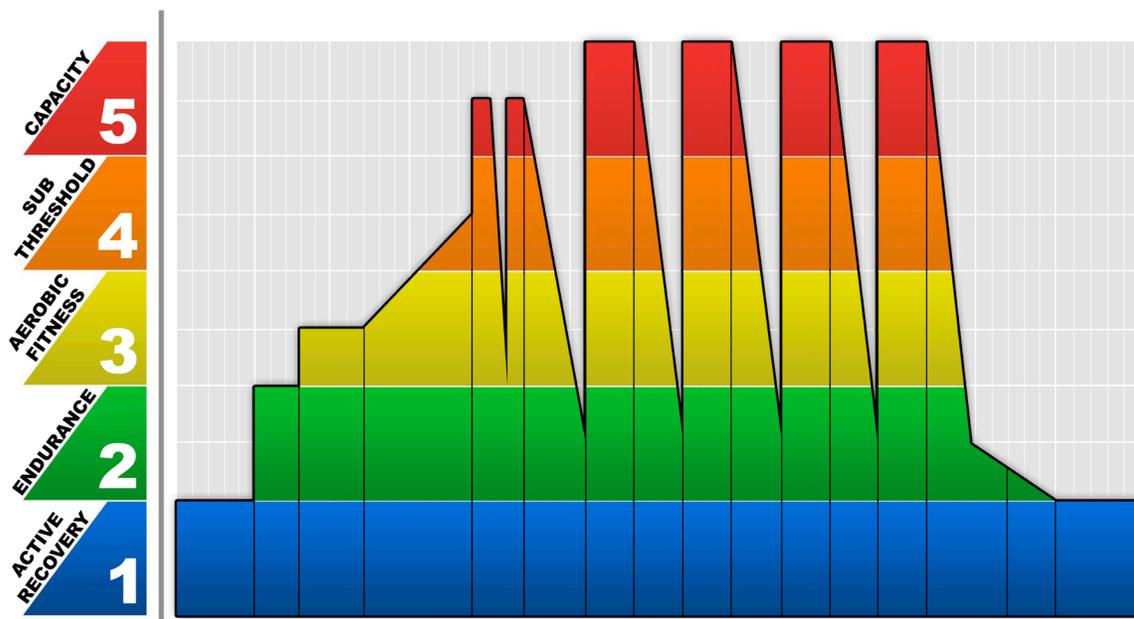


Created by **Tom Scotto / Cycling Fusion**  
 Training Type: **Muscular Strength / Power & Heart Rate Response**  
 Working HR Zones: **Zone 5**  
 Cycling Specificity: **5**  
 Total Class Length: **60 minutes**

### PROFILE OVERVIEW

This profile is called *Climbing Strength Intervals*. It is a simple profile that focuses on four 3-minute climbing intervals designed to test and develop muscular strength. Riders can track their heart rate and/or power during the class to gauge their individual climbing efforts. The beauty of this class is that it takes a simple look at one concept of heart rate and power training and reduces the risk of overwhelming people. This profile can be introduced without any previous training on heart rate or power. It is a simple way to explore and learn.

### PROFILE DESCRIPTION



**Intro & Warm-up**

Length: **4:34**  
 Music: **The Metro by Briza**  
 Cadence: **90 – 110 RPM**  
 RPE: **50 – 60%**  
 Intensity: **Zone 1 – Easy**

After you cover all of the basics (personal intro, safety, proper form, hand positions, etc.), let your riders know that you are going to focus one concept - How hard can we work while climbing. This may scare/intimidate some so ensure people that they can always work at their own pace.

CAUTION: Due to the intense focus on muscular strength, riders should be cautioned to consider any injuries or limitations they have in areas such as the knees, hips, back and neck. During hard efforts, sensitive joints and injuries can be placed under additional stress which should be avoided. If riders find the efforts too difficult, they should focus on proper form and work as hard as appropriate.

This is a good time to hand out the form for those interested in recording what they observe (having some pens available is always helpful). On the form the ride will see 2 columns. The left column is for them to record their maximum or average heart rate (HR) and/or maximum or average power (watts). In the right column they will record their recovery heart rates.

