


The
30/15
high intensity interval

A brief practical guide

*by Martin Bonnevie-Svendsen
B.Sc., M.Sc., Dr.Med.*

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A close-up photograph of a male cyclist. He is wearing a black cycling helmet with a bright yellow-green visor. He is also wearing a dark blue cycling jersey with orange and red horizontal stripes on the right side. He has extensive tattoos on his left arm. He is holding a red and white cup to his lips, with the word 'Fuel' visible on the side. The background is a blurred, light-colored wall.

With the exception of the referenced literature, it should be pointed out that the information in this PDF is experience-based only. You should never blindly adopt this or any other training strategy without considering your individual fitness and health first. In no way does this document constitute medical advice, nor does it replace such advice. Regarding concerns related to your health you should always consult professional medical personell.

The 30/15 High-Intensity Interval

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The 30/15 high-intensity interval session is described in detail in a 2015 paper published in the *Scandinavian Journal of Medicine and Science in Sports* by Rønnestad and colleagues (1).

The authors report a 12% lift in threshold power and 40-min time trial power and a 8.7% increase in VO2 max following ten weeks of two weekly 30/15 sessions in well-trained competitive cyclists.

This pdf provides my pragmatic experiences with the 30/15 interval session.

The workout

The workout in questions consists of alternating work periods of 30 seconds at high intensity and recovery periods of 15 seconds where low-intensity work is performed. In the original paper by Rønnestad et al, the riders completed continuous work/recovery cycles for 9.5 minutes (13 cycles) before a 3 minute break.

This was then repeated for a total of three 9.5 minute efforts (in total, 39 cycles).

The interval intensity

The subjects in this study were instructed to perform the high-intensity cycles at their «maximal sustainable work intensity». That means they were to aim for achieving the highest possible average power output.

Power output during the recovery periods were 50% of that achieved during the high-intensity work.

If you own a power meter, at this point you will probably wonder «what does this correlate to in percentage of FTP?»

In my experience, this will vary significantly depending on the individual rider and his/her capacity at higher power outputs.

I know some coaches who utilize VO2 max testing prescribe this workout at power values correlating to power at 100% of VO2 max. However, unless you have recently performed a VO2 max test, this will not be of much help.

My experience is that most riders will hit the «spot» for this workout somewhere between 120 and 140% of FTP.

However, I would recommend giving the workout a go without worrying about your FTP. Simply aim for an intensity you think you will *just* be able to sustain for the total duration of the session. If you are close to dying towards the end, but able to get through the last cycles (without big power drops), you hit the spot.

A well executed session will usually collect you a good chunk of time at heart rates at and above 90% of your maximum heart rate.

How to perform the workout

If you are a well trained cyclist you should be able to adopt the following session protocol:

15-20 min warm up

30 sec high-intensity
15 sec low-intensity **X 13**

High-intensity cycles at approx. 120-140% of FTP, but allow your legs to set the pace.

3 min recovery

30 sec high-intensity
15 sec low-intensity **X 13**

3 min recovery

30 sec high-intensity
15 sec low-intensity **X 13**

You should be able to just about maintain your average power for the last couple of 30 sec cycles.

5-10 minute low-intensity cool down

Tip - you can play around with shortening the 3 min recovery between sessions. I would suspect a shorter recovery period would allow more time at higher heart rates (shorter drop and less ground to make up for before reaching higher HR next session). However, this would probably result in slightly lower average session power. This might somewhat shift the focus between cardiovascular and local neuromuscular stimuli. However, I am only speculating here, and I have no way of saying which is better.

If you are a moderately trained cyclist you might consider starting with the following protocol:

15-20 min warm up

**30 sec high-intensity
15 sec low-intensity** X 10

Don't worry too much about your heart rate during the first session.

3 min recovery

**30 sec high-intensity
15 sec low-intensity** X 10

If you hit the correct intensity, you should be approaching 90% of your max heart rate during the second session.

3 min recovery

**30 sec high-intensity
15 sec low-intensity** X 10

PAIN FINISHED

5-10 min low-intensity cool down

Tip - if you are unsure if this protocol is too brutal for you, try adding up the total duration of your favorite high-intensity intervals (e.g. 6 x 2 min = 12 min). You can then assign a number of 30-second cycles and distribute them equally across three series so that it adds up to the same total duration (8 cycles of 30 sec x 3 = 12 min).

A quick note on alternative short interval formats

Short high-intensity intervals like the 30/15 format is by no means new. They have been used by cyclists and studied for decades.

However, the study of Rønnestad is the first to compare the method to report such significant results against a documented and effective control session (4x5 min), in well-trained cyclists and over a relatively long intervention period (10 weeks).

For your consideration, numerous variations of short intervals exist, such as:

- **15/15 sec**
- **30/30 sec**
- **40/20 sec**
- **45/15 sec**
- **60/60 sec**
- **60/30 sec**

Interestingly, Rønnestad and colleagues argue that the 2:1 work to recovery ratio seems to allow more time spent above 90% of VO₂ max (1).

This might be in favour of formats such as 30/15, 40/20, 45/15 and 60/30.

As of today, there is no available research to suggest which of the above methods are more efficient.

However, you can get a fair idea yourself by trying out the different formats. By reviewing your time in heart rate zones and average power you should get a decent indication of which induce the greater training stimuli.

Best of luck with your training!

- Martin

References:

1. Rønnestad BR et al. Short intervals induce superior training adaptations compared with long intervals in cyclists – An effort-matched approach. *Scandinavian Journal of Medicine & Science in Sports*, 2015;25:143-151

<https://www.ncbi.nlm.nih.gov/pubmed/24382021>