Death by Prowler:
An Authoritative, Practical Guide to the Greatest Conditioning Creation in History

by

Matt Reynolds

I'll never forget the first time I used the Prowler. I had just bought a couple from Jim Wendler and Dave Tate at EliteFTS for the high school football team I help coach. As soon as they came in, I remember putting them together, loading up a few plates and heading out to the parking lot to give the thing a try. I had heard the horror stories about the Prowler, but I was a professional strongman and elite level powerlifter; *an elite athlete,* if you will. Five 100' trips later I was on my hands and knees, in the small grassy median between the school and the parking lot, puking my guts up, as were the other two coaches and training partners who were pushing it with me.

A few weeks later I called up my brother, who was once a very good powerlifter, and now ran marathons (weird sport conversion, don't ask). The point is that the guy routinely would have his wife drop him off on a Saturday morning at a town 30 miles away and he would run the Ozark Greenways or Frisco Highline trail home for 30 miles! He was in incredible shape. I had been talking to him about energy systems work and how I thought it was important for him to get some high intensity anaerobic work in once or twice a week on top of his long runs, and that it would actually contribute to his aerobic endurance, so I invited him down to the gym I own, STRONG Gym to have him try out one of our new Prowlers. After his first 6 trips he was initiated by emptying the contents of his stomach all over the STRONG parking lot. The guy quit right then and there, and never came back.

God, you gotta love the Prowler.

Prowler Origins

Back in 2004, Clemson University had contracted Williams Strength to help design, build, and fill their weight room with top-notch custom strength equipment. Joey Batson, the head strength and conditioning coach at the university had made an early version of the Prowler out of wood for his football lineman to use. He wanted a conditioning tool that forced them to "drive" with low hips. When the crew from Williams Strength talked to Coach Batson about the weight-room project, he showed them the wooden Prowler he had made and asked if they could make a heavy-duty metal version. He was adamant about it having 3 skids, 2 vertical handles that weight could be loaded onto, and a low horizontal handle. Williams Strength took Coach Batson's ideas, (added an extra low

handle, and rings at the front so that a harness or rope could be added so that it could be pulled as well as pushed), and built the first *Prowler 2*. The middle skid forced the user to keep their hips low while pushing on the vertical handles, or else it would be driven into the ground. By April of 2005 the Prowler 2 was on the market for the general public through EliteFTS.com and manufactured by Williams Strength.

The reality is that the Prowler doesn't have to give you the "Prowler flu" every time you use it. Contrary to popular belief, it can facilitate recovery just as well as it facilitates projectile vomiting. In fact, the Prowler is unique for a variety of reasons. The first, and probably most important, is that it falls in the category of implements that utilize "concentric-only" work. Very simply, this means that there is no eccentric (or "negative") portion of the movement. We know that the eccentric portion of an exercise causes significantly more muscular damage than the concentric portion. Actually, concentric-only work can be an excellent method of active recovery and restoration, because of the increased blood flow to the area, without the microtrauma to the muscle fibers that is associated with eccentric work. Additionally, because the Prowler is PUSHED, instead of pulled (like a sled attached to the body by a belt or harness), the kinetic chain of the movement goes from the hands through the entire body to the ground.

Another great thing about the Prowler is that it can so easily be used to stress any energy system. Because it's so easy to use load to vary intensity, and the trainee can choose to walk, jog, run, or sprint, as well as specifically time rest intervals, training the Prowler is simple (albeit occasionally brutal) to use at any energy system.

Finally, it's just so much damned harder than anything else. I don't know exactly why, but I'm sure it has something to do with being bent over while pushing the thing. When pushing the Prowler hard and fast, with incomplete recoveries, it more closely resembles a medieval torture device than a tool for recovery and metabolic conditioning. Before I started STRONG Gym, and we all trained at my house, my poor neighbor's grass was dead all along the curb where every one of us threw up our eggs as a Saturday morning ritual in their well-manicured fescue after a handful of trips with the Prowler. If you haven't used it, you just can't understand.

A Brief Review of Energy Systems

So that we better understand how to use the Prowler at any energy system, let's take a moment and understand where, exactly, the body gets the energy it needs to push the thing.

