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43 Years of Running
www.jtcrunning.com

A large graphic on the right side of the page consisting of a bright cyan circle (representing the sun) and two thick, curved cyan lines below it (representing waves or a running path).

THE
**STARTING
LINE**
NEWSLETTER



**TRACK
SEASON
BEGINS**

LETTER FROM THE EDITOR

JTC Running's gala event of the year, the Gate River Run, is now behind us, and what a race it was. It couldn't have gone any smoother and the weather could hardly have been finer. I shouldn't really call it just a race for it is far more than that. Even the word event seems inadequate. It is a massive gathering, a party, an expo, a celebration and, oh yes, five quite different races. Accolades and thanks must go to race director, Doug Alred, and his efficient staff. Jane Alred organized a perfect expo, as usual.

We must never forget all our wonderful volunteers who made the GRR what it was. They do so year after year and without them a huge undertaking like this would be impossible. A big thanks to you all.

My GRR was a sentimental journey of sorts. I linked up with two old pals, Jay Birmingham and Rodney Smith. We have a long history together, dating back to the 1970s. In the late 70s Rodney and I worked in Jay's Phidippides Running Center, Jacksonville's first running specialty store. We worked together, sometimes trained together, but there was little togetherness when we raced. We were all very competitive with each other. So, it was quite something when we met before the start with the intention of tossing competition to the winds and finishing the 15k together, a plan we hatched some days earlier.

I wasn't all that excited about doing this year's race. The distance is rather too long for me these days and my "training" is poor, to say the least. Yet my 41-year long River Run streak never lets me go, it suckers me in. I thought I would skip out and get the streak's monkey off my back. But when Jay said he'd like to run it with me I couldn't say no. Then poor Rodney got roped in.

As a decades-long high school coach, Rodney often missed the race due to track season. There always seemed to be a track meet scheduled on the same morning. He and Jay worked in the first River Run 15,000 and had only run it off and on since its debut in 1978. Rodney had one of his hips replaced right before last year's race but was willing to try out his new one when I suggested he jog it with Jay and I. His reply was a good one: "God willing and if the hip don't break."

When the cannon fired, we settled into the snail-like pace we expected. We agreed to incorporate walking breaks when necessary. I thought of the old days and how at the start of a race I would try to get out ahead of them. Too often this tactic was my undoing. My opening pace would be unmaintainable and when fatigue and lactic acid reared their ugly heads I would be easily

picked off by Jay, Rodney and anyone else who was in the mood. I think Jay must have been the person who coined the famous phrase "even pace wins the race." Jay was a human metronome.

Curiously, when Rodney and I jogged we left Jay behind, but every time we took walking "breaks" we found Jay way out in front of us disappearing into the crowd. Jay's walking pace seemed faster than his running speed and we couldn't keep up. I suggested a new athletic career for Jay in race walking. He could do it. Now in his 70s, he still runs 50 miles a week. I was astonished, even if he did add: "Some of it is walking." The man is unstoppable. After all his super long-distance exploits Jay probably has more miles on his legs than any person alive, and yet, 50 miles a week. Amazing, simply amazing.

Just after the 10k point my hip flexor on the right side tightened up, became painful and destroyed what little "pace" I possessed. I was forced to walk in from there and the Hart Bridge never seemed so long and tedious. The final 5k was the slowest of my life. Yet my old competitors stayed with me through it all. We finished, collected our medallions, and celebrated in the JTC Running hospitality tent. Rodney's hip didn't break, and Jay was like a happy kid. I think he could have run the whole course again. Some people are born for this sport and he is undoubtedly one of them.

It is not just people who are competitive, races compete against other races as well. Charleston's Cooper River Bridge 10k is one that goes up against our River Run 15k in many ways. Everett Crum has written a nice story about it for this issue. A new contributor, Sean McCormick, has written a magnificent piece that I know you will enjoy. Jay Birmingham has penned a story about a wonderful moment in history that I am sure will entertain and enlighten. Jeff Wight has nailed it! Thanks to Jeff you will read all the nuts and bolts of training and improving in a nutshell. Mark Baughman reports on the differences between distance running and sprinting and how you can prepare for our club's upcoming track season. To top it all off, Nancy Kern writes a glowing testimonial about our half-marathon training class. We love that sort of thing.

The Starting Line

PRESIDENT'S LETTER

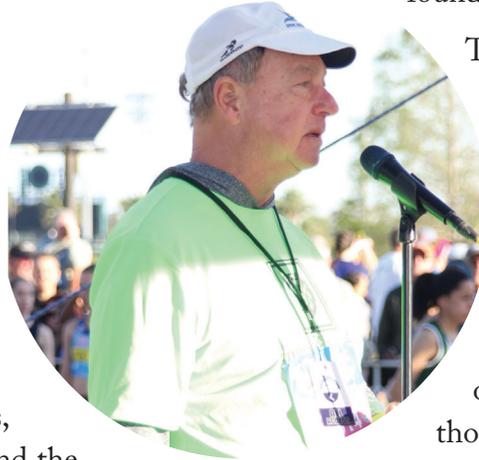
Greetings! What a wonderful Gate River Run! The 42nd edition of the race was a super time for everyone! An exciting finish, great weather, although a little warm. All in all, an event that we can be proud of. Doug Alred and his team at 1st Place Sports, led by Stuart Toomey, organized a first-class event. A big thanks goes out to the hundreds of volunteers who worked hard to make it happen. We couldn't do it without you! We appreciate Mayor Lenny Curry addressing the field before the start and running the race in a very respectable time.

The Gate River Run is JTC Running's biggest event. The Club Board of Directors has commissioned a professionally produced video to tell the story not only of the race, but the Club, its history, and impact on the City of Jacksonville. The video will be used to communicate to members and potential members, sponsors, government officials, and the general public what JTC Running is and does—GREAT RACES. And a whole lot more. As a registered non-profit, every dollar the Club brings in goes back out into Jacksonville in the form of free track meets, high school running camp scholarships, high school meet timing. JTC Running also supports community projects like the Emerald Trail which improve life and physical fitness for all our citizens. Club Vice-President Larry Sassa, who is heading the video production, advises that you will soon see versions on JTC Running's website and Facebook page.

Speaking of the Emerald Trail, by the time you are reading this the Jacksonville City Council will have approved a resolution supporting the Trail Plan. Groundwork Jacksonville put on a Lunch and Learn session for Council Members to see the

plan and get answers to questions they had. Support for the plan is wide-spread and funding for the first model mile will be in the city's 2020 Capital Improvement Plan.

On Saturday, April 13, you are invited to walk the route of the first mile. We will meet in front of the Prime Osborn Convention Center and walk just over a mile, ending at Engine 15 Brewing Company. Transportation will be provided back to Prime Osborn. Please come out to learn and show your support! Free registration and full details can be found [HERE](#).



