

## About Myself:

Hello. My name is Lincoln Steward, and I am an avid bicyclist. Actually, that isn't nearly a strong enough statement. I am extremely passionate about bicycling. Since moving back to the Lehigh Valley in March of 2014 (a little over 2 years ago) I put about 5,000 miles on my automobile, compared to roughly 26,000 miles on my bicycles. I don't view bicycling as just a recreational activity, but rather believe it is a legitimate form of alternative transportation.

There is also a true feeling of freedom being on a bicycle, and a major sense of accomplishment that comes with knowing I am able to transport myself using only the power of my own body. Let us not forget the issue of environmental responsibility. Every civilized society on the planet knows better than to use their drinking water supply as a toilet, so why do we treat the air we breathe any differently? We're constantly spewing noxious pollutants into the atmosphere as a result of transporting ourselves from one place to another. Bicycling is a way to cut back on that, and even a climate change denier can't argue with that.

As with most activities in life, the more you do something, the easier it becomes. Bicycling is a perfect example of this. When I first got back into riding in 2002, it was difficult for me to ride just the 3 mile commute to work. My legs would ache, my butt was sore, and I felt like I couldn't breathe fast enough to supply my muscles with enough oxygen to turn the pedals. The more I did it, the easier it got, and I found myself taking less direct routes to get places to give myself a change of scenery. It was no longer a chore to ride a bike, it was FUN!

Since then I've found myself wanting to ride longer and longer distances. You really don't know what your limitations are unless you try to push yourself beyond what you think you are capable of. I know I'm getting older, and in a few years I may have to scale things back a little, but until then I feel the need to keep pushing my limits to see just what I am capable of achieving. The result of this personal philosophy has been a series of ride plans that at first sounded like hare-brained schemes, but resulted in accomplishments that I was able to succeed in actualizing. This summer, on June 25th, I'm planning yet another one of those adventures. My intent is to ride the entire length of the canal paths along the Delaware and Lehigh Rivers, in both directions, in a single ride, in under 24 hours.

Since I live close to Easton, my plan is to start at the confluence of the two rivers and first head down the Delaware Canal to its southern end in Bristol. Then I will turn around, pass through Easton as I follow the Lehigh Canal to its northern end at Glen Summit, where I will reverse again to complete the journey in Easton.

### My Proposed Timetable:

Start in Easton.....	12:00p
Easton to Bristol.....59 miles...5 hours....	5:00p
Bristol to Easton.....59 miles...5 hours...10:00p	
Easton to Jim Thorpe.....48 miles...4 hours....	2:00a

Jim Thorpe to Glen Summit...35 miles...3 hours...5:00a  
Glen Summit to Jim Thorpe...35 miles...3 hours...8:00a  
Jim Thorpe to Easton.....48 miles...4 hours...12:00p  
  
Total.....284 miles..24 hours

## **Why the D&L?**

With all of the riding I have done, one would be right to assume there have been several negative incidents, many involving automobiles. I have been lucky enough to survive these misfortunes without too serious of injuries, and found myself asking, "where can I ride my bike safely, without having to assume the risks involved with sharing the road with cars?" While mountain biking is a viable option, it also has potential injury-causing hazards, mostly associated with the terrain itself. Also my rides would be limited to areas where mountain bike trails exist, restricting the amount of territory I could cover. This is when I discovered the rails-to-trails, and canal path systems.

Canals are flat bodies of water, and trains are not good at climbing hills, so one of the great things about canal towpaths and railroads that have been converted to trails is that they are relatively flat. One of the biggest factors that prevent people from wanting to ride a bicycle is that riding up hills can be difficult. The D&L trail system offers a large expanse of mileage that can be covered without having to ascend much elevation.

The D&L trail system is also beneficial to local businesses. So often on my rides I find the need to stop somewhere to replenish my food and drink supplies. I have also taken part in several "destination rides," where the whole point of getting on the trail is to end up at a place where my group can stop for a meal, or some form of entertainment. It amazes me how many restaurants, coffee shops, brew pubs, ice cream stands, convenience stores, and public parks are easily accessible just a short distance from, if not right adjacent to the trail system.

Besides my own personal limit-pushing, goal-achieving agenda, another one of the big reasons for this ride is to help raise awareness about the valuable asset we possess in this trail system. I feel it would be advantageous for municipalities to do anything they can to help maintain the trails, and re-connect the sections where there are gaps that the trail does not exist. As an avid trail user, I have found ways to interconnect these missing sections, but many people can't continue on further. They may be unfamiliar with the neighborhood streets necessary to traverse (Allentown/Northampton), think they have reached the end of the trail, are uncomfortable walking/riding along the railroad bed (Jim Thorpe), or don't possess the bike handling skills needed to follow a single-track mountain bike trail through the woods (Catasauqua).

## My Bike and Related Gear

One important aspect to consider when planning an event such as this is which type of bike to ride. Luckily, I have a great local bike shop (Cycle Fitters, in Easton) to help me out with that decision. Every rider is different, so my bike choice may differ from others, but I can share which equipment I use, and the reasoning behind that decision.

