 Andrew Hart 1:48.5
- M1500 Robert Hough 3:39.1
- W800 Phylis Smith 2:05.2
- W1500 Joanne Pavey 4:18.7

The second meeting took place in cool windy conditions at Loughborough on June 3rd and the event winners were:

| - | M800 | Kevin McKay |
| :--- | :--- | ---: |$\quad 1: 49.2$

The third meeting took place just after a thunderstorm at Watford on June 25th. The event winners were:

- M800 Kevin McKay 1:48.2
- M1500 Jason Dullforce 3:43.8
- W800 Linda Staines 2:05.7
- W1500 Helen Pattinson 4:20.3

The fourth meeting took place in perfect conditions at Swindon on August 7th. This proved to be the best meeting of the series and the event winners were:

- M800 Justin Swift-Smith 1:47.9
- M1500 Anthony Whiteman 3:37.5
- W800 Diane Modahl 2:03.4
- W1500 Angela Davies $4: 18.5$

The Grand Prix Final took place on a cold Saturday evening at Bristol on August 30th, the date having had to be re-arranged twice by changes in the national fixtures list outside of our control. The winners were:

- M800 Bernard Kisilu KEN 1:46.67
- M Mile Samir Benfares FRA 4:00.04
- W800 Claire Raven 2:05.43
- W Mile Joanne Pavey 4:30.77

Adding up all the points, the final Standings in the Men's Grand Prix were:

| 1st | Kevin McKay | 144pts |
| :---: | :---: | :---: |
| 2nd | Steve Green | 121pts |
| 3 rd | Bradford Glenton | 107pts |
| 4th | Andrew Pearson | 105pts |
| $5 \mathrm{th}=$ | Matthew Kloiber | 101pts |
| $5 \mathrm{th}=$ | Ian Gillespie | 101pts |
| 7th | Andrew Knight | 91 pts |
| 8th | Andrew Young | 90pts |
| 9th | Ben Sutton | 85pts |
| 10th= | Luke Veness | 83pts |
| 10th= | Matt Barnes | 83pts |
| 10th= | Matt Skelton | 83pts |

It was a little disappointing that so few men completed 4 races. Only Steve Green ran in all five Grand Prix.

In the Women's Grand Prix the final standings were:

| - | 1st | Joanne Pavey |
| :--- | :--- | ---: |
| - 2nd | Claire Raven | 146 pts |
| - 3rd | Helen Pattinson | 125 pts |
| - 4 th | Alice Beecroft | 122 pts |
| - 5th | Jillian Jones | 114 pts |
| - | 6th | Linda Staines |
| - 7th $=$ | Lucy Field | 104 pts |
| - 7th $=$ | Penny Thackray | 101 pts |
| - 9th | Lynn Gibson | 101 pts |
| - 10th | Angela Davies | 97 pts |

Joanne Pavey won the overall first prize of $£ 1,000$ in a nail biting finish vs. Kevin McKay at Bristol. After Kevin's 1:46.87, Joanne had needed to run inside 4:33.0, i.e. breaking the BMC record by over three seconds, to clinch victory. The pressure was on, and the result was $4: 30.77$ !

## BA ENDURANCE INITIATIVE

The 1997 British Athletics Endurance Initiative, with equal funding from the London Marathon and BAF, took place within the BMC race programme. Races took place both regionally and nationally, the national ones taking place principally within the BMC NIKE Grand Prix meetings. The final Standings in the BAEI Men's Grand Prix were:

| 1st | Rob Whalley | 144pts |
| :---: | :---: | :---: |
| 2nd | Kris Bowditch | 131pts |
| 3rd | Spencer Barden | 121 pts |
| - 4th | David Taylor | 116pts |
| 5th | Phil Mowbray | 83pts |
| and the Women's standings were: |  |  |
| 1st | Sarah Bentley | 122pts |
| 2nd | Jo Thompson W35 | 87pts |
| 3 rd | Angela Joiner | 81 pts |
| 4th | Lucy Elliot | 69pts |
| 5th | Amber Gascoigne U20 | 63pts |

## BMC CHAMPIONSHIPS

It was not possible to hold separate BMC Championships in 1997. Instead the leading Britons in the BMC NIKE Grand Prix Final were deemed to be the 1997 BMC champions, as follows:

| M800 | Kevin McKay | 1:46.87 |
| :---: | :---: | :---: |
| M Mile | Ian Gillespie | 4:01.37 |
| M5000 | Rob Whalley | 13:41.02 |
| W800 | Claire Raven | 2:05.43 |
| W Mile | Joanne Pavey | 4:30.77 |

Gillespie, Whalley and Pavey are all coached by Mike Down. Gillespie has been BMC Champion three years running at different distances.

## BMC CLUB RECORDS

Congratulations to "new member" Kelly Holmes who set three BMC Club Records in 1997. A BMC Club Record is defined as the fastest time by a paid-up BMC member in any race anywhere in the world.

| - W800 | Kelly Holmes | 1:57.14 |
| :--- | :--- | :--- |
| - W1000 | Kelly Holmes | $2: 32.55$ |
| - W1500 | Kelly Holmes | $3: 58.07$ |

## SUB-FOUR FOR THE FIRST TIME

Congratulations to Ben Reese who ran 3:59.82 indoors at Ypsilanti, USA on the 14th February.

## 1998 RACE PROGRAMME

Next year's AAA's have been set for 25th and 26th July, the European Championships are from 16th - 25th August and the Commonwealth Games are from 16th -21 st September.

Accordingly some very provisional dates for next year's major BMC races have been proposed:

- Mon 4th May

Millfield

- Sun 17th May Loughborough (v AAA's)
- Wed 3rd June Wythenshawe GP
- Wed 24th June Swindon GP
- Wed 15th July Cardiff GP
- Wed 5th Aug

Watford GP

- Wed 2nd Sept

Solihull GP Final
Events marked GP will form the 1998 BMC NIKE Grand Prix.

## 1998 SUBSCRIPTIONS

Your 1998 subscriptions were due on January 1st 1998. The BMC does not send out individual subscription reminders, so if you have not paid already, please could you send your cheque for $£ 10$ ( $£ 15$ overseas) made payable to the BMC, together with any change of address, to the Treasurer Pat Fitzgerald. The AGM determined that subscriptions would be raised to $£ 15$ ( $£ 20$ overseas) from 1st January 1999.

## BMC WEB SITE

The BMC has its own Internet site courtesy of CG Systems of Barnet. It is:
http://www.british-athletics.co.uk/bmc/ and contains full 1997 BMC Ranking Lists, the latest 1998 fixtures and articles from recent issues of the BMC News. As the season progresses the site is updated with the latest BMC Ranking Lists and the overall standings in the BMC NIKE Grand Prix.

## BMC News...News...News...

## BMC MAILING LIST

To receive news of BMC events and full BMC results as they happen throughout the summer, BMC members on E-mail can join the BMC Mailing List. To subscribe to this free of charge service, please send an e-mail to Matthew Fraser Moat at mfm@fmconsultants.telme.com.

## TOP 100 ATHLETES DESKMAIL

Athletes who are in the National Top 100 will have received Electronic Desk Mail from the BMC over the last year. This address list is kept separately from the main database, so if you are on this list, please notify Matthew Fraser Moat as well as Pat Fitzgerald of changes in address etc.

## RECOMMENDED SERVICES

- Aesthetes, for a nation-wide network of podiatrists and suppliers of orthotics. For further details please call 01332202232.
- Peak Performance, for the best technical athletics technical journal in the world. Write to Peak Performance, 1st Floor, 5 Charterhouse Buildings, Goswell Road, London EC1B 1HH.
- Athletics International, for the best coverage of international results. Write to Mel Watman, 13 Garden Court, Marsh Lane, Stanmore, Middlesex HA7 4TE.
- Sports Tours International, for the best warmweather training trips ever. Write to Vince Regan, Sports Tours International, 91 Walkden Road, Walkden, Worsley, M28 5DQ or phone 01617038161.
- Len Lewis, for an excellent second-hand, noobligation, book-search service. Please ring any evening 01938552023 or write to Len Lewis, 3 Aubet Drive, Guilsfield, Welshpool, Powys, SY21 9LX.
- Ultrafit Magazine - cost $£ 2.50$. A bi-monthly journal on all aspects of fitness. Frank Horwill, BMC founder, has had five articles published in it during the last 12 months. If you want to take out a subscription to this excellent journal write to Simone Kiburn, Ultrafit Magazine, Champions House, 5 Princes Street, Penzance TR18 2NL, phone 01736 50204, fax 01736 68587. The magazine is on sale at most large W.H. Smith shops. Some back issues are of particular interest to athletes and coaches. For example Volume 7.2 has a good editorial on heart-rates and eighteen articles allied to running fitness. And, if you think you know all about fitness, their regular quiz can be a bit of a shock!


## BMC FOUNDER MEMBERS TOGETHER AGAIN AFTER 25 YEARS

The occasion was the 70th birthday of BMC founder - Frank Horwill, at the Spaghetti House restaurant in Holborn on June 20th 1997. Frank was presented with a portrait of Roger Bannister (BMC's first President) breaking the 4-minute mile barrier at Iffley Road track, Oxford. The portrait was signed by all the world-record holders since that day, with two exceptions, Steve Ovett and Roger Bannister! However, Peter Thompson (IAAF. Director of Coaching Projects), took the portrait away to get the missing signatures. Among those present were the following founder members:-

- Maureen Smith- former British Mile Champion.
- Tony Elder, Senior BAF Coach, well-known lecturer and writer on middle-distance.
- Alf Wilkins, Senior BAF Coach, former BMC Treasurer, and manager of the British Jewish team to the World Israel Games.
- Brian Boulton, Kent County Mile Champion, former BMC National Secretary.
- Frank Horwill.

It was the first time for 25 years that they had all come together again. The other founder members who did sterling work for the club in its first difficult years were:

- John Thresher, Surrey County Mile Champion and now president and chief executive of Athletics Canada.
- Bryan Buxton, coached by Alf Wilkins and member of the British Jewish team to Israel in 1963-1969.
- Henry Hayes, a non runner who kept the BMC finances in order for 4 years from its foundation.
One of the BMC founder members has disputed that Frank alone started the BMC and signs letters - "Co-founder of the BMC." They have a friendly bone of contention about the matter. Frank says it was he who wrote the letter to AW in June 1963 suggesting the formation of a club to be known as the British Milers' Club, and those who replied became founder members. The rival claimant states that it was he who compiled the BMC constitution and Rules and therefore he is a joint founder. The last word comes from Frank, "I produced the skeleton, he put the flesh on it. One without the other would have been useless. I think he has a valid point. I'm signing after my name - Co-founder of the BMC. Alf Wilkins can now do the same with my blessing!"


## SEB COE BLAMED FOR NEW ZEALAND'S POOR STANDARD OF RUNNING!

An article by John Davies (bronze medallist, 1500 metres, 1964 Tokyo Olympics), in the June issue of New Zealand Runner, states that NZ runners are failing at world-class level because they are not doing enough "base" work. One assumes from this that Davies, a former Lydiard protege, would like to see the latter's system of 10 weeks of 100 miles a week, followed by 6 weeks of hill running every day, come back in popularity. Davies goes on to say, "Much of the erosion of this lack of base training is due to Seb Coe who claimed he did only 40 miles a week of quality running in the winter - so he says."

When the BMC News consulted with Peter Coe about Davies's article, he said, "Well, his training in the winter should not be condemned because Seb at age thirtythree was still running 1:43.3 and beating all the Kenyans. Also, his world record in the 800 stood for 16 years and his one for 1,000 metres still does. However, the figure of 40 miles per week is not correct. Occasionally, following a lay-off due to injury, he recorded 76 miles a week to get his base up to standard. But, sometimes in the track season ALL his work was anaerobic. If you use the multi-tier system (training at 5 different paces) over a period of 10 days, it is impossible to do big mileage as well. Multitier training is very tough." Peter's observations were conveyed to the editor of New Zealand Runner.

## QUOTE

Overheard in Battersea Park Track changing rooms: Athlete "A" - "I must look around for a good race in a graded meeting. "Athlete "B" - "Go to the BMC races at Watford they are the best in the country."

## EDITOR'S NOTE

Please accept my apologies for the slightly late production of this BMC News. Regrettably, due to other commitments, this will be the last edition under my editorship. I would to say a special thanks to my support team June Lee, Tony and Valerie Grose and all those who sent in articles over the last couple of years. Please send all articles for the next issue on disk to Matthew Fraser Moat, Ripple Court, Ripple, Deal, Kent CT14 8HX by 28th February 1998.

## New Members

## Congratulations to the following people who have been elected to the BMC since the last issue:

2894
2895 Gareth McGee
2896 Mark Kuklinski U20
2897
2898
2899

2901 Ross Houston U20
2902 Brian Gardner V40
2903
2904
2905
2906
2907
2908
2909
Heather Heasman
2911 Michael East U20
2912 Rachel Buller
2913 Katy Smith U17
2914 Teresa Penhorwood U17
2915 George Miller U20
2916 Lisa Hollick Gold
2917 Ann Terek
2918 Michael Hatch U20
2919 Carl Morris U20
2920 Nicholas Andrews U17
2921 Tom Cartwright U20
2922 Amber Gascoigne U20
2923 Catherine Riley U17
2924 Ian Smith U17
2925 Gary Johnson U17
2926 Pauline Powell
2927 Kevin McKay
2928 Toby Dolman
2929 Christopher Ling
2930 Amy Waterlow U20
2931 Michael Wassell
2932 Keith McLellan V40
2933 Noel Cullen IRE
2934 Jacqueline Kind
2935 Jade Clark U15
2936 Martyn Pert
2937 Lee Eastley U17
2938 Dominic Bannister
2939 Richard Griffiths
2940 Kelly Holmes
2941 Danny McCormack
2942 Nick Davy
2943 Jane Horner
2944 Hayley Parkinson
2945 Alex Flynn U17
2946 William Levett
2947 David Wilcock V40
2948 Jason Levy

2962 Georgina Parnell U17
2963 Barbara Dix U17
2964 Daniel Beynon U17
Jessica Nugent U15
Juliette Parkin

Graham Ferguson U20
P J Lennon
Linda Staines
Gold

Peter Ivens
Charlotte Moore U13
Jason Ward
obert Berry
ichard Cressey

Darrell Maynard
Gold
Gold
Sen Coach

Gold
Phylis Smith

Jamie Muir U20
Stuart Overthrow
cott Hughes U20

Emma Brady
Gold

Joanne Mersh Gold

Iain Murdoch U20
Matthew Morris
Stephen Green
Esther Evans
Sammuel Haughian
Ben Whitby
Delwyn Bainton
Chris Thompson U17
Adam Lloyd U17
Jolene Goldsack U17
Andrew Graffin
Allen Graffin
David Arnold
Roy Tilling
Chris Owen U17
Sarah Douglas U15
Ronnie Havill U17

3009 Ben Walters
3010 Andrew Barber
3011 Christopher Davies
3012 Gavin Littaur V45
3013 Alexander Macdonald U20
3014 Matthew Raw
3015 Faith Aston Gold
3016 Jennifer Mockler U17
3017 Lisa Cater U15
3018 Jason Dullforce Gold
3019 Matthew Yates Gold
3020
Gold
3021 Tim Newbery
3022 Christina Radon
3023 Rebecca Everett U20
3024 Matthew Barnes
3025 Sarah Simmons
3026 Sarah Wells
3027 Steven Baldock
3028 Andrew Osment
3029 Rebecca Spies USA
Gold
3030 Matthew Lawson
3031 Adam Mole
Gold
3032 Simon Cotton
3033 Clare Goldsborough
3034 John Sherban
Gold
3035 Chris Allan
3036 Gareth Turnbull IRE U20 Gold
3037 Jason Humm
3038 Ricky Soos U15
3039 Lindsay Dunn
Sen Coach
3040 Jody Swallow U17
3041 Charlie Low
3042 Marcus Harrop
3043 Graham Edmonds
3044 Ian Craig
3045 Richard Daniels
3046 Colin Palmer
3047 Carolyn May
3048 Adrian Marriott
3049 Andrew Fulford U17
3050 James McIlroy Gold
3051 Emma Jayne Dumbleton U17
3052 Alistair Dawber U17
3053 Daniel Palmer U15
3054 Maurice Millington
3055 Clive Thomas
3056 Bart Lloyd Ricketts
Sen Coach Sen Coach

3057 Diane Modahl
3058 Tony Read U17
3059 Tom Laurie U17
3060 James Foster
3061 Roderick Lock Sen Coach
3062 Abdusalam Mohammed
3063 Angela Routledge
Gold

Gold
Sen Coach
Sen Coach

## Pulse Rate

## Know What Pulse Rate Is Doing What?

A heart rate monitor is not essential in the pursuit of maximum fitness. If this were the case, we have to ask how former British world record holders like David Bedford, David Moorcroft and Roger Bannister, achieved their success without ever using the clever device. And, Peter Coe, father and coach to the current Commonwealth 800 and world 1000 metres record holder, Seb Coe, not only never used the invention but is openly hostile to its use. Peter Coe pointed out in an interview with an athletics magazine that using a heart rate monitor in COMPETITION could actually be an hindrance. This is because before a competition there is a thing called "psyched up heart rate". In other words, the pulse at rest is some ten beats faster than normal. If this were the case and an athlete relied on a certain rate, ascertained from using the monitor in training, to run a marathon at a certain pulse level, the athlete would get a shock when the time of the first 10 k was announced - it would be much slower than planned. For the simple reason that the planned percentage of the maximal heart rate for the event would be reached much sooner than in training, therefore the pace would be slower. In such cases, the athlete would do better to concentrate on times at various stages of the race.
"The correct use of a pulse monitor revolves around an essential factor - the athlete must know what maximum possible pulse rate he or she can achieve."

The correct use of a pulse monitor revolves around an essential factor - the athlete must know what maximum possible pulse rate he or she can achieve. Now, it was once thought that running 400 or 800 metres at full effort would register a maximum. Well, it's not far off, however, these two distances when run at full effort, produce a lot of lactic acid very quickly which seems to retard the pulse rate reaching maximum. A recent research finding from Sweden suggests that running full out for 3 minutes is more likely to register maximum.

If the athlete declines to do a maximum
pulse rate outing, it must be calculated. The old method was to take 220 beats per minute as maximum, and then to subtract from that figure one's age. So, a female aged twenty five years would have this formula: 220 minus $25=195 \mathrm{bpm}$ maximum. This is close but not close enough! Recent research suggests a more accurate estimation - 209 beats per minute maximum minus point seven for every year of age - 209 minus 25 x $0.7(17.5)=191.5 \mathrm{bpm}$, this is less than the old calculation.

The figure for males is 214 bpm minus point eight for every year of age. Given a male aged twenty five, the formula would be - 214 minus 25 x $0.8(20)=194 \mathrm{bpm}$. Note that the old formula is more accurate for men than women.

Pulse rates are intricately linked with work done at a percentage of $\mathrm{VO}_{2}$ max. They are closely linked with training at what is called - the lactate threshold. This is a point in our training when the blood starts to get more and more saturated with lactic acid. The idea of lactate threshold running, sometimes called lactate response running, is to run for about 4 miles $(6.5 \mathrm{~km})$ just short of this sudden lactate increase point. By so doing, we eventually "push" or delay the point of lactate increase. In practical terms this means we can run faster (at a slower pulse rate) than before without incurring a lactate penalty. Twelve weeks of once a week lactate threshold running will boost fitness levels which may not be detected in a $\mathrm{VO}_{2}$ max test. It also has the advantage of not being so fast as track repetitions thereby reducing injury risks.

| "Twelve weeks of once a week |
| :--- |
| lactate threshold running will |
| boost fitness levels which may |
| not be detected in a $\mathrm{VO}_{2}$ max |
| test." |
| We must now ask how the | aforementioned world record breakers achieved their success without the use of a pulse monitor? The answer is that they trained at speeds which were a percentage of their $\mathrm{VO}_{2}$ max, and in doing so, elevated their pulse rates to the required point. For example, if a 3 K runner wished to improve his time from $8: 30$ to $8: 15$, by running 3 x 1500 m in $4: 07.5$ with 3 mins rest, it would be 100 percent of his $\mathrm{VO}_{2} \max$ and would involve the pulse rate achieving maximum.

If we take the example of the 25 year old female above with an estimated maximum of 191 bpm , we can plan out what pulse rates should be used to record specific percentages of $\mathrm{VO}_{2}$ max. In doing this, we must remember one vital criteria - THE GREATEST FITNESS GAINS COME FROM WORK BETWEEN 80 AND 100 PER CENT OF THE $\mathrm{VO}_{2}$ max. Most of the world's physiologists favour the figure of 95 per cent of the $\mathrm{VO}_{2}$ max (about 5 k speed), however Russian coaches working with female athletes favour 100 per cent of the $\mathrm{VO}_{2} \max$ (about 3 k speed). We also come to another important point - THE LOWER THE $\mathrm{VO}_{2}$ MAX PERCENTAGE OF WORK - THE GREATER THE DURATION OF THE REPETITION. Thus, an athlete training at 90 per cent of his/her $\mathrm{VO}_{2}$ max (about 10k speed), should do $4 \times 10$ minutes at 10 k speed with very short recovery (about 90 seconds). The minimum duration of any repetitions between $80-100$ per cent of the $\mathrm{VO}_{2}$ max is 3 minutes. But work, at the lower end of that scale ( $80 \%$ ) would be much longer, e.g. $3 \times 20$ minutes (about half-marathon speed), with extremely short recovery (about 60 seconds).

Here is a table of pulse rates related to percentage of $\mathrm{VO}_{2}$ max, and examples of actual pulse requirements for a female aged twenty-five years with an estimated maximum pulse rate of 191 bpm .

| \% of <br> VO <br> $\mathbf{2}$ Max | Equivalent \% <br> of Max Pulse <br> Rate | Actual <br> Pulse <br> (bpm) |
| :---: | :---: | :---: |
| 35 <br> (Jogging) | 55 | 105 |
| 50 (Long <br> slow <br> running | 60 | 115 |
| 60 (Steady <br> running | 73 | 139 |
| 70 (Slow <br> marathon <br> pace | 80 | 153 |
| 80 (Fast <br> marathon <br> pace) | 88 (Near lactate <br> threshold <br> running) | 168 |
| 90 (10k <br> speed) | 93 | 178 |
| 95 (5k <br> speed) | 98 | 187 |
| 100 (3k <br> speed) | 100 | 191 |

## Pulse Rate

by Frank Horwill

A rule-of-thumb rough guide is to remember that whatever the percentage of the $\mathrm{VO}_{2}$ max is required, the percentage of the pulse rate is that figure PLUS, so that given a workout at 80 per cent, the required pulse rate STARTS at 80 per cent maximum plus about 10 beats more.

When we come to calculating what speed and pulse rate our lactate threshold runs should be, there is much to put us off! Ideally, we require a sports physiologist or coach with a portable lactate measuring computer to decide from a sample of an athlete's blood at what speed of running lactate starts to increase markedly. Failing that there is a thing called the Conconi Test, where an athlete runs a heart-rate monitor increasing speed every 200 metres by 2 seconds, and from a slow start involves about $2400-3200 \mathrm{~m}$ of running during which time about sixteen pulse measurements are taken. The 200 metre times have to be converted into $\mathrm{km} / \mathrm{h}$. The formula being: $v=720 / t(t=$ split time $)$. A graph is then drawn of the heart-rate on the left vertical and the $\mathrm{km} / \mathrm{h}$ values at base. The breakaway point from the linear is known as the "deflection point". The test is subject to human error on many counts. But, analysis is made easier when an interface and a compatible IBM computer are available. There are computer programmes on the market - such as HRCT Leuenberg Medicine Technique AG, that make an automatic analysis of the test possible.
> "A greatly under-rated method of calculating lactate threshold speed is a table drawn up by the notes physiologist Jack Daniels (USA), who uses the 3 k or 2 mile time of an athlete to assess what the lactate response run should
be."

A greatly under-rated method of calculating lactate threshold speed is a table drawn up by the notes physiologist Jack Daniels (USA), who uses the 3 k or 2 mile time of an athlete to assess what the lactate response run should be. The author has compared the findings of this table with known blood sample readings of some of Britain's leading athletes and they were identical.

A rule-of-thumb method is to take this

3k time per MILE and to add 22 seconds to it, this is about 90 per cent accurate. For example, given a 3 k time of $8: 30$ ( 68 secs per 400 m ), this is about $4: 34$ per mile +22 seconds $=4: 56$ per mile (close to the tabulated value of $4: 53$ ) for 4 miles on a lactate response run. A person with a time of $11: 15$ for 3 k ( 90 secs per 400 m ), about 6 minutes per mile pace, however, needs to add about one minute to that figure i.e. 7 minutes a mile, for 4 miles. Once past $9: 15$ for 3 k the lactate response run per mile rapidly slows. Here is a table of accurate recommendations:

| Best 3k <br> Time | Recommended <br> Lactate <br> Response Time <br> For 4-Mile | Mile <br> Difference <br> (secs) |
| :---: | :---: | :---: |
| $7: 30$ | $4: 16$ | 15 |
| $8: 30$ | $4: 53$ | 19 |
| $9: 30$ | $5: 32$ | 26 |
| $10: 30$ | $6: 23$ | 45 |
| $11: 15$ | $6: 54$ | 52 |
| $12: 15$ | $7: 38$ | 64 |

Many heart-rate monitor devotees may have never run in a 3 k race and, therefore, Daniels' table will be of little use. But there is more to this table than at first meets the eye. If we look at the mile differential column of the table, it will be noted that a $7: 303 \mathrm{k}$ runner who will be running at about 4:01 a mile in that event, is only going to be running 15 seconds slower per mile on a lactate response run ( $4: 16$ per mile)! That's 5 k pace and 95 per cent of the $\mathrm{VO}_{2}$ max and 98 per cent MHR.

On the other hand, if we look at a 9:30 3 k performer ( $5: 06$ per mile), the lactate response run is 26 seconds slower (5:32 per mile). For this particular runner, this is 10 k pace and 90 per cent of the $\mathrm{VO}_{2}$ max and 93 per cent MHR.