The JTC Running Track Series continues on Saturday, May 11, at The Bolles School at 4 PM. Registration is free for the general public online [HERE](#). Come out give it a try- bring your kids and grandkids to run the 100 meter and other events. Dig your spikes out of the back of the closet and show those youngsters what you can do! The rest of the schedule are all morning meets at Bolles: June 8 and 22, and July 6 and 13.

Lastly, an App is now available from our membership management software provider that enables Club members to easily check their membership status, edit their mailing address, and sign up for events. It is called Wild Apricot for Members and is available in the App store for Apple devices and Play Store for Android. Use the same sign-in email address and password that you use at jtcrunning.com. I think you will like it, but if you send me feedback, I will pass it on to Wild Apricot.

The Starting Line
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NEW & RETURNING MEMBERS

New and Renewing Members

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Karie	Ewing	Anita	Locke	Frank
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Jeanette	Sigouin	Kevin	Terry	Donna	Westrich
Susan	Sims	Stuart	Toomey	Linda	White
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Josh	Smith	Jonathan	Vredenburg	Martin	Wilkinson
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Amy	Snider-Causby	Rebekah	Wallis	Robert	Williams
Jennifer	Somers de Gale	Susan	Wallis	Ryan	Winter
Michael	Spong	Kara	Walsh	Nathan	Wright
Jill	Streit	Scott	Ward		

SAVE THESE DATES –
Saturday, May 18; and Sunday, June 23
Saturday, May 18, at 7:00 PM

JTC Running and the Florida Striders are planning a joint social at the “Jacksonville Sharks” game at VyStar Veterans Memorial Arena. The opponent will be the Orlando Predators.

Ticket Price: \$16 per ticket

Tickets available at ‘Will Call’ starting at 5:30 PM on day of game.

JTC Running website event:

<https://jtc.wildapricot.org/event-3339644>

Sunday, June 23, at 3:05 PM

The Florida Striders and JTC Running are planning a joint social at the “Jacksonville Jumbo Shrimp” game at The Baseball Grounds of Jacksonville.

The opponent will be the Pensacola Blue Wahoos.

Ticket Price: \$35 per ticket

Tickets are printable online at end of purchase

JTC Running website event:

<https://tinyurl.com/JaxShrimpGroupPortal> / Use Password: run4shrimp

Basic Info: Located on the BDO suite level, Sky Decks are open-air areas and are exclusive to your party, offering privacy, VIP service, and premier seating directly on your deck. Sky Decks are for groups of 24 or more people and remain your groups’ throughout the game. All-You-Can-Eat Buffet Style Picnic-Hamburgers, Hot Dogs, BBQ Chicken, Pulled Pork, Pasta Salad, Potato Salad, Cole Slaw, Cookies, Seasonal Fruit, Tea, Lemonade and Water.

DIFFERENCES IN RUNNING VS SPRINTING MECHANICS

Now that the Gate River Run is behind us, North Florida running is transitioning to track season and shorter distances at faster speeds. So what happens to our running mechanics as we go from running 15k pace to 800 meter speed?

One of the biggest differences between running and sprinting is the amount of time the lower extremity spends in stance the phase of running. Another way to say it is that there is decreased ground contact time in sprinting compared to running. In addition to the decreased time spent in stance phase, the muscle activity of the quads and hamstrings goes up proportionally to the activity seen in running. However, one muscle that increases disproportionately is that of the hip flexors. During sprinting there is a considerable increase in the activity of this muscle compared to running. The reason for this is because the hip flexor (illio-psoas) has a significant responsibility in the increase in force generation and acceleration when transitioning from running to sprinting.

Why does all of this matter?

As you transition to shorter and faster speeds with your running, your muscle are required to produce more power. Power is simply force / time. This is why the stance phase of sprinting is significantly shorter than running. The muscle are producing more force during that shorter period of time, increased power, which leads to increased speed and acceleration. This means you will need to train your muscles to function quicker and with more force to do faster and shorter distances on the track compared to the resistance training you do in preparation for longer road races.

One of the muscles that will be important to focus on during resistance training is your hip flexors. These muscles play a large role in your bodies ability to accelerate and increase speed in sprinting compare to how they function with distance running. In fact, a study in the journal of strength and conditioning evaluated the effect of hip flexor

training on sprinting. After an 8 week training program the experimental group showed an increase in hip flexor strength and sprinting ability compared to the control group. This is a pretty remarkable finding, that working on strength and power of one muscle group can improve sprinting ability after eight weeks of training.

As you prepare to switch to more track work outs, shorter distances, and faster speeds, incorporate lower extremity power exercises to your training program. As you do this, make sure to incorporate exercises that strengthen your hip flexors because they have an integral role in maximizing your speed and acceleration.

Making these adjustments to your training program could pay dividends in both performance as well as injury prevention.

¹Deane, Russell S., et al. "Effects of hip flexor training on sprint, shuttle run, and vertical jump performance." The Journal of Strength & Conditioning Research 19.3 (2005): 615-621.

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JTC Running Presents
OUR FREE TRACK & FIELD MEETS

May 11, June 8, June 22, July 6, July 13

Full Details and Registration at

JTCSprinting.com

JTC Running's
**ANNUAL AWARDS PRESENTATION
& BANQUET**

Thursday, June 13, 6 PM to 9 PM

Maggiano's Little Italy restaurant, Town Center

Reserve your place at JTCSprinting.com

THE COOPER RIVER BRIDGE RUN, OLD AND NEW

Editor's note: The first part of this piece appeared in the May 1981 issue of *The Starting Line*. It is a nice walk down memory lane. We old members like that walk and I hope that the new members do too. The second segment is an update, also written by longtime member, Everett Crum.

The Lure of the bridge. Having broken the one-hour barrier in this year's River Run 15,000, I felt capable of running the Cooper River Bridge 10k. Thus, on March 28th I drove up to South Carolina for the Charleston Running Club's 4th annual race. This race is Charleston's race of the year. It's their River Run.

The Cooper River Bridge is longer and steeper than the Hart Bridge and, to make things worse, it has two high-rise spans. Built in the 1920s, it's probably the oldest high-rise bridge in the south. Having been born and raised in Charleston, I remember, as a boy, what a thrill it was to ride over the bridge. I never thought that one day I'd run over it.

The course itself is picturesquely unique. It starts across the harbor from Charleston in the town of Mount Pleasant, runs along the river, over the bridge and down Bay Street into the heart of the city. Then it turns down historic Queen Street before ending at the old College of Charleston campus. The course layout is like a big horseshoe which you can visually follow while standing at the starting line. Looking north, you can see the tall bridge looming in the background. Charleston was originally built on a peninsula and looking across the bay, in the distance, one can see all the city.

There were over 1,600 preregistered runners lined up for the 9 AM start. Other than having some strong winds, conditions were perfect. I was hemmed in by the crowd for the first mile but once we hit the bridge (we used both lanes), I was able to pick up the pace. Split times were given at each mile over a mini public address system. The times, transmitted from the finish line, were loud and clear. At the finish line they had special chutes for the many unofficial runners that ran the race. The finish was orderly except for some congestion in the mainstream of male runners finishing around the 50-minute mark. The award ceremony was timely and well presented. Good quality trophies were

given six-deep in twelve male age groups and seven female age groups. The overall winner was Marc Embler, with a record time of 30:54. Kiki Swelgart was the winner in the women's division with a time of 35:10, also a new course record. I was fortunate enough to win my age group with a personal record of 37:25.

