

Training Manual - AIDS Ride For Life 2014

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The 12 week Plan

Equipment

Be Comfortable. A good fit equals a good ride.

Being fitted to a bike is just as important to rider comfort as having the right kind of bike. A bike should be appropriately sized for its rider. The saddle, stem and handlebars should also be properly adjusted. An improper seat fit can damage the knees, strain the hips and cause major discomfort. Local shops are happy to help you with your fit.

Choose Shoes that are rigid so you don't have to be!

Another good comfort idea is to use cycling shoes with "clipless" pedals. Cycling shoes have stiff soles to prevent foot flex and fatigue. Special cleats lock into the pedals to keep your shoes from slipping and add to increased cycling efficiency. Also, your feet may swell during this long ride. Slightly larger cycling shoes will feel great on Day Two. Gloves are essential for minimizing hand numbness and providing crash protection. Bike shops offer men's and women's gloves in different padding, finger lengths and sweat absorbencies.

Your Bike is Talking...Are You Listening?

Any unusual sounds such as squeaks, popping, grinding, creaking or rattling are warning signs of a problem and should be inspected by an area bike shop. A complete overhaul is recommended annually, or every 2,000 miles.

Bike Performance

Wheels and tires are one of the quickest ways to improve your bike's performance. Lighter weight rims and road-friendly tires will add speed, quickness and durability. Also, specially designed tires can improve efficiency for your wider tire bicycles, like mountain bikes, making your ride faster and easier. Sometimes it makes sense to upgrade your bicycle instead of replacing a part here or a set of wheels there. You would be amazed by the improvements bicycle manufacturers have made just in the last few years. Stop by a bike shop for a test ride.

Be Self-Sufficient

You never know when you might get a flat tire, need to adjust your shifting or tighten a water cage. Experienced cyclists always carry basic tools to quickly address their basic needs and you should too (don't forget first-aid items!).

Water You Waiting For?

All riders should ensure their bikes have water bottles and cages. The cage secures the water bottle to the bike and provides convenient access as you make your way around Cayuga Lake.

Bare equipment essentials

- Helmet
- Shorts
- Gloves
- Sunscreen

Training Principles and Suggestions

Hydration

The Aids ride can be a challenging event. It is important to be well-hydrated before, during and after the ride. Knowing how to replenish your body's loss of fluid and nutrition is the key to successfully completing the ride without serious injury or need for medical attention. If you do not drink enough fluids, dehydration can result, causing nausea, muscle cramps, chills and lack of motivation. Dehydration could also lead to heat stroke, a very serious medical condition. To prevent dehydration, use the following general guidelines:

- On all rides you should drink 4-8 ounces of water or carbohydrate drink every 15-30 minutes.
- Drink more if it's hot, humid or you're really riding hard.
- On rides more than 2 hours in duration, carbohydrate replacement drinks empty more slowly from the stomach, so the total amount you drink should be increased to 5-10 ounces every 15-30 minutes.
- These energy drinks will help increase your performance, reduce cramps and lessen the possibility of heat stroke. Aids Ride rest stops are placed at regular intervals to provide you with plenty of opportunities to eat and drink.
- If you find that you experience one or more of these symptoms: extreme fatigue, the inability to recover your energy or frequent muscle cramps, seek assistance from our volunteers or medical crew – you may have the early signs of dehydration.

Cardiovascular conditioning, strength training and stretching

Getting in shape for bicycling (or for a healthy life in general!) requires a combination of cardiovascular conditioning, strength training and stretching. The bicycle training program that follows combines all three of these in four progressive phases working toward your event date. As someone who hasn't been exercising regularly, you should check with your primary care physician before starting the program, and then begin with the conditioning phase.

Phase I: Basic Conditioning

Given the amount of time that is available for training prior to the Aids Ride, this phase should already be behind you. If your base of fitness is not already at this level, perform this level of exercise for 7-10 days and then move to Phase II.

