

What is orienteering?

The "forest sport", "rallying on foot" or orienteering as it is actually called is a technically demanding sport. Both the navigation and running aspects of the sport are technical. To keep up with split second decisions in the forest like a skilled rally driver requires a brain that can work in the red zone of the rev counter. Orienteering is a complex balance between incisive thinking and hard physical activity. Brains and brawn must be working in harmony before you can hope to achieve a good result.

To find out what is needed to be successful in orienteering we need to analyse the demands of the sport. That analysis needs to include both the general demands of orienteering, but also the specific demands of particular competitions. For example, to achieve a high general performance level we must work with the whole picture so that physical, technical, mental and social factors combine to give the basic requirements for success. Then important competitions like WOC might also present specific challenges. These may influence the content of athlete's training programme as he or she prepares for that race. Whether the race is in Nordic or continental terrain, if the terrain is fast or tough, steep or flat - these factors will naturally influence training and preparation during that particular season.

There are several questions that we need to ask: What happens between the start and finish? What do we do? How long is the course? How fast do we run? What is terrain we run through like? Do we run in the forest or on paths? What sort of running style do we have in the terrain? What muscles are working and how are they working? What heart rate do we have during the competition? How much lactic acid do our muscles produce? What can disturb concentration during the race? What can stress a runner during a competition? What technical challenges are there in different types of terrain?

Analysis of the demands of orienteering

Orienteering today consists of several different disciplines: short distance, classic distance, long distance, night orienteering and relays. The running time for each discipline depends on which class you compete in. BOF has guidelines for course planning based on age and sex.

Physical

- Orienteering is a physical sport. During an orienteering race an athlete works at about 90 percent of their maximum oxygen uptake capacity (VO_2 max). Carbohydrate, mainly in the form of muscle glycogen, is the main energy source for this activity.

High Speed

- The athlete runs at high speed. Speed varies between 4-10 minutes per kilometre, but can dip under 3 minutes per kilometre at certain points on a course. Men run faster than women. In very runnable terrain the difference is only 10-20 seconds per kilometre, but in steep or tough terrain with heavy undergrowth women lose more time in relation to men. Here the difference can be 50-75 seconds per kilometre.

Borg 17-18

- One way of rating effort and speed is using the Borg scale. In orienteering races athletes rate their effort at 17-18 out of 20, which corresponds to a very high work rate. This means that there is significant lactic acid production in the leg muscles.

Tough terrain

- The terrain is often steep, marshes can often be wet and areas of felling or brashed forest can reduce runnability. Open pine forest can change into deep heather or thick bracken. Underfoot conditions are usually soft. This is especially true in Nordic orienteering, but even in Britain small paths, forest or rough open fell side account for the larger part of most courses. No one step is like the other and if we compare the quick foot strike of a track runner with the deliberate, powerful stride needed in the forest our feet are in contact with the ground for a relatively long time.

Individual

- Orienteering is essentially an individual sport. The individual must make all the decisions needed to get from start to finish. The runner takes responsibility for everything that happens in the race.

Quick decisions

- The athlete must continually make new decisions: "I am here. I want to get there." Map contact, compass contact, rough orienteering, fine orienteering, round or over route choices, extending and simplifying the control feature.

Stress

- Athletes can catch other runners, be overtaken and pass public controls or film cameras in the forest. The desire to win or fear of not succeeding can distract from the immediate task of getting to the next control. Athletes face external and inner distractions the whole time and this stress can lead to incorrect decisions. Concentration can be especially difficult in relays or mass and chasing starts when the orienteer is placed in a man-to-man situation.

The above is an attempt to describe the sport of orienteering. Try describing the sport yourself. Think about how the sport is, the different disciplines you compete in and the demands of the sport. You can even think about what orienteering might be like in the future. How are maps, course planning, distances and competition formats going to develop in the next 5, 10 and 20 years? What significance does this have for how you should train, if you want to perform well? Will classic distance orienteering exist in the same form as today, or will short distance and park orienteering be the main events in orienteering? If orienteering becomes an Olympic sport, what type of "TV friendly" orienteering will be in the Olympic programme?

Regardless of how the future looks an athlete can always look at the current situation. What is orienteering like today? What is required to be successful, and what skills and capacity do I already have? These questions are simple, but it can be difficult to find meaningful answers. However the answers are important if the athlete is to shape his or her training and work towards his or her goals.