Though the race has a large competitive field they have few world-class entries. This is mainly because there are no commercial sponsorships. There is a board of directors consisting of three sponsoring institutions and the running club. The club stands alone in wishing for commercial backing. This is unfortunate for this race has the potential of becoming a classic. Overall, it was a pleasure to run this course and race. I may return.

The Cooper River Bridge 10k, today.

I should have mentioned that the official name of the original high-rise was the Grace Memorial Bridge, but like the new bridge it was only known as the Cooper River Bridge. There is little comparison between the old and new. The old bridge was a narrow structure of two lanes and two very steep spans that swayed in the wind. The new one is a beautiful, long, wide, modern marvel of eight lanes and one span. Compared to the old, you don't realize you're on a bridge. It is higher, but because of the long single grade to the top it seems easier to run than the old steep, double spans. The new bridge is so tall that it was built over the old one, which was still used until the new span was completed. Then, the old bridge was taken down by explosions. Actually; this is the third bridge. They built a second one several years ago and used the first and second bridges together. This new bridge has so many ramps connecting 1-26 and U.S. 17 that it seems like there is enough cement to pave all of Jacksonville.

But the unique thing about this bridge is they built an extra lane on the east side just for walkers, joggers and cyclists. At the top there is a rest station where one can stop for a drink and take a view of the city, the docked ships, etc. From this height you can see all the old city and where the Ashley and Cooper rivers merge to feed the Atlantic Ocean. In the distance, out in the middle of the harbor, stands

THE COOPER RIVER BRIDGE RUN, OLD AND NEW

Fort Sumter, where the Civil War began.

The CRB is still run in the spring but today it is a different race, it is now a classic. It is one of the largest races in the south, about double the size of the GRR and more competitive. This may be because the GRR only pays prize money to U.S. athletes (which may be a good thing). The CRB 10k does not restrict anyone. Thus, many of the top world-class runners are there to participate. They pass up the GRR in favor of the CRB race and a pay day. This race is also well organized. The local newspaper, the Post Courier, publishes a special edition dedicated just to the race. It lists the names and results of all finishers, not just the top-100. There used to be about a dozen from Jacksonville that would drive up to Charleston every year for the race, but probably not as many these days.

Not long after the new bridge opened, I ran across it using the walking lane. I started from an entrance ramp on the north side and ran across to the exit ramp leading into the city. Then I returned, stopping at the top to admire the view. It was about five miles round trip. Yet, a very pleasant and satisfying run. This lane is always open to the public and there is never a

day when you won't see it being utilized by runners, walkers, or just a few sightseers touring the old city. It is a very nice visit.

Editor's note: I have had some encounters with the Cooper River Bridge Run. As a running shoe sale rep some years back, I worked the race expo a few times. Once, I almost even ran the race. I was all set to go, but when I awakened at the crack of dawn the rain was pummeling down and the wind was like a gale – I went back to bed.

The race is roughly twice the size of our 15,000-person Gate River Run. I disagree with Everett that our attendance is smaller due to not offering prize money to foreign runners. That would not make much difference at all. However, considering that our race is 5k longer, has a better course and an extra bridge, is just as well organized (if not more so), and is a multiple-race event, it has made me wonder why they attract a bigger crowd. I can only believe that this is due to Charleston being a more attractive, destination-type city. It is very historic, has good nightlife, and is a wonderfully walkable town. The event doesn't have us beat, but the city does.

DR. JACK DANIELS RUNNING – PART II: FASTER RUNNING TRAINING METHODS



Jeff T. Wight, PhD

Assistant Professor of Kinesiology, Jacksonville University

Director, JU Running Laboratory at 1st Place Sports

Member, First Place Sports Racing Team

This is Part II of my series on Dr. Jack Daniels Running. Runner's World magazine named Dr. Jack the "World's Best Coach" and he is often referred to as the "coach of coaches". In Part I, I focused on easy running. In this Part II, I focus on fast running training methods. Below is a brief review of Dr. Jack and some of our lessons/ideas from Part I. Then, I present faster running principles.



Dr. Jack Daniels – The Coach of Coaches.

DR. JACK DANIELS RUNNING – PART II: FASTER RUNNING TRAINING METHODS

Dr. Jack was born in 1933 and won Olympic medals in '56 and '60 (Pentathlon). He is quite the running scientist AND coach:

- PhD in exercise physiology from University of Wisconsin
- Wrote top book “Daniels Running Formula” in 1998 (and continues to update)
- Has mentored over 100 all-Americans and Olympians

Dr. Jack is very down-to-earth and knows how to gear his messages to recreational runners. At the end of this article, I share some “youtube” lectures you can watch/listen to. His lectures are fun and informative.

Dr. Jack's teaches that there are four ways to train:

- 1) Easy Running
- 2) Threshold training
- 3) Interval training
- 4) Repetition training



Faster Running Training

In Part II, I provide an overview of Dr. Jack's main descriptions/ideas/tips for the styles of “fast running training” he refers to as threshold, interval, and repetition.

Most of you are at least somewhat familiar with this “jargon”. Many of you have detailed understanding and training experience with all four methods. What is probably more mainstream, than Dr. Jack's jargon, is the jargon used to describe the three main/serious workouts that are commonly promoted in the distance running world:

- 1) Long run
- 2) Tempo run
- 3) Track workout

I will try to tie all these upper-level training concepts together. First, I will share a brief review for a few of the main concepts from part I of this series (easy running).

Reminder: A Little Running goes a long way

Dr. Jack wants you to realize that running about 20 miles per week can provide about 80% of your fitness. I can personally attest to this, and I'm guessing many of you can as well. Over the past few years, I have raced 5Ks on limited mileage/training. When coming back from an injury or break, I first establish a daily 3-mile run. If I race during this period of training, my 5K time is typically 2-2.5 minutes behind my PR. So, the point is that the majority of your running fitness/performance is established by doing some simple/regular runs.

Then, of course, to approach your PR, you must do some serious work, over many weeks. You need to increase your mileage, by quite a bit, to shave another minute. And then, you would need to establish some serious “faster training runs” to shave that other minute.

Reminder: Easy running stimulates major physiological adaptations.

Easy running can be used to “build your engine”. Easy running, around 60-65% intensity can stimulate/maximize the major aerobic physiological adaptations. This is the pace where you can still have a conversation, but your words may be broken a bit... This pace is productive because at 60-65% effort your heart will beat with a full contraction effort! After that, your heart increases blood flow by beating faster (not harder).

Fortunately, running slow stimulates tremendous physiological adaptations! In fact, slow running stimulates the physiological adaptations we need to run fast, so we may as well do a lot of slower running (since too much fast running leads to injuries). It is well-documented (scientifically) that easy running will increase in size and numbers of mitochondria in muscle cells. Similarly, the networks of capillaries will expand dramatically with easy running.