The body draws from a pool of "ATP" – (or Adenosine Triphosphate) for its energy needs, regardless of the intensity or duration of the exercise. It has several pathways that it uses to make ATP, but it's important to note, that regardless of how it's made, the body pulls from the same "pool" of ATP.

ATP is the common energy product we use to power our cells. ATP consists of adenosine, composed of an adenine ring and a ribose sugar, and three phosphate groups. The vast majority of chemical energy in our cells – and therefore the energy that makes us move – is used to generate ATP, which yields its energy through the loss of a phosphate group and becoming adenosine diphosphate. It's a very complicated process, but for our purposes it can be easily understood that at low levels of energy demand (easy breathing, low heart rate) – you sitting here reading this article, for example – ATP is provided primarily by the oxidation (the term "aerobic" is applied) of fatty acids and other fuels. The process is regulated to supply the small amount of ATP needed for energy use at this low

level of activity. Part is also stored as ATP and used to build up a creatine phosphate (CP) supply in the cell. As long as energy demands remain low, the aerobic/oxidation pathway's steady ATP deposit into the ATP pool is enough to supply the body with the energy it needs.

However, if high levels of energy are suddenly demanded – rabid skunk attacks you while you read – the small amount of available ATP is very quickly depleted. The high energy demands make heavy, quick withdrawals from the ATP pool, turning it into ADP, and the ADP is then quickly resynthesized (back to ATP and into the pool) from the breakdown of creatine phosphate (CP). But these on-hand stores (from pre-stored ATP and CP) are depleted in seconds as the intense exercise creates a surge of energy demand that exceeds the low level of production by the aerobic processes, i.e. the intense exercise makes withdrawals from the pool faster and in greater amounts than the aerobic/oxidation pathway can deposit. This requires that energy production be stepped up to refill the pool faster, and in greater amounts than the aerobic/oxidative system can manage.

The solution is found in *glycolysis*, the first part of the process where carbohydrates are used to generate ATP. Muscle cells use glucose in the cell as well as glucose released from the breakdown of stored glycogen in the muscle (glycogenolysis) to produce relatively large amounts of ATP quite quickly. If the intensity level remains high, this pathway can continue to supply enough ATP to the pool to meet energy demands for upwards of two minutes. However, if the intense exercise continues longer than a couple of minutes, the ATP production by this pathway will be exceeded by the energy demand.

Since both the immediate energy stores (stored ATP & CP) and glycolysis do not require oxygen, they are referred to as "anaerobic." But the pathways can operate in this fashion in the short term only; we cannot train in longer time periods at these levels of intensity. Glycolysis runs down quickly, and it produces lactate that builds up, as it cannot be converted to energy fast enough by the slower aerobic pathways. Ultimately, the oxygen-requiring pathways must complete the oxidation of carbohydrates and supply sustained energy from other substances such as fatty acids. The aerobic pathways ramp up over an exercise session to higher production levels and can produce ATP at a moderate rate nearly endlessly.

Now, there are several things to understand about how Energy System Pathways work *together*. First, they all fill the same ATP pool that the body draws from for its energy needs. Second, the energy pathways overlap. For example, when intense exercise begins and is sustained for a period of time, such that the aerobic/oxidative pathways cannot supply the pool with sufficient amounts of ATP, the aerobic system does not shut down and stop just because glycolysis is needed to supply the pool with adequate ATP. On the contrary, the aerobic system ramps up and runs at capacity *along with* the glycolytic system to help supply the ATP pool. These pathways function together. Aerobic production fills the immediate "anaerobic" energy supply of stored ATP and CP. Rapid glycolysis during periods of high demand refills this same pool (400m run). Glycolysis under lower demand (jogging) fills the pool but the lactate produced is processed by the aerobic pathways instead of building up. More intense exercise simply has the potential to outstrip our ability to keep up the readily usable ATP supply, as well as our ability to deal with the lactate produced under anaerobic conditions. This is why your all-out sprint turns into an increasingly uncomfortable fast run and then eventually into a jog.

