This guide includes training suggestions for your chosen distance for Bike to Cure benefiting VeloSano. This plan will get you ready for your ride with minimal time and energy commitment. The Weekend Warrior schedule is not really the “Right” way to do it, but hey, I realize everyone has busy lives with limited time and this plan will help get you ready mentally and physically to enjoy your experience. With just two workouts per week, you can be ready to Bike to Cure.

**The Details**

Your rides will basically include one long, slow ride per week and one ride with hills or “intervals”. Intervals are short periods of higher intensity exercise, usually 2 to 5 minutes in length that are separated by rest periods. You should continue riding throughout these sessions, but reduce your pace significantly during the rest periods. Try doing intervals of varying lengths and intensities. A good way to add intensity is to ride into a headwind or up a small hill. You will also notice that one (additional) day per week is designated as a cross-training day. Cross-training is important to prevent injury and burnout. If you’re a true “weekend warrior” you can even do this on the same day as one of the rides. The best cross-training activities are weightlifting, yoga, jogging, swimming, or walking.
**Commonly Asked Questions**

**Am I allowed to “draft” off of other cyclists?**

Drafting is permitted, but this can be a dangerous activity. Only practice drafting after you are very comfortable on your bicycle, with experienced cyclists, and only under good conditions. Keep in mind that while you are drafting, you are riding with 20-30% less effort, so you will probably not be gaining as much fitness during this activity as you would if you were riding alone. But if you choose to draft during the event, be sure to practice before-hand. Work on maintaining a smooth steady pedal-stroke, a very straight line, and always looking ahead of your group to anticipate changes in pace. Avoid looking only at the person right in front of you, and avoid slamming on your brakes suddenly!

**How hard should I be going on my slow rides? My fast rides?**

REFER TO GRAPH 1

This depends on several factors including your age, fitness and level of experience. Intensity can be categorized into 5 distinct “training zones” listed in Graph 1, and monitored in several ways, including heart rate (bpm), rating of perceived exertion (RPE), pace (mph), and even power (Watts). Monitoring your heart rate to remain within the appropriate training zone throughout your ride will require a heart rate strap or a smartwatch. This method takes into account your age and fitness to provide an affordable objective measure. By monitoring your resting heart, you will be able to appreciate improvements in fitness as your resting heart gradually declines as your cardiovascular system becomes stronger and more efficient. On the other hand, an elevation in resting heart rate could be an early warning sign of overtraining, indicating the need to focus on more recovery between training sessions. Additionally, exercising heart rates can provide insight into hydration status. As you become dehydrated from increased water loss through sweating, the amount of blood the heart can pump each beat also decreases, and as a result the heart compensates by increasing heart rate. This increase in heart rate for the same level work is referred to as “cardiovascular drift”, and can significantly impair your performance.

Training intensity can also be measured based upon how hard you feel you are working through your “rating of perceived exertion” using a scale from 0-10. To measure time, speed, distance as well as revolutions per minute (rpm), cadence, or power (watts) consider getting a bike computer. The information this tool provides helps track progress and builds confidence throughout your training. You can also download one of the many popular fitness tracking apps to your smartphone, which could sync with your heart monitor in addition to providing speed, distance and pace through GPS on your phone.

**What about nutrition and hydration?**

REFER TO GRAPH 2

Bike to Cure Rest Stops will be well stocked and well supported, but during your longer training rides, you should carry water or sports drink. For your longer rides (anything over one hour) you should bring a small snack such as an energy bar or some fruit. Be sure to consume familiar food and drinks on the event day, to avoid GI upset. It is important to be well fed and hydrate the days leading up to the event, because your body’s preferred fuel source is carbohydrates stored in your muscles in the form of glycogen. Post workout meals are crucial for replenishing these glycogen stores, which set the stage for next training session. It is best to consume higher glycemic carbs during and after training. During prolonged endurance events protein requirements also increase as the body begins to oxidize protein as an additional fuel substrate. With 1 hour of aerobic exercise at 55-60% of Heart Rate Reserve leads to a 25% increase in protein oxidation. Hydration also plays a key role in performance, with just a 1% decrease in body water resulting in a compromised ability to thermo regulate and dissipate heat during exercise, a 2% reduction can decrease cardiac output, cognitive awareness and time to exhaustion. Consider following the hydration recommendations listed with Graph 2.