If we take one more example, a 11:15 3 k performer (6:02 per mile), the lactate response run is $6: 54$, some 52 seconds per mile slower than per mile in the 3 k . This is slower than 10k speed, about 85 per cent of the $\mathrm{VO}_{2}$ max, about 90 per cent MHR. This last calculation has led some physiologists to a rule of thumb recommendation for lactate response runs: "Run about 10 seconds per mile slower than per mile for your best 10 k time." This may be apt for the $37: 30$ plus 10 k performer, but not for those who are
> "...if an athlete can run for more than 30 minutes at 80 per cent of maximal heart rate - that run is not a lactate threshold run..." much speedier.

What it boils down to is this: if an athlete can run for more than 30 minutes at 80 per cent of maximal heart rate - that run is not a lactate threshold run: it's a useful outing, but will do nothing to improve the lactate threshold. Moving the run up to 85 per cent MHR should be tried and if the athlete can just make 4 miles distance at that rate and no further, the target pattern has been set.

One winter, Yvonne Murray, GB International ( $8: 29.02 / 3 \mathrm{k}$ ), had her lactate response runs set (by blood analysis) at 5:20 per mile. Six months later it was set at 4:53 per mile. This shows what can be achieved with regular lactate threshold running done correctly.

> "Where a pulse monitor scores over the stop-watch is when running into a stiff wind."

Where a pulse monitor scores over the stop-watch is when running into a stiff wind. While the time per mile advocate will struggle to keep to the schedule the pulse monitor athlete will keep to the required pulse-rate even though the speed of running may decline - BUT THE EFFORT REMAINS CONSTANT. This is a valuable preventative of overtraining.

As a matter of interest, in South Africa (where the author has lectured and coached on numerous occasions) there are heart-rate monitor clubs, i.e. you cannot be a member of the club unless you purchase a monitor from them. All training is done by pulse readings. These clubs are run on a franchise system, a person applies to the heart-rate manufacturers for a franchise using their name to sell the equipment and start a club. A new member, having purchased the monitor receives instructions on its use, which requires an annual club membership fee. A club with a membership of five hundred who have purchased the required monitor and paid the annual fee, nets the club's founder a handsome livelihood of around $£ 25,000($ R200,000) a year! Enough to boost most pulse rates above resting rate!

## Letters to the Editor

## A BLUEPRINT TO REJUVINATE BRITISH MIDDLE DISTANCE RUNNING

I am sure that most of your readers share with me, and with all of our media exponents, concern at the demise of our middle and distance running standards.

While I believe that all of our success is cyclical, and that our time will come again, I am sure that I do not need to remind people that in 1964 we won both of the Olympic Games long jump events. I also wish to remind all track and field enthusiasts that we have no divine right to any medals in any Games, and that our athletes were very successful in Athens.

However, to return to the plight of our middle and distance runners I believe that it is now time to effect a reform. Had our sport been soccer, or rugby league some "heads would have rolled" a few years ago. Hence, I firmly believe that the supporters of our sport need to see the actions of a new "broom". It is quite obvious that the current structure and groupings of our coaches is not proving successful. Perhaps changes in the structure might not prove successful and a change might indicate that our current group of athletes are not good enough. My reasoning is that the sport needs to see that attempts are being made to improve standards.

During the course of my 'play' I meet very many coaches, throughout the country involved in the coaching of good middle distance runners. In conversation it is quite obvious that their ideas are based upon empiricism. That their ideas of training lack the support that modern sport science can offer. Many of the coaches are excellent "artists", extremely good motivators and managers of people. Hence for a start we MUST educate our coaches to a higher level of understanding. To achieve this there must be a British middle distance supremo coach with a duty to restructure training methods and coach education.. That person will need to be supported by a group of regional senior coaches.

What qualifications will the supremo need :-

1. A sound basic education in sports science. I rate this highly because such a person MUST understand the energy systems. Be able to differentiate between strength and strength endurance, speed and speed endurance and local muscular endurance. To understand how these components, together with power training can be phased into a training period. To understand the biomechanics of the running action. When a person genetically lacks leg speed, then stride length is the only alternative to increasing velocity. Perhaps a better understanding of this might have made Paula Radcliffe a medallist?

Sports science must include an understanding of all of the legal distance running ergogenic aids. The use of altitude training, nutrition therapy including hydration and rehydration. 1 stated a basic education in this science since it is unlikely that one person will have this knowledge, but with the basic qualification the person will know where to go to select a team of helpers, and be able to translate the scientific jargon into layman's English.
2. The supremo would need to be a good communicator and have excellent personal skills to be able to lead a team and to educate the subordinates. Such a position would be a high profile one, hence the person must have proven integrity and be able to manage the media. Have a commitment to the cause of improving the current performance rankings.
3. Lastly but by no means the least the supremo MUST be a B.A.F. qualified SENIOR COACH in middle distance events and have proven expertise in producing international class distance runners. I am uncertain whether such a person still exists. There were certainly several of them functioning ten years ago. Perhaps that is why we were successful in the period 1965-1985? Wilf Paish

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## All-Time World Junior Lists

compiled by Matthew Fraser Moat

Men's $4 \times 800 \mathrm{~m}$

7:26.2
7:32.7
7:33.0+
7:33.0+
7:34.8
7:35.27
7:35.3
7:35.4+
7:35.7+
7:35.89

British Milers' Club, UK
Fiamme Azzure, ITA Jackson, Cambria Heights, NY, USA Boys, Brooklyn, NY, USA
York, Elmhurst, Il, USA East Coast Classic Team, NC, USA
Liverpool Harriers, UK
Thornton, Harvey, Il, USA
Lyons Township, Lagrange, Il, USA
St Jago Boys, JAM

2 Sep 1995 8th Oct 1986 7th Jun 1966 7th Jun 1966 7th May 1985 2nd Aug 1981 14th Aug 1990
1976

1976
1990

6th Oct 1983 30th Apr 1997 17th Dec 1989 27th Jun 1982 30th Apr 1996 30th Apr 1982 15th Sep 1979 7th Dec 1989 27th Sep 1977 30th Apr 1997

10th Jul 1993 7th May 1976 1st Mar 1986 1975
1966 1973
27th Apr 1973 11th Jun 1997 9th Jun 1971 1974

Women's $4 \times 800 \mathrm{~m}$

| $8: 37.71$ | Vere Technical HS, JAM |
| :--- | :--- |
| $8: 39.6$ | British Milers' Club, UK |
| $8: 44.09$ | Vere Technical HS, JAM |
| $8: 44.69$ | Vere Technical HS, JAM |
| $8: 45.35$ | Vere Technical HS, JAM |
| $8: 48.5$ | Australia U20 |
| $8: 50.09$ | Vere Technical HS, JAM |
| $8: 52.89$ | Vere Technical HS, JAM |
| $8: 53.05$ | St Elizabeth HS, JAM |
| $8: 53.1$ | Havering AC U17, UK |

1991
17th Jul 1996
1989
1992
1990
19th Dec 1989
1991
1994
30th Apr 1997
24th May 1980

## Women's $4 \times 1500 \mathrm{~m}$

| $18: 23.98$ | New South Wales, AUS |
| :--- | :--- |
| $18: 34.58$ | Victoria U18, AUS |
| $18: 38.0$ | British Milers' Club, UK |
| $18: 43.26$ | New South Wales U16, AUS |
| $18: 52.5$ | University, Irvine, Ca, USA |
| $18: 54.7$ | Fiat Sud Formia, ITA |
| $19: 06.7$ | British Milers' Club, UK |
| $19: 12.9$ | British Milers' Club U17, UK |
| $19: 32.7$ | Millikan, Long Beach, Ca, USA |
| $19: 35.1$ | Bristol AC, UK |

24th Nov 1990 28th Mar 1992 30th Apr 1997 26th Nov 1988 23rd Apr 1982 2nd May 1993 30th Apr 1996 30th Apr 1997

30th Apr 1997

Men's $4 \times 1$ Mile

16:56.8
17:06.6
17:10.7+
17:11.7
17:12.2
17:12.6
17:13.2
17:13.9
17:15.0
17:19.6

British Milers' Club, UK
South Eugene, Eugene, Or, USA
McCulloch, The Woodlands, USA
South Eugene, Eugene, Or, USA
Essex Catholic, Newark, NJ, USA
Catholic, Paramus, NJ, USA
Lompoc, Ca, USA
British Milers' Club, UK
Clairemont, San Diego, Ca, USA
Power Memorial, NYC, NY, USA

## Women's $4 \times 1$ Mile

20:16.2 20:28.00+ 20:34.0 20:36.33 20:37.4+
20:42.27
20:49.8
20:52.53
20:52.9+
20:53.3+

British Milers' Club, UK
11th Jun 1997
11th Jun 1985
17th May 1983

## British Milers' Club Records

as at 31st December 1997

## BMC Member's Record

by a paid-up BMC member in a BMC race

M600

M800
M1000
M1500
M Mile
M2000
M3000
M 2 Mile
M5000
M10000
W600
W800
W1000
W1500
W Mile
W2000
W3000
W5000
W10000

1:18.5 Steve Ovett 1976
1:18.5 Andy Knight 1996
1:46.8 Andy Hart 1997
2:19.4 Andy Hart 1997
3:37.5 Anthony Whiteman 1997
3:56.35 Anthony Whiteman 1996
5:11.0 Walter Wilkinson 1972
7:51.4 Rob Whalley 1997
8:34.5 Ian Gillespie 1997
13:41.08 Rob Whalley 1997
29:49.2 John Lisiewicz 1994

1:29.4 Linda Staines 1997
2:03.0 Kirsty Wade 1982
2:44.9 Jo White 1980
4:10.7mx Sonya Bowyer 1996
4:30.77 Joanne Pavey 1997
6:22.2 Paula Yeoman 1971
9:08.8mx Sarah Bentley 1997
15:56.8mx Vicky McPherson 1997
34:44.9 Heather Heasman 1997

BMC All-Time Record
by anyone in a BMC race
1:18.5 Steve Ovett 1976
1:18.5 Andy Knight 1996
1:45.2 Patrick Ndururi KEN 1997
2:19.4 Andy Hart 1997
3:37.5 Anthony Whiteman 1997
3:56.35 Anthony Whiteman 1996
5:11.0 Walter Wilkinson 1972
7:51.4 Rob Whalley 1997
8:34.5 Ian Gillespie 1997
13:40.5 Seamus Power IRE 1997
29:32.8 David Taylor 1997

1:29.4 Linda Staines 1997
2:00.7 Shireen Bailey 1985 2:44.9 Jo White 1980
4:10.7mx Sonya Bowyer 1996
4:30.77 Joanne Pavey 1997
6:22.2 Paula Yeoman 1971
9:06.2mx Sinead Delahunty IRE 1995
15:47.9 Andrea Wallace 1990
33:33.7 Theresa Duffy IRE 1997

BMC Club Record
by a paid-up BMC member in any race 1:15.0+ Seb Coe 1981

1:41.73 Seb Coe 1981
2:12.18 Seb Coe 1981 3:29.77 Seb Coe 1986
3:47.33 Seb Coe 1981
4:53.06 Jack Buckner 1987
7:32.79 David Moorcroft 1982
8:13.51 Steve Ovett 1978
13:00.41 David Moorcroft 1982
27:30.3 Brendan Foster 1978
1:26.5 Kirsty Wade 1985
1:57.14 Kelly Holmes 1997
2:32.55 Kelly Holmes 1997
3:58.07 Kelly Holmes 1997
4:19.41 Kirsty Wade 1985
5:37.00 Christine Benning 1984
8:37.06 Wendy Sly 1983
15:21.45 Wendy Sly 1987
31:53.36 Wendy Sly 1988

## Progression

# Progression - <br> The Key To Increasing Fitness 

The late Ron Pickering, former national athletics coach for Wales, and mentor to Olympic gold medallist Lynn Davies in the long jump ( 8.23 m ), many years ago was giving a lecture to the British distance running squad at their training camp in Merthyr Mawr. The theme of his lecture was - PROGRESSION. He said, "If you wake up every morning and go for a 2-mile run around the park in 15 minutes, you will become very good at running 2 miles in 15 minutes. But, if you wish to progress, some of your runs will have to be 4 miles around the park, and some, just one mile around the park much faster".

During his lecture he was puzzled by the appearance of a middle-aged man sitting in the back-row of the audience, wearing a battered old trilby hat and smoking a pipe (Smoking was not so badly thought of thirty years ago!). Pickering thought no more of the matter until a year later when he was again addressing the same gathering - the same man, in the same place and in the same gear.

After his lecture, the man approached Pickering and said, "I thought about what you said last year on progression. I started with one chin to the bar and increased it by one a day. I got up to fifty!" The average for chinning the bar correctly for the British running elite in 1963, was three for men and a half chin for women.

Pickering felt inclined to doubt the man's story and suggested they adjourn to the gymnasium for the man to give a demonstration. When the man had reached thirty chins he spluttered to Pickering, "Sometimes I get bored doing these and pull
> "If you wake up every morning and go for a 2 -mile run around the park in 15 -minutes, you will become very good at running 2 miles in 15 -minutes."
myself up to arms-length." He then proceeded to pull himself up until his arms were fully extended and his hips were above the bar! He completed fifty chins. His sport was sheer face rock climbing, for which he was world-renowned.

The moral of that story is obvious and not new. One of the most famous stories of its kind occurred more than 500 years before the birth of Christ. Milo of Crotona was delighted with the birth of a bull calf from a good stock cow, he expressed his joy for lifting the calf above his head first thing in the morning. He continued to do this until it was 4 -years old and twenty times heavier than when first born. This did not stop him carrying it the length of the stadium at Olympia. Progressive weight-training had started.

One athlete scored only 30 - he was asked to start with one press up every morning and to add one each day. Several months later, the athlete enquired of the writer, "How long should I keep up these press-ups, Frank! I'm up to 133 at present".

The writer had a similar experience to that of Ron Pickering. He was in the habit of putting his athletes through a series of tests at the beginning of each winter, one of these was the number of press-ups that could be done in one minute - 60 was good, 50 was fair and 40 was poor. One athlete scored only thirty - he was asked to start with one press up every morning and to add one each day. Several months later, the athlete enquired of the writer, "How long should I keep up these press-ups, Frank! I'm up to one hundred and thirty-three at present".

The key to progressive training is to START SMALL - AIM BIG. One never to be forgotten distance runner did just that when he ran in the 1948 Olympic Games at Wembley in the 5,000 metres, where he gained a silver medal, his daily training consisted of $5 \times 200$, 200 job recovery, 10 x 400,200 jog recovery and $5 \times 200$. Two years later, he doubled this and a year later, he doubled it again, i.e. $20 \times 200,40 \times 400$,
> "The art is to start with minuscule amounts of work and progressively to add to it."

$20 \times 200$ daily! Inclusive of the job recoveries, this is the equivalent of running the marathon distance daily! He was to be handsomely rewarded - Emil Zatopek gained gold metals in the 5,000 and 10,000 metres, plus the marathon, the last distance he had never run before, but it did not stop him breaking the Olympic record (2:23:03.2) A feat that has never been equalled.

There are many who watch the London Marathon in April each year, with admiration tinged with envy. The latter sentiment comes from a feeling of wanting to run but doubting one's ability to do so. There is also a fear of looking something of a spectacle in one's initial outings. But, the simple fact is that every person who completes the London Marathon has had to make a start from a start of semi-decadence. Some start by doing a little too much, they get stressed and depressed - they give up.

The art is to start with minuscule amounts of work and progressively to add to it. We can either begin with just ONE MINUTE of running on the first day then add ONE MINUTE a day to this with every seventh day off, or we can run for ONE MINUTE a day for a whole week and then make it TWO MINUTES a day for the second week, and so on.

With the first method, a person will reach 100 minutes a day in about 4 months. Once thirty-five minutes of running are reached in thirty-five weeks by the second method, it should be changed to a MINUTE a day progression, so that by the end of the thirty-ninth week an hour's running is done daily (about 8 miles).

To complete a marathon without too much stress, double the distance of the marathon ( 52 miles) should be run each week. Do not believe those who tell you that you need double that amount! The writer has coached females who in their FIRST marathons, ran about 2 hours 40 minutes 30 seconds and 2 hours 54 minutes on just 40 miles a week.

## Progression

"There will come a time when the quantity of an activity is not practicable ... then it's perhaps time to halve the quantity and make it harder."

This brings us to another important aspect of PROGRESSION - making the activity tougher. There will come a time when the quantity of an activity is not practicable, we have only so much time in the day for exercise. When we reach the limit of that practicality, it's perhaps time to halve the quantity and make it harder. Take, for example, the lad who reached 133 press ups. It he had placed his feet on a chair and hands on the floor he would not have done so many repetitions at first. But, given a month or two he might reach his former maximum, and in doing so make his arms and shoulders immensely strong. So, with progressive training we have some options:

1. Going for quantity.
2. Aiming for a quantity making it tougher and aiming for the same quantity.
3. Fixing the quantity and increasing the quality.

Emil Zatopek concentrated on two things at the same time. In a conversation with the writer in 1963, he claimed that he did his $20 \times 200,40 \times 40020 \times 200$ at the same speed as he did only $5 \times 200,10 \times 400$, $5 \times 200$. That takes some doing!

Roger Bannister (first man to break 4minute for the mile), on the other hand, went for (3) above. His motto was - MINIMUM TIME - MAXIMUM EFFORT. Time for him was a precious commodity, he had medical exams to pass, and later, when a house doctor, he was on call 24 hours a day From the time he left his students' residence to the time he returned, not more than an hour had elapsed, and during that hour he did his training!

He started the winter with $10 \times 440$ yds in 66 seconds with 440 yds jog in 2-3 minutes. The aim was to reduce the time of the repetitions by a second a month. In May, 1954 he got them down to 56 seconds. But, he was mindful that he needed endurance as well, and did the "dreaded" session of 3 x 1.5 miles ( 6 laps of 440 yds ) once a week
with 5 minutes' recovery after each. This regime led him to immortality.

Tradition in Britain has decreed that runners go for quantity in the winter. The runner is somewhat unique: he/she is expected to compete all the year round although some other sports at international level do compete abroad out of season due to the timing of world championships. Needless to say, there are some runners who do not believe in year-round competition.

Sebastian Coe at 21 years of age, decided to give up cross-country racing in the winter and aimed to concentrate on category (3) above in training, whilst Steve Ovett aimed for category (1) above and competed in cross-country. When both were aged sixteen years, Steve Ovett was the superior athlete. At 15 years of age, Coe's best for 1500 metres was $4: 25$ at the same age, Ovett was 10 seconds faster.
"Many middle-distance runners (usually 800 metre specialists) are good sprinters but poor endurance runners - they would avoid long repetitions with short recoveries. Such thinking is not world-class thinking, it is thirdrate also-ran thinking."

But, 10 years later Coe was superior to Ovett in the 800 metres, 1500 metres, mile and 1,000 metres, and had gained twice as many Olympic medals and word records. This could be a strong recommendation to follow category (3) in training and to avoid cross-country racing. The latter choice is not popular with die-hard athletics club officials.

So, what is your weakness? Usually a weakness is something you avoid because you are no good at it and don't want to be humiliated. One thing is for sure, it won't get any better by ignoring it. It will always be your weak link in the chain of total fitness. Many middle-distance runners (usually 800 metre specialists) are good sprinters but poor endurance runners - they would avoid long repetitions with short recoveries. Such thinking is not world-class thinking, it is third-rate also-ran thinking.

Here is a plan to move up a peg in your own estimation, and possibly to improve your fitness beyond your wildest dreams. Accept that you have a personality - it is made up of three things, a trinity in unity, MIND, BODY AND WILL. They are all important but the WILL is the most important since it dictates to the mind and thence the body. Treat the WILL as a muscle to be exercised daily with small tasks which grow in magnitude.

Decide NOW what aspect of your fitness or competitive training you dislike most. Be honest! Have the guts to say, "I hate running up hills", or "I hate any form of strength training." Once this is said, you have accepted that you are not so cracked-up as you think you are. Your days as a poseur are over, no longer will you do just the things you are good at and look good. You are prepared to face reality and look, at times, "all fingers and thumbs". You have made a momentous decision.

Remember the old Chinese saying - "A 10,000 mile walk starts with the first step." Choose a minuscule amount of the activity you dislike most and decide whether you want to do it daily or weekly, remember that it PROGRESSES each time you do it.

For example, you may dislike bent-knee abdominal exercise. This can be done daily at home first thing in the morning. You start with one exercise, next day two, etc. It may be that you are afraid of hill-running - once a week will suffice. You choose a long hill of about 1200 metres. You scale it once, next time it will be two efforts. Choose the same time and the same day.

At the end of a week of progression, give yourself a pat on the back. Get a postcard and write on it in block letters, the word WILL, and stick it up on the bedroom wall, it will remind you that your will-power is in the ascendancy. Each week of progression replace the paper with bigger letters, if necessary start painting the wall with the word - WILL! Be able to say 6 months hence, "I AM FAR GREATER THAN I EVER KNEW",

> Be able to say 6 months hence, "I AM FAR GREATER THAN I EVER KNEW".

## BMC Merit Rankings 1997

Inspired by Peter Matthews' national merit rankings, the BMC Merit Rankings take account of performances made in BMC races only, on the following basis (i) best times and number of performances at that level, (ii) number of winning performances and the margins of their victories, (iii) win-loss record against other ranked athletes, (iv) performances in the 'special BMC events' i.e. the BMC Nike Grand Prix Final incorporating the BMC Championships at Bristol and the relays meetings at Watford, (v) the style of the athlete's racing, i.e. whether they are willing to take up the pace or not, (vi) the distances athletes are prepared to travel to get fast races.

The rankings are therefore meant to reward consistent excellence by BMC members prepared to travel throughout the season. They are not meant to predict what would happen in an idealised race. Nonmembers are excluded, and members who only ran once are listed as 'nr' (not ranked). Places in the last two years BMC rankings are in brackets. Times for women set in mixed races are discounted slightly in the rankings.

Men's 600m / 800m / 1,000m
$1 \quad$ Hart $(1,2)$ 1:46.8 / 2:19.4:
1 WythGP, 4 Batt 15/6, 1 Stret 22/7k, 1 Toot 20/8;
2 McKay (new) 1:46.87:
2 WythGP, 1 LoughGP, 5 Batt 15/6, 1 WatGP, 2 BrisGPF;
3 Swift-Smith (8, -) 1:47.9 / 2:24.56: 2 Lough 18/5, 1 Wat 28/5, 7 Batt 15/6, 1 SwinGP;
4 Cuddy (19, -) 1:47.2 / 2:22.91:
4 WythGP, 1 Lough 18/5, 8 Batt 15/6, 9
WatGP, 2 Stret 22/7, 2 SwinGP;
5 Lerwill (nr, -) 1:48.3:
4 LoughGP, 9 Batt 15/6, 3 SwinGP;
6 Yates (new) 1:49.0:
2 WatGP, 1 Fins Pk 1/7, 1 Wat 27/8;
$7 \quad$ Knight $(7,3)$ 1:22.4 / 1:48.9
6 Batt 19/4, 6 WatGP, 4 Wat 16/7, 2 Fins Pk
5/8, 4 SwinGP, 2 Toot 20/8, 3 BrisGPF;
$8 \quad$ King (9, -) 1:49.5 / 2:26.9:
1 Belfast, 3 WythGP, 3 WatGP;
$9 \quad$ Young (-,-) 1:49.7:
2 LoughGP, 11 Batt 15/6, 5 WatGP, 8 Stret 22/7, 5 BrisGPF;
10 Sutton (-,-) 1:49.8:
1 Stret 29/4, 1b WythGP, 3 LoughGP, 1b Stret 17/6, 4 WatGP;
11 Edwards (-, -) 1:49.4: 1 Stret 20/5, 1b WatGP, 5 SwinGP;
12 Kloiber (-, 16) 1:49.56: 2b LoughGP, 3b Batt 15/6, 8 WatGP, 1b1 SwinGP, 3 Toot 20/8, 4 BrisGPF;
13 Donkin (nr, -) 1:49.3 / 2:24.0: 1 Stret 29/4, 6 WythGP, 3 Stret 22/7;

4 Hall (-,-) 1:20.3 / 1:49.8: 4 Batt 19/4, 1 Fins Pk 3/6, 4b Batt 15/6, 1 Fins Pk 5/8;
15 Tulba-Morrison (18, -) 1:49.88: 3b2 SwinGP, 2 Wat 27/8, 6 BrisGPF
16 Girvan (-,-) 1:49.7: 2 Stret 20/5, 1 Londonderry, 6 SwinGP, 8 BrisGPF;
17 Thompson (20, -) 1:20.1 / 1:50.3 / 2:25.07: 1 Batt 18/1, 2 Batt 19/4, 3 Lough 18/5, 1b LoughGP, 2b Batt 15/6, 7 WatGP, 1 Wat 16/7, 3 Fins Pk 5/7, 5b2 SwinGP, 4 Toot 20/8;
18 Gilby (-, -) 1:19.0 / 1:50.1 / 2:28.6: 2 Batt 18/1, 3 Sut Pk 3/5, 7 WythGP, 6 LoughGP, 12 Batt 15/6, 1 Sut Pk 5/7;
19 Dupuy (-,-) 1:21.2 / 1:50.1: 5 Batt 19/4, 1e WythGP, 2 Wat 16/7, 4 Fins Pk 5/8, 1b2 SwinGP, 9 BrisGPF;
20 Ashe (26, -) 1:49.94: 6b Batt 15/6, 7 BrisGPF;
21 Green (new) 1:51.1 / 2:22.0: 2b Stret 17/6, 2 Stret 22/7k;
22 Graffin, Andrew (new) 1:50.0:
2c WatGP, 1 Toot 6/8;
23= Davoile U20 (-,-) 1:50.6:
4b WythGP, 1c WatGP;
$23=$ Lees U20 (-, -) 1:50.5:
4c WythGP, 2 Wat 28/5, 1 Stret 17/6;
25 Veness (29, -) 1:50.1:
2b WatGP, 3b1 SwinGP;
26 Scanlon (-, -) 1:50.4: 4b LoughGP, 2b2 Swin GP;
27 Donaldson (16, 9) 1:50.6: 3b WythGP, 7 LoughGP, 7 SwinGP;
28 Wilson (27, -) 1:50.3:
8b Batt 15/6, 2 Jarrow 23/7;
29 Mate T (17, -) 1:50.4: 8 LoughGP, 3 Jarrow 23/7;
$30=$ Airey $(24,15)$ 1:22.8 / 1:51.1: 7 Batt 19/4, 3b LoughGP, 8 Wat 16/7, 8 Fins Pk 5/8, 5b1 SwinGP, 6 Toot 20/8;
30= Morris, Matt (-,-) 1:50.5: 5c Stret 17/6, 1b Stret 22/7, 2b1 SwinGP; 6 Stret 26/8, 4b BrisGPF;
$30=$ Walling (,-- ) $1: 51.3$ / 2:23.7: 1c WythGP, 4 Stret 20/5, 5 Stret 17/6, 7b WatGP, 3 Stret 22/7k, 6b1 SwinGP, 7 Toot 20/8, 1 Stret 26/8;
nr: Whiteman (-,-) 1:47.7: 6 Batt 15/6; Kirk U20 (-, -) 1:49.8: 1b Batt 15/6; Openshaw (new) 1:49.9: 1 Jarrow 23/7.
In the year in which he became undisputed British number 1 (and also finally removed Seb Coe from the BMC Record books), Andy Hart is top ranked for the second year running. BMC Champion Kevin McKay dominated the BMC NIKE Men's Grand Prix but was critically 0-2 versus Hart. We were honoured by the presence of Patrick Ndururi, Robert Kibet and Bernard Kisilu they set new standards in our races and ensured that the BMC got international coverage. The race at Battersea Park on 15th June was the fastest 800m in Britain in 1997
(1:45.2), and the race at Stretford on 22 nd July was the fastest $1,000 \mathrm{~m}$ race in Britain in 1997 (2:19.4). At Stretford in July we were able to provide Paul Walker with the race that got him his world championship qualifying time. Nationally, four Britons broke 1:47 this year, all of them domestically, and three of them in BMC races.

