

# The role of cross-country in the development of a runner

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by Bruce Tulloh

“Cross-country running can form a very effective base in the training of the middle and long distance track runner. Appropriately selected races over the country can also be of benefit, except, perhaps, in the case of certain 'high stepping' track runners, who may find that the typical cross-country terrain tends to distort their natural running action. The benefits are both mental and physical. The variety of terrain and the absence of formal distances and timing offer the athlete an escape from the stress of track training and racing, while, at the same time, building up mobility, strength and mental and physical toughness. Examples are given of the type of training carried out in Britain and in Kenya and suggestions made about the form of training to be recommended for young and for mature athletes.”

## 1 Introduction

The purpose of training is first to reveal the genetic potential of the athlete and then to develop that potential without causing damage.

The type of training carried out by middle distance runners in the weeks leading to a competition is much the same in all countries. The hard sessions are done at race pace or faster and the athlete is forced to adapt to the stress he will face in competition.

However, there are many differences in the regime which is followed at other times of the year. Some athletes compete indoors, some go for training in the southern hemisphere, some rest, some do a lot of endurance running, some go to altitude and others do a lot of work in the gymnasium.

Cross country was a traditional winter activity for runners in Britain and other European countries and it had now spread to America and Africa. The original form of the sport involved racing over long distances, 8-16km. Courses were usually hilly and on soft surfaces – grassy or muddy fields – with occasional obstacles such as fences and ditches. These obstacles were important because they made mental and physical demands which were quite different from those of track or road running.

Because the running surface is soft, there is very little chance of damage from impact. Because the courses are long and hilly, they develop both leg strength and aerobic fitness. Because they are not standardised, times are not important and they, therefore, impose less mental strain on the runner.

It is my contention that cross-country running provides an ideal setting for the development of young (under 19) runners and that it can also be an important part of the preparation of runners at senior level, at all distances from 800 metres upwards. The essence of sport is that it should be enjoyable as well as challenging. The variety which cross-country brings, compared to track competition, makes it much more fun – and the fun element is something which no coach should ignore.

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The type of cross-country racing found at the highest level, with fast, flat courses and kilometre markers, is much more stressful in every way.

Some athletes race seriously both on the country and on the track, while others will specialise in one of the other but, in this article, I want to set out the case for using cross-country running as part of the winter training for middle distance runners. A look at the 1998 world ranking lists will show that Kenyan runners dominated the 800 and 1500 metres lists. Of the nine athletes who broke 1:44min in that year, seven were of Kenyan origin. Of the quartet of British middle runners of the of the eighties, Steve Cram, Steve Ovett and Peter Elliot regularly used cross-country as part of their preparation. Only Sebastian Coe did not, but even he was brought up in the cross-country tradition as a schoolboy.

## 2 The value of cross-country running to the young athlete

The value of cross-country running as a winter sport is that it is cheap, easy to organise, and can generally continue in spite of bad weather, when sports such as football have to stop. In a poor country district of Kenya, youngsters cannot afford to buy a football but they can all take part in a race. At a young age, physical improvement goes on whatever regime is followed and the good coach can encourage boys and girls by recording their times over various cross-country courses and thus showing their progress. It is, therefore, suitable for the slow developer as well as the physically advanced child. As well as developing leg strength and aerobic fitness, cross-country running increases youngsters' confidence, showing them that they can overcome a physical challenge. Unlike track competition, there is a strong element of team spirit. The success of a cross-country team depends as much on the slower members as on the fastest; therefore, everyone's performance is of value. This has the effect of keeping more people in the sport. Above all, it develops a courageous approach to running.

## 3 The place of cross-country training for the adult athlete

What should the athlete be doing during the off-season? After having had a mental and physical rest, the runner and coach will set targets for the following year. What work can be done for the runner to reach higher levels of performance? The physical factors which can be improved over the long term are muscular strength, aerobic capacity and general endurance. The athlete's mental condition is also very important and the coach should keep that in mind when choosing the out-of-season activities.

Before the athlete reaches the period of intense pre-competition training, he or she should be in good health, confident, relaxed and determined. A good way of achieving this is to start with general endurance work in October and then to train for cross-country from November to February, competing in races at the appropriate level. This can be followed by a period of altitude or warm weather training in March, leading into pre-season training in April.

## 4 What form should this cross-country training take?

Because we are trying to keep the stress level low, much of the training will consist of 'good aerobic' running, at around threshold pace (about 85% of maximum heart rate) or slightly slower. The use of a pulse meter in this phase is particularly relevant, since it can prevent the athlete from training too hard or too easily. There may be a period of specific hill training, for example, 8-12 x 60 seconds uphill, or the aerobic runs may include hilly terrain. A typical Kenyan session in the cross-country season is 15-20 x 200m up a steep hill.

Later in the period the runner may be aiming at a specific cross-country race and be doing repetition runs on soft surfaces, such as, for example, 4 x 1500m or 6 x 1000m, but the distances will be only approximate. These sessions stress every aspect of the runner's systems – aerobic capacity, leg strength, lactate tolerance and mental strength. There will naturally be a strong element of general; endurance training, coming from long runs once a week (up to 32km) and from the total volume of training performed. This could be 120-160km in the case of a British runner, but could be 240km in the case of a Kenyan. Whether he competes seriously in cross-country racing or not, this training will produce an athlete who is fit, robust and confident, ready for the track training.

Finally, there are two more areas where cross-country training will bring particular benefits. One is in regard to posture. The runner who has had to cope with a great variety of terrain will have greater strength in the in the supporting muscles of the torso. He will be more flexible and more robust in the ankle, knee and hips joints and thus better able to cope with problems of balance. Most of all, he will be more confident when he come back to the track because it will seem so much easier than fighting his way through mud and over hills.

Cross-country running will not suit everybody. High stepping runners who rely a lot on balance may find themselves unable to compete successfully on slippery surfaces. They can train on the

country but should avoid racing. Because the optimum foot action for cross-country is different from that of track or road running, the coach should ensure that the athlete's style is not distorted by the different surface. There will be no

problem, as long as it is appreciated that the main goals lie in the summer, not the winter.