**Which should I do if it is raining?**

Riding in the rain can be dangerous, and it is usually not very pleasurable, but it certainly may happen! If you are new to cycling, I suggest that you take a rest day if it is raining, or substitute a walk or jog. Don’t try riding in the rain until you are very comfortable handling your bicycle. However, consider (eventually) doing at least one or two rides on rainy days so you can practice how to handle your bike on slippery roads. Be very cautious on turns, especially on painted surfaces such as crosswalks as they get slippery when wet. Leave extra time for stopping, and have your brakes adjusted so they can be applied very firmly. Dress with an extra layer of clothing or light rain jacket. Don’t ride with dangling clothing items that may become tangled in the wheels or chain. AVOID car traffic on rainy days. They often can’t see you.
Commonly Asked Questions

**GRAPH 1**

<table>
<thead>
<tr>
<th>HR Zone</th>
<th>Component</th>
<th>%HRmax</th>
<th>RPE</th>
<th>Pace</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE 1</td>
<td>Active Recovery</td>
<td>50-60%</td>
<td>4-6</td>
<td>Slow 8–10 mph</td>
</tr>
<tr>
<td>ZONE 2</td>
<td>Endurance</td>
<td>61-70%</td>
<td>6-7</td>
<td>Light 10-14 mph</td>
</tr>
<tr>
<td>ZONE 3</td>
<td>Stamina</td>
<td>71-80%</td>
<td>7-8</td>
<td>Moderate 14-16 mph</td>
</tr>
<tr>
<td>ZONE 4</td>
<td>Speed</td>
<td>81-90%</td>
<td>8-9</td>
<td>Fast 16-18 mph</td>
</tr>
<tr>
<td>ZONE 5</td>
<td>Power</td>
<td>91-100%</td>
<td>9-10</td>
<td>Sprint &gt;18 mph</td>
</tr>
</tbody>
</table>

**Calculating Training Zone**
Heart Rate Range for a 40 year old cyclist with a Resting HR of 68.

- Heart Rate Max
  \[ = 220 – \text{Age (40)} = 180 \]
- Heart Rate Reserve
  \[ HRR = \text{HRmax} - \text{HRrest} \]
  \[ HRR = 180 - 68 = 112 \]
- Intensity for Zone 2 (60-70%)
  - 60% x 112 = 67
  - 70% x 112 = 78
- Add resting HR back
  - 60% = 67 + 68 = 135
  - 75% = 78 + 68 = 142
- Zone 2 (135 – 142 bpm)

**GRAPH 2**

<table>
<thead>
<tr>
<th>HR Zone</th>
<th>Sustainability</th>
<th>Fuel Source</th>
<th>Fuel System</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE 1</td>
<td>Long Duration Hours+</td>
<td>Predominately Fat Aerobic</td>
<td></td>
</tr>
<tr>
<td>ZONE 2</td>
<td>Up to an hour or more</td>
<td>Fat &amp; Glycogen (carbs)</td>
<td>Aerobic</td>
</tr>
<tr>
<td>ZONE 3</td>
<td>Several minutes</td>
<td>Muscle glycogen (carbs) &amp; some Fat</td>
<td>Aerobic Anaerobic</td>
</tr>
<tr>
<td>ZONE 4</td>
<td>30 Seconds to a few minutes</td>
<td>Muscle glycogen (carbs)</td>
<td>Anaerobic</td>
</tr>
<tr>
<td>ZONE 5</td>
<td>Seconds</td>
<td>Creatine phosphate ATP-PC</td>
<td></td>
</tr>
</tbody>
</table>