DR. JACK DANIELS RUNNING – PART II: FASTER RUNNING TRAINING METHODS

The bottom line is that running lots of easy miles can make you pretty darn fit. And you will be able to perform pretty well at races on slow running only. But to take it to the next level, you will need to establish some “faster running workouts”.

Reminder: The need for faster running

So, slow running provides us with the “engine” we need to race, but it does not deliver “racing legs”. To fully prepare to race, we must do some serious workouts with faster running. Faster running is needed to develop “strong legs” to increase stride length, run with a higher cadence, absorb high forces, and generate high forces. Also, we must do faster running to develop and fine-tune our anaerobic metabolism—during races we produce about 10% of our energy anaerobically.

Reminder: Importance of the long run

Again, I would like to reiterate the importance of a weekly long run. Everyone understands the long run is critical for marathoners. And most of us understand that a weekly “long run” provides great fitness benefits for all runners (even for shorter races like the 5K and 1-mile). The bottom line is that a weekly long run will noticeably improve your running performance, just like increasing weekly mileage does.

Long runs are typically completed at an “easier” pace. Dr. Jack says that standard long runs should be completed at the productive (and enjoyable) 60-65% effort pace that I described previously. Serious runners may incorporate higher efforts for some (or the majority) of their long run. When this occurs, the standard “long run” transitions to one of the “speed workouts” for the week.

So the big question is how long should a long run be? Typically, “serious” runners try to establish the following long runs for common distance races: 5K (10-12 miles), 10-15K (12-16 miles), half marathon (16-20 miles), marathon (16-20+ miles).

Dr. Jack provides more detailed instruction for runners based on their current training and ability. He promotes the following:

The long run should be the lesser of:

- 1) 25% of your weekly mileage or
- 2) 2.5 hours (whichever comes first).

Dr. Jack is strongly against long runs over 2.5 hours. In a light-hearted manner, he says that

- 1) our top marathoners do not complete long runs over 2.5 hours, so why should a recreational marathoner do it?
- 2) he'd rather see a runner get hurt during a marathon than training for it (during an excessive long run)

Dr. Jack – FASTER RUNNING

Dr. Jack recommends that about 80% of your miles be completed at “easier paces” meaning 60-75% effort. Typically, the long run fits into the “easier” miles.

The remaining 20% of the mileage is then completed at “faster” paces.

1) Threshold training

2) Interval training

3) Repetition training



Faster Running
Training

Most experienced runners complete regular “tempo runs”, which are challenging longer runs (typically 2-4 miles) at their “threshold pace”. Dr. Jack says describes threshold pace as approximately 82-90% of VO₂max pace (or max heart rate). He describes this pace as “comfortably hard”. When Dr. Jack says running hard, he means it is a pretty serious pace. So, it is probably better to describe this pace as “comfortably uncomfortable”. The threshold pace is a notch slower than the 5K race pace which is typically described as “uncomfortable”.

Dr. Jack shares that a well-trained runner can race at their threshold pace for approximately 1-hour.

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So, this is approximately equivalent to the “Gate Run pace” (15K race pace).

For serious runners, Dr. Jack limits threshold training to 10% of weekly mileage. So, for a runner completing 40 miles per week, this would be 4 miles.

This type of training can be fun, or really tough. It may be fun if you run a 5K race with a few hundred others and complete it at threshold pace with a friend. It may be tough if you try to do it by yourself on the street after a long day of work. The key is to find a way to make it happen consistently, because the performance benefits are great.

The threshold pace is based on science—it is the running speed that is just below the running speed where you start to accumulate blood lactate. Essentially, this is the pace where you start to feel the “burn” from going “anaerobic”. In the laboratory setting, this can be identified with simple blood tests (finger pricks) or with metabolic testing (we do this in the JU Running Lab using a Parvo metabolic cart).

The key to successful threshold training is to run just below the pace where lactate begins accumulating. Do this regularly, and your threshold pace will increase, and you will be able to increase the pace of your “tempo run”. Your running performance will improve dramatically if you can “shift” your threshold pace “to the right”.

Another option Dr. Jack describes for threshold training is to complete “cruise intervals”. Typically, this would be “mile repeats” completed at threshold pace with shorter rests (1-2 minutes in between).

To be clear, the goal for a threshold run is to spend a good amount of time running just below your “tipping point”. You want to run at the pace that is 1) fast enough such that your muscles are producing a good amount of lactate (anaerobic metabolism) but 2) slow enough such that your body is able to

clear the lactate that is produced. If you play your cards right (run the appropriate pace), you will expose your body to 20-40 minutes of running near your lactate threshold. This prolonged exposure (near the threshold) will “stress” the system and “force” it to improve. Simply put, if you spend a good amount of time running near your lactate threshold, it will improve, and you will be able to run at a faster pace before you “go anaerobic”.

We all have some great stories about playing our cards wrong: starting a race or track workout too fast and “blowing up”. The key to threshold training is playing your cards right, no being tough and suffering through pain. The ultimate goal is to complete a large volume of running just below the pace where the pain begins.

- 1) Threshold training
- 2) **Interval training**
- 3) Repetition training



Faster Running Training

Dr. Jack’s description of interval training is what most of us would call “track workouts”. For interval training, the pace gets pretty serious (faster than 5K pace). For an interval training workout, Dr. Jack has runners complete repeated bouts of running at faster paces. The distances completed typically range from 400m to 1 mile. Then, the runner takes a break (typically 1.5-3 minutes). Because the pace is faster, the rest periods also get longer, to allow the legs to recover.

Dr. Jack’s total volume guidelines for interval training are as follows: no more than 8% of weekly mileage or 10k (whichever comes first). So, for a 40-mile a week runner would be limited to 3.2 miles of harder interval runs. This probably sounds familiar to most of you since club/team track workouts tend to be 3-miles workouts (combinations of 400m, 800m, 1200m, 1-mile bouts). At 80+ miles per week, Dr. Jack limits the interval volumes to 10k.

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Dr. Jack has a clear purpose for interval training workouts: maximize time running at/near VO₂max pace. According to Dr. Jack, the two big questions are:

- 1) How much blood can you deliver to the running muscles?
- 2) How much of the oxygen that is delivered can be used to convert fuel into energy?

We can measure your VO₂max in the Running Lab using a mask and metabolic cart. First, the runner completes 4 minutes of running at an “easy pace”. During the final minute, we assess the oxygen consumption. Then, we increase the pace by ½ mph for the next 4-minute stage. Most runners complete 16-30 minutes of running before “burning up”. The runner’s VO₂max is the maximum oxygen consumption measured during their final stage of the test.

Dr. Jack has conducted serious research and knows the research literature well. Because of this, he is able to simplify interval training for us. Dr. Jack describes the VO₂max pace as the pace that a runner would race at for 10-12 minutes (approximately 2-mile race). So, this pace is in between the runner’s 5K pace and 1-mile pace. He wants serious runners to complete repeated bouts at/near the VO₂max pace to maximally challenge and improve the body’s ability to deliver and use oxygen.