## Men's 1,500m / Mile

1 Gillespie (4, 4) 3:39.8 / 3:58.4M
3 WythGP, dnf LoughGP, 2 Bath, 1 Exeter, 2 SwinGP, 2 BrisGPF;
2 Caddy (1, 1) 3:41.6 / 4:00.9M 1re4 Wat 30/4, 4 WythGP, 1 Bath, 2 Exeter;
3 Pearson (-,-) 3:40.3: 2 WythGP, 1 LoughGP;
4 Green (new) 3:42.1 / 4:03.21M:
5 WythGP, 2 LoughGP, 3 WatGP, 5
SwinGP, 3 Stret 12/8, 4 BrisGPF;
5 Turnbull U20 IRE (new) 3:42.8:
4 WatGP, 3 SwinGP;
6 Glenton (new) 3:44.4 / 4:03.50M:
3 LoughGP, dnf Bath, 6 WatGP, 9 SwinGP, 5 BrisGPF;
7 Skelton (18=, -) 3:42.8:
6 WythGP, 4 LoughGP, 7 WatGP;
8 Dullforce (new) 3:43.8:
10 LoughGP, 1 WatGP;
9 Barnes (new) 3:43.9: 7 LoughGP, 2 WatGP;
10 Comerford $(25,13) 3: 43.4 / 4: 04.9 \mathrm{M}$ :
1 Batt 15/6, 5 Bath, 5 Exeter;
11 Ashe (2, 6) 3:42.8: 12 LoughGP, 4 SwinGP;
12 Witchalls (-,-) 3:45.7 / 4:03.73M: 11 LoughGP, 6 BrisGPF;
13 Smith (29, -) 3:43.1: 7 WythGP, 14 LoughGP, 8 WatGP, 5 Stret 12/8;
14 Poore (14, -) 3:44.1 / 4:03.4M:
10 WythGP, 4 Bath, 12 SwinGP;
15 Tulba-Morrison (-,-) 3:44.5:
9b LoughGP, 5 WatGP;
16 Swift-Smith (-,-) 3:45.0: 6 LoughGP, dnf BrisGPF;
17 Veness (-,-) 3:47.2 / 4:03.98M: 2b LoughGP, 7 BrisGPF;
18 Mowbray (-,-) 3:45.2: 9 LoughGP, 4 Stret 12/8;
19 Margiotta $(10,14)$ 3:46.1: 10 WatGP, 1 Wat 30/7;
20 Mills (-,-) 3:45.8: 1re2 Wat 30/4, 4 Batt P, 13 Wat 30/7, 10 SwinGP,
21 Whalley (12, -) 3:47.4 / 4:05.1M: 13 LoughGP, 4 Exeter;
22 Sharpe (-,-) 3:46.9 / 4:07.78M: 1 Wat 28/5, 5b LoughGP, 5 Batt P, 13 WatGP, 9 BrisGPF, 4 Wat 10/9;
23 Davies $(17,18)$ 3:46.6:
13 WythGP, 6 Wat 30/7;
24 O'Gara (-,-) 3:46.2: 4 Wat 20/7, 6 Stret 12/8;
25 Renfree (30=,-) 3:48.9 / 4:11.2M: 4b WythGP, 7b LoughGP, 7 Bath, 10 Exeter, 14 SwinGP;
nr: Whiteman (nr, -) 3:37.5: 1 SwinGP; Hough (6, 12) 3:39.1: 1 WythGP;
Zawadzki (26,-) 3:44.2: 1 Wat 10/9; Davoren (24, 20=) 3:44.4: 8 SwinGP;

## BMC Merit Rankings 1997

by Matthew Fraser Moat

Cuddy (new) 3:44.7: 1 Stret 12/8;
Wilson (-, -) 3:44.8: 5 LoughGP;
Barden $(18=, 10)$ 3:45.2: 8 LoughGP;
Openshaw (new) 3:46.0: 1b LoughGP
A memorable victory at Exeter means that Ian Gillespie regains the top ranking he held for two years in 1993 and 1994, with 2 pbs and a 2-1 record against Neil Caddy, top ranked for 1995 and 1996. However the best performances of the year were by Rob Hough and Anthony Whiteman. Hough ensured a spectacular start to the year at Wythenshawe when he equalled the BMC members' record of $3: 39.1$. Later in the year Whiteman ran 3:37.5 at Swindon, the fastest 1500 m in Britain in 1997, which set him up nicely for his $3: 32.34$ at Monaco 9 days later. Despite these highlights, the overall standard at this event was down on previous years as the South West and Eastern Region Grand Prix stood down in favour of the Nike Grand Prix and the British Athletics Endurance Initiative, thus reducing the number of competitive opportunities over the Mile.

## Men's 3,000m-10,000m

1 Whalley 7:51.4 / 13:41.08
1 WythGP, 2 Horspath, 2 Stret 22/7, 1
SwinGP, 1 BrisGPF
2 Barden 7:53.2 / 13:51.5:
4 Lough 18/5, 2 SwinGP, 4 BrisGPF;
3 O'Dowd 7:55.9 / 13:44.83
5 Lough 21/5, 5 SwinGP, 3 BrisGPF;
4 Finnerty IRE 7:55.0 / 13:45.6:
4 SwinGP, 2 Wat 30/7;
5 Tromans 8:00.7 / 13:49.7: 4 WythGP, 3 Lough 18/5, 2 Lough 21/5;
6 Mowbray 7:59.5: 3 WythGP, 9 SwinGP;
nr: Gillespie 8:34.5M: 1 Millfield; Pearson 13:42.2: 1 Lough 18/5; Grime 7:59.7: 1 Lough 21/5.
Rob Whalley became the first person to break his own BMC record at any distance with his 7:51.4 for $3,000 \mathrm{~m}$ at Swindon, and became BMC Champion over 5,000m. Gillespie's 2 Mile record at Millfield actually led the world rankings for three weeks!

## Women's 600m / 800m / 1,000m

## 1 Raven (-,-) 2:03.7

6 WythGP, 3 WatGP, 2 SwinGP, 1 BrisGPF;
2 Staines (new) 1:29.4 / 2:05.7: 1 Batt P 19/4, 3 WythGP, 1 LoughGP, 1 WatGP;
3 Faherty (2, 4) 2:05.6 / 2:45.22:
2 WythGP, 1 Lough 18/5;
4 Gibson (nr, -) 2:05.6:
2 WatGP, 4 SwinGP, 2 BrisGPF;
5 Beecroft (19, new) 2:06.2:
1 Stret 29/4, 4 WythGP, 2 LoughGP, 5 SwinGP, 3 Stret 26/8, 3 BrisGPF;
6 Davies A (7, 6) 2:06.5 3 LoughGP, 4 WatGP;

7 Jordan-Smith (5, 19) 1:31.2 / 2:06.7: 2 Batt 19/4, 5 WythGP;
8 McPherson K (-,-) 2:06.4 / 2:52.96: 2 Lough 18/5, 5 Stret 22/7, 2 Stret 26/8;
9 Jones $(17,14)$ 2:08.0
6 WatGP, 4 BrisGPF;
$10 \quad$ King $(8,12)$ 2:07.7:
7 WatGP, 2 Stret 22/7;
11 Pattinson (-,-) 2:07.8: 2 Stret 29/4,
4 LoughGP, 3 Stret 22/7, 4 Stret 26/8;
12 Andrews V (-,7) 2:09.4:
4 Stret 29/4, 4b WythGP, 2 Stret 17/6, 8 Stret 22/7, 6 Stret 26/8;
13 Aston (new) 2:09.44: 9b WythGP
4 Stret 20/5, 7b Lough GP, 1b Stret 22/7, 6 SwinGP, 8 Stret 26/8, 5 BrisGPF;
14 Fryer (10, 16) 2:09.3:
6 WythGP, 1 Stret 17/6;
15 Brady (new) 2:09.1:
3b WythGP, 6 Stret 22/7;
16 Bothams (-,-) 2:09.7:
3b LoughGP, 7 Stret 22/7;
17 Parker $(3,15)$ 2:10.0:
4 Stret 17/6, 7 Stret 26/8;
18 Bouchard (-,-) 2:09.7: 11b WythGP, 1b Stret 26/8;
19 Harnett (-,-) 2:09.9: 8 WatGP, 1 Wat 16/7;
$20=$ Hardy (new) 2:11.0: 2b LoughGP, 9 WatGP;
20= Swann W35 (-,-) 2:11.21: 10 WatGP, 6 BrisGPF;
20= Wells (new) 1:37.4 / 2:10.8: 4 Batt 19/4, 12 WatGP, 7 SwinGP;
nr: Henaghan (6, new) 2:03.1mx: 1 Jarrow 23/7;
Modahl (new) 2:03.4: 1 SwinGP;
Smith (new) 2:05.2: 1 WythGP;
Davies E U20 (12=, new) 2:06.8: 5 WatGP; Colleran (-,-) 2:08.7: 5 Stret 26/8; Ogden U20 $(12=, 20)$ 2:09.0: 1 Millfield; Pritchard U20 (18, -) 2:09.1: 1b WythGP;
Mersh (new) 2:10.2: 1b LoughGP;
Andrews $\mathbf{N}$ (new) 2:10.2: 1 Batt Pk
By winning the Grand Prix Final, Claire Raven just clinched top ranking from Linda Staines whose three wins had given her the edge over Faherty and Gibson. Faherty was third despite having 1-0 records against both those in front of her. Good breakthroughs by Beecroft and Aston. Swann's time at Bristol was the fastest by a vet in 1997.

## Women's 1,500m / Mile

1 Pavey (7, -) 4:12.6mx / 4:30.77M: 1re2 Wat 30/4, 1 WythGP, 1 LoughGP, 1 mx Barry, 1 Bristol GP;
2 Faherty (2, -) 4:15.8
1re3 Wat 30/4, 2 LoughGP;
3 Gibson (1, -) 4:17.7mx
1re4 Wat 30/4, 1mx Wat 30/7, 1mx Wat 10/9;
4 Pattinson $(11,6) 4: 20.3 / 4: 41.65 \mathrm{M}$ :
4 WythGP, 1 WatGP, 3 SwinGP, 2 BrisGPF;
5 Parkinson (4, 2) 4:18.6:
3 WythGP, 3 LoughGP;

6 Jones (10, -) 4:19.2: 5 LoughGP, 2 SwinGP;
7 O'Hare U20 (16, -) 4:21.6: 2re1 Wat 30/4, 2 WatGP;
8 Pimblett (6, -) 4:21.8: 5 WythGP, 4 LoughGP, 3 Stret 12/8;
9 Colleran (new) 4:24.0 / 4:46.87M 1 Stret 1/7, 3 BrisGPF;
10 Thackray (14, -) 4:22.4 / 4:50.87M: 10 WythGP, 6 LoughGP, 3 WatGP, 7 SwinGP, 4 BrisGPF;
11 Bothams (-,-) 4:22.7: 12 WythGP, 6 WatGP, 1 Wat 30/7, 4 SwinGP, 2 Stret 12/8;
12 Spies USA (new) 4:23.0:
4 Wat GP, 1mx Tooting 2/7;
13 Field (12, -)4:25.0:
6 WythGP, 7 LoughGP, 7 WatGP, 6 SwinGP;
14 Sterne (new) 4:24.4:
7 WythGP, 2 Stret 1/7;
15 Harnett (12, -)4:27.1:
11 WythGP, 8 SwinGP;
nr: Davies (nr, 1) 4:18.5: 1 SwinGP;
Henaghan (new) 4:20.3: 2 WythGP;
Simmons (new) 4:24.6: 5 WatGP;
McPherson K (20,-) 4:24.8: 1 Stret 12/8.
Ranked 7th last year, Joanne Pavey was unbeaten in BMC races, became British Champion, and reached the semi-finals at the world championships having run 14 BMC races in the previous 15 months. On her return from Athens she ran 4.12.6 in a mixed $1,500 \mathrm{~m}$ and then a $4: 30.77$ mile at Bristol on August 30th, which was the fastest time in Britain in 1997. Our senior quartet of Doubell, Pavey, Faherty and Gibson set a Commonwealth and European relay record at $4 \times 1,500 \mathrm{~m}$ and our junior quartet set a European junior record at $4 \times 1500 \mathrm{~m}$ and a world junior record at $4 \times 1$ mile. Pattinson, Thackray, Bothams and Field ensured that against expectations this event was well supported in the BMC NIKE Grand Prix.

## Women's 3,000m-10,000m

1 Bentley 9:08.8mx / 16:14.55:
3 Lough 18/5, 1mx Stret 17/6, 1 Horspath, 1 Stret 2/7, 1 SwinGP;
2 McPherson V 15:56.8: 2 Lough 18/5, 1mx Lough 11/6;
3 Heasman 16:20.58 / 34:44.9: 4 Lough 18/5, 3 Lough 3/6;
4 Spies USA 9:29.1 / 16:33.89: 6 Lough 18/5, 2 Horspath;
5 Joiner 9:33.0 / 16:21.22:
5 Lough 18/5, 2 SwinGP;
6 Wannell 9:35.8 / 17:17.8:
3 Millfield, 1 Exeter, 3 SwinGP;
nr: Pavey 9:16.3: 1 Millfield; Parkinson 9:19.3mx: 1mx Stret 29/4; Pimblett 9:22.8: 2mx Stret 29/4;
Sarah Bentley broke her own BMC member's record at $3,000 \mathrm{~m}$ and dominated the BAEI Grand Prix.

## Vitamin C

## Does Vitamin C Supplementation Improve Physical Performance?

The answer to the question is - YES and NO. A Swiss researcher asked twelve distance runners of equal quality to run at $10 \mathrm{mph} / 16 \mathrm{~km}$ on a treadmill until they could no longer maintain the speed. For the seven days before this test, six were given a placebo and the rest were given a 1000 mg vitamin C capsule daily. All the vitamin C group were able to maintain the required speed longer than the non vitamin group. A blood analysis revealed that the vitamin C group had produced extra hormonal levels which basically had the following effects:

- Reduced blood pressure,
- Made them feel good,
- Pushed back the pain barrier.

Unfortunately this bit of research which was published in a running magazine in 1991, failed to give the name of the researcher and the exact location of the trial, it must therefore be treated with suspicion. But the bit about hormonal levels being altered in the way described has been substantiated since that report. In fact, vitamin C is a pretty powerful agent for altering the status quo in our bodies.

For instance females on the low oestrogen contraceptive pill who take over 500 mg of vitamin C daily for a month will notice that they will experience the same effects as if on the high dose pill, thus possibly enhancing the adverse effects. Also, long term-use of vitamin C at 1000 mg daily will reduce the availability of certain trace minerals, such as copper and zinc, as well as the amino acids lysine and cysteine.

The first will result in anaemia, among other thing, and the second will undermine the immune system. A lack of lysine usually results in recurrent cold sores and herpes infections, while the degradation of cysteine will lead to further bronchial congestion with those already afflicted with chest infection. And, finally, the excretion of oxalic acid, as well as uric acid, common causes of kidney stones, is increased in certain individuals consuming high doses of the vitamin. A personal or family history of kidney stones is a warning that high doses should be limited to not more than a month at a time.

The great debunker of vitamin C as an aid to physical performance, was M.H. Williams in 1984, who in ten valid studies
that he reviewed decided that Vitamin C was not an ergogenic aid. That said, going into competition with reduced blood pressure, feeling good and a greater resistance to pain, as described earlier after taking 1000 mg daily for seven days, is not a bad thing!

What is beyond dispute is that inadequate amounts of vitamin C daily will affect performance in sports people. While the RDA in most countries is fixed at 60 mg a day, which is easily met by consuming a medium-sized orange or three medium sized potatoes. Is that enough for a person who, after a day's work, does some strenuous training for one to three hours on five days a week?

To answer that question we have to look at another essential food constituent IRON. According to the Colgan Institute of Sports Nutrition, a serious sportswoman requires 41 mg of iron daily, and the sportsman needs 36 mg . Both figures are more than treble the RDA figures. Now, for one part of iron to be properly absorbed five parts of vitamin C are required. That puts the vitamin $C$ requirement for a sportswoman at 205 mg daily, and for the sportsman at 180 mg , and that's just to ensure that iron is fully accommodated by he body. Now those figures are interesting, because Ludwig Prokop, former nutritional adviser to the old East German Olympic teams, advises an intake of $200-240 \mathrm{mg}$ daily for all serious sportspeople. The East Germans didn't believe in half measures, their athletes appear in the Top Ten World All-Time Lists in athletics from 100 to 800 metres, men and women, and in all the field-events, and they all passed frequent drug tests!

So, what exactly does vitamin C do? Well, contrary to what is frequently written, some vitamin C IS stored in small amounts in the body, a storehouse has been located in the adrenal medulla (which secretes noradrenaline and adrenaline, required for all physical activity.) and in the eyes. It is water soluble, and easily destroyed by heat and exposure to light. It has a number of important roles, some of which are of major concern to the serious sportsperson. They are:

- Maintenance of healthy connective tissue and bones. It has an affinity for the cartilage of the knee. A chronic knee injury sufferer reported to an athletics magazine that he had received all the orthodox medical treatments for his knee trouble over the course of two years
without avail. He visited a naturopath (one who treats most conditions by diet manipulation) who advised him to take 10000 mg of vitamin daily! (Equivalent to consuming 142 oranges!) for a week. He was cured. The taking of such an enormous amount was described by the magazine's medical officer in reply, as "lunacy." However, the athlete was cured, and the curative powers of vitamin C have been greatly under estimated. In this particular case it would have been better if the massive dose had been intravenously injected, and in any case it would have been necessary for such an amount to be taken orally at the rate of 1000 mg per hour and stopped as soon as "the trots" became apparent.
- Vitamin C is required for the normal metabolism of cholesterol and the production of cortisol by the adrenal gland. Professor Linus Pauling claimed that an intake of 3000 mg in one dose dislodged cholesterol from partially blocked arterial walls. Linus Pauling was awarded the 1954 Nobel prize for chemistry and the 1962 Nobel prize for peace.
- It is biochemically active in the production of collagen (found both in skin and bones). Without this "cement" between the injured tissue, not only will the injury take longer to mend, but when seemingly repaired the injury site will rupture again. All sports injuries should be internally treated with 1000 mg of vitamin C daily for the first week, with a reduction of 250 mg per day for subsequent weeks to a level of 500 mg per day. Gradjean reported in 1954 that pigs (which have a similar tissue to man) which had induced muscle tissue damage from pincers, under an anaesthetic, healed three times faster on a high vitamin C diet, compared to pigs on a normal diet.
- It is active in the metabolism of various brain chemicals and hormones as mentioned, which has powerful effects upon pulse rate and blood pressure.
- It is a powerful anti-oxidant and detoxifies the harmful effects of heavy metal poisoning and alcohol.
- Vitamin $C$ encourages the formation of lymphocytes (white blood cells) which fight infections. The author has had spectacular results with athletes who have had severe colds and who were given 1000 mg of vitamin C every hour for 10 hours, resulting in a major reduction in the unpleasant aspects of the infection on the following day.
One of the criticisms of using


## Vitamin C

by Frank Horwill
megadoses of the vitamin is that the majority of it is passed out in the urine, commonly summed up as "an expensive way to pass urine." However it is the writer's view that the body quickly detects when it is had enough of the vitamin when urgent visits to the WC are made! But in the cases of the aforementioned athletes with severe colds, this did not occur because the vitamin was being extensively burned up in its fight against the infection.

The Colgan Institute of Sports medicine in California, has also reported that various individuals have a vitamin C idiosyncrasy. This was discovered when they routinely measured excretion of vitamin $C$ and its metabolites in athlete's urine. They found that some sports people could take 5000 mg of the vitamin and show only a little increase in excretion, in other words, THEIR BODIES NEEDED IT. On the other hand, some showed a large increase in excretion of vitamin C after taking only 1000 mg - their bodies didn't need it. They found the biochemical individuality in use of vitamin C is at least 10 fold.

There is an old coaching axiom in sport - KEEPING AN ATHLETE FREE OF INJURY AND SICKNESS IS THE MAIN CHALLENGE. For this, vitamin C should be used wisely and therapeutically. It is known that the vitamin boosts recovery after tough workouts. 24 young physical education students ( 16 males and 8 females) were randomly divided into three groups. For 21 days, one group ingested 400 mg of vitamin C per day, while a second group ingested 400 mg of vitamin E and a third group consumed a placebo. Taking extra C raised subject's blood levels of the vitamin by about 50 per cent; adding extra E increased blood -E concentrations by 18 per cent. Both C and E are classified as "antioxidants" which may protect muscle integrity during exercise. After the duration of supplementation, all subjects completed a soreness-producing bout of exercise which consisted of stepping up and down from a box for 60 minutes with a frequency of 24 steps per minute. In each case, the box height was adjusted to the level of the subject's kneecaps.

For a week after their pain-producing exertion, the students continued their supplementation while the Birmingham University, England, scientists evaluated their leg muscle strength and fatigue. Intake
of extra vitamin $C$ produced two beneficial effects:

- Post exercise recovery of muscle strength was much greater in the C group. Twenty four hours after the gruelling box stepping, C group members recovered 85 per cent of their original muscle strength, while the E and placebo group subjects regained only 75 per cent.
- Muscle fatigue was lower for C takers during the 24 hours after exercise. It was thought that vitamin C de-activates "free radicals"chemicals which can harm muscle membranes and internal structures after hard work outs. The vitamin may also stabilise an athlete's intrinsic stores of vitamin E , further protecting muscle fibres against stress.
The hoary question of natural versus synthetic vitamin $C$ is one that requires taking in a lot of often overlooked facts. Prokop claims to have proved that vitamin C in the NATURAL form (for example, in fruit juices) is clearly superior to synthetic ascorbic acid. Using standardised stresses, his tests showed a decrease in oxygen debit and lowering of pulse and blood pressure.

The reason for this increased effectiveness of natural vitamin $C$ in fruit juices was because of the presence of vitamin P which stabilised the vitamin C . Vitamin P-complex (rutin, citrin, hesperidin), is used in relatively large amounts by the body, and has a certain direct influence on performance because of its productive effect on vitamin C - as well as possible other water - soluble vitamins. It is often referred to as one of the bioflavonoids, and protects both vitamin C and adrenaline.

When assessing the vitamin $C$ content of vegetables it is wise to remember that if they are placed in cold water in a saucepan and then brought to boil, about two-thirds of the vitamin's strength will be destroyed. If placed in boiling water from the outset, and the water is later used for soup, about twothirds of the strength will be maintained. The contents of the following vegetables is in milligrams:

- Brussels sprouts 135 (1 cup)
- Cabbage 48 ( 1 cup),
- Potatoes 22 (1medium sized boiled)
- Lettuce 18 (4 inch diameter)
- Carrots/onions 9 (1 cup)
- Broccoli 162 (1 stalk)

The vitamin C content of other foods is:

- Blackcurrants 1 cup (270)
- Tomatoes - 3 inch diameter (42)
- Oranges - 3 inch diameter (60)
- Apples (3)
- Pears (7)
- Bananas (12)
- Grapefruit - 4 inch diameter (44)
- Grapefruit juice - 1 cup (92)
- Pineapple - cup diced (24).

It will be seen that a glass of one of the pure fruit juices before each meal and immediately after a work-out will account for around 500 mg of vitamin C daily, while vitamin C from other sources may well bring the total to 600 mg .

The Colgan Institute of Sports Nutrition state, "There are no natural vitamins". By that they mean many supplement makers use the word "natural" in their advertising and product labels. They assert that all vitamins on sale today and predominantly synthetic. That is, they are pure chemicals created out of a food base. Most vitamin C, for example, is made from corn. First, the corn is chemically concerted to sugar (d-glucose) and crystallised then it is chemically converted to pure, synthetic L-ascorbic acid. There is not an atom of the natural corn left.

Another ruse by manufacturers is because rose hips in their natural state contain huge amounts of vitamin C , it is put on the label. But look carefully. If it isn't a come-on, it will state "WITH rose hips" or "WITH acerola vitamin C". The top rose hip powder contains only a few milligrams of vitamin C per ounce. A 1000 mg rose hip vitamin $C$ tablet has to be 99 per cent synthetic ascorbic acid, because a 1000 mg rose hip vitamin $C$ tablet has to be 99 per cent synthetic ascorbic acid, because a 1000 mg pill made of pure rose hip vitamin $C$ would be the size of a cricket ball. The same argument applies to the use of acerola powder.