**Nutrition Recommendation**
Carbohydrates: 30-55% total calories
4-6 g/lb BW

- Intense Training Days
  - More carbs
  - Higher glycemic, lower fiber

- Recovery Days
  - Fewer carbs
  - Lower glycemic, higher fiber

**Fats:** 20-35% total calories
0.3 – 0.6 g/lb BW

**Proteins:** 25-35% total calories
0.5 – 0.7 g/lb BW
30g per meal

**Hydration Recommendation**
Pre-Workout
24 oz

- During Workouts
  - 12 oz every 30 min

- Post Workout
  - 16-24 oz / lb lost

**Sodium**
300-600 mg/h
Commonly Asked Questions

Do I really need to ride on hills?
How steep or long should the hills be?
This depends upon how hilly your event route will be and on what you have available for hills. Check out velosano.org to view your route using Ride with GPS for turn-by-turn and elevation details. When in doubt, start with smaller hills and ride up them more slowly. If you do not have hills nearby, try using a freeway overpass, or the road through a small river valley. You may also use a stationary trainer with increased resistance setting, or just ride on a flat road but use a higher gear for a short time. However, if you are preparing for one of the more hilly routes, you should drive to a place with large hills at least once during the month of August. There is really no good substitute for the real thing! Also practice going downhill safely, and practice turning and stopping on downhills.

What if I miss a workout?
You do NOT have to do extra training. Just simply pick up where you left off on the list of training sessions, OR just restart at today’s date on the calendar. Maybe add in one extra session per week if you’re ambitious. Off time is set-aside to help with recovery but can be used to make up some missed training.

Conclusion
We hope you enjoy your Bike to Cure ride, but also enjoy the process of training for the event. Please ride safely, and always try to have fun. Once you’ve finished this event, we encourage you to pick another athletic goal for the fall or winter, and we hope to see you again next year at Bike to Cure!
July

**WEEK 1**
- Measure Resting Heart Rate. Get out the bike. Have a local bike shop check your fit and do a tune-up. Check velosano.org for offers from local bike shops.
- Slow ride for fun. Ride 15-20 minutes. Stop if needed to adjust saddle position.
- Moderate ride to check fitness; stop just before you get REALLY tired. Make note of how far you could comfortably go. This is your “Baseline” fitness.

**WEEK 2**
- Short ride for just 20 minutes but try a few small hills or intervals. Push the effort for just a minute or two. How does it feel to go fast?
- Cross training. Resistance training can help preserve lean muscle mass if part of your goal is weight loss and improved body composition. Start with 1 set of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2.
- Longer slow ride (Zone 2). (30% of ride distance) Trial some nutrition options to accustom stomach to refueling while exercising.

**WEEK 3**
- Moderate-paced short ride (Zone 3).
- Cross training. Increase to 2 sets of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2 (increase by 10%).
- Long, slow ride (Zone 2). Go a bit farther than your longest mileage (Increase by 10%). (40% of ride distance)

**WEEK 4**
- Intervals: Ride slow to warm-up for 5 minutes, then alternate fast and slow riding for about 15 minutes – 1 minute fast (Zone 4) and 2 minutes slow (Zone 2). Repeat 5 times. Finally, ride slow again (cool down) for 5 minutes.
- Cross training. Increase to 3 sets of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2 (increase by 10%).
- Long, slow ride (Zone 2): Not as far as your longest (similar to week 2 distance). Practice shifting gears, stopping at stop signs, riding a nice straight line. (50% of ride distance)
**August**

**WEEK 5**
- **Tempo ride:** After short warm-up, ride a moderate to hard pace effort (Zone 3) if you're doing the 10-mile route, try 4 miles. If you're doing the 25-mile route, then go 10 miles. If you're doing the 50, try 20 miles. This should feel quite challenging. Try to keep an even pace the whole time or even go slightly faster at the end. Cool down for 5 minutes.
- **Cross training:** 3 sets of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2 (increase by 10%).
- **Long ride (Zone 2):** Try to go 10% longer/further than week 3. (60% of ride distance)