The bicycle I will be riding is made by Salsa bicycle company called the Fargo. It is essentially a rigid (no suspension/shock absorbers) mountain bike frame with drop-style road bike handlebars. I chose this particular bike because it combines the benefits of both a road bike and a mountain bike, making it extremely versatile.

I prefer the rigid frame because the D&L trail system contains many miles of pavement, and even the unpaved sections are smooth enough that I feel shock absorbers are an unnecessary source of weight and power loss. Since it is a mountain bike frame, it will accommodate larger width tires, which can be used at a lower pressure. I usually run mine at 35-40 psi. This absorbs the vibration from riding on gravel or rougher pavement.

This bike has 29" wheels which allow it to roll over obstacles such as tree roots easier than the older style 26" mountain bikes. They also have more rolling momentum, so it's easier to keep the bike rolling once it's moving.

The drop handlebars are for comfort, since there are several different positions to place your hands on the bars. Moving my hands will actually slightly adjust my sitting position, which shifts the pressure points on both my hands and buttocks, avoiding body parts from getting numb - a huge benefit when sitting for hours on a small saddle.

The saddle is another vital decision, since my butt will be on it for more time than most "normal" people would like to think about. I ride on a Brooks B-17, which is nothing more than a thick slab of leather stretched over a set of steel rails. While this may not sound ideal, you must understand that I have literally ridden thousands of miles on it, so it is broken in - moulded specifically to the shape of my posterior, and with enough elasticity to also help absorb some shock and vibration.

Probably the most important aspect of the bicycle is the proper fit, and John at Cycle Fitters took care of that. He first made sure that I was on the correct size bicycle frame, but fitting goes much further than that. He took different measurements on my body, both on and off the bike, and made miniscule adjustments to assure that every detail of the bike was dialed in to fit my body. I used to think that some of the aches, pains, and cramps I would get from riding just a few hours were just a part of cycling. Now I have a precision-tuned machine that I know I can sit on for extremely long periods of time - up to 16 hours so far.

There are also several accessories I've added to my bicycle. I use 3 water bottles filled with an electrolyte solution, called Skratch (similar to but preferred over Gatorade - more on that in the "Nutrition/Hydration" write-

up). Two of them are mounted to the fork, which makes them much more accessible than the standard frame-mounted location on most other bikes. Since I can see them right out of the corner of my eye, there is no need to look when grabbing or replacing a water bottle. The third is very low, down by the pedals, which is used as a reserve.

I have a frame bag which fills the entire main triangle section of my bicycle frame. I keep a hydration bladder and food stores in that. I also have a very large under-saddle bag in which I keep clothing. You sometimes get surprised by a sudden drop in temperature, or precipitation on a longer ride, and it's best to be prepared for these events. A small bag with tools is also essential for being able to repair any mechanical failures, such as a flat tire.

In addition to all of that, I upgraded my front wheel to one that contains an electrical generator. My lights (head and tail) require no batteries, although I do have an extra rechargeable headlight and taillight just as a backup. During the day, when I'm not using lights, I can use that generator to power a USB charger which can recharge my Garmin or my phone.

The Garmin has also become an essential tool on the bike. It not only monitors my speed, cadence, heart rate, elevation, location, and outdoor temperature, but it has a full-color map screen and turn-by-turn navigation capabilities so I won't get lost no matter how far from home I wander. At the end of a ride all of that data can be downloaded into a computer for future reference.

## **Training - physical and mental**

How do you prepare for something like this? The simplest answer is RIDE. A LOT. Of course there's much more to it than just that, but this is where it starts. So far this year, I've pedaled close to 5,000 miles. It's not just the number of miles that matter, but how those miles get accumulated. If I were planning a century ride (100 miles), I could not prepare for that by just riding 10 miles a day. My body would recognize 10 miles as a type of limit, and I would probably only make it 15 or 20 miles into that ride before physically being unable to continue.

Early in the year, as early as January, I began training by riding 20-30 miles on each ride, and have gradually been ramping that number up. I have completed several 100+ mile rides so far this year, the longest being about 140 miles. I hope to complete at least one 200 mile single ride in the weeks leading up to my departure. My rides have taken me along the entire length of the D&L trail system, as shorter segments, so that I am aware of the trail conditions. Right now the trail seems to have been maintained well, and is in superb shape.

Although the D&L trail system is relatively flat, I've found that one of the best training techniques is to ride hills. After forcing myself to crank up steep grades and cover a lot of vertical elevation, getting back on a flat trail feels easy in comparison. It's like the bike is riding itself, and I'm just a passenger.

Training on terrain more technically difficult than I will encounter on the D&L trail system will make this ride much easier and more enjoyable, so I have also gotten in several mountain bike rides. If I encounter any hazards along the trail during my big adventure, it will pale in comparison since I have prepared myself by riding on rough, rocky, trails with tree roots, water crossings, and steep climbs and descents.