The Colgan Institute of Sports Nutrition are pro-supplements of the right kind because of the "tampering" involved in its preparation from growth on non organic fields, sprayed with numerous chemicals and devoid of much of its true nutritional value.

It took 400 years to realise that scurvy in sailors was a vitamin C deficiency cause by lack of fruit on long sea voyages. We are entering the age of optimal nutrition in sport and those who advocated twenty-five years ago that a sportsperson just needed to eat the RDA for all foods for success have been shown to be lacking in foresight.

## 1997 Photospread

## All photos by Mark Shearman



Watford 800, 25th June: Jason Thompson (blue vest), Matt Yates (49), Grant Cuddy (51), Kevin McKay and Robin Hooton (54).


4x1 Mile World Veterans Record Holders Pete Molloy, Keith McLellan, Dave Bedwell and Dave Wilcock.


Tom Mayo striding out.


Anthony Whiteman warming down!


Wythenshawe 1500, 14th May: Joanne Pavey (176), Amanda Parkinson (205) and Caroline Pimblett (204).


4x1 Mile World Junior Record Holders Caroline Walsh, Camilla Waite Rachael Ogden and Jody Swallow.

Watford 1500, 25th June: Gareth Turnbull (123), Jason Dullforce (118), Matt Barnes (107), Steve Green (face) and Phillip TulbaMorrison (113).

## 1997 Photospread

## All photos by Mark Shearman



The whole of Steve Green.


4x1500m European Junior Record Holders Lee Garrett, Richard Vint, Ross Fittall and Neil Speaight.


Wythenshawe 1500, 14th May: Rob Hough (76), Samir Benfares (73) and Andrew Pearson.


Claire Raven deep in concentration.


Dianne Henaghan, fastest performer in a BMC 800 in 1997.


Wythenshawe 800, 14th May: Phylis Smith leads from Rachel Jordan and Michelle Faherty.


Whoever said the BMC entry standards are easy? Mark Richardson and Jon Ridgeon just after achieving them.

# On Your Bike 

## by Ken Maclaren

## Some tips on cycling for runners

## Why bike if you are a runner?

You don't have too but cycling can help runners of all standards especially if you have certain injury problems caused by the pounding. In a nutshell it is a great way of getting a good training effect without putting the same stresses on your legs.

## What to ride?

Mountain bikes are all the rage nowadays however I feel that you will get most benefit as a runner by cycling with a road bike. Compared to running cycling is expensive, (but then running is very cheap compared to most sports). In cycling you can spend as much as you like on equipment but you don't have to buy the most expensive equipment in order to get what you need, but rarely is the cheapest equipment worth getting.

Cycling as a sport is full of people with flashy equipment and thin training diaries. A bottom of the range road bike will set you back about $£ 350-£ 500$. You can get bikes for less but at this price you can buy a quality machine which if well looked after will last you for years. Many competitive cyclists will train on a bike of this standard. You can pick up good deals from the sales or at the end of range but remember stock is likely to be more limited.

## Where to go?

There are plenty of good cycling or triathlon shops around. Make sure that you explain to the staff your reasons for buying a bike i.e. to complement your running training rather than become a good cyclist or triathlete. Most of the cycling magazines have directories of specialist shops.

You can get good second hand bikes although as with cars you have to be very careful and if you do take someone who knows about bikes to check that its all ok. Also the trade in 'hot' bikes is thriving so take the appropriate precautions.

As you are going to spending a lot of money don't bother with anyone who says 'we've got the thing for you', as soon as you walk through the door. Make sure they take the time to ask what you want it for and measure you up properly for correct fitting.

The gears which these bikes are set up
with may not be the best suited to your needs. You will want to be riding in lower gears than most cyclists (for a faster cadence) as you are aiming to achieve aerobic fitness rather than powerful cyclists legs. The gears on a road bike are two front chain rings (the 'small' ring and the 'big' ring) and between six and nine sprockets at the rear. My suggestion is that you ask for the minimum gearing to be ' 39,24 '. Thirty nine being the number of teeth on the small chain ring at the front and twenty four being the number of teeth on the largest sprocket at the back. Don't worry if you don't know what this means, a bike shop will. A good shop will change the bike to include those sprockets if necessary.

## Other Cycling Equipment

## Helmet

Ninety per cent of all cycling deaths are caused by head injuries. Helmets are now compulsory for road racing, but despite the irrefutable evidence in their favour many cyclists still don't wear them whilst out training. There are some excellent lightweight helmets on the market these days and to be honest you hardly know that you have them on. Ensure you get one that is comfortable and fits snugly and isn't able to slip off your head when the strap is done up. Make sure that you get one that conforms to all the safety standards.

## Cycling Shorts

These are not just long lycra shorts but have a pad inside which is reverse stitched. You may have had athletes foot, but bikers bum is much worse. It is worth getting more than one pair as ideally they should be washed after each use.

## Track - Mitts

These are the fingerless gloves that cyclists wear. The padding in the palm protects the nerves in the hand from the vibrations through the handlebars. Should you be unfortunate enough to fall off the first thing that you put down is your hands.

## Bike Computer

You will also want to get a bike computer. A bike computer will help you get the most from your cross training on the bike. Ask for a bike computer that has a cadence meter. Unless you are technically minded ask the
shop to fit it for you.

## Cycling Shoes and Pedals

Again cycling shoes aren't essential but they can help you to develop a smooth pedalling style and make spinning easier. A step up from toe clips of ordinary pedals that most entry level bikes come with are the 'click in' pedal systems. These involve a sprung system on the pedal which attaches directly to the bottom of the shoe. Originally based on ski boot designs you push your foot down to lock in and twist it to get out. They are definitely more comfortable than toe clips and straps and are much easier to use in conditions where you have to stop and start and keep putting your foot down.

## Dressing for Cycling

You can ride in your ordinary running clothing but cycling clothing is much better as it is designed for the greater speeds, higher wind chill, and body position that cycling involves.

You should be aware of the wind chill effects even on warm days. Whilst you can get very hot riding up hill, riding down whilst doing nothing can leave you very cold. This is where cycling tops with their improved wind protection come into their own. Even on the hottest day I would suggest two tops. The thin thermal tops are ideal as a bottom layer year round. Unlike cotton they don't absorb any sweat and therefore don't feel cold against your skin when you stop sweating.

Just because it is the sort of weather when you would run in shorts, don't assume that you'll be warm enough for shorts on the bike. In the summer take a waterproof jacket with you. In the winter you will be wearing so many clothes anyway that you stay dry because of the number of layers that you have on. However, in the summer, you can get very cold if you get caught out in the rain with only a couple of layers on.

You can ride in through most of the British winter but it is not always fun and you will need lots and lots of layers of clothing. It is the extremities of your body like your hands, feet, and ears that tend to freeze in cold weather so extra gloves, socks and a headband over the ears will all help. You can get 'over shoes' which are insulating covers that fit over your cycling shoes.

There are no prizes for spending ten minutes trying to unlock your front door

## On Your Bike

## by Ken Maclaren

with frost-bitten hands. With cycling always overdress if you are unsure.

## Turbo Trainers

In addition to buying a bike you will be able to use cycling more regularly and effectively if you also get a turbo trainer (sometimes called a wind trainer).

A turbo trainer is a device on which you place a road bike and can pedal without going anywhere. On most trainers you clamp the turbo trainer to the back wheel, on some you also need to take the front wheel out and attach the bike to it. When you pedal the rear wheel drives a flywheel and fan. Using a bike on a turbo trainer enables you to control precisely what work-out you do and allows you to train virtually anywhere at anytime. Cycling through the British winter isn't much fun and a turbo trainer can give you the benefits of cycling without the drawbacks such as the weather, darkness, traffic etc. Where as it can take you a while to get ready to go out for a ride on the road if you have a turbo trainer set up in your spare room or garage it is very easy and convenient to jump on it for a quick spin.

An option if you feel that you are going to use turbo training more than cycling on the road would be to get an old bike that you leave permanently set up on your turbo trainer.

## How to train on a bike

I feel that if you are going to be cycling to help your running (rather than to make yourself a better cyclist or tri / duathlete) then your approach to cycling needs to take that into consideration and be slightly different. To use cycling most effectively to help you running you want to be able to replicate running as much as possible.

Distance running involves moving your legs at a fast rate but without too much power. Cycling involves considerably more power whilst the legs are moved at a slower rate, which is why cyclists have those huge thighs. As you are using cycling to help your running rather than to make you a better cyclist you need to bear this in mind. What you want to aim for is a fast cadence. It may take you a few weeks for your legs to get used to this but your aim should be to do most of your cycling at a cadence of around 100-120 r.p.m.

The greatest benefit of cross training for runners comes in replacing some of those
steady easier runs with non weight bearing work. If instead of running twice a day you decide to replace some of your morning runs with a session on your turbo trainer. Try to mimic the physiological effects that you would have got from the run as closely as possible. For example if the morning run consisted of five miles in thirty five minutes with a heart rate of 130-140 b.p.m. then try thirty five minutes on the turbo trainer with a cadence of 120 r.p.m. in a gear that will give you a heart rate of 130-140 b.p.m.

Many runners go out for an easy run in the evening after a race or after a long Sunday run to clear the legs out. A twenty minute easy spin on the turbo trainer will have the same benefits but without straining the legs. The same applies to warming down after a hard session.

If you want to replace an running quality session with one on the turbo trainer the principals are the same (but if you are not running due to an injury check with your therapist before going ahead - whilst this type of work can help many problems such as stress fractures, others may be compounded).

If your run session was going to be 5 x 5 mins with a 2 min easy jog between then do $5 \times 5$ mins with 2 mins between on the turbo. If you prefer to do intervals of set distances (which I do because no matter how hard you go with time reps you never get to the end any quicker!) then experience will show you how far on the turbo trainer equates to the same time as you would have taken for your reps. There is no clear figure on this because the resistance of trainers will vary and some are adjustable. For quality work increase the cadence at which you are working as well as the gearing.

## Sessions on the road

The key is to spin fast in low gears. This is where the cadence meter on your bike computer is useful. Because of the road surface, weather conditions and undulations you will find it hard to pedal at 120 r.p.m. on the road but don't worry too much. You will get used to conditions which make it harder to spin - headwinds, rough road surfaces and ascents but always change down if you feel yourself grinding away with aching legs.

In general your time commitment on the bike will have to be more; especially if you live in town and need to ride a few miles before you reach the open roads. As a rough
guide replace a thirty minute run with an hour's ride. Also it will tend to take you much longer to get ready for a road ride compared to getting on the turbo trainer so it will hardly seem worth it for thirty minutes or so. Because of the varying conditions you will find it harder to keep a consistent effort whilst riding on the road compared to riding on the turbo trainer. Again don't worry too much.

It is very easy when cycling to go out for hours and hours but compared with running you will not be working at such an intensive level. This sort of riding is OK as an aid to recovery, or something to do on a Sunday afternoon, but if you ride all the time like this, you will just tire yourself out rather than getting the required training effect.

As with turbo training you can do more intensive training on a road bike if you need to. The principles are exactly the same and from a cardiovascular point of view the benefits are very similar. The most important thing to remember is that you are doing the work to aid your running training so stay in those low gears.

As with any new type of training it will take your body a few sessions to adapt to the different demands being put upon it (most noticeably saddle soreness). If you have a good saddle and shorts these problems will be minimal and it won't take you too long to adapt. For women if the problems still persist try tipping the front of the saddle down a fraction. Normally its just a matter of the soft tissue adapting - a bit like when you start wearing contact lenses. Initially just do a few ten minute rides until you have no problems.

In conclusion I am convinced that there are considerable benefits that runners can get by introducing some cycling into their programs, particularly for those athletes who struggle with injuries. My own relatively modest pb's for 5 and 10 K came several years after I had stopped being a runner and went into triathlons. Finally and perhaps most importantly cycling (especially in the summer) is a lot of fun.

Ken Maclaren is a former county standard runner and international triathlete. He has written a number of training manuals including The Heart Rate Monitor Training Guide for Runners. The Cross Training Guide for Runners will be published in 1998.

## BMC Rankings 1997

Performances set in BMC races - compiled by Matthew Fraser Moat

| Men's $\mathbf{6 0 0 m}$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | ---: | ---: |
| $1: 19.0$ | Clive Gilby |  |  |  |  |
| $1: 19.0$ | Rupert Waters | 2 | Sutcliffe Park | 5 | Jul |
| $1: 19.3$ | * Babacar Niang SEN | 1 | Battersea Park | 5 | Jul |
| $1: 20.1$ | Jason Thompson | 2 | Battersea Park | 19 | Apr |
| $1: 20.1$ | Darrell Maynard | 3 | Battersea Park | 19 | Apr |
| $1: 20.3$ | Dominic Hall | 4 | Battersea Park | 19 | Apr |
| $1: 21.2$ | Jason Dupuy | 5 | Battersea Park | 19 | Apr |
| $1: 22.4$ | Andrew Knight | 6 | Battersea Park | 19 | Apr |
| $1: 22.8$ | Martin Airey | 7 | Battersea Park | 19 | Apr |
| $1: 23.0$ | * G Eisner | 8 | Battersea Park | 19 | Apr |
| $1: 23.0$ | Mark Kuklinski U20 | 9 | Battersea Park | 19 | Apr |
| $1: 23.9$ | Ryan Walker | 10 | Battersea Park | 19 | Apr |
|  | 7 'gold' performances to 1:22.0 by 7 athletes |  |  |  |  |
|  | 12 'membership' performances to $1: 25.0$ by 12 athletes |  |  |  |  |


| Men's 800m |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1:45.2 | * Patrick Ndururi KEN <br> (BMC Record) | 1r1 | Battersea Park | 15 | Jun |
| 1:46.2 | * Robert Kibet KEN | 2r1 | Battersea Park | 15 | Jun |
| 1:46.4 | * Paul Walker | 1 r 1 | Stretford | 22 | Jul |
| 1:46.67 | * Bernard Kisilu KEN | 1 r 1 | Bristol | 30 | Aug |
|  | 1:46.8 | 3 r 1 | Battersea Park | 15 | Jun |
| 1:46.8 | Andrew Hart <br> (BMC Members' Record) | 4 r 1 | Battersea Park | (BMC Members' Record) | Jun |
|  | 1:47.4 | 1r1 | Tooting | 20 | Aug |
|  | 1:48.5 | 1 r 1 | Wythenshawe | 14 | May |
| 1:46.87 | Kevin McKay | 2 r 1 | Bristol | 30 | Aug |
|  | 1:47.2 | 5 r 1 | Battersea Park | 15 | Jun |
|  | 1:48.2 | 1 r 1 | Watford | 25 | Jun |
|  | 1:48.7 | 2 r 1 | Wythenshawe | 14 | May |
|  | 1:49.2 | 1 r 1 | Loughborough | 3 | Jun |
| 1:47.2 | Grant Cuddy | 2 r 1 | Stretford | 22 | Jul |
|  | 1:48.2 | 2 r 1 | Swindon | 7 | Aug |
|  | 1:48.7 | 8 r 1 | Battersea Park | 15 | Jun |
|  | 1:49.8 | 4 r 1 | Wythenshawe | 14 | May |
|  | 1:51.6 | 9 r 1 | Watford | 25 | Jun |
| 1:47.7 | Anthony Whiteman | 6 r 1 | Battersea Park | 15 | Jun |
| 1:47.9 | Justin Swift-Smith | 1 r 1 | Swindon | 7 | Aug |
|  | 1:48.4 | 7r1 | Battersea Park | 15 | Jun |
|  | 1:50.8 | 1 r 1 | Watford | 28 | May |
| 1:48.3 | Tom Lerwill | 3 r 1 | Swindon | 7 | Aug |
|  | 1:49.1 | 9 r 1 | Battersea Park | 15 | Jun |
|  | 1:50.3 | 4 r 1 | Loughborough | 3 | Jun |
|  | (10) |  |  |  |  |
| 1:48.9 | Andrew Knight | 4 r 1 | Swindon | 7 | Aug |
|  | 1:49.03 | 3 r 1 | Bristol | 30 | Aug |
|  | 1:49.2 | 2 r 1 | Tooting | 20 | Aug |
|  | 1:49.9 | 2 r 1 | Finsbury Park | 5 | Aug |
|  | 1:50.0 | 6 r 1 | Watford | 25 | Jun |
|  | 1:51.8 | 4 r 1 | Watford | 16 | Ju |
| 1:49.0 | Matthew Yates | 2 r 1 | Watford | 25 | Jun |
|  | 1:49.5 | 1 r 1 | Watford | 27 | Aug |
|  | 1:49.6 | 1 | Finsbury Park | 1 | Ju |
| 1:49.3 | * Abraham Chirchir KEN U20 |  |  |  |  |
|  |  | 10r1 | Battersea Park | 15 | Jun |
| 1:49.3 | Bradley Donkin | 3 r 1 | Stretford | 22 | Ju |
|  | 1:50.1 | 6 r 1 | Wythenshawe | 14 | May |
| 1:49.4 | Noel Edwards | 5 r 1 | Swindon | 7 | Aug |
|  | 1:49.9 | 1 r 2 | Watford | 25 | Jun |
|  | 1:51.0 | 1 r 1 | Stretford | 20 | May |
| 1:49.5 | Eddie King | 3 r 1 | Wythenshawe | 14 | May |
|  | 1:49.5 | 3 r 1 | Watford | 25 | Jun |
| 1:49.56 | Matthew Kloiber | 4 r 1 | Bristol | 30 | Aug |
|  | 1:49.8 | 3 r 1 | Tooting | 20 | Aug |
|  | 1:50.0 | 1r2 | Swindon | 7 | Aug |


|  | 1:50.3 | 3 r 2 | Battersea Park | 15 Jun |
| :---: | :---: | :---: | :---: | :---: |
|  | 1:51.0 | 2 r 2 | Loughborough | 3 Jun |
|  | 1:51.0 | 8 r 1 | Watford | 25 Jun |
| 1:49.7 | Andrew Young | 2 r 1 | Loughborough | 3 Jun |
|  | 1:49.82 | 5 r 1 | Bristol | 30 Aug |
|  | 1:49.9 | 11r1 | Battersea Park | 15 Jun |
|  | 1:49.9 | 5 r 1 | Watford | 25 Jun |
| 1:49.7 | Richard Girvan | 6 r 1 | Swindon | 7 Aug |
|  | 1:49.95 | 8 r 1 | Bristol | 30 Aug |
|  | 1:51.5 | 1 | Londonderry | 11 Jun |
|  | 1:51.7 | 2 r 1 | Stretford | 20 May |
| 1:49.8 | Neil Kirk U20 (20) | 1r2 | Battersea Park | 15 Jun |
| 1:49.8 | Ben Sutton | 4 r 1 | Watford | 25 Jun |
|  | 1:50.0 | 3 r 1 | Loughborough | 3 Jun |
|  | 1:50.7 | 1 r 2 | Stretford | 17 Jun |
|  | 1:51.0 | 1 r 2 | Wythenshawe | 14 May |
|  | 1:52.1 | 1 | Stretford | 29 Apr |
| 1:49.8 | Dominic Hall | 1 l 1 | Finsbury Park | 5 Aug |
|  | 1:50.5 | 4 r 2 | Battersea Park | 15 Jun |
|  | 1:51.9 | 1 | Finsbury Park | 3 Jun |
| 1:49.88 | Phillip Tulba-Morrison | 6 r 1 | Bristol | 30 Aug |
|  | 1:49.9 | 2 r 1 | Watford | 27 Aug |
|  | 1:50.6 | 3 r 3 | Swindon | 7 Aug |
| 1:49.9 | Michael Openshaw | 1 r 1 | Jarrow | 23 Jul |
| 1:49.94 | Richard Ashe | 7 r 1 | Bristol | 30 Aug |
|  | 1:51.5 | 6 r 2 | Battersea Park | 15 Jun |
| 1:50.0 | Andrew Graffin | 1 | Tooting | 6 Aug |
|  | 1:51.6 | 2r3 | Watford | 25 Jun |
| 1:50.1 | * Jason Lobo | 5 r 1 | Wythenshawe | 14 May |
|  | 1:50.8 | 5 r 1 | Loughborough | 3 Jun |
| 1:50.1 | Luke Veness | 2r2 | Watford | 25 Jun |
|  | 1:51.0 | 3 r 2 | Swindon | 7 Aug |
| 1:50.1 | Jason Dupuy | 1 r 3 | Swindon | 7 Aug |
|  | 1:50.6 | 4 r 1 | Finsbury Park | 5 Aug |
|  | 1:50.79 | 9 r 1 | Bristol | 30 Aug |
|  | 1:51.2 | 2 r 1 | Watford | 16 Jul |
|  | 1:54.0 | 1 r 5 | Wythenshawe | 14 May |
| 1:50.2 | Clive Gilby | 7 r 1 | Wythenshawe | 14 May |
|  | 1:50.5 | 12r1 | Battersea Park | 15 Jun |
|  | 1:51.1 | 6 r 1 | Loughborough | 3 Jun |
|  | 1:52.1 | 2 | Battersea Park | 18 Jan |
|  | (30) |  |  |  |
| 1:50.3 | Jason Thompson | 2r2 | Battersea Park | 15 Jun |
|  | 1:50.5 | 4 r 1 | Tooting | 20 Aug |
|  | 1:50.6 | 3 r 1 | Finsbury Park | 5 Aug |
|  | 1:50.7 | 7 r 1 | Watford | 25 Jun |
|  | 1:50.9 | 1r2 | Loughborough | 3 Jun |
|  | 1:50.9 | 1 r 1 | Watford | 16 Jul |
|  | 1:51.2 | 5 r 3 | Swindon | 7 Aug |
|  | 1:51.8 | 1 | Battersea Park | 18 Jan |
| 1:50.3 | Vince Wilson | 2 r 1 | Jarrow | 23 Jul |
|  | 1:53.0 | 8 r 2 | Battersea Park | 15 Jun |
| 1:50.36 | Chris Moss U20 | 1 r 2 | Bristol | 30 Aug |
| 1:50.4 | John Gercs | 3 r 2 | Watford | 25 Jun |
| 1:50.4 | Tony Mate | 3 r 1 | Jarrow | 23 Jul |
|  | 1:51.8 | 8 r 1 | Loughborough | 3 Jun |
| 1:50.4 | Robert Scanlon | 2 r 3 | Swindon | 7 Aug |
|  | 1:51.5 | 4 r 2 | Loughborough | 3 Jun |
| 1:50.5 | Simon Lees U20 | 1 r 1 | Stretford | 17 Jun |
|  | 1:51.2 | 2 r 1 | Watford | 28 May |
|  | 1:52.5 | 4 r 3 | Wythenshawe | 14 May |
| 1:50.5 | Matthew Morris | 2 r 2 | Swindon | 7 Aug |
|  | 1:51.3 | 1 2 | Stretford | 22 Jul |
|  | 1:53.3 | 6 r 1 | Stretford | 26 Aug |
|  | 1:53.30 | 4 r 2 | Bristol | 30 Aug |
|  | 1:53.8 | 5 r 3 | Stretford | 17 Jun |