This is fairly easy to understand when the intense exercise is *constant and continual* in duration. However, what happens when *intervals* are used, either purposefully in exercise or in sports? We see this with the vast majority of active sports (football, volleyball, basketball, tennis, soccer, etc.), where

intense activity is performed for a few seconds and then is followed by drastically reduced intensity (or even rest) for a short period of time, before the intense exercise is started again. For example, the average football play lasts 5-7 seconds. For those 5-7 seconds the athletes will be working at nearly 100% intensity, after which the play is over, the team actively "rests" for approximately 30-40 seconds as they walk back to huddle, get the play, line up, get in their stance, and start another play.

Energy systems that fall into this work-to-rest ratio (or something like it) will use components of all three primary energy systems, primarily ATP/CP and glycolysis during the intense plays and a heavy aerobic component during the active rest. However, as the game continues, rest becomes more inadequate, ATP and CP are not allowed full restoration, and lactate and metabolic waste products continue to build from the glycolysis. If not properly "conditioned" the athletes will be in a ton of pain, and the intensity at which they can play will be reduced as the re-supply of energy from aerobic pathways fails to keep up. Athletes in good condition will tolerate this more readily than those in poor condition.

Important Sport Note: The *vast* majority of sports are/should be Anaerobic-Alactic (without lactate build-up, or at the very least a slow lactate build-up), meaning that the work is intense in duration but short-lived and followed by enough active or passive rest that the athlete should be able to generally recover (i.e. *not* build up large amounts of lactate) before the start of the next "play" or work interval. Because of this, the overwhelming majority of "conditioning" for sport should be in the Anaerobic-glycolytic (alactic) pathway and mimic this work-to-rest ratio. Obviously in the beginning, the body will struggle to fully recover, and lactate and waste products will build quickly. But if the athlete is conditioned appropriately, the body will learn to recover quickly from short bursts of intense exercise and lactate will build up much more slowly or not at all. I believe training this way in the anaerobic-glycolytic pathway is superior to conditioning using traditional methods (such as running the mile) for the reasons stated below…

From my Building an Empire article:

> *"The amazing thing about training/conditioning in the anaerobic-glycolytic pathway is that your body will burn an enormous amount of calories, both during and after exercise, while your metabolism remains elevated for up to 24 hours after the training. There will be an increased shift by your muscle fibers to fast-twitch dominance. Additionally, there will be an up-regulation of aerobic, anaerobic, and ATP enzyme activity, meaning that all energy systems will become more efficient at generating energy and burning calories."*

Very simply, training primarily in the anaerobic-glycolytic pathway makes ALL the energy pathways more efficient, including aerobic oxidation. **High-intensity exercise requires high output of all the energy systems.** But this is not a two-way street. Training aerobically for endurance will *not* lead to equal up-regulation of stored ATP and CP or anaerobic glycolytic enzyme activity *because aerobic training does not stress these systems*. Training at high intensities, for short intervals, with recovery periods, is king when it comes to conditioning.

Another important piece of the conditioning puzzle involves understanding heart rates and how they affect the body, energy systems, and recovery. Heart rates can be an excellent tool for gauging

the intensity of an exercise, just as breathing rates can be, but measuring and quantifying heart rates is much easier than measuring breathing. However, please understand that heart rates and heart rate percentages are approximate values and will vary a bit with the individual.

1) Heart rate <50% (<95 bpm for a 30yr old): Anything less than 50% would be considered rest, even though it certainly doesn't just pertain to sleep. Lying down, sitting, standing, reading, conversing, and watching TV would all fall in this heart rate range. The predominate energy pathway is the aerobic oxidative system, which easily supplies the low energy needs of the body in this zone, and could supply it at this level infinitely.

2) Heart rate 50-70% (95-130 bpm for a 30yr old): A prolonged heart rate in this zone is restorative, and specifically the ~65% range will help facilitate a return to a fully-rested state, allowing the body to relax, rest, and recover more efficiently. Again the primary energy system used is the aerobic oxidative system, but since the energy demands are higher than those in the "rest zone," the aerobic system must ramp up a bit to supply the body with its energy needs. The body can perform at this level for hours (or even days – but why would you do that?).