To be clear, most recreational runners do not run that fast for track workouts; the typical runner would run more like 10k pace during track workouts. A 10k pace track workout would obviously still be very effective at improving fitness, but the runner would be working at more like 90% of their VO₂max. Only really fit runners will be able to complete a really challenging track workout (at VO₂max pace).

The VO₂max pace is a pretty fast pace. Consequently, Dr. Jack limits interval run repetitions

to 5 minutes. So, the longest interval run, for a faster runner, would probably be 1-mile. More commonly, intervals are completed as 400m, 800m, 1000m, and 1200m repeats (or some combination).

Dr. Jack designs the rest time to be slightly less than the run time. For example, the ratios would be something like:

- run 3 minutes, rest 2 minutes
- run 4 minutes, rest 3 minutes

When Dr. Jack trains a runner, he identifies/ estimates the runner’s VO₂max pace. Then, he tries to design a workout to have the runner maximize their time running at VO₂max pace.

When Dr. Jack trains a runner, he identifies/ estimates the runner’s VO₂max pace. Then, he tries to design a workout to have the runner maximize their time running at VO₂max pace.

He describes an example for a runner with a VO₂max pace of 5:30 (minute/mile). He would have the runner complete five 5-minute running bouts at 5:30 pace with 3-4 minutes rest in between. Dr. Jack says that the first two minutes (of the 5-minute run) would be relatively “comfortable”. Then, at the 2-minute point, the runner would hit max heart rate and would be running at their VO₂max. Therefore, the running muscles and body would be exposed to 3 minutes of “high stress” at the VO₂max. If the runner completed this process 5 times and the runner would be exposed to a total of 15 minutes of running at VO₂max. That would be a lot of time spent at VO₂max. An alternative workout would be running a 2-mile race at 5:30 pace which would be 11-minutes spent at VO₂max.

Dr. Jack describes how to easily screw up this process: complete the first interval too fast. For example, for the first interval, the runner may get a little too “pumped up” and run a 5:20 pace instead of a 5:30 pace. Then, by interval 3, the runner’s legs are “cashed” the pace drops to 5:40 or maybe 5:45.

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Then, the runner completes the workout at about 90% of VO₂max instead of 100%. In the scenario, the runner only had a few minutes of exposure to VO₂max instead of 15 minutes of exposure to VO₂max. These types of mistakes can make a big difference in the productivity of workout, especially for more advanced runners.

Dr. Jack describes how taking too short of breaks would lead to the same scenario. The runner must take a long enough break to let the legs recover so that the interval can be completed at VO₂max pace.

To be clear, you can screw this process up, and still get really fit and tough! But to optimize training, and to run your true “PR”, these types of details need to be accounted for.

Dr. Jack makes it very clear that training is not about “sucking up the pain”. Training is about completing large volumes of running at important paces such as threshold pace and VO₂max pace. This is the most productive/effective way to stimulate “fast-running adaptations” in your body.

1) Threshold training

2) Interval training

3) **Repetition training**



Dr. Jack’s description of repetition training is what most of us would probably call “strides”. For repetition training, the pace is very fast (approximately current 1-mile race pace). The distances completed for repetition training typically range from 50m to 200m. Dr. Jack sets an absolute upper-limit of 2 minutes (for a repetition run). Therefore, the farther distance an advanced runner would complete (at repetition pace) would be 400m or possibly 800m.

Overall, I think it is safe to say that repetition training is poorly understood. I think of repetition training as a form of strength training. I say that because repetition training is completed to increase

the strength and power of your legs and stride. This is different from threshold training and interval training where we are seeking physiological fitness.

During repetition training, Dr. Jack is not targeting the runner’s physiology (like he did during threshold training and interval training). He simply wants the runner to run really fast for short bouts with great form. It should not hurt bad. It should feel pretty good and fun. The goal is not to blast the legs and break them down. The goal is to complete a decent volume of running at a really fast pace to strengthen the legs and stride. Then, ideally, that training will lead to a more explosive and efficient stride at normal/racing paces and the runner will become more economic (and faster).

Dr. Jack’s volume for this type of training is only about 1-2% of the weekly mileage. Most runners would complete this type of training after a track workout or at the end of a “standard run” when they are really “loose”. For example, after a track workout, the runner may complete a few hard 50-200m runs. Personally, I enjoy completing 6-10 100m runs once a week for some “speed exposure”. I definitely feel like this improves my stride and certainly provides me with confidence and improved ability to finish a race. Another great option is to complete a few “hill repeats” once a week if you can find a nice stretch (not too steep!) to run uphill for 50-200m.

Dr. Jack recommends a 3:1 rest ratio for repetition training. This means you run 100m pretty hard and then rest for a minute (or more).

Of course you should be cautious when you start repetition training. Do not dive right into 10 hard repeats! For example, start at 75% effort and build up to faster paces or start with 2-3 repetitions and work your way up to 5-10.

And remember, the purpose is not to hurt. The purpose is to improve speed and economy. The goal is to complete repetition runs with perfect distance

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running form. If you change from “distance form” to “sprinting form” then the speed and power will likely not translate well to your standard distance running. Similarly, if your rest is too short, you will lose your perfect form. Your goal is to maintain great biomechanics during repetition training so it will benefit your standard and racing running paces. Completing repetition training with “sloppy biomechanics” will make you feel tired, like you had a great workout, but it will not help your overall performance very much. The key is to complete repetition training with perfect biomechanics.

In Closing

To simplify, there are 5 “big ways” to improve your running.

- 1) Increase mileage
- 2) Establish a long run
- 3) Threshold training
- 4) Interval training
- 5) Repetition training

Like I mentioned in the beginning, you can race pretty darn well by simply running about 3 miles a day! If you want to improve further, you can incorporate additional training in any one of those 5 areas and expect to see improvements (if you do it consistently). A little bit of training from any one of these five areas can go a long way for recreational runners. Elite runners must master/optimize all 5 areas. Large volumes and intense focus on important details are needed to become elite.

Be smart, and gradually incorporate training from these five areas into your plan. One thing I know for sure is that hurt runners don’t run very fast!

Here is a youtube link to one of my favorite lecture series by Dr. Jack Daniels:

<https://www.youtube.com/watch?v=veAQ73OJdwY&list=PLIMHliIIR6Fm3aN2mOZ77fq-eovn5dNn0&index=3>

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KEEPING THE BODY IN BALANCE

Most of us if we have been running long enough have experienced a myriad of various injuries, from the daily aches and pains to issues that have led to more substantial layoffs. What many people don't fully understand is that almost all of these are preventable. In fact, when the body is out of balance, is when these problems most frequently appear. So, what exactly does that mean?.....keep reading

Around 30 years ago, I was struggling with an injury that had me puzzled. After about 2 miles my legs were getting so weak that I could hardly lift them and would have to stop. I tried rest and physical therapy, but nothing seemed to help. Finally, I spoke with Doug Alred and he referred me to a neuromuscular therapist. These are essentially massage therapists who have training on anatomy and are excellent at isolating the cause of a soft tissue (muscle, tendon, ligament) issue.