## BMC Rankings 1997

Performances set in BMC races - compiled by Matthew Fraser Moat

| 1:50.6 | Terence West | 8 r 1 | Wythenshawe |  | May |  | 1:55.4 | 1 r 3 | Battersea Park | 15 | Jun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1:51.4 | 5 r 1 | Jarrow | 23 | Jul | 1:51.8 | James McIlroy | 4 r 3 | Watford | 25 | Jun |
|  | 1:52.2 | 9 rl | Loughborough | 3 | Jun | 1:51.8 | Scott Hughes U20 | 2 r 2 | Stretford | 22 | Jul |
| 1:50.6 | Steve Rees-Jones (40) | 4 r 2 | Watford | 25 | Jun |  | $\begin{aligned} & 1: 54.6 \\ & (70) \end{aligned}$ | 4 r 4 | Wythenshawe | 14 | May |
| 1:50.6 | Ryan Davoile U20 | 1r3 | Watford | 25 | Jun | 1:51.9 | Michael Osborne | 6 r 1 | Stretford | 17 | Jun |
|  | 1:51.8 | 4 r 2 | Wythenshawe | 14 | May |  | 1:52.2 | 2 r 3 | Wythenshawe |  | May |
| 1:50.6 | Alasdair Donaldson | 7 r 1 | Swindon | 7 | Aug |  | 1:54.2 | 3 r 3 | Loughborough | 3 | Jun |
|  | 1:51.4 | 3 r 2 | Wythenshawe | 14 | May | 1:51.9 | Paul Bennett | 7 r 1 | Stretford | 17 | Jun |
|  | 1:51.7 | 7 r 1 | Loughborough | 3 | Jun |  | 1:53.2 | 9 r 1 | Watford | 16 | Jul |
| 1:50.7 | Martin Forder | 5 r 2 | Battersea Park | 15 | Jun |  | 1:55.0 | 1 r 2 | Stretford | 20 | May |
|  | 1:50.7 | 5 r 2 | Watford | 25 | Jun | 1:52.0 | Kheredine Idessane | 5 r 2 | Loughborough | 3 | Jun |
| 1:50.7 | Christopher Elliot | 2r1 | Stretford | 17 | Jun |  | 1:52.8 | 6 r 2 | Wythenshawe | 14 | May |
|  | 1:50.7 | 4 r 1 | Jarrow | 23 | Jul | 1:52.0 | Steve O'Gara | 6 r 1 | Jarrow | 23 | Jul |
| 1:50.7 | Joe Mills | 5 r 1 | Finsbury Park | 5 | Aug | 1:52.0 | * James McCook U20 | 3 r 1 | Stretford | 26 | Aug |
| 1:50.7 | Alex Rosen | 6 r 1 | Finsbury Park | 5 | Aug | 1:52.0 | Gavin MacPherson | 4 r 1 | Stretford | 26 | Aug |
| 1:50.7 | Adam Zawadzki | 4 r 3 | Swindon | 7 | Aug |  | 1:52.4 | 1 r 3 | Stretford | 17 | Jun |
| 1:50.8 | Darrell Maynard | 8 r 1 | Swindon | 7 | Aug |  | 1:52.5 | 2 | Stretford | 29 | Apr |
|  | 1:54.1 | 1 r 1 | Millfield | 5 | May |  | 1:53.1 | 5 r 1 | Stretford | 20 | May |
| 1:50.8 | Bruno Witchalls | 5 r 1 | Tooting | 20 | Aug | 1:52.0 | * Paul Douglas U20 | 5 r 1 | Stretford | 26 | Aug |
|  | 1:51.2 | 3 r 1 | Watford | 27 | Aug |  | 1:52.3 | 4 r 2 | Stretford | 22 | Jul |
| 1:51.0 | Garth Watson | 3 r 1 | Stretford | 17 | Jun | 1:52.1 | Steven Baldock | 7 r 3 | Swindon | 7 | Aug |
|  | 1:51.6 | 2r1 | Stretford | 26 | Aug |  | 1:52.3 | 5 r 3 | Watford | 25 | Jun |
|  | 1:52.7 | 1r3 | Loughborough | 3 | Jun |  | 1:52.5 | 6 r 1 | Watford | 16 | Jul |
|  | (50) |  |  |  |  | 1:52.2 | Brett Mate | 3 r 3 | Wythenshawe | 14 | May |
| 1:51.0 | Sam Boden U20 | 4 r 1 | Stretford | 17 | Jun |  | 1:53.4 | 6 r 2 | Loughborough | 3 | Jun |
| 1:51.0 | * Tatum Johnson | 7r1 | Finsbury Park | 5 | Aug | 1:52.2 | Karl Wright | 7 r 1 | Stretford | 22 | Jul |
|  | 1:52.3 | 2r2 | Watford | 16 | Jul |  | 1:53.9 | 3 r 4 | Wythenshawe | 14 | May |
|  | 1:52.8 | 6 r 1 | Watford | 27 | Aug |  | 1:54.2 | 1 r 4 | Loughborough | 3 | Jun |
|  | 1:53.1 | 1 r 2 | Tooting | 20 | Aug |  | (80) |  |  |  |  |
|  | 1:53.5 | 3 | Finsbury Park | 1 | Jul | 1:52.2 | Neil Speaight U20 | 4 r 1 | Watford | 27 | Aug |
| 1:51.1 | Stephen Green | 2r2 | Stretford | 17 | Jun |  | 1:52.6 | 9 r 1 | Stretford | 17 | Jun |
| 1:51.1 | David Locker | 6 r 2 | Watford | 25 | Jun | 1:52.3 | Tom Cordy | 7 r 2 | Swindon | 7 | Aug |
|  | 1:52.3 | 8 r 1 | Stretford | 17 | Jun |  | 1:52.9 | 3 | Stretford | 29 | Apr |
| 1:51.1 | Brendan Smith | 4 r 1 | Stretford | 22 | Jul | 1:52.3 | Nick Davy | 3 r 2 | Watford | 16 | Jul |
| 1:51.1 | Stuart Margiotta | 4 r 2 | Swindon | 7 | Aug |  | 1:53.1 | 3 r 1 | Watford | 28 | May |
| 1:51.1 | Martin Airey | 5 r 2 | Swindon | 7 | Aug | 1:52.3 | Mark Barrow | 3 r 2 | Stretford | 22 | Jul |
|  | 1:51.5 | 3 r 2 | Loughborough | 3 | Jun |  | 1:55.5 | 8 r 1 | Stretford | 20 | May |
|  | 1:51.5 | 6 r 1 | Tooting | 20 | Aug | 1:52.4 | * Matthew Hibberd | 5 r 2 | Wythenshawe | 14 | May |
|  | 1:52.9 | 8 r 1 | Watford | 16 | Jul |  | 1:52.9 | 7 r 1 | Jarrow | 23 | Jul |
|  | 1:54.7 | 8 r 1 | Finsbury Park | 5 | Aug | 1:52.4 | Ian Mitchell | 3 r 1 | Stretford | 20 | May |
| 1:51.3 | David Bullock | 5 r 1 | Stretford | 22 | Jul |  | 1:55.7 | 10r1 | Stretford | 17 | Jun |
|  | 1:51.5 | 8 r 2 | Watford | 25 | Jun | 1:52.42 | David Stanley U20 | 3 r 2 | Bristol | 30 | Aug |
|  | 1:52.0 | 5 r 1 | Watford | 16 | Jul | 1:52.5 | Paul Morby U20 | 2 r 3 | Stretford | 17 | Jun |
|  | 1:54.3 | 7 r 3 | Wythenshawe |  | May | 1:52.5 | Adam Mole | 8 r 3 | Swindon | 7 | Aug |
| 1:51.3 | Andrew Walling | 1 r 1 | Stretford | 26 | Aug |  | 1:52.9 | 7 r 1 | Watford | 16 | Jul |
|  | 1:51.4 | 7 r 2 | Watford | 25 | Jun |  | 1:54.0 | 4 | Finsbury Park | 1 | Jul |
|  | 1:51.6 | 5 r 1 | Stretford | 17 | Jun | 1:52.6 | Dean Clark | 5 r 3 | Wythenshawe | 14 | May |
|  | 1:52.0 | 1 r 3 | Wythenshawe |  | May |  | (90) |  |  |  |  |
|  | 1:52.1 | 6 r 2 | Swindon | 7 | Aug | 1:52.6 | Alex Rosen | 2 | Finsbury Park | 3 | Jun |
|  | 1:52.1 | 7 r 1 | Tooting | 20 | Aug | 1:52.6 | Russell Cartwright | 6 r 3 | Watford | 25 | Jun |
|  | 1:52.4 | 4 r 1 | Stretford | 20 | May | 1:52.6 | Andrew Prophett | 5 r 2 | Stretford | 22 | Jul |
| 1:51.4 | Glen Stewart | 2r2 | Wythenshawe | 14 | May |  | 1:55.6 Steve Turvill | 5 | Stretford | 29 | Apr |
| 1:51.4 | (60) ${ }_{\text {Mark Wiscombe }}$ | 1 r 2 | Watford | 16 | Jul | $1: 52.7$ $1: 52.8$ | Steve Turvill Stephen Body | 5 r 1 4 r 2 | Watford | 16 | Aug |
| 1:51.4 | Grant Purves | 6 r 1 | Stretford | 22 | Jul | 1:52.9 | Chris Beswick | 6 r 2 | Stretford | 22 | Jul |
| 1:51.48 | Robin Hooton | 2r2 | Bristol | 30 | Aug |  | 1:54.9 | 8 r 1 | Stretford | 26 | Aug |
| 1:51.6 | Nick Bentham | 9 r 2 | Watford | 25 | Jun |  | 1:56.0 | 11r3 | Stretford | 17 | Jun |
|  | 1:51.6 | 3 r 1 | Watford | 16 | Jul | 1:53.0 | Bradford Glenton | 7 r 1 | Watford | 27 | Aug |
|  | 1:51.9 | 2 | Finsbury Park | 1 | Jul | 1:53.1 | David Thornton | 1 r 4 | Wythenshawe |  | May |
|  | 1:52.7 | 7r2 | Battersea Park | 15 | Jun | 1:53.1 | Matt Skelton | 1r2 | Watford | 28 | May |
|  | 1:53.3 | 4 r 1 | Watford | 28 | May | 1:53.1 | Allen Graffin | 7 r 3 | Watford | 25 | Jun |
| 1:51.6 | Aaron Rea | 6 r 3 | Swindon | 7 | Aug |  | 1:53.5 | 2 | Tooting | 6 | Aug |
| 1:51.7 | Ben Reese | 3 r 2 | Stretford | 17 | Jun |  | (100) |  |  |  |  |
| 1:51.7 | * Kris Bowditch | 4 r 2 | Stretford | 17 | Jun | 1:53.1 | Larry Mangleshot | 5 r 2 | Watford | 16 | Jul |
| 1:51.8 | Steven Crowe | 3 r 3 | Watford | 25 | Jun |  | 1:53.2 | 3 | Finsbury Park | 3 | Jun |
|  | 1:54.6 | 6 | Finsbury Park | 1 | Jul |  | 1:54.5 | 1 r 2 | Finsbury Park | 5 | Aug |

## BMC Rankings 1997

Performances set in BMC races - compiled by Matthew Fraser Moat

| 1:53.1 | Ken Harker |
| :---: | :---: |
|  | 1:53.8 |
|  | 1:55.5 |
| 1:53.3 | Stuart Overthrow |
| 1:53.3 | Stuart Poore |
| 1:53.3 | John Moore |
|  | 1:53.3 |
|  | 1:54.1 |
|  | 1:55.7 |
| 1:53.3 | * Kevin Corr U20 |
| 1:53.36 | Huw Evans |
|  | 1:54.1 |
| 1:53.4 | Steve Mosley |
|  | 1:54.4 |
| 1:53.4 | Terry Feasey |
|  | 1:53.8 |
|  | 1:53.9 |
|  | 1:54.14 |
| 1:53.6 | Tony Thompson (110) |
| 1:53.6 | Richard Cressey |
|  | 1:54.4 |
| 1:53.6 | Christopher Livesey U20 |
| 1:53.7 | * Simon Curwen U20 |
| 1:53.7 | Aaron Rea |
|  | 1:55.1 |
| 1:53.7 | John Rigg |
| 1:53.7 | Jamie McLoughlin |
|  | 1:54.3 |
|  | 1:54.4 |
|  | 1:55.2 |
| 1:53.7 | Patrick Chance |
| 1:53.8 | Alan Wray |
|  | 1:54.3 |
| 1:53.9 | * Richard Sinclair U20 |
| 1:53.9 | * Aaron Hargreaves U20 (120) |
| 1:53.9 | Ivan Hollingsworth |
| 1:53.9 | Dave Reader |
|  | 1:54.0 |
|  | 1:54.35 |
|  | 1:54.6 |
|  | 1:55.1 |
| 1:54.0 | Gregg Taylor |
|  | 1:54.4 |
| 1:54.0 | Ryan Walker |
|  | 1:55.4 |
| 1:54.0 | Danny McCormack |
| 1:54.1 | Thomas Mayo |
| 1:54.1 | Paul Mullany |
|  | 1:55.7 |
| 1:54.1 | * John Rodgers |
| 1:54.1 | * Wayne Dumpleton |
| 1:54.3 | James Mayo |
|  | 1:54.5 |
|  | (130) |
| 1:54.3 | William Barry U20 |
| 1:54.4 | * Steffan North |
| 1:54.4 | Roger Morley |
| 1:54.4 | Rob Simon |
| 1:54.4 | * James Trapmore |
| 1:54.5 | Paul Bristow |
|  | 1:55.0 |
|  | 1:55.2 |
| 1:54.5 | Thomas Yule U20 |
|  | 1:55.3 |
| 1:54.5 | Marcus Bridges |


| 7 r 2 | Stretford | 22 Jul |
| :---: | :---: | :---: |
| 6 r 1 | Stretford | 20 May |
| 7 r 2 | Loughborough | 3 Jun |
| 2r4 | Wythenshawe | 14 May |
| 5 r 1 | Watford | 28 May |
| 6 r 2 | Watford | 16 Jul |
| 8 r 1 | Jarrow | 23 Jul |
| 8 r 1 | Tooting | 20 Aug |
| 6 r 2 | Watford | 27 Aug |
| 1 r 2 | Jarrow | 23 Jul |
| 1 r 3 | Bristol | 30 Aug |
| 1 r 4 | Swindon | 7 Aug |
| 8 r 2 | Swindon | 7 Aug |
| 9 r 1 | Watford | 27 Aug |
| 2r2 | Tooting | 20 Aug |
| 8 r 2 | Watford | 16 Jul |
| 2 r 4 | Watford | 25 Jun |
| 5 r 2 | Bristol | 30 Aug |
| 3 r 3 | Stretford | 17 Jun |
| 1 r 4 | Watford | 25 Jun |
| 2 r 4 | Loughborough | 3 Jun |
| 1r3 | Stretford | 22 Jul |
| 4 r 3 | Stretford | 17 Jun |
| 2 r 3 | Loughborough | 3 Jun |
| 2 r 5 | Wythenshawe | 14 May |
| 5 r 2 | Stretford | 17 Jun |
| 7 r 2 | Watford | 16 Jul |
| 5 | Finsbury Park | Jul |
| 2 r 4 | Swindon | 7 Aug |
| 2r2 | Finsbury Park | 5 Aug |
| 8 r 2 | Stretford | 22 Jul |
| 8 r 1 | Watford | 27 Aug |
| 3 | Tooting | 6 Aug |
| 6 r 3 | Stretford | 17 Jun |
| 2 r 3 | Stretford | 22 Jul |
| 2r2 | Jarrow | 23 Jul |
| 7 r 1 | Stretford | 26 Aug |
| 9 r 2 | Stretford | 22 Jul |
| 2 r 3 | Bristol | 30 Aug |
| 3 r 4 | Swindon | 7 Aug |
| 8 r 3 | Stretford | 17 Jun |
| 6 r 3 | Wythenshawe | 14 May |
| 7 r 1 | Stretford | 20 May |
| 6 r 1 | Watford | 28 May |
| 1 | Croydon | 18 Jun |
| 9 r 2 | Watford | 16 Jul |
| 7 r 2 | Wythenshawe | 14 May |
| 6 r 1 | Stretford | 17 Jun |
| 10r2 | Stretford | 22 Jul |
| 1 | Antrim | 16 Jun |
| 3 r 4 | Watford | 25 Jun |
| 7 r 1 | Watford | 28 May |
| 10r2 | Watford | 25 Jun |
| 7r3 | Stretford | 17 Jun |
| 7 r 2 | Stretford | 17 Jun |
| 8 r 3 | Watford | 25 Jun |
| 1 r 3 | Watford | 16 Jul |
| 1 r 2 | Watford | 27 Aug |
| 4 r 3 | Loughborough | 3 Jun |
| 10r2 | Watford | 16 Jul |
| 2 | Cardiff | 31 May |
| 3 r 4 | Loughborough | 3 Jun |
| 6 r 4 | Wythenshawe | 14 May |
| 8 r 1 | Watford | 28 May |


|  | 1:54.9 | 4 r 4 | Swindon |  | Aug |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1:55.1 | 4 r 4 | Loughborough |  | Jun |
|  | 1:55.2 | 3 | Cardiff | 31 | May |
| 1:54.50 | Mark Kuklinski U20 | 3 r 3 | Bristol | 30 | Aug |
|  | 1:55.1 | 5 r 4 | Swindon |  | Aug |
| 1:54.6 | $\begin{aligned} & \text { * Stuart Bailey U20 } \\ & \text { (140) } \end{aligned}$ | 4 | Stretford | 29 | Apr |
| 1:54.6 | Tom Cartwright U20 | 5r4 | Wythenshawe | 14 | May |
| 1:54.6 | Christopher Coleman | 1 | Cardiff | 31 | May |
| 1:54.6 | Matthew Clarke | 2r2 | Watford | 27 | Aug |
| 1:54.6 | * Jeremy Bridger | 3 r 2 | Watford | 27 | Aug |
|  | 1:54.99 | 4 r 3 | Bristol | 30 | Aug |
| 1:54.63 | Neil A Miller | 1 r 4 | Bristol | 30 | Aug |
|  | 1:55.1 | 3 r 3 | Watford | 16 | Jul |
|  | 1:55.9 | 2 r 3 | Watford | 27 | Aug |
| 1:54.7 | Jon Ridgeon | 3 | Battersea Park | 18 | Jan |
| 1:54.7 | * Vince Rose | 4 | Battersea Park | 18 | Jan |
| 1:54.7 | Ben Walters | 8 r 2 | Stretford | 17 | Jun |
| 1:54.7 | * Daniel Flint | 3 r 2 | Jarrow | 23 | Jul |
| 1:54.7 | Mark Harris NZL (150) | 7 | Finsbury Park | 1 | Jul |
| 1:54.8 | Jason Levy | 2r2 | Watford | 28 | May |
| 1:54.9 | Matthew Davies | 10r1 | Watford | 16 | Jul |
| 1:54.9 | Charlie MacConnachie | 2 r 3 | Watford | 16 | Jul |
| 1:54.9 | * Danny Wing | 8 | Finsbury Park | 1 | Jul |
|  | 1:55.6 | 2 r 4 | Watford | 16 | Jul |
| 1:54.9 | John Lawson | 4 r 2 | Watford | 27 | Aug |
| 1:54.94 | Allan Caple | 2 r 4 | Bristol | 30 | Aug |
| 1:55.0 | Brian Stopher U20 | 3 r 2 | Watford | 28 | May |
|  | 1:55.9 | 3 r 1 | Millfield |  | May |
|  | 1:56.0 | 10r1 | Watford | 27 | Aug |
| 1:55.03 | Dafydd Solomon U20 | 1 r 5 | Bristol | 30 | Aug |
| 1:55.1 | * Tim Alexander U20 | 1 r 4 | Watford | 16 | Jul |
|  | 1:55.8 | 1 r 3 | Watford | 27 | Aug |
| 1:55.1 | Darren Barton (160) | 3 r 3 | Stretford | 22 | Jul |
| 1:55.2 | Ross Fittall U20 | 2 r 1 | Millfield | 5 | May |
|  | 1:55.82 | 5 r 3 | Bristol | 30 | Aug |
| 1:55.2 | Michael Morris | 9 r 3 | Stretford | 17 | Jun |
|  | 1:55.4 | 5 r 2 | Jarrow | 23 | Jul |
| 1:55.2 | * James Thie U20 | 5 r 2 | Watford | 27 | Aug |
| 1:55.34 | * David Goodger | 3 r 4 | Bristol | 30 | Aug |
| 1:55.4 | * P Miller | 10r3 | Stretford | 17 | Jun |
| 1:55.4 | * Peter Saint | 6 r 2 | Jarrow | 23 | Jul |
| 1:55.4 | Keith Hatton | 4 r 3 | Stretford | 22 | Jul |
| 1:55.5 | Adrian Jones | 2r2 | Stretford | 20 | May |
| 1:55.5 | Joe Daniels | 9 | Finsbury Park | 1 | Jul |
|  | 1:55.7 | 4 r 3 | Watford | 16 | Jul |
|  | 1:55.8 | 3 r 2 | Finsbury Park | 5 | Aug |
| 1:55.5 | Simon Beardsall (170) | 3 r 2 | Tooting | 20 | Aug |
| 1:55.6 | Paul Hamilton | 3 r 2 | Stretford | 20 | May |
| 1:55.6 | Mark Best U20 | 5 r 3 | Stretford | 22 | Jul |
| 1:55.6 | * Alan Thomas | 1 r 5 | Swindon | 7 | Aug |
| 1:55.7 | * Lud Ramsey | 2 r 3 | Battersea Park | 15 | Jun |
| 1:55.7 | * Hugh Jenkins | 1 r 4 | Stretford | 17 | Jun |
| 1:55.7 | * Mark Goodger | 2 r 5 | Swindon | 7 | Aug |
| 1:55.7 | Bryce Gibson | 1r2 | Stretford | 26 | Aug |
|  | 1:55.8 | 4 | Tooting |  | Aug |
| 1:55.8 | * Liam Murray | 2 | Londonderry | 11 | Jun |
| 1:55.8 | * Andrew Clowes | 3 r 5 | Swindon | 7 | Aug |
| 1:55.8 | * Mike Gregory (180) | 4 r 5 | Swindon | 7 | Aug |
| 1:55.8 | Noel Stoddart | 2r2 | Stretford | 26 | Aug |
| 1:55.8 | Steve Cooper | 7 r 2 | Watford | 27 | Aug |
| 1:55.9 | Mark Richardson | 5 | Battersea Park | 18 | Jan |
| 1:55.9 | * Andrew Atkinson | 4 r 2 | Stretford | 20 | May |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat

| 1:55.9 | Ewan Calvert | 11 r 1 | Stretford | 17 | Jun |
| :--- | :--- | :--- | :--- | ---: | ---: |
| $1: 55.9$ | Jason Beeraje | 12 r 2 | Watford | 16 | Jul |
| $1: 55.9$ | Ian Wetherall | 6 r 3 | Stretford | 22 | Jul |
| $1: 56.0$ | * Mike Roberts | 5 r 3 | Watford | 16 | Jul |
| $1: 56.0$ | * Alan Old U20 | 7 r 2 | Jarrow | 23 | Jul |
| $1: 56.0$ | * Rob Harris | 6 r 4 | Swindon | 7 | Aug |
|  | (190) |  |  |  |  |
| $1: 56.0$ | * Lee Rodrigues | 5 r 5 | Swindon | 7 | Aug |
| $1: 56.0$ | * C Mulvaney | 9r1 | Stretford | 26 | Aug |
|  | 158 gold performances to 1:52.0 by 77 athletes |  |  |  |  |
|  | 371 membership performances to $1: 56.0$ by 192 athletes |  |  |  |  |


| Additional Age Group |  |
| :---: | :---: |
| 1:56.17 | Andrew Fulford U17 |
|  | 1:56.3 |
|  | 1:56.9 |
| 1:56.61 | * Matt Thompson U17 |
| 1:57.19 | * Tom Burton U20 |
| 1:57.2 | * Darren Talbot U20 |
|  | 1:58.1 |
| 1:57.3 | Paul Laslett U20 |
| 1:57.9 | * Andrew Ingle U20 |
| 1:57.9 | Tom Galpin U20 |
| 1:58.3 | * Wayne Abbott U17 |
| 1:58.7 | * Lee Salter U20 |
| 1:58.8 | * Andrew Shearman U17 |
|  | 1:59.2 |
| 1:59.1 | * Tetan Desai U15 |
| 1:59.28 | Carl Morris U20 |
| 1:59.5 | * G Brownhill U20 |
| 1:59.52 | David Bedwell V40 |
| 1:59.9 | * Oliver Griffin U20 |
| 1:59.9 | * Tom Dufton U20 |
| 2:00.0 | Ronnie Havill U17 |


| 4 r 3 | Bristol | 30 Aug |
| :---: | :---: | :---: |
| 1 r 6 | Swindon | 7 Aug |
| 4 r 1 | Millfield | 5 May |
| 2 r 5 | Bristol | 30 Aug |
| 3 r 5 | Bristol | 30 Aug |
| 6 r 4 | Stretford | 17 Jun |
| 2 r 6 | Wythenshawe | 14 May |
| 5 r 1 | Millfield | 5 May |
| 1 r 2 | Millfield | 5 May |
| 2 r 2 | Millfield | 5 May |
| 2 r 3 | Jarrow | 23 Jul |
| 7 r 1 | Millfield | 5 May |
| 2 r 6 | Swindon | 7 Aug |
| 3 r 2 | Millfield | 5 May |
| 3 r 3 | Jarrow | 23 Jul |
| 4 r 5 | Bristol | 30 Aug |
| 1 r 7 | Wythenshawe | 14 May |
| 8 r 3 | Bristol | 30 Aug |
| 4 r 2 | Millfield | 5 May |
| 5 r 2 | Millfield | 5 May |
| 9 r 4 | Watford | 16 Jul |

Men's $\mathbf{1 , 0 0 0 m}$

| 2:19.4 | Andrew Hart (BMC Record) | 1 | Stretford | 22 | Ju |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2:22.0 | Stephen Green | 2 | Stretford | 22 | Ju |
| 2:22.91 | Grant Cuddy | 1 r 1 | Loughborough | 18 | May |
| 2:23.7 | Andrew Walling | 3 | Stretford | 22 | Jul |
| 2:24.0 | Bradley Donkin | 1 | Stretford | 29 | Apr |
| 2:24.0 | * Jason Lobo | 2 | Stretford | 29 | Apr |
| 2:24.3 | Matt Skelton | 1 | Sutcliffe Park | 3 | May |
| 2:24.56 | Justin Swift-Smith | 2 r 1 | Loughborough | 18 | May |
| 2:25.07 | Jason Thompson | 3 r 1 | Loughborough | 18 | May |
| 2:25.3 | * Matthew Dixon U20 <br> (10) | 3 | Stretford | 29 | Apr |
| 2:26.5 | Brendan Smith | 4 | Stretford | 29 | Apr |
| 2:26.52 | Darrell Maynard | 4 r 1 | Loughborough | 18 | May |
| 2:26.7 | Rupert Waters | 1 | Watford | 16 | Apr |
| 2:26.9 | Eddie King | 1 | Belfast | 19 | Apr |
| 2:27.89 | Simon Saxby | 1 r 2 | Loughborough | 18 | May |
| 2:27.9 | Richard Vint U20 | 2 | Watford | 16 | Apr |
| 2:28.18 | Steve Mosley | 5 r 1 | Loughborough | 18 | May |
| 2:28.2 | Neil Speaight U20 | 3 | Watford | 16 | Apr |
| 2:28.40 | Lee Garrett U20 | 2r2 | Loughborough | 18 | May |
| 2:28.5 | $\begin{aligned} & \text { Matthew De'Ath U20 } \\ & \text { (20) } \end{aligned}$ | 4 | Watford | 16 | Apr |
| 2:28.56 | Kevin Hayes | 3 r 2 | Loughborough | 18 | May |
| 2:28.6 | Clive Gilby | 2 | Sutcliffe Park | 3 | May |
| 2:29.44 | Michael Wassell | 4 r 2 | Loughborough | 18 | May |
| 2:29.56 | Aaron Rea | 5 r 2 | Loughborough | 18 | May |
| 2:29.68 | Russell Cartwright | 6 r 2 | Loughborough | 18 | May |
| 2:30.3 | Ryan Walker | 5 | Watford | 16 | Apr |
| 2:30.6 | Richard Simms | 2 | Belfast | 19 | Apr |


| 2:30.69 | Ross Fittall U20 | 7 r 2 | Loughborough | 18 May |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2:30.86 | * Dave Smith | 8 r 2 | Loughborough | 18 May |  |
| 2:31.29 | Andrew Stuckey | 9 r 2 | Loughborough | 18 May |  |
|  | (30) |  |  |  |  |
| 2:32.0 | * Andrew Dunwoody | 3 | Belfast | 19 | Apr |
|  | 8 'gold' performances to 2:25.0 by 8 athletes |  |  |  |  |
|  | 31 'membership' performances to $2: 32.0$ by 31 athletes |  |  |  |  |