3) Heart rate 70-80% (130-150 bpm for a 30yr old): The targeted pathway here is high-intensity aerobic metabolism, and the aerobic oxidative system ramps up even more and supplies the body with the highest possible amounts of energy via fatty acid oxidation, for up to several hours of aerobic-based moderate intensity exercise. Note: There is no "target heart rate zone" or "target fat burning zone" on the table. This is because different athletes have different abilities, and we already know that just because fatty acid oxidation is the energy pathway used in the aerobic classification, this doesn't mean that "aerobics" is the best energy system classification for body recomposition or losing bodyfat.

4) Heart rate 80-87% (150-165 bpm for a 30yr old): The targeted training objective here is anaerobic endurance (high-moderate intensity/longer duration) and an efficient use of the glycolytic system. At this heart rate – sometimes called the "anaerobic threshold" – all 3 energy systems are ramped up (ATP/CP, glycolysis, and oxidation). It is in this zone that lactate will begin to build up as the aerobic pathways will not be able to process it fast enough. This zone may be maintained for approximately 2-5 minutes.

5) Heart rate 87-95% (165-180 bpm for a 30yr old): The targeted ability here is anaerobic power (high intensity/short duration) and an efficient use of the glycolytic system. All 3 energy pathways are at work, nearly to capacity. Lactate builds up quickly in this zone and this level of intensity can be maintained for no more than 2 minutes.

6) Heart rate 95%+ (180-190 bpm for a 30yr old): The targeted ability here is max speed or power. All 3 energy systems are at capacity and lactate builds up very quickly. The intensity may only be maintained for up to 30 seconds as the current pool of ATP/CP is rapidly depleted.

Programming the Prowler

We know that *strength* is the basis of athletic ability. And significant strength takes years to build. Becoming appropriately conditioned for sports or boot camp or to gain basic cardiovascular fitness can be accomplished in a few weeks. So very simply, if you have the strength of a pre-pubescent girl, then "conditioning" in its traditional sense is not for you, regardless of your age or sex. The increase in athletic ability gained from just getting stronger will do more for you than any amount of conditioning during that same time period. Furthermore, if you are an underweight kid, your "conditioning" should be drinking a gallon of milk after your squats every day. If you're a pathetically weak, fat, soccer mom or dad, then your "conditioning" should be squatting, and then quit forcing crap down your throat the other 23 hours a day. However, if you are a competitive athlete in pre-season, or you have developed a base of strength and need to or want to condition for a specific purpose (even if that purpose is general health and cardiovascular fitness) then conditioning with the Prowler can be an excellent choice to condition the body, in any or all of the energy systems.

We typically start with two sessions per week for about 10 minutes, immediately following our lower body training, because it doesn't seem to add much, if any, muscular fatigue or soreness. We'll eventually work up to 15-20 minutes per session and may add a 3rd session in the week, especially if we (or our athletes) are in the near pre-season for competition. But for the vast majority of regular people who just want to be "in shape" – healthy through increased cardiovascular fitness, more efficient at generating energy and burning calories – and could stand to lose some fat, then two sessions per week have worked for us without negatively affecting strength training. As mentioned before, the great thing about programming the Prowler is that it can be used at any level of energy demand, from aerobic-recovery work, to aerobic endurance, to anaerobic endurance and lactic acid threshold training, to anaerobic power work, with and without complete recoveries – really, the possibilities are endless.

It would be irresponsible of me to fail to note that the Prowler can be effectively used and programmed for regular people, non-competitors active in a strength program but who want to work for "metabolic conditioning." I believe that "metcon" work with the Prowler is *far* superior to that performed with barbells (using strength exercises, or even worse, Olympic lifts), because the point of the exercise is to appropriately condition the metabolic processes without the systemic inflammation, muscular microtrauma, and CNS frying of the typical Crossfit "metcon" workouts. This can be done efficiently and effectively with the Prowler, since you literally cannot use bad technique – as opposed to barbell-based "metcon" where form breakdown with ultra-high reps leads to a relearning of incorrect motor patterns, as well as a highly increased chance of injury from performing barbell movements under extreme fatigue. Be smart. If you want to do "metabolic conditioning," then *condition the metabolic processes*. Don't destroy your body with mindless high-rep barbell movements using horrific form.

