



# How to prepare your cycling training

*How hard should I train? How often should I train? How far should I cycle? How much recuperation do I need between training sessions? I hear these questions a lot, but unfortunately there is not one answer for everyone. On the opposite side, there are some general guidelines that all cyclists – both amateurs and professionals – can benefit from.*

*This article is about how you gain most out of all the hours in the saddle on the road. We will explain how you can build up your own training programme by using pulse measurement, interval training and different training methods.*

## How much you should train

How hard, how often and how long should I train? This question cannot simply be answered by naming a number of km. To find the answer you need to take your actual fitness and training load into consideration. General advice about the number of km or training hours is in fact useless. If you for example cycle 500 km in a

week, you have not gained the same training effect as when you would have cycled 500 km of which 150 km interval training. And a training session of one hour can easily give a greater effect than a 3 hour easy ride. This is due to the training intensity.

If you for example ride 5x5 min at maximum speed (and thus optimal oxygen uptake) you will gain a greater training effect than a 3 h cycling tour where the training intensity is around 50%  $VO_{2max}$ . The above is the reason why you should be careful to compare your training volume with “general recommendations” or others’ training diaries. Of course you can get some inspiration, just remember to follow some basic rules.

## Restitution

How much restitution do I need? This is also not a question that can be answered easily, as it very much depends on the length and intensity of the training you have done. Moreover, there are great individual differences in what you eat,



how fast you recuperate and how much training you can tolerate. However, it can be said that the more well-trained you are, the more training you can cope with and the faster you can recuperate.

## The length is not decisive

For competition cyclists a total of 400-600 km training per week would be suitable – as long as the quality is all right. Most cyclists, however, cycle much more, but many of these kilometers do not have much value for your training. These kilometers are also called “alibi kilometers” or “placebo kilometers” – they might give you a good conscience, but they do not have an actual training value. It is important to point out that the total number of km over time is relevant – not the length of a single ride. It is namely better to follow a structured programme, where the different training sessions are connected, then to go on long rides and have several rest days or restitution rides. It is recommended that the largest part of your training is done at 55-60%  $VO_{2\max}$  (which corresponds with 60-65% of the heart rate reserve).



This means that you both before and during intervals train in that zone, where the muscles have the possibility to prepare for harder work.

## Heart rate reserve

The heart rate reserve describes the difference between the maximum heart rate and resting heart rate.

$$HRR = HR_{\max} - HR_{\text{rest}}$$

### Example

Peter has a resting heart rate of 60 beats per minute (bpm) and a maximum heart rate of 200 bpm. If Peter should train at 60% of the HRR, the calculation is as follows:

$$HRR = 200 \text{ bpm} - 60 \text{ bpm} = 140 \text{ bpm}$$

The training heart rate can now be calculated  
 Training heart rate = (% intensity x HRR) +  
 Resting heart rate

$$\text{Training heart rate} = (140 \text{ bpm} \times 0,6) + 60 \text{ bpm} = 144 \text{ bpm}$$

On those days where you train intervals, you are not allowed to cycle particularly fast before you have done the intervals. It is namely important that you have something left to go full speed in the intervals – it should thus be high-intensity training.

The high-intensity intervals (HR approximately 90-95%) should take approximately 1½-2 hours every week, divided over 3 days.



On the days where you do not train at high intensity, you can easily plan intervals to train your endurance condition (appr 80% training capacity) – these intervals can last between 15-60 minutes. This means that on light training days you can settle for 15 minute intervals, whereas on intensive training days you can put in up to 3 series that last an hour together. All in all, it is a good idea to plan 2-3 hours per week for endurance intervals.

Endurance training can be carried out in different ways. The way that we just have described ensures that you get the necessary intensity on the days between the “real” interval training, without them being too strenuous. This results in that you have time to recuperate for the next day, when you should ride high-intensity intervals.

## Remember the anaerobic intervals

Besides the endurance training that we have just described, you also ought to have one day a week where you ride anaerobic intervals. This can e.g. be 45 s uphill sprints at maximum speed – and thus maximum intensity – that are repeated 4-5 times with minimum 5 minutes active pause in between. It is important that the breaks are long enough, so the next sprint can again be done at a high level.

This tough form of anaerobic interval training requires time for restitution. This is why these days should be after the strenuous training days. The intervals should be in the beginning of your ride so you are fit enough to do them properly – preferably after the aerobic intervals, as you often do not have enough resources to carry out quality training after the uphill sprints.