I was evaluated by Kyle Wright of the Wright Center who measured multiple anatomical landmarks from head to toe. What happened next was truly extraordinary. Kyle asked me why, since I run so much, and had very little body fat, did I in fact have "love handles" around the waist? I had no idea. He then on a flip chart sketched a rough illustration of the body. Essentially, picture a stick figure drawing turned sideways with a midline to separate the body from front and back. Long story short, my issue was that the anterior, or front of my body was significantly shortened compared to the posterior structures. The bottom of my rib cage was very close to the top of my hip. So, my "love handles" were caused because my abdominal cavity had very little space and pushed everything sideways. I was way out of balance, and what I learned that day was eye opening. In fact, my abdominals, quadriceps, and anterior cervical were drawing my body down. So, if one side of the body is short, the opposing side must therefore be lengthened. This included the soft tissues of my lower back and hamstrings where for years I had

battled with tightness. Kyle told me that made perfect sense, because discomfort is almost always felt on the side that is lengthened and weak. The body is just like a rope and pulley system. If you shorten one side the other side must be long to compensate. My issues were originating from where I had no pain or discomfort...the anterior where my muscles were shortened, hypercontracted and lacking strength.

The first thing Kyle told me was stop doing exercises that further shortened the anterior side. Most notably to stay away from sit ups and crunches. In fact, the reason I could barely lift my legs was my deep abdominals (psoas) were so tight and short they were hypercontracted, ischemic, and as a result had no strength. It was causing low back tightness as the opposing tissues were stretched, lengthened and weak. I need to get my body back in balance and this made so much sense.

My therapy consisted of 2-hour sessions where Kyle would use his elbow to gradually sink in to my deep abdominals and with constant pressure start releasing the tissues. The results were almost immediate. My posture improved, and I supplemented treatment with exercises and stretches to open the anterior. One example is using a large exercise ball and bridging back over it utilizing a wall for support and letting my legs hang and start to release. I still do this routine every day and it is wonderful to stretch the abdominals and take pressure off the lower back. Within a few weeks I was back training at full strength from a problem that had lingered for months. I was so fascinated with the body work results that I enrolled in Kyle's school to learn everything I could and keep that knowledge as a coach.

Interesting, but a good analogy is people that work everyday at a desk will frequently have the same issues, although its more manifested in upper shoulder and neck tightness, instead of lower back

KEEPING THE BODY IN BALANCE

and hamstrings. The same principle applies. This time the shortened tissues that need to be released are in the anterior cervical spine (scalene), and the same stretching and exercise principles apply. Cyclists are also able to constantly have shortened anterior structures, including abdominals and cervical areas.

Just as the body can be out of balance from front to back, the same applies from left to right. One leg can be longer through running imbalances which can arise from consistently running on uneven surfaces, like one side of the road. A good example is ITB problems, and as outlined above the cause of the pain will be on the short leg, but the pain and inflammation will be felt on the long side. By getting the legs symmetrical in length through soft tissue body work, the injury can be solved a lot quicker. One other illustrative example is if you have ever suffered from plantar fasciitis. If you have had it you know how discomforting it can be. I had experienced a bad case, and when I returned for therapy, I learned that the cause was from a weakened and inflamed soleus muscle (deep in your calf) that pulled on the Achilles tendon which

attaches in to the heel and the origin of the plantar fascia. Once again, after isolated specific treatment to the calf area, the plantar injury subsided quickly. Just another example that frequently where the pain is experienced is often not the area of cause.

In conclusion, when I coach individuals today, I really emphasize routines that will keep the body in balance. Cross training is essential to avoid overloading the same muscle groups from distance running. Core strengthening exercises are critical, and in my opinion, nothing is more valuable than yoga in helping the body find balance. Finally, I haven't done a sit up in years and my abs are actually stronger.

Hope this was helpful, and if you have any questions, please reach out.

(Sean McCormack is a certified USTAF Level 1 Coach & was Head Coach at Georgia Southern University's Men's & Women's Cross-Country Team)

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ALAMOSA - THE BIRTH OF RUNNING AS WE KNOW IT

Last summer, July 27-29, 2018, nearly 400 outstanding runners, coaches, physiologists, and other legends of our sport gathered in Alamosa, Colorado to celebrate the 50th Anniversary of the first U.S. Olympic Marathon Trials race. Chosen for its elevation of 7,544 feet above sea level, Alamosa hosted three years of training camps, medical testing, and practice events, climaxing with the marathon on August 18, 1968.

I was a neophyte marathoner then, having finished only four 26-milers, with a best of 2:51:57.

Nevertheless, I seriously considered driving from Ohio to Colorado to run in the Trials, the first time U.S. marathon Olympians would be self-selected. All previous marathoners had been picked by committee, based on performances in a few marathons like Boston, Yonkers (NY), and the AAU (Amateur Athletic Union) championships.

Part One: Setting the Scene

MEXICO CITY

The 1964 Olympics were held in Tokyo. Billy Mills won gold in the 10,000 meters; in the 5000, Bob Schul won gold and Bill Dellinger captured bronze. Buddy Edelen, holder of the world's fastest marathon time (2:14:38), placed sixth at the Games. Arizonan George Young placed fifth in the 3000-meter steeplechase, and Dyrol Burleson of Oregon placed fifth in the 1500. It was a great Olympics for American distance runners.

The longest race for female Olympians in 1964 was 800 meters. The marathon was added in 1984, the 10,000 meters in 1988, and the 5,000 in 1996--it was a different era.

At the closing ceremony in Tokyo, the 5-ringed Olympic flag was presented to the mayor of Mexico City, selected to host the Games in 1968. Many of the world's endurance athletes, coaches, doctors, and exercise physiologists were stunned: Mexico City's altitude is 7,546 feet above sea level.

Among the headlines: "Athletes Will Die!"

COMMUNICATION

Running news was scarce in the 1960's. Sports Illustrated magazine printed about four track and field articles each year and occasionally covered the Boston Marathon. Weekly publications like Track & Field News printed mostly results. Long Distance Log, compiled monthly by Browning Ross, covered road racing results.

By the time I was in college (1963-1968), I also "subscribed" to two mimeographed newsletters, one out of Chicago and the other from Manhattan, Kansas. Letters and postal cards among athletes supplemented our communications.

On the eve of my first marathon, the Heart of America in Columbia, Missouri, Labor Day 1966, we were all presented a copy of Volume 1, Number 1, of a tiny 5-1/2 x 8-1/2 magazine, Distance Running News. It was later to become Runner's World magazine.