Low Intensity Anaerobic-Glycolytic Work

Appropriate conditioning means training the correct energy system for your targeted ability (and the heart rate associated with that energy system/targeted ability). Therefore, *appropriate conditioning* for a sport will stress the same energy system that sport utilizes, and will most often attempt to mimic the rest-to-work ratio of the sport. We must use what we know of energy systems and the work-to-rest ratio to program the Prowler appropriately.

We use Prowlers all the time at STRONG Gym, and we have experimented with numerous ways to use it. With large groups of athletes, or athletes without access to heart rate monitors we use the following method at least 80% of the time for our athletes preparing the anaerobic glycolytic (but alactic) energy system – meaning that we want to teach the body how to recover completely from short bouts of intense exercise.

The simplest, easiest, and most effective way to do this is to just load up a set weight with the Prowler and run short sprints, with complete (or near complete) recoveries between sprints**.** Depending on the surface – we use both parking lot and indoor turf, the turf is MUCH harder – load it to something manageable (this is usually 140 pounds on the concrete and 90 pounds on the turf). 1) Sprint 100-150 feet at around 80-85% intensity. 2) Rest until your breathing and heart rate slow down considerably and you feel ready to sprint again (Approx 1-2 min for beginners). 3) Repeat.

We usually start with 5 sprints in the first session and increase by 2 sprints per session. Once we hit 10-15 sprints, then we start reducing the rest periods to a set time.

Prowler BASE: Low Intensity Anaerobic-Glycolytic Work:

1. Load up a manageable weight.
2. Sprint 100-150 feet at 85% intensity.
3. Rest until breathing and heart rate slow down. (45 sec-2min)
4. Repeat 5-15x.

Medium Intensity Anaerobic-Glycolytic Work

Up to this point we have practiced full recovery between sprints and not allowed lactate to build up in the system. However, for those who compete in a sport and need to mimic the work-to-rest ratio of that sport, or for those looking to condition the glycolytic system to a higher degree, we begin manipulating the rest periods between sprints to produce that effect.

Just like the low intensity work, we sprint (at around 85% effort) with a set weight for 100-150 feet and then rest for 30 seconds or so and sprint again. At first you may feel your body building up lactate after just a couple of sprints, but soon you'll begin to recover quickly and be able to hammer out sprint after sprint. This is great conditioning for sports like football as well, because it mimics the work/rest ratio that you see in a game.

From here, you can add all sorts of variations, based on your targeted work range, from adding weight, using/alternating low handles with vertical handles, increasing sprint intensity, increasing the distance/time sprinted, etc. For example, when you want to train in the anaerobic lactic pathway (building up lactic threshold – an important part of conditioning for wrestlers, MMA fighters, hockey players, and some soccer positions), all you have to do is increase how hard you sprint or how long you sprint. At a 95-100% sprint, and 30 seconds rest, you'll be building up lactate pretty quickly and will be throwing up in the parking lot before you know it. Or go for 3 minute "rounds" similar to an MMA/boxing fight with 1-2min of rest between rounds. At first, either of these options is brutal, but soon your body will learn to adapt to this as well, and it will much better prepare you for your sport if its energy demands are something similar.

Death by Prowler

Base+1: Medium Intensity Anaerobic-Glycolytic Work:

1. Load up a manageable weight.
2. Sprint 100-150 feet at 85% intensity.
3. Rest 30 seconds
4. Repeat 5-15x.

Base+2: Higher Intensity Anaerobic Glycolytic Work:

Base 1 + manipulate one or more variables to increase intensity and/or target ability:

1. Increase sprint intensity
2. Use low handles or bucket (really low) handles.
3. Increase weight used
4. Decreased rest time.
5. Increase number of sprints
6. Increase time/distance of sprints

Base+2 Example: Original Prowler Challenge: (Courtesy Joe Defranco)

1. Load up 140lbs. (45+25s per vertical handle)
2. Sprint 40 yards alternating between vertical and low handles.
3. Rest 60 seconds
4. Repeat for 6 total trips of 40 yards.