## BMC Rankings 1997

Performances set in BMC races - compiled by Matthew Fraser Moat

| 3:44.7 | * Keith Cullen | 11r1 | Wythenshawe | 14 May |
| :---: | :---: | :---: | :---: | :---: |
|  | 3:46.1 | 3 | Battersea Park | 15 Jun |
| 3:44.7 | Grant Cuddy | 1 r 1 | Stretford | 12 Aug |
| 3:44.8 | Vince Wilson | 5 r 1 | Loughborough | 3 Jun |
| 3:45.0 | Justin Swift-Smith | 6 r 1 | Loughborough | 3 Jun |
| 3:45.2 | Spencer Barden | 8 r 1 | Loughborough | 3 Jun |
| 3:45.2 | Philip Mowbray | 4 r 1 | Stretford | 12 Aug |
|  | 3:45.4 | 9 r 1 | Loughborough | 3 Jun |
| 3:45.6 | * Patrick O'Keefe | 1 r 2 | Wythenshawe | 14 May |
|  | $\begin{aligned} & 3: 48.2 \\ & (30) \end{aligned}$ | 15r1 | Loughborough | 3 Jun |
| 3:45.7 | Bruno Witchalls | 11r1 | Loughborough | 3 Jun |
| 3:45.8 | Joe Mills | 10r1 | Swindon | 7 Aug |
|  | 3:46.6 | 4 | Battersea Park | 15 Jun |
|  | 3:54.0 | 13r1 | Watford | 30 Jul |
|  | 3:55.8 | 1re2 | Watford | 30 Apr |
| 3:46.0 | Michael Openshaw | 1 r 2 | Loughborough | 3 Jun |
| 3:46.0 | * Kiram Bouchamia ALG U20 |  |  |  |
|  |  | 2r1 | Watford | 10 Sep |
|  | 3:47.3 | 3 r 1 | Watford | 30 Jul |
|  | 3:47.6 | 8 r 1 | Stretford | 12 Aug |
| 3:46.1 | Cormac Finnerty IRE | 9 r 1 | Watford | 25 Jun |
| 3:46.1 | Stuart Margiotta | 10r1 | Watford | 25 Jun |
|  | 3:46.2 | 1 l 1 | Watford | 30 Jul |
| 3:46.2 | Steve O'Gara | 6 r 1 | Stretford | 12 Aug |
|  | 3:47.7 | 4 r 1 | Watford | 30 Jul |
| 3:46.6 | Matthew Davies | 13r1 | Wythenshawe | 14 May |
|  | 3:48.6 | 6 r 1 | Watford | 30 Jul |
| 3:46.7 | * Jason Lobo | 7 r 1 | Stretford | 12 Aug |
| 3:46.9 | Stephen Sharp | 5 | Battersea Park | 15 Jun |
|  | 3:47.9 | 4 r 1 | Watford | 10 Sep |
|  | 3:48.3 | 5 r 2 | Loughborough | 3 Jun |
|  | 3:48.3 | 13r1 | Watford | 25 Jun |
|  | 3:50.0 | 1 r 1 | Watford | 28 May |
|  | (40) |  |  |  |
| 3:46.9 | Larry Mangleshot | 3 r 1 | Watford | 10 Sep |
| 3:47.1 | Luke Veness | 2 r 2 | Loughborough | 3 Jun |
| 3:47.2 | Matthew O'Dowd | 3 r 2 | Loughborough | 3 Jun |
|  | 3:49.2 | 5 r 2 | Wythenshawe | 14 May |
| 3:47.2 | * Julian Wyatt NZ | 11r1 | Watford | 25 Jun |
| 3:47.3 | Tony Mate | 2 r 2 | Wythenshawe | 14 May |
| 3:47.3 | Andrew Graffin | 2 r 1 | Watford | 30 Jul |
| 3:47.4 | Rob Whalley | 13r1 | Loughborough | 3 Jun |
| 3:47.6 | Julian Moorhouse | 9 rl | Stretford | 12 Aug |
| 3:47.9 | Spencer Duval | 4 r 2 | Loughborough | 3 Jun |
| 3:47.9 | * Carl Warren | 1 r 2 | Stretford | 12 Aug |
|  | $\begin{aligned} & 3: 48.1 \\ & (50) \end{aligned}$ | 1 | Stretford | 1 Jul |
| 3:48.0 | * Jean Verster RSA | 6 | Battersea Park | 15 Jun |
| 3:48.1 | David Locker | 10r1 | Stretford | 12 Aug |
|  | 3:50.6 | 5 | Stretford | 1 Jul |
| 3:48.2 | Martin Forder | 14r1 | Wythenshawe | 14 May |
|  | 3:48.3 | 11r1 | Swindon | 7 Aug |
| 3:48.2 | Jason Thompson | 5 r 1 | Watford | 30 Jul |
| 3:48.3 | Ian Mitchell | 6 r 2 | Loughborough | 3 Jun |
|  | 3:48.9 | 3 r 2 | Wythenshawe | 14 May |
| 3:48.4 | James Tonner | 1r3 | Loughborough | 3 Jun |
| 3:48.5 | * James Thie U20 | 1 r 2 | Swindon | 7 Aug |
| 3:48.5 | Terry Feasey | 5 r 1 | Watford | 10 Sep |
|  | 3:50.4 | 6 r 2 | Swindon | 7 Aug |
| 3:48.6 | * Hendrick Raamala RSA | 7 | Battersea Park | 15 Jun |
| 3:48.7 | Jonathan Wild (60) | 14r1 | Watford | 25 Jun |
| 3:48.8 | * Matthew Hibberd | 1 r 2 | Watford | 25 Jun |
| 3:48.9 | Andrew Renfree | 4 r 2 | Wythenshawe | 14 May |
|  | 3:49.5 | 7 r 2 | Loughborough | 3 Jun |
|  | 3:51.7 | 14r1 | Swindon | 7 Aug |


| 3:49.0 | David Robertson | 2r2 | Watford | 25 | Jun |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3:49.1 | Edward Bowen | 2r2 | Swindon | 7 | Aug |
|  | 3:52.1 | 9 r 2 | Watford | 25 | Jun |
| 3:49.1 | Cor Datema HOL | 3 r 2 | Swindon | 7 | Aug |
| 3:49.1 | * James Trapmore | 6 r 1 | Watford | 10 | Sep |
|  | 3:51.5 | 10r1 | Watford | 30 | Jul |
| 3:49.3 | Allen Graffin | 7 r 1 | Watford | 30 | Jul |
| 3:49.4 | * James McCook U20 | 2r2 | Stretford | 12 | Aug |
| 3:49.6 | * David Kirk | 2 | Stretford | 1 | Jul |
|  | 3:50.4 | 4 r 2 | Watford | 25 | Jun |
|  | 3:50.4 | 2 r 2 | Watford | 30 | Jul |
| 3:49.8 | Ian Mitchell (70) | 3 r 2 | Stretford | 12 | Aug |
| 3:49.8 | Matthew Clarkson | 4 r 2 | Stretford | 12 | Aug |
|  | 3:55.7 | 2 r 4 | Loughborough | 3 | Jun |
| 3:49.9 | Kevin Farrow | 2 r 3 | Loughborough | 3 | Jun |
|  | 3:50.2 | 3 r 2 | Watford | 25 | Jun |
| 3:49.9 | * Sammy Nyamongo KEN | 13 r 1 | Swindon | 7 | Aug |
| 3:49.9 | * James Starling | 4 r 2 | Swindon | 7 | Aug |
| 3:49.9 | Alasdair Donaldson | 5 r 2 | Stretford | 12 | Aug |
| 3:50.0 | Tim Crossland | 3 | Stretford | 1 | Jul |
|  | 3:50.4 | 3 r 3 | Loughborough | 3 | Jun |
| 3:50.0 | Mark Wiscombe | 7 r 1 | Watford | 10 | Sep |
|  | 3:50.6 | 5 r 3 | Loughborough | 3 | Jun |
|  | 3:51.3 | 10r2 | Swindon | 7 | Aug |
|  | 3:52.4 | 10 r 2 | Watford | 25 | Jun |
| 3:50.1 | Paul Drake | 8 | Battersea Park | 15 | Jun |
| 3:50.2 | Danny McCormack | 5 r 2 | Swindon | 7 | Aug |
|  | 3:51.5 | 6 r 2 | Watford | 25 | Jun |
|  | 3:52.3 | 6 r 2 | Watford | 30 | Jul |
| 3:50.2 | * Kevin Downie (80) | 6 r 2 | Stretford | 12 | Aug |
| 3:50.3 | Andrew Walling | 4 | Stretford | 1 | Jul |
|  | 3:50.6 | 4 r 3 | Loughborough | 3 | Jun |
| 3:50.4 | Paul Morby U20 | 1 r 2 | Watford | 30 | Jul |
|  | 3:56.0 | 8 r 3 | Loughborough | 3 | Jun |
| 3:50.4 | Garth Watson | 7 r 2 | Stretford | 12 | Aug |
| 3:50.4 | Andrew Knight | 8 r 1 | Watford | 10 | Sep |
| 3:50.5 | Jason Dupuy | 8 r 1 | Watford | 30 | Jul |
| 3:50.5 | Michael Proudlove | 1 r 3 | Stretford | 12 | Aug |
| 3:50.6 | Jason Beeraje | 9 | Battersea Park | 15 | Jun |
|  | 3:54.8 | 16 r 2 | Watford | 25 | Jun |
| 3:50.6 | Charlie Low | 7 r 2 | Swindon | 7 | Aug |
| 3:50.7 | Lee Garrett U20 | 5 r 2 | Watford | 25 | Jun |
|  | 3:54.1 | 1 r 4 | Loughborough | 3 | Jun |
|  | 3:55.9 | 2re4b | Watford | 30 | Apr |
| 3:50.8 | Spencer Newport (90) | 8 r 2 | Loughborough | 3 | Jun |
| 3:50.8 | * Danny Gibbons | 6 | Stretford |  | Jul |
| 3:50.8 | Ivan Hollingsworth | 8 r 2 | Swindon | 7 | Aug |
|  | 3:51.7 | 9 r 2 | Stretford | 12 | Aug |
| 3:50.8 | Darren Barton | 8 r 2 | Stretford | 12 | Aug |
| 3:50.9 | Thomas Mayo | 1 re 1 | Watford | 30 | Apr |
|  | 3:55.4 | 15 r 1 | Watford | 25 | Jun |
| 3:50.9 | Alex Rosen | 3 r 2 | Watford | 30 | Jul |
|  | 3:53.6 | 5 r 1 | Watford | 28 | May |
| 3:50.9 | Charlie Low | 2 r 1 | Watford | 28 | May |
| 3:51.0 | * Andrew Hennessy | 9 r 2 | Swindon | 7 | Aug |
| 3:51.1 | Martin Yelling | 9 r 1 | Watford | 30 | Jul |
|  | 3:55.2 | 7r3 | Loughborough | 3 | Jun |
| 3:51.3 | David Bullock | 3 r 1 | Watford | 28 | May |
|  | 3:51.4 | 4 r 2 | Watford | 30 | Jul |
| 3:51.5 | Dominic Bannister (100) | 1 | Jarrow | 4 | Jun |
| 3:51.6 | Alan Tatham | 7 r 2 | Watford | 25 | Jun |
| 3:51.6 | Michael Morris | 10 r 2 | Loughborough | 3 | Jun |
| 3:51.7 | * Aaron Hargreaves U20 | 2 r 3 | Stretford | 12 | Aug |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat


| Additi | ge Group |
| :---: | :---: |
| 3:56.6 | Jamie Muir U20 |
| 3:56.6 | Christopher Livesey U20 |
| 3:56.7 | Neil Speaight U20 |
| 3:58.5 | Chris Thompson U17 |
| 3:58.8 | * M Buntin U20 |
| 3:59.6 | * Simon Curwen U20 |
| 3:59.9 | * Duncan Walkey U20 |
| 3:59.9 | * Simon Lewis U20 |
| 4:00.9 | Andrew McKenna U20 |
| 4:01.9 | Paul Laslett U20 |
| 4:02.0 | * Andrew Coles U20 |
| 4:02.1 | David Bedwell V40 |
| 4:02.7 | * Daniel Rowen U20 |
| 4:02.7 | Robert Whittle U17 |
| 4:02.8 | $\begin{aligned} & \text { Dafydd Solomon U20 } \\ & \text { 4:03.2 } \end{aligned}$ |
| 4:03.0 | Daniel Wicks U20 |
| 4:03.2 | Ross Fittall U20 |
| 4:03.2 | * Robert Maycock U17 |
| 4:03.2 | $\begin{aligned} & \text { * Stephen Vernon U17 } \\ & \text { 4:04.8 } \end{aligned}$ |
| 4:03.2 | * Oliver Griffin U20 |
| 4:03.9 | Brian Stopher U20 |
| 4:04.1 | * Paul Gronow U20 |
| 4:04.7 | * Matt Thompson U17 |
| 4:04.8 | * Gary Blackman U20 |

Men's $4 \times 1,500 \mathrm{~m}$ Relay


| Men's Mile |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 3:58.4 | Ian Gillespie | 1 | Exeter | 29 Jul |
|  | 4:01.37 (fell) | 2 r 1 | Bristol | 30 Aug |
|  | 4:01.7 | 2 | Bath | 18 Jun |
| 4:00.04 | * Samir Benfares FRA | 1 l 1 | Bristol | 30 Aug |
| 4:00.9 | Neil Caddy | 1 | Bath | 18 Jun |
|  | 4:01.1 | 2 | Exeter | 29 Jul |
| 4:01.59 | * Kipkirui Misoi U20 KEN | 3 r 1 | Bristol | 30 Aug |
| 4:02.9 | * Christian Stephenson | 3 | Bath | 18 Jun |
| 4:03.21 | Stephen Green | 4 r 1 | Bristol | 30 Aug |
| 4:03.4 | Stuart Poore | 4 | Bath | 18 Jun |
| 4:03.50 | Bradford Glenton | 5 r 1 | Bristol | 30 Aug |
| 4:03.73 | Bruno Witchalls | 6 r 1 | Bristol | 30 Aug |
| 4:03.8 | * Jason Lobo (10) | 3 | Exeter | 29 Jul |
| 4:03.98 | Luke Veness | 7 r 1 | Bristol | 30 Aug |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat

| 4:04.9 | Nicholas Comerford | 5 | Bath | 18 | Jun |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4:08.0 | 5 | Exeter | 29 | Jul |
| 4:05.1 | Rob Whalley | 4 | Exeter | 29 | Jul |
| 4:07.18 | * Andrew Hennessy | 8 r 1 | Bristol | 30 | Aug |
| 4:07.2 | Glen Stewart | 6 | Bath | 18 | Jun |
| 4:07.78 | Stephen Sharp | 9 r 1 | Bristol | 30 | Aug |
| 4:08.8 | * Christian Nicholson | 6 | Exeter | 29 | Jul |
| 4:10.4 | * Colm McClean U20 | 1 | Antrim | 24 | Jun |
| 4:10.7 | Michael Morris | 1 | Jarrow | 9 | Aug |
| 4:11.2 | Andrew Renfree | 7 | Bath | 18 | Jun |
|  | $\begin{aligned} & 4: 25.8 \\ & (20) \end{aligned}$ | 10 | Exeter | 29 | Jul |
| 4:11.6 | Rob Simon | 8 | Bath | 18 | Jun |
| 4:11.7 | * James Thie U20 | 9 | Bath | 18 | Jun |
|  | 4:13.9R | 1re3 | Watford | 11 | Jun |
| 4:12.0 | Ivan Hollingsworth | 2 | Jarrow | 9 | Aug |
| 4:12.55 | Richard Vint U20 | 10r1 | Bristol | 30 | Aug |
| 4:13.2 | Dominic Bannister | 3 | Jarrow | 9 | Aug |
| 4:13.5 | Mark Wiscombe | 7 | Exeter | 29 | Jul |
|  | 4:15.7 | 10 | Bath | 18 | Jun |
| 4:14.7 | Bobby Farren | 2 | Antrim | 24 | Jun |
| 4:15.1 | John Moore | 4 | Jarrow | 9 | Aug |
| 4:17.2 | * Scott Poole | 3 | Antrim | 24 | Jun |
| 4:17.2 | * John Rodgers (30) | 4 | Antrim | 24 | Jun |
| 4:17.5 | * Bernard Kisilu KEN | 11 | Bath | 18 | Jun |
| 4:17.6 | * Daniel Flint | 5 | Jarrow | 9 | Aug |
| 4:19.1 | * Louis Wells U20 | 1re1 | Watford | 11 | Jun |
| 4:19.6 | Stuart Overthrow | 12 | Bath | 18 | Jun |
| 4:20.1 | Gavin Pavey | 8 | Exeter | 29 | Jul |
| 4:20.3R | Neil Speaight U20 | 1re4 | Watford | 11 | Jun |
| 4:20.6R | Paul Fisher U20 | 1re2 | Watford | 11 | Jun |
| 4:22.61 | Paul Burnett | 1 r 2 | Bristol | 30 | Aug |
| 4:23.1 | * Andrew Ingle U20 | 9 | Exeter | 29 | Jul |
| 4:26.0 | * Andrew Dunwoody (40) | 5 | Antrim | 24 | Jun |
| 4:26.0 | * C Conway U20 | 11 | Exeter | 29 | Jul |
| 4:26.1 | Carl Morris U20 | 12 | Exeter | 29 | Jul |
| 4:26.4 | David Bedwell V40 | 13 | Exeter | 29 | Jul |
| 4:26.5 | Andrew Thomas U20 | 14 | Exeter | 29 | Jul |
| 4:26.91 | Robert Creed | 2 r 2 | Bristol | 30 | Aug |
| 4:27? | * Glyn Harvey V40 | 2 re 1 | Watford | 11 | Jun |
| 4:29.7 | Tom Payn U20 | 3 re 1 | Watford | 11 | Jun |

21 'gold' performances to $4: 10.0$ by 17 athletes
54 'membership' performances to $4: 30.0$ by 47 athletes
Additional Age Group

| 4:30.5 | Peter Molloy V45 | 4re1 | Watford | 11 | Ju |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4:30.66 | * Tom Kingsnorth U20 | 3 r 2 | Bristol | 30 | Au |
| 4:30.8 | Nicholas Andrews U17 | 15 | Exeter | 29 | J |
| 4:31.5R | David Wilcock V40 | 2 re 4 | Watford | 11 | Ju |
| 4:32.81 | Tseguy Berhe U17 | 4 r 2 | Bristol | 30 | Au |
| 4:33.43 | Phillip O'Dell V40 | 5 r 2 | Bristol | 30 | Au |
|  | 4:36.7 | 18 | Exeter | 29 | Ju |
| 4:34.19 | * Mick McGeogh V40 | 6 r 2 | Bristol | 30 | Au |
| 4:34.5 | Daniel Carthy U17 | 16 | Exeter | 29 |  |
| 4:35.3 | Lee Eastley U17 | 17 | Exeter | 29 |  |
| 4:35.6R | Keith McLellan V40 | 2re2 | Watford | 11 |  |

Men's $4 \times 1$ Mile Relay

| 17:13.9 | BMC National Juniors | 1 | Watford | 11 | Jun |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 18:08.5 | BMC National Veterans | 2 | Watford | 11 | Jun |
|  | (World Veterans Record) |  |  |  |  |
| $18: 43.3$ | BMC National U18s <br> 3 performances by 3 teams | 3 | Watford | 11 | Jun |
|  |  |  |  |  |  |


| Men's 2,000m |  |
| :--- | ---: |
| 5:31.24 | Rob |
| 5:33.08 | Gav |
| 5:33.74 | Del |
|  | 0 'go |
|  | 3 'm |
|  |  |
| Men's |  |
| 3,000m |  |
| $7: 51.4$ | Rob |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat

| $8: 26.0$ | * M Jubb | 1 | Stretford | 26 | Aug |
| :--- | :--- | :--- | :--- | ---: | ---: |
| $8: 26.2$ | William Levett | 7 r 2 | Swindon | 7 | Aug |
| $8: 26.4$ | Michael Openshaw | 1 | Stretford | 29 | Apr |
| $8: 26.7$ | * Richie Gardiner | 8 r2 | Swindon | 7 | Aug |
| $8: 26.8$ | * Phil McCartney | 7 | Watford | 16 | Jul |
| $8: 27.0$ | Larry Mangleshot | 8 | Watford | 16 | Jul |
| $8: 27.4$ | Nigel Stirk | 9 | Loughborough | 21 | May |
|  | (50) |  |  |  |  |
| $8: 27.5$ | * Kairn Stone | 9 r 2 | Swindon | 7 | Aug |
| $8: 27.6$ | * A Beevers | 1 | Stretford | 1 | Jul |
| $8: 27.7$ | * Alan Cross | 9 | Watford | 16 | Jul |
| $8: 27.8$ | * Colin Addison | 2 | Watford | 27 | Aug |
| $8: 28.0$ | * Danny Duke | 10 r 2 | Swindon | 7 | Aug |
| $8: 28.6$ | Matthew Clarkson | 7 | Oxford (Hor) | 22 | Jun |
| $8: 28.6$ | * M Hilton | 2 | Stretford | 1 | Jul |
| $8: 29.1$ | Craig Wheeler | 1 | Stretford | 22 | Jul |
| $8: 29.2$ | * Neil Sainsbury | 8 | Oxford (Hor) | 22 | Jun |
| $8: 29.5$ | Ian Mitchell | 2 | Stretford | 29 | Apr |
|  | (60) |  |  |  |  |
| $8: 29.6$ | Mark Harris | 3 | Watford | 27 | Aug |
|  | 20 'gold' performances to $8: 10.0$ by | 16 athletes |  |  |  |
|  | 70 'membership' performances to $8: 30.0$ by 61 athletes |  |  |  |  |

Additional Age Group

| $8: 30.2$ | Jamie Muir U20 | 2 | Stretford | 22 | Jul |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $8: 38.9$ | * D Hibberd U20 | 4 | Stretford | 22 | Jul |
| $8: 41.9$ | * C Shelton U20 | 8 | Stretford | 22 | Jul |
| 8:41.9 | * Stephen Vernon U17 | 9 | Stretford | 22 | Jul |

Men's 2 Mile

| 8:34.5 | Ian Gillespie <br> (BMC Record) | 1 | Millfield | 5 May |
| :--- | :--- | :--- | :--- | ---: |
| 8:53.1 | David Burke | 2 | Millfield | 5 May |
| 9:07.9 | Michael East U20 | 3 | Millfield | 5 May |
| 9:10.6 | * Svein Risa NOR | 4 | Millfield | 5 May |
| 9:11.1 | * Nick Francis | 1 | Battersea Park | 19 Apr |
| 9:12.4 | Eddie Richards | 5 | Millfield | 5 May |
| 9:13.6 | Nathaniel Lane | 6 | Millfield | 5 May |
|  | 1 'gold' performance to 8:50.0 by 1 athlete |  |  |  |
|  | 7 'membership' performances to $9: 15.0$ by 7 athletes |  |  |  |

Men's 5,000m

| 13:40.5 | * Seamus Power IRE <br> (BMC Record) | 1 | Watford | 30 | Jul |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13:41.08 | Rob Whalley <br> (BMC Members' Record) | 1 | Bristol | 30 | Aug |
|  | 13:54.2 | 2 | Stretford | 22 | Jul |
| 13:42.00 | * Kris Bowditch | 2 | Bristol | 30 | Aug |
|  | 13:44.5 | 2 | Loughborough | 18 | May |
|  | 13:47.7 | 1 | Stretford | 22 | Jul |
| 13:42.2 | Andrew Pearson (BMC Record) | 1 | Loughborough | 18 | May |
| 13:44.83 | Matthew O'Dowd | 3 | Bristol | 30 | Aug |
| 13:45.6 | Cormac Finnerty IRE | 2 | Watford | 30 | Jul |
| 13:49.7 | Glyn Tromans | 3 | Loughborough | 18 | May |
| 13:51.5 | Spencer Barden | 4 | Loughborough | 18 | May |
|  | 14:02.17 | 4 | Bristol | 30 | Aug |
| 13:52.8 | * Ian Hudspith | 5 | Loughborough | 18 | May |
| 13:56.6 | Matthew Barnes (10) | 6 | Loughborough | 18 | May |
| 13:57.8 | Dominic Bannister | 7 | Loughborough | 18 | May |
| 13:58.0 | * Carl Udall | 1 | Loughborough | 11 | Jun |
|  | 14:05.9 | 10 | Loughborough | 18 | May |
| 13:59.6 | Rod Finch | 8 | Loughborough | 18 | May |
| 13:59.8 | Paul Taylor | 3 | Stretford | 22 | Jul |


| 14:02.9 | * David Taylor | 9 | Loughborough | 18 May |
| :---: | :---: | :---: | :---: | :---: |
| 14:06.7 | Spencer Newport | 11 | Loughborough | 18 May |
| 14:07.9 | Christopher Davies | 4 | Stretford | 22 Jul |
| 14:12.8 | * Mark Steinle | 12 | Loughborough | 18 May |
| 14:13.9 | David Farrell | 1 | Glasgow | 18 Jun |
| 14:14.6 | * Alexander Moss (20) | 1 | Gateshead | 6 Aug |
| 14:14.8 | * Robert Quinn | 2 | Glasgow | 18 Jun |
| 14:18.1 | * William Coyle | 3 | Glasgow | 18 Jun |
|  | 14:32.75 | 7 | Bristol | 30 Aug |
| 14:18.9 | * Terry Wall | 2 | Gateshead | 6 Aug |
| 14:19.1 | Matthew Clarkson | 1 | Rugby | 18 Jun |
| 14:21.3 | * Alan Adams | 4 | Glasgow | 18 Jun |
| 14:21.26 | Michael Proudlove | 5 | Bristol | 30 Aug |
|  | 14:39.6 | 5 | Stretford | 22 Jul |
| 14:24.02 | * Adrian Callan | 6 | Bristol | 30 Aug |
| 14:27.1 | * Matthew Vaux-Harvey | 2 | Rugby | 18 Jun |
| 14:28.4 | John Mackay | 5 | Glasgow | 18 Jun |
| 14:28.8 | * Neil Sainsbury (30) | 3 | Watford | 30 Jul |
| 14:30.1 | * Andrew Morgan-Lee | 4 | Watford | 30 Jul |
| 14:31.5 | * Mark Hudspith | 13 | Loughborough | 18 May |
| 14:33.0 | * Dale Laughlin | 2 | Loughborough | 11 Jun |
| 14:33.2 | * Martin Rush | 1 | Exeter | 29 Jul |
| 14:33.2 | * S Hempstead | 5 | Watford | 30 Jul |
| 14:34.1 | * Stuart Hall | 2 | Exeter | 29 Jul |
| 14:34.7 | Stephen Body | 14 | Loughborough | 18 May |
| 14:35.9 | Allen Graffin | 15 | Loughborough | 18 May |
| 14:38.2 | Bobby Farren | 1 | Londonderry | 11 Jun |
| 14:40.1 | * Daniel Getliffe (40) | 6 | Watford | 30 Jul |
| 14:40.8 | * Alan Puckrin | 6 | Glasgow | 18 Jun |
| 14:41.1 | * Stuart Major | 1 | Croydon | 18 Jun |
| 14:41.1 | * Eric Crowther | 7 | Watford | 30 Jul |
| 14:42.2 | Richard Taylor | 16 | Loughborough | 18 May |
| 14:42.5 | * Colin Addison | 8 | Watford | 30 Jul |
| 14:43.75 | * Graham Whyte | 8 | Bristol | 30 Aug |
| 14:44.1 | Rob Holladay | 17 | Loughborough | 18 May |
| 14:44.3 | * Andy Hawkins | 3 | Exeter | 29 Jul |
|  | 26 'gold' performances to $14: 15.0$ by 21 athletes 55 'membership' performances to 14:45.0 by 48 |  |  |  |

## Additional Age Group

15:03.8 * Robert Wise V40 6 Exeter 29 Jul

Men's 10,000m

| 29:32.8 | * David Taylor <br> (BMC Record) | 1 | Watford | 30 | Apr |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 29:32.8 | * John Downes | 2 | Watford |  | 30 | Apr

31:43.0 * Gordon Seward V40 6 Watford 30 Apr

3 'gold' performances to 30:00.0 by 3 athletes
6 'membership' performances to 32:00.0 by 6 athletes

* denotes a non member.