PHYSIOLOGY

Richard Fannin claims to be a "running nerd." Before that term was ever coined, I believe I was his predecessor: My 1960 high school biology project was "The Physiology of Running". There was little to report. I scraped together meager biomechanical data from Penn State, oxygen uptake measurements from the Karolinska Institute in Stockholm, lactic acid studies on frog calf muscles, and a handful of how-to-train articles.

Track and Field News marketed an assortment of books, most written by Olympians or their coaches. None addressed the science of nutrition, hydration, aerobic and anaerobic respiration, or oxygen uptake. Although the structure of DNA was known, scientists were still puzzling out how it worked.

Even by 1968, there wasn't much exercise physiology to access.

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Dr. Kenneth Cooper had established the Cooper Clinic in Dallas where a wealthy person could be treadmill tested, analyzed, and counseled to a healthier lifestyle. Unbeknownst to me, just one state west, exercise physiologist David Costill was collecting data on runners in his basement lab at Ball State University in Muncie, Indiana. It would be four years before I would connect with Costill and become part of an 80-person long-term (longitudinal) study.

Sports medicine, as we know it today, was non-existent. Orthopedic physicians were scarce, working primarily with ailments like rickets and club feet (Ortho means straight, and Ped means foot--think Forrest Gump.) Injured athletes with torn ligaments and meniscus damage sported garish knee scars from invasive surgery and rarely returned to full-functioning.

ALAMOSA

1964 Olympian Buddy Edelen, the 2:14-marathoner, now suffered from sciatica but was still eager to be a 1968 Olympian, moved to Alamosa, home of Adams State College, elevation 7,544 feet. Edelen earned his Master's in psychology while trying to adapt to running at high altitude. Sports Illustrated published a feature article about Buddy, "America's Gritty Guinea Pig." It fascinated me.

At the same time, Adams State hired one of its graduates, Joe Vigil, who'd been a successful high school coach, to take over the cross country and track programs. Before long, Edelen and Vigil hatched a plan: Get the AAU to hold the Olympic Trials marathon in Alamosa!

Alamosa lies four hours north of Albuquerque and four hours south of Denver. It's a high desert town, crops kept green by irrigation from the Rio Grande and a large aquifer. The terrain is flat; the closest hills are 20 miles away. But Alamosa's welcoming

attitude and high altitude drew dozens of Olympic hopefuls, all intent on learning what effect 30% less oxygen has on the runner's body.

Edelen and Vigil promoted the town as an ideal site, the college and Chamber of Commerce joined in, and a pre-Olympic Trials race was held in August 1967. Ted Corbitt arrived from New York City to measure and certify the course, which would be five laps of 5.2 miles plus 385 yards. Corbitt placed fifth in the 1967 marathon in 2:55.

Finally, in the fall of 1967, the AAU selected Alamosa to host the marathon and 50-kilometer race walking Trials.

Part Two:

Should I finish college, get married, and start grad school or run in Alamosa?

Answers: I graduated from Wilmington College in May 1968 by taking night classes, while teaching and coaching full time at rural Fayetteville High School, 20 miles from home. I got married a week after graduation (in 1968, an honorable young man married the girl he was partners with.) I accepted a graduate assistantship from Michigan State to study experimental psychology. I worked that summer as Program Director at Boy Scout Camp Birch in Ohio. I did not travel to Colorado to run the Olympic Trials.

When asked about my biggest regret as a runner, missing the Trials is #1. My rationale, which was certainly rational: (1) I had no money, (2) I was only a 2:51 marathoner, (3) Pikes Peak's altitude had kicked my butt when I raced there in 1967, and (4--irrational), there would be Olympic Trials in 1972 and 1976 when I most certainly would be a lot faster.

The Alamosa Olympic Trials Committee organized an outstanding event. Twenty of the fastest men--four each from five widely-spread US marathons--were given six weeks' room and board

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in the college dorms. Many others were also invited to come to train. Among them were nationally-known runner/writer Hal Higdon of Indiana, mile record holder Jim Ryan of Kansas, and Tom Findley of Ohio State, who had pushed me to several road-race PRs.

Throughout the summer of 1968, Alamosa was crawling with hard-training runners. Coach Vigil was impressed with the daily efforts of these skinny, amateur athletes. Even more motivating for Vigil was the work of physiologists who set up labs on campus, convincing runners to spill their guts (figuratively and literally) for science. They collected blood, sweat, urine, and carbon dioxide. Runners completed questionnaires, ran on treadmills, and tested a new sports drink from Florida, Gatorade.

Runners were fearful of dehydration but also stomach distress--aid stations in marathons consisted of water and orange slices during this era. Many runners drank nothing during competition. Worse, AAU rules mandated no aid of any kind until 10,000 meters had been covered, midway through the second lap of 5.2 miles.

Favorites to race well in Alamosa included 1968 Boston Marathon champion, Amby Burfoot; Bill Clark, Boston runner-up and pre-Olympic Trials 10,000 meter champ; and 1967 NCAA cross country champion Kenny Moore from the University of Oregon. Bob Deines (DYE-nuss) of Occidental College (CA) had placed sixth at Boston, and three weeks later, ran 2:20:48 at the Culver City Marathon. Deines was the most successful proponent of LSD, high mileage at a slow pace.

Ron Daws of Minnesota barely qualified for one of the 20 invitational spots, but had won the 1967 National Championship race at Holyoke, MA in 92-degree temperatures.

Proven high-altitude racers included Pikes Peak champion Steve Gachupin and Denver's Steve

Matthews. After seven months at altitude, Ohioan Tom Findley ran a PR 2:47 just one month before the Alamosa race.

Moore was training (for the second year) in Los Alamos, NM. His final long run was a 35-miler to Santa Fe. He arrived the day before the race, calling himself a "stealth entrant". Also arriving late with no fanfare: Two-time Olympic steeplechaser George Young of Arizona, and his training buddy, 1964 Olympic 10,000-meter champion Billy Mills. Both were logging 100-mile weeks near Flagstaff, and Mills advised his Olympic teammate: "Lay off the early pace. The leaders will come back." It was only George Young's second road race and his first marathon.

At 3:00 p.m., the same time as the Olympic race was scheduled in Mexico City, 129 runners responded to the gun. Conditions were hot and breezy. Moore later described them as desiccating.

Burfoot wrote, "With one lap completed (5.2 miles), the Trials race settled into a psychophysiological battle between fast starters (Moore, and several others), medium pacers (Mills, Young, and Daws), and slow starters (Ed Winrow, Deines) who were counting on the high altitude and hot desert conditions to produce unforeseeable results." Moore ran the first lap in 29:23. Australian Kerry Pearce and Irishman Pat McMahon ran ahead of Moore. They both dropped out. By the end, 66 runners had quit.

Moore led for 22 miles before the patient novice, George Young, ran him down. Both men developed leg cramps, but Young won in 2:30:48, Moore was second in 2:31:47. The real excitement came from the next eight men.

Matthews held third with a lap to go. Daws had gradually closed on him during the fourth lap. Clark, Burfoot, Winrow, and Deines were part of a large chase pack that started slower than 6:00-minute miles, and gradually accelerated.