Base+2 Example: Football Lineman Specific:

1. Load up a heavier weight.
2. Sprint 100 feet at 85% intensity alternating between vertical and low handles.
3. Rest 30 seconds
4. Repeat 5-15x.
5. Increase weight used each session

Base+2 Example: MMA/Boxing Specific:

1. Load up a manageable weight.
2. Push 3 minutes straight
3. Rest 1 minute

Repeat 3x.

Note: We've found that *walking* with loaded Prowler isn't much easier than an 85% *sprint* or so over the same distance because covering the distance takes so much longer when walking and the Prowler "hangs on" to the ground more.

Death by Prowler

Another excellent method for programming the Prowler for sport-specific (football, soccer, basketball) work-rest ratios is Chad Smith's article on the Prowler Sprint Test. Here is an excerpt from that article:

"The general guidelines of this test are as follows:

1. *A timed, relatively heavy sprint is performed with the Prowler over a short distance.*
2. *Sprints are continued until the athlete fails to stay within 10 percent of their original pace.*
3. *Rest periods are relative to the approximate the length of the play clock used in their games.*

At Juggernaut, this test is performed over 12 yards. The sections of our turf are four-yards wide, so this is a natural break for us. However, 10-15 yards is also acceptable. The weight used should vary depending on age and position.

Rest periods vary from 30 – 45 seconds, depending on the length of the play clock for the respective level of play.

The first sprint is timed and will provide the standard for the remainder of the test. Sprints are continued on the prescribed rest interval until the athlete fails to remain within 10 percent of their initial time. For example, if a college lineman performs his first 12 yard sprint with 230 pounds in 4 seconds, he'll keep performing 12-yard sprints every 40 seconds until he fails to keep his time under 4.4 seconds – 110 percent of his initial time.

At Juggernaut, it's our goal to have an athlete able to perform 15 Prowler sprints under the time standard. In our eyes, this means that an athlete will have the ability to come off the line with at least 90 percent of their maximal power for 15 plays in a row, which is likely the longest drive they'll ever endure."

Base+2 Example: Juggernaut Method – Courtesy Chad Smith

1. Load up a heavier weight.
2. Time a 15 yards sprint at 100% intensity.
3. Rest 30 seconds.
4. Repeat sprint until times slows down 10%.
5. Goal is to increase # of sprints under the time standard.

High Intensity Anaerobic-Glycolytic Work:
The STRONG Gym Method

In my opinion, however, there is a superior method to all else in terms of efficiency and rate at which incredible conditioning (in the anaerobic-glycolytic system) can be accomplished. Quantifying the results of this method are exceptionally simple, and progress is easy to chart and astonishingly rewarding. I certainly didn't invent this, and though I'm sure some others must condition in similar ways, I've never heard of it or read about it anywhere else. From the best of my knowledge, my training and business partner, William McNeely, came up with this method as a way for him to quickly come

back from the debilitating flare-ups of the Crohn's Disease he's battled for nearly ten years now. William is an excellent raw, lifetime drug-free powerlifter, with a squat of 600, bench of 410, and deadlift of 580 at a bodyweight of 170. However, when his Crohn's Disease flares up (often about twice a year) he becomes violently ill, usually losing about 20lbs and so much blood that he has to get a transfusion. In spite of his devastating disease, William keeps a positive outlook and remains dedicated to his goals, both in and out of the gym.

A few years ago, after a specifically incapacitating period where he was left bed ridden, and a mere shell of his former self after a couple months of sickness and blood loss, he finally made it back to STRONG and came up with an idea of wearing a Polar heart rate monitor and conditioning for a set amount of time (10min). This method is what came out of that experiment.