INTERVAL		RECOVERY HEART RATE			
END / AVG POWER		END / AVG HEART RATE	MINUTE 1	MINUTE 2	MINUTE 3
<p>Before you begin the intervals, record your recovery heart rate after the warm-up and openers →</p>					
<b>1</b>					
<b>2</b>					
<b>3</b>					
<b>4</b>					

After the warm-up with consists of a time to raise the heart rate, a steady climb and some opening efforts, they will enter their recovery heart rate for 3 minutes. Let them know that you will be managing the clock so they don't have to worry about it. Then the climbing intervals will begin. There are 4 climbs. Each are 3 minutes long followed by 3 minutes to recover. The goal is to climb as hard as possible for the entire 3 minutes. At the top, record the maximum or average heart rate and recovery on the left of the form. Then after each minute of recovery record the heart rate.

### **Learn About Your Body**

This will give riders an opportunity to learn how their body responds to hard efforts. They can see if they were able to sustain the same heart for each or if their heart rate is erratic or increases with each effort. They will also observe whether they are able to maintain the same amount of power (watts) for each of the climbs. For those who want to learn more, they can observe how much they are able to recover (in heart rate) in 3 minutes. Some may find that they recovered the same after each climb while others may find that they recovered less and less with each effort.

In many ways it proves the power of the tools (heart rate monitor or power meter) because they will be able to compare how they felt to what was actually being accomplished. However, this sense of reality can be depressing depending on their expectations so keep them in the "exploratory" mindset and encourage them not to read too much into it just yet.

### **Warm-up 2: Move to Zone 2 - Endurance**

Length: **3:04**  
Music: **170 by SoundPusher**  
Cadence: **95 RPM**  
RPE: **60 – 70%**  
Intensity: **Zone 2 – Fairly Light**

Have riders begin to add some resistance so the effort produces a rhythmic breathing pattern. The intensity should be easily maintainable. Let them know that it is important that they increase their intensity slowly to help the body prepare the energy/fuel needs for the upcoming effort.

### **Warm-up 3: 30- Second Accelerations**

Length: **5:19**  
Music: **Infrared by Ball of Waxx**  
Cadence: **65+ RPM**  
RPE: **70 - 80%**  
Intensity: **Zone 3 – Moderate**

Continuing to increase the heart rate slowly, the simple goal of these accelerations is to bring the rider into Zone 3 – Moderate. The tempo of the music is slower to provide room to increase their leg speed and allow them to return to the tempo to recover between efforts.

### Prep 1: Steady Climb

Length: **6:42**  
Music: **River of Dreams by Briza**  
Cadence: **75-80 RPM**  
RPE: **70 – 90%**  
Intensity: **Zone 3 to Zone 4 (Sub Threshold)**

The steady climb serves 2 purposes: First it begins to apply steady pressure on the muscles to prepare them for the heavier stresses later and Second it serves as a steady way to increase heart rate to the point where riders are becoming uncomfortable. Riders should focus on being relaxed while they climb and resist “attacking” at the top. Have them alternate in and out of the saddle.

NOTE: The cadence during this climb is purposely higher (75-85 RPM). This faster leg speed will keep the rider from placing too much force on the muscles to avoid fatiguing them too early.

### Prep 1: Openers

Length: **3:53**  
Music: **Depth Charge by Zircon**  
Cadence: **80+ RPM**  
RPE: **90 – 100%**  
Intensity: **Zone 5 – Max Effort**

As soon as the climb ends, instruct riders to push as hard as they can for 60 seconds (their heart rates should already be closing in on 90% RPE). Only give them 1 minute to recover after the effort and ask them to do it again. These are referred to as openers. They open up the energy systems in the body (such as the anaerobic pathway and creatine phosphate system) and activate processes that help clear by produce/waste after each intensity effort (such as the ability to remove blood lactate).

### Recovery

Length: **3:00**  
Music: **Big Piano by Street Level Productions**  
Cadence: **80 RPM**  
RPE: **50 - 60%**  
Intensity: **Zone 1 – Easy**

After the last opener have riders return to an easy road and recover for 3 minutes. This is when the recording begins. You will need to have access to a clock or watch to signal to riders at 1 minute, 2 minutes and 3 minutes (the beginning of the interval) so they can write down their heart rate numbers. You should let riders know at least 15 seconds before the interval starts so they can prepare and record their heart rate if desired.