Weather conditions can also be a factor on a ride such as the one I have planned. It could possibly rain, be very windy, or be colder than expected on the day of the big event. Taking this into consideration, I have been trying to make myself get on my bike every single day, regardless of the conditions. Remember all that snow we got from that blizzard we had back in January? I was on my bike every day that week. And those horribly cold windy days in March and April? I pedaled through those as well. Since I have forced myself to ride through the worst of conditions in Winter and early Spring, even the worst climate that summer can offer should be no different than any other day on the bike.

I've also learned to rely on my Garmin to gauge how well my training is going. As I mentioned in the "My Bike and Related Gear" write-up, this electronic device is not just a GPS, but it offers a wealth of data that I can analyze during a ride. I can see exactly how fast I am moving (speed), at what rate of pedal spin (cadence), how fast my heart is beating, and the slope (grade) of the terrain on which I am riding. By comparing this data to the rate and depth of my breathing, I am able to achieve a perfect balance between my legs, heart, and lungs. This helps assure that my body is working efficiently, without burning myself out.

There is also a large mental game being played on longer rides such as the one I am planning. There are times when my body may not be operating optimally, and the thoughts in my head can make me want to stop and go home. It is imperative to maintain a confident attitude, and know that I have the ability to continue on.

A mechanical failure of my equipment may also put a damper on things. I find it extremely important to put a positive spin on any circumstances that may arise. If I get a flat tire, I try not to whine about it, but be happy that I have the knowledge and tools to fix it quickly and continue on. The same goes with weather conditions. If the climate changes for the worse, I am glad that I have prepared by carrying the proper gear to maintain my personal comfort in any situation.

Riding with other people also helps with the mental aspect of training. When riding alone, it can be too easy for my mind to slip into that "dark place" where I don't think I have the ability to complete the goal at hand. There is a sense of camaraderie that comes with cycling in a group, even if it is only two people together. Having another person to talk to can be enough to keep my mind positive.

While I am training my mind and body to operate to the fullest of their potential, it is also important to not "over-train," and realize when my negative thoughts are telling me that I am doing more harm than good. It is quite the balancing act, that can only be achieved through experience.

## **Nutrition/hydration**

The American College of Sports Medicine says, "Adequate food and fluid should be consumed before, during, and after exercise to help maintain blood glucose concentration during exercise, maximize exercise performance, and improve recovery time. Athletes should be well hydrated before exercise and drink enough fluid during and after exercise to balance fluid losses."

Just as a car will not operate without gasoline, the human body will not function properly without adequate nutrition. Riding a bicycle burns a lot of calories, and it is critical to keep the body fueled, otherwise it will become so tired that it will collapse under fatigue.

So what do you eat? This is another one of those topics in which people's opinions will vary greatly. The two main components of food that your body needs are carbohydrates and protein. Carbohydrates are the energy that your muscles burn. Protein is what helps to repair and re-build your muscles. Every human body is a little different, so what you need to eat during exercise activity is learned through trial and error, until you find out what works for yourself. It is important to be fueled up before an activity, maintain energy levels during activity, and eat afterwards so that your body can recover and repair itself.

I personally prefer to eat real, solid food while I am riding (as opposed to processed energy gels or bars). In my food stores you will find some fruit, such as bananas, oranges, or raisins. You may also find some granola. One of my favorite snacks during a ride is crunchy peanut butter and honey rolled in a tortilla. A lot of other athletes think I'm crazy for this, but I love to eat ice cream in the middle of a long activity. During an extremely long activity, I will absolutely need to stop briefly and refuel with more of a meal than a snack. For these times I prefer a burrito, a sandwich of some sort, or a few slices of pizza.

Water is the other element that must be replenished during physical activity of any kind. Sweating is an obvious source of water loss, but even on a cold day, the moisture expelled through breathing accumulates to a measurable amount of water that must be replaced in your body. During a ride I will try to remind myself to drink small sips of fluid about every ten minutes to maintain a good level of hydration.

It's not just the water, either. You may notice that sweat tastes salty. This is because your body also excretes electrolytes (salts, sugars) as it sweats, and these need to be replaced as well. Your blood is composed mostly of this water/electrolyte solution, and it is this solution that enables your brain to transmit electrical signals to your muscles. When the fluid levels drop too much, or the electrolyte concentration becomes too low, these signals don't get through, and your body will literally not do what you want it to. To make sure these levels are maintained properly, I switch between plain water and an exercise electrolyte mix such as Skratch or Gatorade.

While people may not like to talk about the subject, a person's urine is an excellent indicator of hydration levels. The less clear the color of this bodily excretion, the more dehydrated a person is. If you aren't stopping to relieve yourself at all over the course of a long day, this could mean you are approaching dangerously low fluid levels in your body, and need to drink.

Thirst is not a good hydration indicator. A rule of thumb I was taught is that if you are extremely thirsty, it means you have waited far too long to drink. It is necessary to hydrate before you exercise, while you are exercising (before you feel thirsty), and after you are finished exercising.