We load a Prowler to 140 pounds, and sprint at 100% intensity until the heart rate is above 180bpm. Once it hits that number we stop and focus on bringing the heart rate down *under* 150. When it hits 147-148 or so, we sprint again until the heart rate hits 180 again, then stop and recover to below 150. *We repeat this for as many rounds as we can within the 10 min time frame.* At first you'll only be able to get 2-3 rounds in 10 minutes. But after a few sessions you'll be much more efficient at raising and lowering your heart rate quickly, and eventually you'll be able to get 7 or so rounds in a 10 min period (We've seen our guys get as many as 8 rounds in 10 minutes). Then we start increasing the amount of time we condition. When you can do this for 20 minutes straight, and get about 13 rounds in that time period you, sir, are a badass. And on a physiological level, your body becomes incredibly efficient at generating energy, recovering, and removing/processing metabolic waste.

Because of the absolute 100% intensity of the exercise performed, and the adrenal stress associated with conditioning at this level of intensity, we never perform this method more than twice per week. If we add a third session, it would almost always be an aerobic recovery session, where our heart rates are kept in the 120 bpm zone in order to facilitate recovery, increased blood flow, and a return to a more-rested condition.

Base+3 High Intensity Anaerobic Conditioning: STRONG Gym Method:

1. Load up 140lbs. (45+25s per vertical handle)
2. Sprint at 100% until heart rate >180 bpm.
3. Rest until HR <150 bpm
4. Repeat for as many cycles as possible in a given time (start with 10 min).
5. Goal is to get more cycles in a given time for each session.

Low Intensity Aerobic and Restorative Work

As noted before, when utilizing the Prowler for anaerobic-glycolytic work, there is a heavy aerobic component, because the aerobic system is running at full capacity, but not able to provide ATP fast enough or in amounts great enough for higher intensity work, i.e. Prowler sprints. Because the aerobic system is effectively trained through high-intensity as well as lower-intensity exercise, the need to train in a strictly aerobic context would be rare for the strength athlete. However, sometimes because of CNS stress, adrenal fatigue, or a period of overreaching where the athlete has accumulated fatigue through a training cycle, then there is a need for low intensity aerobic/restorative work.

If this is the goal, walk an unloaded Prowler for time (usually 20-40min). You may push the Prowler, pull the Prowler forward or backwards, or a combination of all three. Heart rates should stay well under 150 bpm, and preferably in the 120-130 zone to facilitate recovery and an increased blood flow through the body.

Because there are those who will ask if the Prowler is absolutely necessary to condition appropriately for sports, the answer is no. But I do believe completely that it is the best piece of conditioning equipment ever invented, and it's pretty cheap to buy. Conditioning in the anaerobic-glycolytic pathway can be done using a variety of implements. These are some additional ones we use to give us a mental break occasionally: tire flips, sledgehammer work, farmers/yoke walks, sandbag/stone/keg loading medleys, dueling ropes, hand-over-hand rope pulls (with sled/Prowler/car/airplane attached), short sprints, and hill sprints. We don't do kipping pull-ups, kettlebell swings, burpees, thrusters, softball throws, or anything of that nature for anaerobic conditioning, because it's gay.

For aerobic/recovery work we still walk forwards and backwards, pulling a loaded sled or Prowler because its easier, the range of motion in the legs is equal or greater than pushing the Prowler, and its still completely concentric in nature. We also use *heavy* Prowler pushing and sled dragging, both forwards and backwards as an accessory strength exercise, doing 5-10 short 50' trips with complete recovery, but we do not consider this conditioning.

The Prowler is simply the best tool ever invented for conditioning. It's simple. It's cheap. It's completely concentric, leads to little increased fatigue, doesn't contribute to systemic inflammation, and yet it's still harder than anything else. It can be trained at any energy system, and the timed STRONG Gym method with a heart rate monitor works perfectly with the Prowler, leading to an incredible increase in anaerobic conditioning in a very short amount of time. If you've already developed a solid general base of strength, then the Prowler can help turn you into a mentally tough, highly-conditioned athlete. Throw a plate on each handle, hit the parking lot, and start pushing!

Matt Reynolds is a certified Starting Strength Coach and Seminar staff member, elite powerlifter, 105k pro strongman, teacher, football coach, and strength coach at a 5A high school in Missouri. He loves training heavy and learning everything he can about strength, but is still pretty sure he isn't very smart or very strong. He is also the proud owner of STRONG Gym, in Springfield, MO, one of the strongest gyms in the Midwest, and home to some of the finest lifters in the country.