Cardiovascular exercise

This builds your heart strength and lung capacity, often referred to as your "fitness base" or your "training base." The workout: At least once a week, ride a stationary or regular bike at a moderate pace for 20 to 40 minutes (the time can be cumulative: For example, biking 15 minutes to work, and another 15 minutes home). Repeat this two or three more times a week, or spend 30 to 40 minutes doing any enjoyable aerobic exercise that doesn't irritate your body. Swimming, walking and elliptical-style training are good options.

Strength training

Training with resistance equipment will help build muscular strength and endurance. Because cycling uses the leg muscles for power, and the chest, back and abs for stability, most cyclists will gain the most from a full-body routine. (Advanced cyclists may need to train a specific area of weakness to enhance performance.) Strength training will enable you to hold a biking position for increasingly longer periods.

The workout: Three times a week, do five to eight exercises that work muscle groups in your legs, mid torso, back and chest. For the first two weeks, do one set of 8 to 12 repetitions of each exercise. For the next four weeks, increase to two sets of 8 to 12 reps of each. Always allow for a rest day between lifting bouts.

Stretching

Moving your muscles through a range of motion lengthens the muscles, which increases flexibility and reduces the chance of injury. Stretching can be beneficial at any time; however, it's best to stretch when the muscles are warm, such as after a cardio or strength-training session. If you stretch when your muscles are cold, be more cautious and less aggressive with the stretches.

The workout: Ideally, stretch after either a cardio or strength-training session. Target the muscles specific to cycling, such as the muscles in the legs (hamstrings and quads), low back, upper back and triceps. Stretch to the point where you can feel a dull sensation, but not so much that you feel pain holding each stretch for 30 seconds and repeating 4 times.

Phase 2: Bicycle training

This phase prepares your body for the exact movements and positions you will need to endure in a biking event. Beginners should spend about six weeks in training; others may modify this program.

Cardiovascular exercise

Continue aerobic workouts three or four times a week, but shift the mix to include more time in the bike saddle: go for four or five rides a week on either a stationary or real bike. Gradually increase each week's longest ride. (See the section on Periodization that follows)

Strength training

Continue with twice-weekly sessions, focusing on the muscles that biking uses most: legs, lower back, trapezius (upper back and base of neck), triceps and abdominals.

Stretching

Continue concentrating on the muscles that are specific to cycling, ideally stretching after a cardio or strength-training session. Hold each stretch for about 30 seconds and repeat four times. Do not bounce.

Phase 3: Road time

Training Techniques

As anyone who has trained for endurance sports knows, it's impossible to maintain your highest level of fitness consistently throughout the year. As a result, an entire training philosophy called Periodization has been developed.

Periodization

Periodization is based on the premise that an athlete starts with some arbitrary initial fitness level (that level depends on the individual's abilities and overall fitness – it can be no fitness to very fit). This fitness level can only be increased through training up to a certain point before the athlete plateaus at that level. In order to go beyond that level, the athlete must rest and recover for a period before building fitness again. With the second period of training, the athlete will start with a higher level of fitness than was started at the initial period, but slightly less than what was achieved before the rest phase. In theory, during the second period, the athlete can build to a level higher than the one achieved during the first period. This cycle continues with increases in exertional demand at the end of each period until the goal event is reached with the hopes of achieving maximal fitness for that event.

This aspect of periodization is the micro, week-by-week scheme. Each period lasts for four weeks. Typically, athletes increase number of hours per week in training, as well as intensity for three weeks, followed by a week of rest. A second period of training will follow in the next four weeks and so on.

In a macro sense, periodization breaks an athlete's training schedule down into periods known as the prep, base, build, and peak phases. In the prep phases, an individual is simply getting "in shape" or maintaining overall fitness in a general sense. This is basically the time to achieve or maintain what the average person means when they say they are "going to the gym." You should simply do what you like to stay active during this time. Play tennis, lift weights, do whatever – just stay active. The idea of this period is to simply prepare your body for the rigors of future training so they don't come as a shock. For our purposes, we will skip this phase all together as I hope that this lifestyle is yours on a day to day basis and our time is limited.