## BMC News Index

Long-time member of the BMC, Brendon Byrne has compiled an index of all the articles that have appeared in the BMC News over the years. He is willing to supply the index for a nominal fee of $£ 1$ to cover printing and postage costs and can be contacted at 12 Amderley Drive, Eaton, Norwich NR4 6HY. Cheques should be made payable to the British Milers' Club.

## BMC Rankings 1997

Performances set in BMC races - compiled by Matthew Fraser Moat

## Women's 600 m

| $1: 29.4$ | Linda Staines <br> (BMC Record) | 1 | Battersea Park | 19 | Apr |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1:31.2 | Rachel Jordan-Smith | 2 | Battersea Park | 19 | Apr |
| $1: 35.9$ | Sarah Simmons | 3 | Battersea Park | 19 | Apr |
| $1: 37.4$ | Sarah Wells | 4 | Battersea Park | 19 | Apr |
|  | 3 'gold' performances to 1:37.0 by 3 athletes |  |  |  |  |
|  | 4 4 'membership' performances to 1:42.0 by 4 athletes |  |  |  |  |

Women's 800m

| 2:03.1x | Dianne Henaghan | 1x | Jarrow | 23 | Jul |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2:03.4 | Diane Modahl | 1 r 1 | Swindon | 7 | Aug |
| 2:03.7 | Claire Raven | 2r1 | Swindon | 7 | Aug |
|  | 2:05.43 | 1 | Bristol | 30 | Aug |
|  | 2:06.1 | 3 | Watford | 25 | Jun |
|  | 2:08.1 | 6 r 1 | Wythenshawe | 14 | May |
| 2:04.1mx | * Victoria Lawrence | 1 mx | Stretford | 12 | Aug |
|  | 2:04.1mx | 1 mx | Stretford | 26 | Aug |
|  | 2:05.0mx | 1 mx | Stretford | 22 | Jul |
| 2:04.2 | * Amanda Crowe | 3 r 1 | Swindon | 7 | Aug |
| 2:05.0 | * Sinead Delahunty IRE | 1 r 1 | Stretford | 26 | Aug |
|  | 2:05.6 | 1r1 | Stretford | 22 | Jul |
| 2:05.2 | Phylis Smith | 1 r 1 | Wythenshawe | 14 | May |
| 2:05.6 | Michelle Faherty | 2 r 1 | Wythenshawe | 14 | May |
| 2:05.6 | Lynn Gibson | 4 r 1 | Swindon | 7 | Aug |
|  | 2:05.68 | 2 | Bristol | 30 | Aug |
|  | 2:06.0 | 2 | Watford | 25 | Jun |
| 2:05.7 | Linda Staines | 1 | Watford | 25 | Jun |
|  | 2:05.9 | 3 r 1 | Wythenshawe | 14 | May |
|  | 2:06.3 | 1 r 1 | Loughborough | 3 | Jun |
|  | (10) |  |  |  |  |
| 2:06.2 | Alice Beecroft | 4 r 1 | Wythenshawe | 14 | May |
|  | 2:06.26 | 3 | Bristol | 30 | Aug |
|  | 2:06.6 | 3 r 1 | Stretford | 26 | Aug |
|  | 2:07.6 | 2 r 1 | Loughborough | 3 | Jun |
|  | 2:07.9 | 1 | Stretford | 29 | Apr |
|  | 2:10.0 | 5 r 1 | Swindon | 7 | Aug |
| 2:06.4 | Karen McPherson | 2 r 1 | Stretford | 26 | Aug |
|  | 2:08.5 | 5 r 1 | Stretford | 22 | Jul |
| 2:06.5 | Angela Davies | 4 | Watford | 25 | Jun |
|  | 2:08.0 | 3 r 1 | Loughborough | 3 | Jun |
| 2:06.7 | Rachel Jordan-Smith | 5 r 1 | Wythenshawe | 14 | May |
| 2:06.8 | * Emma Davies U20 | 5 | Watford | 25 | Jun |
| 2:07.7 | Sharon King | 2r1 | Stretford | 22 | Jul |
|  | 2:09.1 | 7 | Watford | 25 | Jun |
| 2:07.8 | Helen Pattinson | 3 r 1 | Stretford | 22 | Jul |
|  | 2:08.2 | 4 r 1 | Loughborough | 3 | Jun |
|  | 2:08.3 | 4 r 1 | Stretford | 26 | Aug |
|  | 2:10.5 | 2 | Stretford | 29 | Apr |
| 2:08.0 | Jillian Jones | 6 | Watford | 25 | Jun |
|  | 2:08.62 | 4 | Bristol | 30 | Aug |
| 2:08.1 | * Rachel Newcombe | 4 r 1 | Stretford | 22 | Jul |
|  | 2:10.5 | 3 | Stretford | 17 | Jun |
|  | 2:10.9 | 3 | Stretford | 29 | Apr |
| 2:08.7 | Joanne Colleran (20) | 5 r 1 | Stretford | 26 | Aug |
| 2:09.0 | Rachael Ogden U20 | 1 | Millfield | 5 | May |
| 2:09.1 | Amanda Pritchard U20 | 1 r 2 | Wythenshawe | 14 | May |
| 2:09.1 | Emma Brady | 6 r 1 | Stretford | 22 | Jul |
|  | 2:11.3 | 3 r 2 | Wythenshawe | 14 | May |
| 2:09.3 | Paula Fryer | 6 r 1 | Wythenshawe | 14 | May |
|  | 2:09.5 | 1 | Stretford | 17 | Jun |
| 2:09.4 | Vicki Andrews | 6 r 1 | Stretford | 26 | Aug |
|  | 2:10.1 | 2 | Stretford | 17 | Jun |
|  | 2:11.7 | 4 r 2 | Wythenshawe | 14 | May |
|  | 2:12.6 | 8 r 1 | Stretford | 22 | Jul |


| 2:09.44 | 2:12.7 | 4 | Stretford | 29 | Apr |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Faith Aston | 5 | Bristol | 30 | Aug |
|  | 2:10.2 | 1 r 2 | Stretford | 22 | Jul |
|  | 2:10.2 | 6 r 1 | Swindon | 7 | Aug |
|  | 2:10.9 | 8 r 1 | Stretford | 26 | Aug |
|  | 2:13.5 | 4 | Stretford | 20 | May |
|  | 2:14.3 | 9 r 2 | Wythenshawe | 14 | May |
|  | 2:14.3 | 7 r 2 | Loughborough | 3 | Jun |
| 2:09.7 | Valerie Bothams | 7 r 1 | Stretford | 22 | Jul |
|  | 2:11.2 | 3 r 2 | Loughborough | 3 | Jun |
| 2:09.7 | Sarah Bouchard | 1 r 2 | Stretford | 26 | Aug |
|  | 2:16.5 | 11r2 | Wythenshawe | 14 | May |
| 2:09.9 | Jenny Harnett | 8 | Watford | 25 | Jun |
|  | 2:11.4 | 1 | Watford | 16 | Jul |
| 2:10.0 | Susan Parker | 7 r 1 | Stretford | 26 | Aug |
|  | 2:10.6 | 4 | Stretford | 17 | Jun |
|  | (30) |  |  |  |  |
| 2:10.2 | Joanne Mersh | 1r2 | Loughborough | 3 | Jun |
| 2:10.2 | Nicola Andrews | 1 | Battersea Park | 15 | Jun |
| 2:10.5 | Philippa McCrea U20 | 2x | Jarrow | 23 | Jul |
| 2:10.6 | Amanda Parkinson | 5 | Stretford | 17 | Jun |
| 2:10.8 | Sarah Wells | 7 r 1 | Swindon | 7 | Aug |
|  | 2:13.8 | 12 | Watford | 25 | Jun |
| 2:11.0 | Simone Hardy | 2r2 | Loughborough | 3 | Jun |
|  | 2:11.1 | 9 | Watford | 25 | Jun |
| 2:11.1 | Carolyn May | 8 r 1 | Swindon | 7 | Aug |
| 2:11.21 | Julie Swann W35 | 6 | Bristol | 30 | Aug |
|  | 2:12.4 | 10 | Watford | 25 | Jun |
| 2:11.3 | Kelly Brownhill U20 | 2 r 2 | Wythenshawe | 14 | May |
|  | 2:15.7 | 8 | Stretford | 29 | Apr |
| 2:11.5 | * Alta Verster RSA <br> (40) | 2 | Battersea Park | 15 | Jun |
| 2:11.9 | * Dawn Hargan | 1 | Londonderry | 11 | Jun |
| 2:12.4 | Kerry Smithson | 5 r 2 | Wythenshawe | 14 | May |
|  | 2:13.3 | 3 | Stretford | 20 | May |
|  | 2:13.8 | 6 r 2 | Loughborough | 3 | Jun |
| 2:12.5 | * Alex Ercolani | 4 r 2 | Loughborough | 3 | Jun |
| 2:12.6 | * Debra France | 6 r 2 | Wythenshawe | 14 | May |
|  | 2:12.9 | 5 | Stretford | 29 | Apr |
| 2:12.7 | * Wendy Marshall | 11 | Watford | 25 | Jun |
| 2:12.7 | * Emma Ford | 2r2 | Stretford | 22 | Jul |
| 2:12.8 | Zoe Peatfield | 1 | Stretford | 20 | May |
|  | 2:13.0 | 7 r 2 | Wythenshawe | 14 | May |
|  | 2:13.3 | 3 r 2 | Stretford | 22 | Jul |
|  | 2:17.5 | 9 r 2 | Loughborough | 3 | Jun |
| 2:13.0 | Catherine Riley U17 | 2 | Stretford | 20 | May |
|  | 2:13.4 | 7 | Stretford | 29 | Apr |
|  | 2:14.1 | 7 | Stretford | 17 | Jun |
|  | 2:14.2 | 2 r 2 | Stretford | 26 | Aug |
| 2:13.2 | * Michelle Mann | 6 | Stretford | 29 | Apr |
| 2:13.2 | Jane Horner (50) | 2 | Watford | 16 | Jul |
| 2:13.3 | * Jane Groves | 6 | Stretford | 17 | Jun |
| 2:13.5 | * Laura McCabe U20 | 8 r 2 | Wythenshawe | 14 | May |
| 2:13.5 | Wendy Farrow | 5 r 2 | Loughborough | 3 | Jun |
|  | 2:15.6 | 9 | Stretford | 17 | Jun |
| 2:14.0 | * Lesley Morrison RSA | 5 | Stretford | 20 | May |
| 2:14.0 | Modupe Cole | 3 | Watford | 16 | Jul |
|  | 2:18.7 | 3 mx | Watford | 27 | Aug |
| 2:14.5 | Ceri Thomas | 8 r 2 | Loughborough | 3 | Jun |
| 2:14.7 | Jennifer Mockler U17 | 4 r 2 | Stretford | 22 | Jul |
| 2:14.7 | * Linda Gabriel | 3 r 2 | Stretford | 26 | Aug |
| 2:14.8 | * Kate Doherty U20 | 1 r 2 | Swindon | 7 | Aug |
| 2:14.9 | Adele Rankin (60) | 6 | Stretford | 20 | May |
| 2:15.0 | Jacqueline Kind | 4 r 2 | Stretford | 26 | Aug |
| 2:15.0 | * Kerrie Nott | 3 | Battersea Park | 15 | Jun |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat

| 2:15.1 | Rebecca Williams U17 | 2 | Millfield |  | May |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2:15.4 | Claire Entwistle | 8 | Stretford | 17 | Jun |
| 2:15.7 | Charlotte Goff | 4 | Watford | 16 | Jul |
|  | 2:16.6 | 1 mx | Watford | 27 |  |
| 2:15.8 | Georgina Parnell U17 | 1 | Cardiff | 31 |  |
|  | 2:17.1 | 1r2 | Millfield | 5 | May |
| 2:16.1 | Helen Bebbington U17 | 3 r 1 | Millfield | 5 | May |
| 2:16.1 | Louise Edwards-Insley | 10r2 | Wythenshawe | 14 | Ma |
| 2:16.3 | Rebecca Lovett U20 | 5 | Watford | 16 | Ju |
|  | 2:16.8 | 2 mx | Watford | 27 |  |
| 2:16.4 | * Caroline Swinbank <br> (70) | 2r2 | Swindon | 7 | Aug |
| 2:16.9 | Sarah Mead U20 | 4 r 1 | Millfield | 5 | May |
| 2:17.0 | * Jo Kilminster | 2 | Cardiff | 31 |  |
|  | 2:17.90 | 7 | Bristol | 30 | Aug |
| 2:17.2 | * Maria Skelton | 2 | Londonderry | 11 |  |
| 2:17.3 | Deborah Howard W35 | 3 r 2 | Swindon | 7 | Aug |
| 2:18.2 | Barbara Dix U17 | 5 r 2 | Stretford | 22 | Jul |
| 2:18.3 | Noeleen Murrin U20 | 10 | Stretford | 17 | Ju |
| 2:18.3 | * J Leonard | 5r2 | Stretford | 26 | Aug |
| 2:18.5 | Elizabeth Crawford | 10r2 | Loughborough | 3 | Ju |
| 2:18.6 | * Sarah Herbert | 5 r 2 | Swindon | 7 | Au |
| 2:18.7 | * Jo Glossop U17 (80) | 5 r 1 | Millfield | 5 | May |
| 2:18.8 | * Ceri Rees | 3 | Cardiff | 31 | May |
| 2:19.5 | * A Fox | 6 r 2 | Stretford | 26 | Aug |
| 2:19.6 | Catherine Dugdale | 4 | Cardiff | 31 | May |
| 2:19.9 | Francesca Green U20 | 6 r 1 | Millfield | 5 | May |
| 2:19.9 | Teresa Penhorwood U17 | 2 r 2 | Millfield | 5 | May |
|  | 76 gold performances to | 0 by | athletes |  |  |
|  | 144 membership perform | to 2 | 0.0 by 85 athlet |  |  |

Additional Age Group

| 2:21.7 | Amanda Child U17 | 3 r 2 | Millfield |  | May |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2:22.7 | * Emma Turner U17 | 6 | Cardiff | 31 | May |
| 2:23.3 | * Nicola Knapp U20 | 7 | Cardiff | 31 | May |
| 2:23.4 | * Carly Austin U15 | 4 r 2 | Millfield |  | May |
| 2:24.1 | * Catherine Jones U15 | 5 r 2 | Millfield |  | May |
| 2:24.1 | * Edwina Carter U20 | 6 r 2 | Millfield |  | May |
| 2:24.1 | Jade Clark U15 | 6 | Watford | 16 | Jul |
| 2:24.7 | * Jo Knapman U17 | 7 r 2 | Millfield |  | May |

Women's $\mathbf{1 , 0 0 0 m}$

| 2:45.22 | Michelle Faherty | 1 | Loughborough | 18 May |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2:51.8 | Pauline Quinn | 1 | Belfast | 19 Apr |
| 2:52.96 | Karen McPherson | 2 | Loughborough | 18 May |
| 2:53.20 | Jilly Ingman U20 | 3 | Loughborough | 18 May |
| 3:03.3 | * Wendy Davis U20 | 2 | Belfast | 19 Apr |
|  | 1 'gold' performance to 2:50.0 by 1 athlete |  |  |  |
|  | 5 'membership' performances to 3:10.0 by 5 athletes |  |  |  |

Additional Age Group
3:11.7 * Catriona McCorkell U17 3 Belfast 19 Apr

Women's 1,500m
4:12.6mx Joanne Pavey
4:15.2
4:18.7
4:24.5R
4:15.8 Michelle Faherty
4:22.3R
4:17.7mx Lynn Gibson
4:19.5mx
4:21.2R

| 1mx | Barry | 27 | Aug |
| :--- | :--- | ---: | ---: |
| 1 | Loughborough | 3 | Jun |
| 1r1 | Wythenshawe | 14 | May |
| 1re2 | Watford | 30 | Apr |
| 2 | Loughborough | 3 | Jun |
| 1re3 | Watford | 30 | Apr |
| 1mx | Watford | 10 | Sep |
| 1 mx | Watford | 30 | Jul |
| 1re4 | Watford | 30 | Apr |


| 4:18.5 | Angela Davies |
| :---: | :---: |
| 4:18.6 | Amanda Parkinson 4:20.6 |
| 4:19.2 | Jillian Jones $4: 28.5$ |
| 4:20.3 | Dianne Henaghan |
| 4:20.3 | Helen Pattinson 4:20.4 <br> 4:21.2 |
| 4:21.6 | $\begin{aligned} & \text { Ellen O'Hare U20 } \\ & 4: 37.3 \end{aligned}$ |
| 4:21.8 | $\begin{aligned} & \text { Caroline Pimblett } \\ & 4: 24.2 \\ & 4: 30.1 \\ & (10) \end{aligned}$ |
| 4:22.4 | Penny Thackray 4:26.6 <br> 4:28.4 <br> 4:29.8 |
| 4:22.7 | Valerie Bothams $4: 24.9$ <br> 4:25.1 <br> 4:25.2 <br> 4:27.6 |
| 4:23.0 | Rebecca Spies USA 4:23.8 |
| 4:24.0 | Joanne Colleran |
| 4:24.4 | Victoria Sterne 4:25.1 |
| 4:24.5 | * Anne Hare NZ |
| 4:24.6 | Sarah Simmons |
| 4:24.8 | Karen McPherson |
| 4:25.0 | Lucy Field 4:26.0 <br> 4:30.2 <br> 4:38.8 |
| 4:25.4 | Sarah Bull <br> (20) |
| 4:25.6 | Sarah Bentley |
| 4:26.2 | Pauline Quinn |
| 4:27.1 | Jenny Harnett 4:33.2 |
| 4:27.7 | * Michelle Mann $4: 31.3$ |
| 4:28.6 | * Alexandra Carter U20 |
| 4:30.0 | Susan Scott |
| 4:30.8 | Ceri Thomas |
| 4:30.9 | $\begin{aligned} & \text { * Emma Ford } \\ & 4: 32.6 \\ & 4: 36.1 \end{aligned}$ |
| 4:31.0 | Jennifer Mockler U17 |
| 4:31.3 | Shiela Fairweather (30) |
| 4:32.3 | * Lesley Morrison RSA |
| 4:32.5 | * Dawn Hargan |
| 4:33.0 | Elinor Doubell |
| 4:33.0x | Phillipa McCrea U20 |
| 4:33.0 | Zahara Hyde |
| 4:33.4 | Alice Beecroft |
| 4:34.1R | Jody Swallow U17 4:35.3 |
| 4:35.1 | Claire Entwistle |
| 4:35.2 | * Thomasin Kemp U20 |
| 4:35.3 | Kerry Smithson (40) |
| 4:35.3 | Julie Swann W35 |
| 4:35.6 | * Clare Thom |


| 1 | Swindon | 7 Aug |
| :---: | :---: | :---: |
| 3 | Loughborough | 3 Jun |
| 3 r 1 | Wythenshawe | 14 May |
| 2 | Swindon | 7 Aug |
| 5 | Loughborough | 3 Jun |
| 2r1 | Wythenshawe | 14 May |
| 1 | Watford | 25 Jun |
| 3 | Swindon | 7 Aug |
| 4 r 1 | Wythenshawe | 14 May |
| 2 | Watford | 25 Jun |
| 2 re 1 | Watford | 30 Apr |
| 4 | Loughborough | 3 Jun |
| 5 r 1 | Wythenshawe | 14 May |
| 3 | Stretford | 12 Aug |
| 3 | Watford | 25 Jun |
| 10r1 | Wythenshawe | 14 May |
| 7 | Swindon | 7 Aug |
| 6 | Loughborough | 3 Jun |
| 4 | Swindon | 7 Aug |
| 2 | Stretford | 12 Aug |
| 1 | Watford | 30 Jul |
| 6 | Watford | 25 Jun |
| 12r1 | Wythenshawe | 14 May |
| 4 | Watford | 25 Jun |
| 1 mx | Tooting Bec | 2 Jul |
| 1 | Stretford | Jul |
| 2 | Stretford | 1 Jul |
| 7 r 1 | Wythenshawe | 14 May |
| 2 mx | Tooting Bec | 2 Jul |
| 5 | Watford | 25 Jun |
| 1 | Stretford | 12 Aug |
| 6 r 1 | Wythenshawe | 14 May |
| 6 | Swindon | 7 Aug |
| 7 | Loughborough | 3 Jun |
| 7 | Watford | 25 Jun |
| 5 | Swindon | 7 Aug |
| 8 r 1 | Wythenshawe | 14 May |
| 9 r 1 | Wythenshawe | 14 May |
| 11r1 | Wythenshawe | 14 May |
| 8 | Swindon | 7 Aug |
| 13r1 | Wythenshawe | 14 May |
| 8 r 1 | Loughborough | 3 Jun |
| 1 r 2 | Wythenshawe | 14 May |
| 2 r 2 | Wythenshawe | 14 May |
| 14r1 | Wythenshawe | 14 May |
| 3 | Stretford | 1 Jul |
| 9 | Loughborough | 3 Jun |
| 6 | Stretford | 12 Aug |
| 4 | Stretford | 1 Jul |
| 3 r 2 | Wythenshawe | 14 May |
| 4r2 | Wythenshawe | 14 May |
| 1 | Antrim | 16 Jun |
| 1re1 | Watford | 30 Apr |
| 1 x | Jarrow | 4 Jun |
| 3 mx | Tooting Bec | 2 Jul |
| 4 | Stretford | 12 Aug |
| 2re4 | Watford | 30 Apr |
| 2 mx | Watford | 10 Sep |
| 5 | Stretford | 12 Aug |
| 1 | Millfield | 5 May |
| 5 | Stretford | 1 Jul |
| 9 | Swindon | 7 Aug |
| 10 | Swindon | 7 Aug |