## Climbing Strength Interval

Length: **3:00**  
Music: **Affect Dance 02 by Gregory Tripi**  
Cadence: **70 RPM**  
RPE: **90 - 100%**  
Intensity: **Zone 5 – Effort**

The cadence is the key for strength building. Have riders continue to add as much resistance as they can until their legs begin to slow below the tempo of the music (or 70 RPM). This is the cadence and workload they must maintain for the entire climb. Instruct them not to focus on the heart rate or power during the climb but only observe it at the end. Often times if a rider starts to look at their heart rate, they may panic (in either direction) and start to alter their effort based on what response they are NOT seeing.

You will need to encourage them constantly during the climb to keep them working at their capacity. Give them intermediate time checks every 30 seconds for the first 2:30. Count down every 5 seconds for the last 30 seconds (“30 seconds to go.....25.....20.....15...10....5..4..3..2..1..”). This will keep them motivated in the critical seconds when they are most-likely to give up.

As the riders hit the top of the climb have them look at their heart rate and/or power and record these numbers. Some indoor bikes like the Keiser M3 will display the average heart rate and power if the rider stops their legs and waits for the numbers to blink. The M3 computer can be reset before each interval by moving the resistance/gear level all the way up and down 3 times.

## Recovery

Length: **3:00**  
Music: **Big Piano by Street Level Productions**  
Cadence: **80 RPM**  
RPE: **50 - 60%**  
Intensity: **Zone 1 – Easy**

After the interval have riders return to an easy road and recover for 3 minutes. Signal to riders at 1 minute, 2 minutes and 3 minutes (the beginning of the interval) so they can write down their heart rate numbers. You should let riders know at least 15 seconds before the interval starts so they can prepare and record their heart rate if desired. For a class like this, I will often use the same song for recovery. It is usually in the background and serves as a good indication that riders should be recovering “This song is our recovery theme. Whenever you hear this music it is time to recover!”

...REPEAT....

The recovery will be exactly the same each time. The intervals will use different music and target slightly different cadences. Here is an overview of the next 3 climbing strength intervals:

**Climbing Strength Interval # 2**

Music: **Razors by Richard Harris**  
Cadence: **65 RPM**

**Climbing Strength Interval # 3**

Music: **Hands Up 300 by Big Beat Muzic**  
Cadence: **70 RPM**

**Climbing Strength Interval # 4**

Music: **Demented Drum by Wizzy Noise**  
Cadence: **70 RPM**

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**Active - Recovery – Steady State**

Length: **6:23**  
Music: **One World by DJ Diml**  
Cadence: **100 RPM**  
RPE: **50 - 70%**  
Intensity: **Zone 1 – Zone 2**

After the last interval have riders record their recovery heart rate as before. For the remaining 3 minutes have riders maintain a steady effort to provide some active-recovery for the body, but more specifically, the legs. This is a good time to begin talking about what riders may have experienced during the ride.

**Cool-Down / Stretch**

Length: **8:00**  
Music: **Heaven by Ingo Herrmann**  
**Find Your Peace by Marty Stone**  
Cadence: **70 - 80 RPM**  
RPE: **~ 50%**  
Intensity: **Zone 1 – Easy**

Encourage riders to listen to their body and its response to the workout. Some may need more time to cool-down and should feel they have permission to do so.

**Where's My Power**

A quick note to those (instructors and riders) who are used to seeing their power numbers. This workout is not designed to produce the highest power numbers. The goal is on muscular strength. Those that do work with power know that faster cadences (80+) with appropriate resistance will produce higher power output. This workout is designed to place large amounts of stress (force – torque) on the muscles which is best achieved with slower cadences. Make sure your riders know this or they may get discouraged or think they didn't get a good workout because their power numbers were not high enough. In this case, more (or higher) is not better.

Enjoy the ride and keep your class from getting overwhelmed with using their heart rate monitor or power meter for the first time. Keep it simple. Also, don't make people feel bad or that they wasted the workout because they didn't have a heart rate monitor. Just let them know how much they could learn and be aware of with one. Hearing other people talk about their numbers is often the best advertisement.

**Final Note: HOST A SPECIAL EVENT**

A ride like this lends itself to a special event very nicely. Talk to your group fitness director and see if they will promote it a few weeks in advance. This will "hype" up your class AND give people a chance to purchase a heart rate monitor (if they were on the fence) before class. If the club you teach at sells heart rate monitors – even better!