The base phase is where we will begin and represents serious training. You enter into rigorous but very general training to prepare for more specialized and applied work ahead. During this time you work on increasing your mileage while keeping your intensity low to moderate. You are basically training nearly every day and gradually increasing how far you go. The idea here is to build muscle memory and mass, mitochondrial density, and to improve your body's efficiency and endurance with cycling. You can still cross-train during this time, but cycling should be the bulk of your work. The key here is LSD (Long Slow Distance). During your base phase, stay at a moderate intensity and work on efficiency.

During the build phase, you begin to develop speed, power and strength. This is the time to specialize and maximize your strengths, while also improving your weaknesses. The training commitment is intense and you begin to specialize in the endurance needed for a century ride. By the end of the build period, your overall hours per week training are slightly less than the beginning of the build, but the training intensity and focus is very high.

The last phase of training is the peak and taper phase. At the end of the build, you peak your training intensity and then rest. For our purposes I suggest that you then begin to taper your training in the last week or so prior to the ride so that your body is rested and recovered for ride day.

Cycling workouts during base building phase:

Take a week to work up to a moderate day of 15 miles. Don't worry about time or speed on these rides. The purpose is to gain and maintain basic cardiovascular fitness. This ideally consists of daily rides with one or two rest days per week.

Double up miles. After building up to 15 miles, try an endurance day of 30 miles once or twice a week. Try to maintain the same pace established during moderate days, but slow down if necessary to make the full mileage. The purpose is to gain distance, confidence and better cardiovascular fitness.

Master the ups and downs with hills and intervals. Now for the hills. To get tougher on hills, stay in the saddle, get in a small gear, and spin those legs. Work seated climbing for the next six weeks. The temptation to get out of the saddle is large, but doing so will not serve you well. It is an inefficient way to climb and is hard on your joints. Until you become a reasonably strong cyclist, seated climbing is your best bet. It will help you become both a faster and more efficient climber, and a stronger rider on the flats. For the next four weeks, I would not do a ton of climbing other than that which you find along your route if you are an inexperienced cyclist. I would focus on building general fitness instead. After four weeks, I would begin to incorporate short climbing workouts into your weekly fitness regime, focusing on seated and controlled climbing. With six weeks to go, some of you may do all out climbing interval work, to increase overall climbing speed and power, however, most of you should progressively tackle more hills and steeper grades without worrying about speed. After mastering the basics, challenge yourself with advanced training. After warming up with a moderate ride, ride a hill without exhausting yourself. After pedaling uphill, recover on the way down and repeat. As your fitness improves, add more repeats. A recommended, progressively more difficult, sequence of area hill rides would be East Shore Drive, Sandbank Road, Bostwick Road, Mt. Pleasant Rd and finally Quarry road. The power and stamina developed with hill work will assist you as you take on the notorious hills of the Aids Ride. Interval training works the same way. During a moderate-day ride, pick a distance, such as a city block or the space between two telephone poles, and speed into a sprint. Start with one sprint each ride and add additional, longer sprints each time. Sprint for one lap and then slow down for a recovery lap, repeating as needed. Interval training and hill work will improve speed, endurance and recovery.

Strength training

Return to working on muscles throughout your body, once or twice a week.

Stretching

Following each cardio and strength-training workout, stretch the muscles that feel tight, as well as the cycling-specific areas of your legs, low back, upper back and triceps.

Phase 4: Event prep

Now that you're in great shape, celebrate and stick with the program. The week before you participate in a distance ride, though, back off on your training a bit so you and your muscles are rested, enabling you to really enjoy the experience.

Here are some tips for riding safely and comfortably:

- As a minimum start 8 weeks before the ride, ride about 6 hours per week and work up to 20 or more hours two weeks before the Ride.
- Drop your mileage and intensity the week before the ride.
- Set a goal of doing at least two 50-70 mile rides in the last three weeks prior to the ride. Be sure to rest or ride easily following the long days.