# BMC Rankings 1997 

Performances set in BMC races - compiled by Matthew Fraser Moat

| 4:35.9 | * Andrea Kershaw U20 | 5 r 2 | Wythenshawe |  | May |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4:36.0 | * Kate Abbitt | 11 | Swindon |  | Aug |
|  | 4:43.7 | 4 | Watford | 30 | Jul |
| 4:36.1 | Catherine Dugdale | 6 r 2 | Wythenshawe | 14 | May |
| 4:36.2 | * Jo Dering | 12 | Swindon | 7 | Aug |
| 4:37.7 | Charlotte Goff | 1 x | Watford | 28 | May |
| 4:38.3 | * Nicola Knapp U20 | 13 | Swindon | 7 | Aug |
| 4:38.6 | Caroline Thomas | 14 | Swindon | 7 | Aug |
| 4:38.9 | Jacqueline Kind | 6 | Stretford | 1 | Jul |
|  | $\begin{aligned} & 4: 43.4 \\ & (50) \end{aligned}$ | 7 | Stretford | 12 | Aug |
| 4:38.9 | Jessica Woolley U20 | 15 | Swindon |  | Aug |
| 4:39.3 | Hayley Mittelberger | 16 | Swindon | 7 | Aug |
| 4:39.6 | Caroline Slimin | 17 | Swindon | 7 | Aug |
| 4:39.7 | Sarah Salmon | 2 | Watford | 30 | Jul |
| 4:40.0 | * Louise Whittaker U17 | 7r2 | Wythenshawe | 14 | May |
| 4:40.4 | Jenny Brown | 4 mx | Tooting Bec | 2 | Jul |
| 4:40.8 | Rebecca Lovett U20 | 3 | Watford | 30 | Ju |
| 4:41.4 | Helen Pearson U17 | 7 | Stretford |  | Ju |
| 4:41.8 | * Julie Keen U17 | 8 r 2 | Wythenshawe | 14 | May |
| 4:41.9 | Jane Horner (60) | 2x | Watford | 28 | May |
| 4:42.0 | * C Cresswell | 8 | Stretford |  | Jul |
| 4:42.4 | * Margaret Boleman W35 | 9 r 2 | Wythenshawe | 14 | May |
| 4:42.6 | * Maria Skelton | 10r2 | Wythenshawe | 14 | May |
| 4:42.8 | * Anne Keeley IRE | 8 | Watford | 25 | Ju |
| 4:43.1R | Camilla Waite U20 | 2 re 2 | Watford | 30 | Apr |
|  | 4:43.2 | 2 | Millfield |  | May |
| 4:43.5R | Rachael Ogden U20 | 2re3 | Watford | 30 | Apr |
| 4:44.0 | * Leanne Appleton U17 | 18 | Swindon |  | Aug |
| 4:44.2 | Paula Gowing U20 | 11r2 | Wythenshawe | 14 | May |
| 4:44.6 | Deborah Howard W35 | 12r2 | Wythenshawe | 14 | May |
| 4:44.8 | Rosanna Iannone U20 | 3 | Millfield | 5 | May |
|  | 47 gold performances to 4: | 0 by | athletes |  |  |
|  | 102 membership performa | s to 4 | 5.0 by 70 athlet |  |  |


| Additional Age Group |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 4:45.4 | * Charlotte Coffey U20 | 13r2 | Wythenshawe | 14 May |
|  | 4:53.1 | 5 re 1 | Watford | 30 Apr |
| 4:45.6 | Emma Deakin U20 | 9 | Stretford | 1 J |
| 4:45.7R | Carley Wilson U17 | 3re2 | Watford | 30 |
| 4:47.8R | Sharon Whitby U17 | 3 re 4 | Watford | 30 |
| 4:48.3R | * Pat Gallagher W50 | 4 re 2 | Watford | 30 |
| 4:48.2 | Charlotte Moore U13 | 6 | Millfield | 5 Ma |
| 4:48.5 | Louise Damen U15 | 7 | Millfield | 5 Ma |
| 4:49.7R | Helen Bebbington U17 | 4re3 | Watford | 30 |
| 4:51.2 | Donna Brown U17 | 9 | Stretford | 12 Au |
| 4:56.0 | * Sarah Willimott U17 | 16 r 2 | Wythenshawe | 14 M |
| 4:57.6 | * Michelle Cummings U17 | 8 | Millfield | 5 |
| 4:59.2R | * Kim Davison W35 | 5 re 3 | Watford | 30 |


| Women's $4 \times 1,500 \mathrm{~m}$ Relay |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 17:41.0 | BMC National Squad | 1 | Watford | 30 | Apr |
|  | (Commonwealth, National and All-Comers Record) |  |  |  |  |
| 18:38.0 | BMC Junior Squad (European Junior Record) | 2 | Watford | 30 | Apr |
| 19:12.9 | BMC National U17s <br> (British U17 Record) | 3 | Watford | 30 | Apr |
| 19:35.1 | Bristol AC U20 <br> (British U20 Club Record) | 4 | Watford | 30 | Ap |
| 20:13.0 | BMC National Veterans <br> (World Veterans Record) | 5 | Watford | 30 | Apr |
| 22:52.5 | Milton Keynes AC U15 (British U15 Club Record) 6 performances by 6 teams | 6 | Watford | 30 | Ap |



Additional Age Group
5:28.1 * Ann Jeeves W40 2re1 Watford 11 Jun
' mx ' denotes mixed race, 'x' denotes male pacemaker

Women's $4 \times 1$ Mile Relay

| Momen's $4 \times$ x 1 Mile Relay <br> 20:16.2 | BMC Junior Squad <br> (World Junior Record) | 1 | Watford | 11 | Jun |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $22: 51.0$ | Shaftesbury Barnet <br> (British Club Record) | 2 | Watford | 11 | Jun |
| $26: 10.9$ | Metros Vets <br> (British Club Vets Record) | 3 | Watford | 11 | Jun |
|  | 3 performances by 3 teams |  |  |  |  |


| Women's 3,000m |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9:08.8mx | Sarah Bentley <br> (BMC Members' Record) | 1 mx | Stretford | 17 | Jun |
|  | 9:22.2 | 1 | Oxford (Hor) | 22 | Jun |
|  | 9:23.1mx | 1 mx | Stretford | 1 | Jul |
|  | 9:23.1 | 1 | Swindon | 7 | Aug |
| 9:16.3 | Joanne Pavey | 1 | Millfield | 5 | May |
| 9:19.2 | * Lucy Elliott | 2 | Millfield | 5 | May |
| 9:19.3mx | Amanda Parkinson | 1 mx | Stretford | 29 | Apr |
| 9:22.8mx | Caroline Pimblett | 2 mx | Stretford | 29 | Apr |
| 9:25.1mx | * Sarah Young | 2 mx | Stretford | 1 | Jul |
| 9:29.1 | Rebecca Spies USA | 2 | Oxford (Hor) | 22 | Jun |
| 9:33.0 | Angela Joiner | 2 | Swindon | 7 | Aug |
| 9:34.9 | * Dawn James | 3 | Oxford (Hor) | 22 | Jun |
| 9:35.8 | Michelle Wannell | 3 | Millfield | 5 | May |
|  | $\begin{aligned} & 9: 44.2 \\ & (10) \end{aligned}$ | 3 | Swindon | 7 | Aug |
| 9:37.1 | Lucy Field | 4 | Millfield | 5 | May |
| 9:39.4 | * Jo Thompson W35 | 5 | Millfield | 5 | May |
|  | 9:43.1 | 4 | Oxford (Hor) | 22 | Jun |
| 9:45.6mx | Sharon King | 3 mx | Stretford | 29 | Apr |
| 9:48.2 | Jilly Ingman U20 | 5 | Oxford (Hor) | 22 | Jun |
| 9:51.7 | * Rita Quill | 4 | Swindon | 7 | Aug |
| 9:52.9mx | Caroline Thomas | 1 mx | Loughborough | 21 | May |
|  | 9:59.2 | 7 | Millfield | 5 | May |
| 9:53.0 | * Amy Stiles | 5 | Swindon | 7 | Aug |
| 9:54.6 | Catherine Dugdale | 6 | Millfield | 5 | May |
|  | 9:59.5 | 7 | Swindon | 7 | Aug |
| 9:55.3 | Amber Gascoigne U20 | 6 | Swindon | 7 | Aug |
|  | 10:02.7 | 9 | Millfield | 5 | May |
| 9:57.7 | * Jo Dering | 6 | Oxford (Hor) | 22 | Jun |
| 9:58.8 | * Sandra Green (20) | 7 | Oxford (Hor) | 22 | Jun |
| 9:59.8 | Ceri Thomas | 8 | Millfield | 5 | May |
| 10:03.9mx | Valerie Bothams | 2 mx | Loughborough | 21 | May |

# BMC Rankings 1997 

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| 10:06.0 | Amy Waterlow U20 | 1 mx | Stretford |  | 22 | Jul |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: |
| 10:06.3mx | * Andrea Kershaw U20 | 2 mx | Stretford |  | 17 | Jun |
| 10:06.8 | * Emma Turner U17 | 8 | Swindon |  | 7 | Aug |
| 10:08.1 | Paula Gowing U20 | 10 | Millfield |  | 5 | May |
| 10:08.8 | * J Newton | 3 mx | Stretford |  | 1 | Jul |
| 10:11.5 | * Charlotte Coffey U20 | 9 | Swindon |  | 7 | Aug |
| 10:14.7 | * Rebecca Wade U20 | 11 | Millfield |  | 5 | May |

17 'gold' performances to $9: 45.0$ by 12 athletes
38 'membership' performances to 10:15.0 by 29 athletes

| Additional Age Group |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10:16.9 | Deborah Howard W35 | 12 | Millfield | 5 | May |
|  | 10:29.5 | 9 | Oxford (Hor) | 22 | Jun |
| 10:28.2 | * Leanne Appleton U17 | 13 | Millfield |  | May |
| 10:28.4 | * Kim Davison W35 | 14 | Millfield | 5 | May |


| Women's 5,000m |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 15:51.7 | * Lynne MacDougall (Scottish Native Record) | 1 | Glasgow | 18 | Jun |
| 15:55.83 | * Lucy Elliott | 1 | Loughborough | 18 | May |
| 15:56.8 | Vicki McPherson <br> (BMC Members' Record) | 1 mx | Loughborough | 11 | Jun |
|  | 16:09.23 | 2 | Loughborough | 18 | May |
| 16:14.55 | Sarah Bentley | 3 | Loughborough | 18 | May |
| 16:20.58 | Heather Heasman | 4 | Loughborough | 18 | May |
| 16:25.22 | Angela Joiner | 5 | Loughborough | 18 | May |
| 16:28.5 | * Sarah Young | 2 mx | Loughborough | 11 | Jun |
| 16:31.5 | * Jo Thompson W35 | 1 | Cwmbran | 11 | Jun |
| 16:33.89 | Rebecca Spies USA | 6 | Loughborough | 18 | May |
| 16:40.6 | * Lindsay Cairns (10) | 2 | Glasgow | 18 | Jun |
| 16:45.9 | * Angharad Mair | 2 | Cwmbran | 11 | Jun |
| 16:54.81 | Penny Thackray | 7 | Loughborough | 18 | May |
| 16:55.83 | Ann MacPhail | 8 | Loughborough | 18 | May |
| 17:00.2 | * Amy Stiles | 1 | Watford | 30 | Jul |
| 17:04.7 | Ann Taswell | 3 | Cwmbran | 11 | Jun |
|  | 17:38.53 | 9 | Loughborough | 18 | May |
| 17:04.8 | * Jill Harrison W35 | 4 | Cwmbran | 11 | Jun |
| 17:13.6 | Lisa Hollick | 2 | Watford | 30 | Jul |
|  | 17:55.94 | 10 | Loughborough | 18 | May |
| 17:17.5 | * Rita Quill | 3 | Watford | 30 | Jul |
| 17:17.8 | Michelle Wannell | 1 | Exeter | 29 | Jul |
| 17:21.1 | * Caroline Pauzers (20) | 1 | Croydon | 18 | Jun |
| 17:21.5 | * Nicky Haines-Jones | 5 | Cwmbran | 11 | Jun |
| 17:27.5 | * Jo Hargeaves | 3 | Glasgow | 18 | Jun |
| 17:37.7 | Paula Gowing U20 | 2 | Exeter | 29 | Jul |
| 17:43.2 | Amber Gascoigne U20 | 6 | Cwmbran | 11 | Jun |
| 17:59.3 | * Charlotte Coffey U20 | 3 | Exeter | 29 | Jul |
| 18:00.66 | * Louise Brown U20 | 11 | Loughborough | 18 | May |
| 18:09.9 | * Diane Cheverton | 4 | Exeter | 29 | Jul |
| 18:15.4 | * Kim Davison W35 | 7 | Cwmbran | 11 | Jun |
| 18:33.4 | * Lisa Leggett | 2 | Croydon | 18 | Jun |
| 18:46.0 | * Nicky Fox (30) | 5 | Exeter | 29 | Jul |
| 18:47.9 | * Jane Griffiths W35 | 6 | Exeter | 29 | Jul |
| 18:54.4 | * Eleanor Robinson W45 | 4 | Glasgow | 18 | Jun |
|  | 14 'gold' performances to 17:00.0 by 13 athletes 35 'membership' performances to 19:00.0 by 32 athletes |  |  |  |  |
|  |  |  |  |  |  |

Additional Age Group
19:01.9 * Stella Harrod
Women's $\mathbf{1 0 , 0 0 0 m}$
33:33.7 * Theresa Duffy IRE 1 Loughborough 3 Jun
33.49 .1 (BMC Record)

34:25.1 * Carol Galea MAL
(BMC Record)
34:44.9 Heather Heasman
(BMC Members' Record)
36:00.0 * Tracy Swindell 4 Loughborough 3 Jun
36:10.6 * Alison Fletcher 5 Loughborough 3 Jun
4 'gold' performances to $35: 00.0$ by 4 athletes
6 'membership' performances to $40: 00.0$ by 6 athletes

* denotes a non member.


## 1997 BMC Athletes

Most Membership Times: 11 Jason Thompson, 10 Andrew Walling, 8 Andrew Knight, Helen Pattinson, Martin Airey, Stephen Green and Valerie Bothams, 7 Alice Beecroft, Faith Aston, Grant Cuddy, Jason Dupuy, Mark Wiscombe, Rob Whalley, Stephen Sharp and *Kris Bowditch.

Most Gold Standard Times: 10 Jason Thompson, 8 Helen Pattinson and Stephen Green, 7 Grant Cuddy, Valerie Bothams and *Kris Bowditch, 6 Alice Beecroft, Andy Knight, Ian Gillespie, Joanne Pavey, Lynn Gibson, Matthew Kloiber, Rob Whalley and Sarah Bentley, 5 Andrew Walling, Brendan Smith, Bruno Witchalls, Jason Dupuy, Justin Swift-Smith, Kevin McKay, Penny Thackray, Stephen Sharp and *Jason Lobo.

Most Victories: 6 Joanne Pavey, 4 Sarah Bentley, 3 Andy Hart, Ben Sutton, Jason Thompson, Lynn Gibson, Linda Staines, Michael Openshaw, Rob Whalley and *Victoria Lawrence.

## 1997 BMC Meetings

Most Membership Times: 128 Swindon GP, 107 Wythenshawe GP, 88 Loughborough GP, 85 Watford GP, 57 Bristol GP, 47 Stretford 22/7, 46 Stretford 17/6, 45 Loughborough 18/5, 42 Watford 16/7 and 30/7, 37 Battersea Park 15/6, 36 Stretford 12/8, 31 Millfield.

Most Gold Standard Times: 61 Wythenshawe GP, 60 Swindon GP, 53 Watford GP, 51 Loughborough GP, 33 Bristol GPF, 27 Battersea Park 15/6, 24 Stretford 22/7, 23 Loughborough 18/5.

Most "Elite" Times: 22 Swindon GP, 13 Wythenshawe GP, 10 Battersea Park 15/6, 9 Loughborough 18/5, 8 Bristol GPF, 7 Stretford 22/7, 4 Loughborough GP, 3 Watford GP, Watford 30/7 \& Millfield.

## 1997 BMC Venues

Membership Times: 267 Watford, 219 Stretford, 148 Loughborough, 128 Swindon, 107 Wythenshawe, 57 Bristol \& Battersea Park, 31 Millfield, 23 Exeter, Finsbury Park \& Jarrow, 19 Tooting, 15 Oxford (Hor), 12 Bath, 10 Cardiff \& Glasgow, 8 Antrim, 7 Cwmbran, 5 Belfast \& Londonderry, 4 Croydon \& Sutcliffe Park, 2 Gateshead \& Rugby, 1 Barry.

Gold Standard Times: 89 Watford, 84 Stretford, 81 Loughborough, 61 Wythenshawe, 60 Swindon, 36 Battersea Park, 33 Bristol, 10 Finsbury Park, 9 Tooting, 8 Jarrow, 7 Millfield, 6 Bath \& Exeter, 5 Oxford (Hor), 4 Glasgow, 3 Sutcliffe Park, 2 Londonderry \& Cwmbran, 1 Gateshead \& Barry.

## 1997 BMC Events

Membership Times: 371 M800, 232 M1500, 144 W800, 103 W1500, 70 M3000, 55 M5000, 54 MMile, 38 W3000, 35 W5000, 31 M1000, 12 M600, 11 WMile, 7 M2Mile, 6 M10000 and W10000, 5 W1000, 4 W600, 3 M2000. (Total 1187, Men 841, Women 346)

Gold Standard Times: 158 M800, 99 M1500, 76 W800, 47 W1500, 26 M5000, 21 MMile, 20 M3000, 17 W3000, 14 W5000, 8 M1000, 7 M600, 4 W1000, 3 M10000, W600 \& WMile, 1 M2Mile \& W1000.
(Total 508 - Men 343, Women 165).

# The Nutritional Approach To The Menstrual Cycle And Sports Performance 

A number of Old Wives' Tales have percolated down the years on this subject: "My Mother says I mustn't have a bath or go swimming while I'm like it'", and another is "My mother says I mustn't wash my hair during a period." Even the great physiologist Olaf Astrand wrote "Women should not swim during menstruation because of the possibility of infection." This is not very encouraging news to an Olympic swimmer who qualifies in the heats for an Olympic final which coincides with the "curse".

The exact timing of the menarche is affected by genetic, racial, socio-economic and climatic factors. At the menarche, the duration of blood loss may be two to nine days, but limited. The duration gradually decreases until by the age of 16 years, it lasts for an average of six days. The normal adult menstrual cycle varies from 21 to 35 days and is rarely the oft-quoted 28 days. In fact, 20 per cent of 16 year olds still have cycles exceeding 40 days. Stress can either shorten or lengthen the cycle. All sport is a stress and usually lengthens it. Females who go to altitude to compete or train, have an added stress due to the lack of oxygen which usually shortens the cycle. It is important for a sportswoman and her advisers to know what is going on in her body and at what stage the cycle is at.

An ovum (egg) is released each month from one or other ovary (ovulation) and finds its way to the adjacent fallopian tube. The ovum ripens before release in a sort of shell, the Graafian follicle. The ovum is released leaving the follicle remains behind in the ovary and grows into a small endocrine gland, a corpus luteum. This produces a hormone, progesterone, that stimulates the uterus lining to form a thick layer with additional blood supply ready to receive an embryo if the ovum becomes fertilised. If the ovum is not fertilised, the corpus luteum withers in two weeks and the uterus, deprived of progesterone sheds its lining (period). The average loss is about two ounces (60cc). As soon as this ceases,
the uterine lining regenerates and some two weeks later the cycle begins again with the release of another ovum. The interval between ovulation and the period i.e. the life-span of the corpus luteum - if there is no pregnancy - is nearly always two weeks. But the interval between the period and the next ovulation varies individually, and also from month to month in the same individual. The whole cycle may last from three to five weeks or more.

The concentration of hormones in the body during this cycle affects sportswomen differently. The follicle stimulating hormone rises gradually from the first day after the cessation of the period to a peak around the $14^{\text {th }}$ day in tandem with the luteinising hormone. But the oestrogen hormonal rise precedes this by 2 days and tapers off for 2 days only to slightly rise again 5 days later the $22^{\text {nd }}$ day of the cycle, then declines. Progesterone climbs steadily after ovulation on the $15^{\text {th }}$ day and reaches a peak on the $21^{\text {st }}$ day and declines rapidly thereafter.

Oestrogen and progesterone are steroids. If it is the pre-menstrual fall in these that in some women cause the phenomena of pre-menstrual tension (PMT). However, while both decline to the $14^{\text {th }}$ day, progesterone climbs to a peak on the $20^{\text {th }}$ day and it is thought that this hormone is the major cause for PMT. The sportswoman and her coach have for many years searched for the ideal time in the menstrual cycle when performance will be at its peak. And, have also searched for NATURAL ways of neutralising any psychological and physical handicaps caused by PMT and the actual period.
"The mid-luteal phase of the cycle (i.e. a week before actual menstruation) turned out to be a time when exercise became more difficult and psychological health took a nose dive."

Some research in 1993 ("Menstrual Cycle Phase and Running Economy", "Medicine and Science in Sports and Exercise, vol. 25(5), p.574, 1993.) goes some way towards solving part of the equation. Eight fit, normally menstruating females were asked to run at intensities of 55 and 80 per cent $\mathrm{VO}_{2}$ max during different stages of their menstrual cycles. This
intensity approximates to 70 and 88 per cent of the maximal heart rate, respectively. The mid-luteal phase of the cycle (about a week after ovulation, i.e. a week before actual menstruation) turned out to be a time when exercise became more difficult and psychological health took a nose dive (Depression, fatigue, and confusion increased while feelings of vigour declines). However, the lactate threshold - the exercise intensity above which large amounts of lactate begin to accumulate in the blood was not influenced by the menstrual cycle phase.

In further research at Springfield College, Massachusetts, eight female distance runners were asked to run at close-to-top speeds for short periods of time and also ran as far as possible at an intensity of 85 per cent $\mathrm{VO}_{2}$ max, about 90 per cent of maximal heart rate. None of the variables measured, i.e. $\mathrm{VO}_{2}$ max, blood lactate threshold, maximal heart rate, and fat oxidation - were different at any stage of the menstrual cycle.
> "However, the lactate threshold the exercise intensity above which large amounts of lactate begin to accumulate in the blood - was not influenced by the menstrual cycle phase."

For unknown reasons, the mid-luteal phase is a potentially low-performance time for female competitors. But, there is a bonus side to this phase - IT IS A POTENT TIME FOR MUSCLE GLYCOGEN STORAGE IN THE LEGS. Recent research reveals that glycogen storage is 22 per cent higher in the leg muscles of females in the mid-luteal phase, compared to before ovulation, and total endurance performance - measured as the ability to continue pedalling a bicycle at an intensity of 70 per cent $\mathrm{VO}_{2}$ max (marathon pace) - tended to be about 10 per cent greater! This suggests that female marathoners should seek a marathon race during this phase because the added glycogen store in the legs could lead to increased speed over the final 6 miles (10k).

But, the exact opposite is the case if a speedy activity is contemplated, such as a swimming, cycling or running sprint event. The ideal time for these is the two weeks before ovulation, when economy and mood

> "Female sports competitors are encouraged to train normally through all phases of their menstrual cycle. The exception being with weight-training."
are better and ventilation isn't so expensive.
However, non-menstruating sports women and those who are taking oral contraceptives, which usually provide low, steady doses of progesterone, DON'T HAVE A NORMAL MID-LUTEAL PHASE, and therefore do not have to worry about negative psychological and physical changes.

Suslov, the former national coach for distance running in the former USSR wrote in TRACK TECHNIQUE ANNUAL, 1981, "Female sports competitors are encouraged to train normally through all phases of their menstrual cycle. The exception being with weight-training, where heavy weights were substituted for lighter weights with many repetitions. Our experience is that in the 4 days before and after a period there is a higher incidence of injury when using heavy weights."

Generally speaking, a girl's body fat content has to reach about 17 per cent before menstruation will begin. Rumanian gymnasts are kept at half this percentage and either do not start their periods or cease them once the required weight is reached. The medical profession are divided over this condition on the one hand, one school of thought forecasts infertility if this is prolonged. On the other hand, another view is that it is Nature's way of telling the female she is too thin to have children. But the nonappearance of menstruation has been strongly linked with osteoporosis (weakening of the bones) and possible chronic undermining of bone structure. A high calcium intake is recommended in such cases of around 1200 mg daily. Good dietary sources are: milk, cheese, broccoli, legumes, green leafy vegetables, nuts, seeds, peas, beans, and lentils.

Because milk is associated with many allergic reactions with some people, it should not be relied upon as the main calcium source. A new finding is that an obscure mineral - BORAN, found in fruits and nuts, if lacking in the diet will hamper calcium metabolism. Also implicated in calcium absorption is the mineral
manganese, a glass of pineapple juice two or three times a week will suffice. It should be noted that nuts provide all the three minerals (calcium, boron, and manganese).

There is little doubt that taking the contraceptive pill not only eradicates or alleviates many of the unwelcome incidents of PMT, but can be used to manipulate the menstrual cycle so that a period does not occur at the same time as a major sporting event. However, where endurance events are concerned its major drawback is weight gain, fluid retention and a major cancelling out of the entire vitamin B complex. The first two are unwanted handicaps in any activity that continues for more than an hour. The last will affect carbohydrate absorption which is the main fuel for physical activity. A diminution of vitamin B 12's role will reduce the manufacture of new red blood cells. None of these is a happy state of affairs for the keen sportswoman.

While there are some drugs available to alleviate PMT and also a painful period, many of them also affect performance by interfering with the Krebs Cycle (The conversion of energy into oxygen), in particular, the barbiturates. Research suggests that PMT sufferers cannot efficiently metabolise the essential fatty acid, linoleic acid - which is mainly found in good quality vegetable oils - into its normal by products, possibly because of the subtle interaction between derivatives of linoleic acid and certain menstrual hormones. This "barrier" could occur because of dietary deficiencies of nutrients essential for its conversion which include: vitamin B6, magnesium, zinc, vitamin C, vitamin B3 and chromium. Research has shown that countries that have a high intake of fruit and vegetables produce tend to have a lower incidence of PMT.

Poor blood sugar control (Chromium helps with this) is often a problem in women with PMT. Many notice an increase in appetite and/or food or sugar craving in the week or so before the period, and this may contribute to their weight gain and fluid retention.

The following treatments are either proven or accepted by a significant number of medical experts:

- Limit the consumption of refined sugar, salt, red meat and alcohol.
- Eat fish, poultry, whole grains and legumes as major sources of protein, and rely less on red
meat and dairy produce.
- No smoking.
- Minimal amounts only of coffee, tea, chocolate, and cola-based drinks.
- Avoid saturated fats (animal fats, fried food, butter).
- Eat plenty of complex carbohydrates (fruit, all kinds of vegetables)
- Train in the morning in order to keep weight down.
- If sugar and food craving is experienced, eat every 4 hours on the dot only, nuts, seeds, peas, beans and lentils, fish and eggs. (All high quality protein foods).
- Take a multivitamin supplement providing the RDA of all the vitamins and most of the minerals, especially magnesium.
- Evening primrose oil - 500mg capsules, 4-8 per day, taken during the two weeks before the period is due, but if not effective it should be tried throughout the month.

WARNING: If symptoms do not improve or are very severe, a doctor must be consulted. Some hormonal problems can have similar symptoms to those of PMT yet require medical or surgical treatment.

James G Penland PhD a psychologist at the US Department of Agriculture, carried out research on a group of females with severe PMT and menstruation problems. Half were given 600 mg of calcium for six months, the rest were given $1,300 \mathrm{mg}$ a day. Those on the low dose suffered as before. The others on the high dose had reduced mood swings, less physical pain before and during their period. Calcium deficiency has long been linked to muscular cramps.

## "One study of 80 females in the 1964 Tokyo Olympics revealed that gold medals were won during all phases of the menstrual cycle."

It is utterly illogical that a sports person who has trained for moths or even years for the greatest moment in her sporting life, such as for the Olympics or commonwealth Games, and possibly her one and only opportunity to do so, should have that occasion marred by possible PMT and or menstrual problems. However, one study of 80 females in the 1964 Tokyo Olympics revealed that gold medals were won during all phases of the menstrual cycle.

