



NPHR training is to be done once or twice a week for at least 6-continuous weeks. You should not do any other riding on the NPHR days. Warm up well before the session as inactive muscles require about 3.1 liters blood/min and your active muscles can use up to 21 liters blood/min. Warm-up adaptation can take anything from 10 minutes for regular riding to 20 minutes for training sessions to 40 minutes for racing to accomplish.

For your NPHR session you need a hill that has a steady incline 1-2 miles long, (about 10 minutes to climb) that under group training conditions you would be climbing at 10-11mph i.e. not too steep. Newport Coast from Pelican S to Pelican N (light to light) is an excellent route and I strongly suggest that you use that for your 1st few sessions before finding a local similar hill.

The workout: Approaching the hill prepare yourself to achieve a controlled relaxed state of mind essential for a good climb (all in your head). For your 1st effort select a gear that will carry you all the way to the top of the hill without having to breath heavily. You will not be changing gears so be conservative. 39/25 is fine. 1st repeat must be easy so that you can concentrate on getting into a smooth and steady rhythm.

At the start of the hill while you are climbing demand your entire body (especially your thighs) relax. Shrug your shoulders and play the piano with your fingers, keep your body and bike rock steady i.e. there is no movement at all from your hips up. Breathe deep into your lungs by pushing out your stomach each time you breathe in. Spin easy and relaxed. Aim for a steady, calm and smooth power train rhythm cadence of between Minimum 80 to a Maximum 95 rpm (most efficient cadence = 90rpm). Let the spin take over the climb - there will be no pounding upper legwork ever during these repeats.

Produce a personal climbing checklist in your head - make it simple and easy to remember e.g.:

Spin, Spin, Spin, Relax Thighs

Don't pant, breathe deep, and Push out stomach

No stomping, Power from the hips, Steady upper body

Soft grip, Relax, Shake Shoulders/Neck/Hands

NPHR is riding technique training so do not even look at your heart rate or power numbers – they are irrelevant for the neuromuscular adaptation and in fact a big distraction. That is not to say that the climbs are to be easy -- on the contrary you are working very hard by the end of the prescribed sessions BUT the work is more mental than physical. Try to maintain excellent form, relaxed pedaling technique and controlled breathing (all the while trying to climb). The harder it gets physically the more you have to demand (mentally) that you relax into the technique.

Extra (advanced) techniques: At the bottom of each pedalstroke simulate scraping mud off the bottom of your shoe. Concentrate on one foot at a time until you achieve a smooth action coordinated with your pedal stroke - then concentrate on opposite foot. Repeat until coordinated. Alternatively try to 'float' your feet over the pedals i.e. reduce contact of your feet off the bottom of your shoes.

At the top of the hill turn around and soft pedal in recovery mode down to the bottom of the hill (no speeding, sit up and keep legs turning slowly). Take at least 5 minutes before starting the 2nd climb; heart rate should be fully recovered to low 100s - even if you have to make a short flat loop at the bottom. Before starting your next repeat 1st begin with mentally envisioning a controlled relaxed state of mind essential for a good climb. Add 1 gear to the previous hill repeat gear, start 2nd climb. Add 1 gear to the previous hill repeat gear, start 3rd climb. Add 1 gear to the previous hill repeat gear, start 4th climb.

Now for the final instruction & the most difficult part of this workout: Immediately you are unable to hold a cadence of 80 rpm or lose your smooth rhythm – **SOFT PEDAL IMMEDIATELY AND HEAD HOME!**

Allow at least 48 hours recovery before your next session. Start in a gear that will allow only 3 + part of 4th climb. If you completed 39/25, 39/23, 39/21, 39/19 (fail half way up), start in 39/25 again. As soon as you can complete the 39/19 and do part of 39/17 (i.e. 5th climb), start the next repeat day in 39/23.