Recovery days, rest & sleep

Don't forget to schedule recovery days into your schedule. Several days with easy spinning and at least one day a week off the bike.

And don't forget to get that 8 to nine hours of sleep daily. Without it, you will lose the psychological edge needed for an endurance event and the concentration and reflex speed you need to ride safely.

Pedal Cadence (spinning)

While training, it is important to consciously work on your pedal cadence (revolutions per minute). Think about the physics for a moment. You are moving yourself and your bicycle a certain distance (therefore expending a certain amount of energy) every minute. If your pedal cadence is twice as great (keeping the total distance and time to cover it the same) the amount of energy imparted to the bicycle/rider combination per revolution of the pedals is 1/2 as much - and the strain on the knees and ligaments in the legs is less per revolution as well. Most regular riders will use a cadence of 80 to 100 per minute on level terrain. If you are getting knee pain, it may be that you need to increase pedal cadence from your current 50 or 60 per minute (a favorite for occasional riders). A generally rule is to spin at a rate that feels slightly too fast for you.

Another issue has to do with acceleration of the bike in competition. At higher cadences, it is much easier to accelerate (rapidly increase RPMs) than at a slower cadence. Taking the time to become comfortable riding at higher cadences is an important part of training for recreational riding as well as for competition.

Training Diary

As an alternative to one of the computerized "training" programs available as shareware or commercially, a simple, written training diary can be invaluable. Basic information should include:

- morning resting heart rate - if it is consistently 5 to 10 beats above normal you may be overtrained and need to take a break.
- weight - if there is a sudden drop, it could indicate dehydration; a more gradual decline suggests you aren't replacing the carbohydrate Calories you are expending and may be at risk of chronic glycogen depletion. Riding at a slower speed (60-65% heart rate max) using a majority of fat for energy Calories may be fine that day, but don't push those intervals until you've had a chance to replace those carbohydrates and get your weight back up to baseline.
- daily training - type (intervals, endurance) and mileage.
- muscle discomfort or tightness that might indicate an early injury needing specific stretching, massaging, etc.

And don't just jot this information down and forget it. Look at it weekly or monthly for trends.

Group Rides

Go on group rides! Many of this year's Aids Ride riders are inexperienced cyclists. A great way to learn cycling is through exposure to more experienced cyclists. Typically, our local cycle club has weeknight rides as well as a weekend ride on Saturday or Sunday morning. You should join these rides. Usually these rides divide into speed groups according to ability level. The strongest group goes the furthest and fastest, the slower - the inverse. Usually, there is a "no drop group" - meaning that no one will be dropped from the peline. Start in this group and move up as you improve.

Riding in a group will help you in a few ways. First, it is easier to go long with a group. Psychologically, staying in the saddle for a many hours is much easier when you aren't alone. Also, you receive the benefit of drafting in a group. You expend significantly less energy while drafting. Another and perhaps the most important benefit of joining a group ride is the opportunity to learn from experienced riders. If you are new to group rides, odds are it will be obvious to those around you. That's OK. There is a good chance that during the ride, though this doesn't happen much around here, you will be bellowed at by a somewhat intimidating guy wearing a nicely coordinated kit (e., his uniform matches and the colors also probably match his bicycle) regarding some aspect of your cycling. While you may feel intimidated and perhaps offended, don't be. This has happened to all of us, and, you may actually learn something from this person. Find someone you like on the ride who is experienced, and pick his or her brain. Cyclists love their sport, and by and large, love talking about it.

Recommended Reading

Going Long: Training for Ironman Distance Triathlons. Joe Friel, Gordon Byrn.

This is a great book that expounds upon the ideas I sketched above. Although it is meant for triathletes, its training tips are great for our purposes.

Cyclist's Training Bible. Joe Friel.

Another great book by Friel. A worthwhile read for anyone doing this ride.

Smart Cycling: Successful Training and Racing for Riders of All Levels. Arnie Baker, M.D.

A little off the beaten path, I found this book to be phenomenally useful. I think this is another great read.