**WEEK 6**
- **Hill intervals (Zone 4):** After a 10-15 min warm-up, find a suitable hill – one that makes you very tired by the top. Ride it slow the first time. Pick a safe “turn around” spot at least 50 yards past the top of the hill. Turn around and ride down slowly and safely. Do the hill again, this time as fast as possible, but use a low gear— spinning at high RPMs (at least 80/min). Do the hill again, this time in a slightly higher gear, but still focus on spinning/high RPM and standing up on the pedals occasionally. If needed, shift down to a lower gear at the top. If you’re feeling good, keep doing the hill as many times as you’d like. Experiment with different gears, and alternating between standing/sitting. But leave time for a good long cool-down. At least 15 minutes of slow riding.
- **Cross training:** 3 sets of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2 (increase by 10%).
- **Long, slow ride (Zone 2):** Try to go 10% longer/further than week 5. (70% of ride distance)

**WEEK 7**
- **Intervals:** Ride slow to warm-up for 5 minutes, then alternate fast and slow, 2 minute fast (Zone 4) and 3 minutes slow (Zone 2). Repeat 5 times. (cool down).
- **Cross training:** 3 sets of 8-12 repetitions, with 1 exercise for each of the major muscle groups, or run Zone 2 (increase by 10%)
- **Long, slow ride (Zone 2):** Try to go 10% longer/further than week 6. (80% of ride distance)

**WEEK 8**
- **Tempo ride:** After short warm-up, (Zone 3) if you’re doing the 10-mile route, try 6 miles. If you’re doing the 25-mile route, then go 13 miles. If you’re doing the 50, try 20 miles. This should feel quite challenging. Cool down.
- **Cross training:** Consider adding a “third” ride (Zone 2) and flexibility exercises instead of strength training this week.
- **Long ride (Zone 2):** Try to go 10% longer/further than week 7 (90% of ride distance)
September

**WEEK 9**

This will be the MOST difficult ride of the summer. This one should be done EARLY in the week to allow time for recovery. Bike to Cure is only about 1 ½ weeks away! Consider doing it even earlier in the month if you’re an experienced rider. Maybe pick a larger or steeper hill if you weren’t adequately “challenged” last time. Ride a good long warm-up, maybe 20 minutes. Ride the hill slowly the first time, but this time, ACCELERATE at the top! Practice getting back into a rhythm on flat ground at the top of the hill. Push your pace right back up to your average speed on a “tempo” ride. Go for about 2 minutes at this pace and pick a visible “finish line” just before your turn-around point. Ride back down the hill slowly and safely. Do the hill again, this time at a moderate pace, but again accelerate over the crest of the hill and get back up to speed for 2 minutes. Use a low gear -spinning at high RPMs (at least 80/min). Do the hill again and again until you’re almost completely exhausted. If needed, shift down to a lower gear at the top. Accelerate as you crest the hilltop by spinning faster RPMs. Shift to higher gears as you get back up to speed. Again, leave time for a good, long cool-down. At least 15 minutes of slow riding

Cross training. Consider adding a “third” ride (Zone 2) and flexibility exercises instead of strength training this week.

Long, slow ride (Zone 2) Not as far as your longest (similar to week 6 distance, (80% of ride distance)

**WEEK 10 – RIDE WEEK!**

Medium ride: ‘Ease’ back into it after recovery. After a nice, slow warm-up (10-15 minutes), ride a moderate pace effort for about 20-30 minutes. Your legs might be stiff or heavy-feeling from the time off. This is normal, don’t worry. Cool down for 5 minutes.

Cross training. Have fun! Visit your local bike shop to “stock up” for the big ride! REST, RECOVER. Treat yourself to something you like to eat. Sleep more!

“Shake out” ride: Do a short 15-20 minute ride one or two days before the event. If you’re traveling from out-of town, do short ride AFTER you arrive in Cleveland. Cruise a Cleveland Metropark Parkway or bike trail. ENJOY!

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**About the Author**

Matthew Kampert, DO, MS with a dual appointment in Orthopedics and Endocrinology, he practices Sports Medicine and Medical Weight Loss on the Eastside and Cleveland Clinic’s Main Campus. He has completed his residency and fellowship training at the Cleveland Clinic. Dr. Kampert has a strong interest in performing cardiopulmonary and metabolic testing through physician based exercise assessments and prescriptions. He views all of his patients as athletes, and enjoys helping them return to sport or become independent exercisers within their communities.