## Fartleg

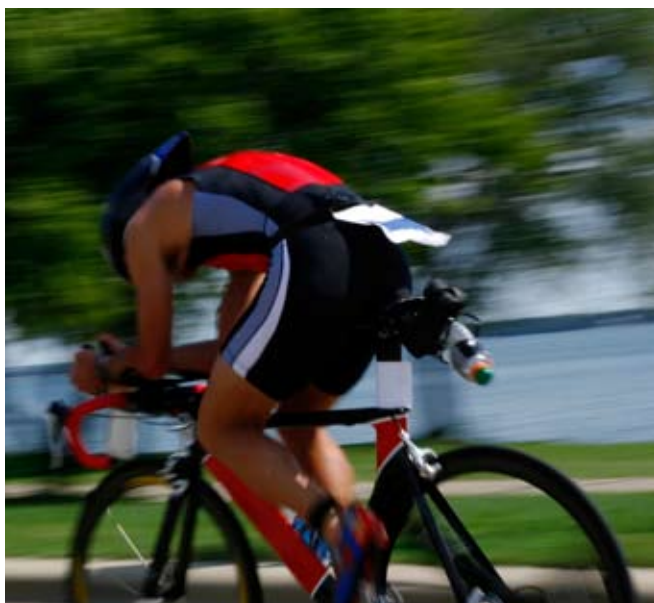
Fartlek is a form of training where you decide the speed in your training. It is different from interval training, where the length, intensity and timing of the intervals are set. In fartlek you can decide these variables after your own insight. This means that you have a greater variation in your strenuous training. Moreover, many feel that time passes faster with this kind of training.

Fartlek can be carried out in many different ways and you have the possibility to profit from your surroundings. Are you cycling in a hilly area, you can decide to sprint uphill and roll downhill. You can also cycle different paces between signs and trees.

When you are riding in a group, you could take turns in determining the pace. It is only your own fantasy that sets the boundaries for this type of training.

You can train both sprints and endurance this way, as it is you who decides how long the intervals are and at which intensity.





## What to do if you do not have time to train every day?

The abovementioned guidelines in relation to training volume naturally require time. However, you can still train both seriously and have a great effect, even though you only have three days a week available to train – they should just be effective. That is why you should get rid of the “light” days and “intermediate” days and have quality in all three training sessions. You could for example ride two structured days between 2-3 hours with intervals that together give 30 minutes high-intensity training (90-95% training heart rate) and 30 minutes endurance training (approximately 80% training heart rate).

The last day you could do a longer ride, where you for example could do some fartlek (see text box on fartlek), as to train high-intensity training in combination with shorter and longer bouts, where the maximum speed is tested. Sprinting uphill and sign-sprints are also suitable, though a bit unstructured.

## Conclusion

The ideal programme for everyone does not exist. You will have to find out yourself how your training should be planned. When you plan your training, however, you should pay attention to:

- total training volume
- intensity
- length and intensity of intervals
- both aerobic and anaerobic training
- the time you have available

There are of course many variation possibilities, but these rules of thumb give you a rough idea of how a training programme can be structured – all according to ambition level, time and desire.

## Training examples

Here you can find a way to structure a programme. The programme is for road cyclists that have a good basic fitness level. Remember to warm up and cool down as well as keeping an intensity of 55-60% between the intervals.

### Training example: training every day

Monday: 3x20 min endurance interval

Tuesday: 30 min high-intensity + 4 uphill sprints of 40 seconds

Wednesday: 15 min endurance + 6 x sprint (6 sec work and 2 min active pause)



Thursday: 30 min high intensity

Friday: 3x20 min endurance + 8 x sprint (6 sec work and 3 min active pause)

Saturday: 45 min high intensity

Sunday: Easy ride 60-90 min

### Training example: training 3 days/week

Monday: 2-3 hours with intervals, of which 30 minutes high intensity and 30 minutes endurance

Tuesday: day off

Wednesday: 2-3 hours with intervals, of which 30 minutes high intensity and 30 minutes endurance

Thursday: day off

Friday: day off

Saturday: up to 4 hours: 45 minutes combination of high intensity and fartlek

Sunday: day off

### Training example: training 5 days/week

Monday: 2 hours with intervals, of which 45 minutes high intensity

Tuesday: recovery day, rest

Wednesday: 2 hours: 3x20min endurance + 8 x sprint (6 sec work and 3 min active pause)

Thursday: 1½-2 hours with

intervals, of which 40 minutes high intensity

Friday: day off

Saturday: 1½ hours: 3x20 min endurance + 6 x sprint (8 sec work and 2 min active pause)

Sunday: up to 4 hours: 45min combination of high intensity and fartlek

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