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Clark ran the fourth lap faster than anyone and trailed Matthews and Daws by 70 seconds. Dehydration crushed Clark on his rush to the finish line; he struggled home ninth.

Daws decided to push the first half of the final lap, figuring Matthews would burn him if it came down to a kick, which had happened before. Daws squeezed out a 200-meter advantage before they turned into the wind with 2.5 miles to go. His laps averaged between 5:45 and 5:55 per mile. No one else managed such an even pace. Daws captured the third Olympic berth with a time of 2:33:09.

Newspaper accounts (and the USOC site) list Deines fourth, just four seconds behind. That is untrue.

Deines and Winrow started the last lap together, but Deines was accelerating and Winrow was cramping. With 600 meters to go, Deines eased past a faltering Matthews. "I never saw Daws," reported Deines. Winrow held onto sixth place and reckons that Deines and Matthews were 150 meters ahead. The final times and places are listed below.

Date: August 18, 1968

Location: Alamosa, Colorado

129 Qualifiers, 63 Finishers, 7,544 feet

- 1) George Young (AZ) 2:30:48
- 2) Kenny Moore (OR) 2:31:47
- 3) Ron Daws (MN) 2:33:09
- 4) Bob Deines (CA) 2:34:13
- 5) Steve Matthews (CO) 2:34:17
- 6) Ed Winrow (NY) 2:34:51
- 7) Nick Kitt (CA) 2:35:09
- 8) Doug Wiebe (CA) 2:35:31
- 9) Bill Clark (CA) 2:36:14
- 10) Jeff Reneau 2:38:46

DNF--Amby Burfoot, Billy Mills, Frank Shorter, Tom Laris, over 60 others.

Frank Shorter, a junior at Yale, entered the race, encouraged by his friend, Amby Burfoot. Shorter spent his summer training in Taos, NM, just 90 miles south of Alamosa. Burfoot loaned Shorter some racing flats, but they blistered Frank's feet and he had to drop out.

Shorter won the NCAA 10,000 the following spring, then moved to Gainesville to train after graduation. In 1972, he captured the marathon gold medal at the Munich Olympics.

My Ohio friend, Tom Findley, faded to finish in 3:20.

Part Three:

The Reunion

Fifty years passed. Dr. Joe Vigil and current Adams State coach Damon Martin decided to host a reunion, celebrating the 1968 Olympic Trials runners and the dozens of people involved in the race.

What a success! Twice, the banquet venue had to be moved, eventually held at Alamosa's largest ballroom, as more than 300 people signed up. Many Olympians and National Champions attended, along with alumni of Adams State's 50 NAIA and NCAA cross country and track championship teams.

Speakers over the three days included Coach Vigil, Deena Kastor (nee Drossin), Coach Martin, and Dr. David Costill, who inspired Vigil to pursue his exercise physiology Ph.D.

Alamosa, and Adams State College (now a University), rode the momentum of the 1968 Trials to become America's pre-eminent high-altitude training town. Vigil's teams won their first of 13 National cross-country championship in 1971, the last in 1993 when he retired from college coaching.

ALAMOSA - THE BIRTH OF RUNNING AS WE KNOW IT

I worked with Coach Vigil his final three years, from 1991-1994.

Olympians and national teams from Tanzania, Japan, Italy, Poland, and Finland trained in Alamosa those three years, and hundreds more athletes have, before and since.

Four of the six top finishers from the 1968 race, George Young, Kenny Moore, Bob Deines, and Ed Winrow, attended the reunion, plus Amby Burfoot, Bill Clark, Billy Mills, Hal Higdon, Steve Gachupin, Gary Muhrcke, Tom Heinonen, Frank Shorter, and others.

Joe Vigil delivered the keynote address at the Olympic Marathon Celebration Banquet. Medals and plaques were presented to those who had raced there 50 years before. George Young was honored for his four U.S. Olympic teams and his 1968 bronze medal in the steeplechase.

The most exciting moments were just before Vigil's speech. He asked all Olympic medalists to please stand. Shorter, Mills, Young, and Deena Kastor stood up. He then asked everyone who had won a world or national championship to stand: There were more than a dozen! He asked all who had represented the United States in international competition to stand: There were nearly 50. And then Vigil asked everyone who had earned an All-American award to stand--nearly the entire room was on its feet.

A "Race with the Legends" was held on Saturday morning, a single loop of the 1968 Olympic Trials course, shortened from 5.2 miles to 8 kilometers (4.96 miles). 117 runners competed in the 20-29 division. The second largest group were the 33 men 60-99 years old. St. Johns Country Day School senior Ben Kailes and I ran, along with Mark Dorion, a 1970s Episcopal graduate, now living in Texas. A total of 199 ran or walked the historic loop. A commemorative plaque affixed to a boulder

marked the finish location of the 1968 race and the reunion event.

I lined up at the rear with the walkers, and set out jogging. I knew the course well, having run it weekly during the four years I lived in Alamosa. The young runners disappeared, but there was a long string of us trailing at ten, eleven, and twelve-minute-mile pace. The course is wide open; one can easily see a half-mile ahead.

Just before two miles, I caught a woman who walk-jogged the course. We spoke and I learned she was Ellen Clark (nee Moranville), one of three marathon princesses who led the 1968 race in a convertible, dressed in gowns and white gloves and waving at the spectators. Her husband Bill Clark (ninth in 1968) was behind us; "Oh, he's just walking," Ellen said.

"You're doing great," I panted. Running at that elevation and talking are hard to do.

"I'm trying to catch Frank Shorter," Ellen said. "That's him up there in the yellow singlet."

About 100 meters ahead, Shorter was jogging along smoothly. I had to see if I could close the gap.

It took me nearly a mile and a half. We turned from the paved path onto a gravel trail beside the Rio Grande, returning toward Adams State.

I introduced myself and asked him some quick questions: He was gracious and elaborated a lot more than I would have during a race. I told him I moved to Florida in 1973 to run with the Florida Track Club as he, Jack Bachelor, and Jeff Galloway had done, but they'd all moved away. He told me about Burfoot's shoes forcing him to pull out of the 1968 race.

We crossed the river and returned to pavement, Shorter then put in a series of surges. Nothing real fast (or it would have taken just one), but he began "racing" me.

ALAMOSA - THE BIRTH OF RUNNING AS WE KNOW IT

Over the final mile, we caught four other stragglers as we went from 13:00 pace to 12:00 pace.

We turned the final corner, and I expected to be blown away over the final 200 meters. But Frank Shorter eased up and I was able to run in with him. At the finish line, he reached out to pat me on the shoulder.

I had, on one day last July, run beside one of my heroes.

Post script--I later came to know Ron Daws and worked with him at two Colorado running camps. I hosted him in Jacksonville for one of the Gate River Runs. He died of a heart attack in 1992.

Dr. David Costill tested me at Ball State University in 1970 and again in 1990. It really hurt when he performed a muscle biopsy on my calf. Costill

is a champion age-group swimmer and pioneered exercise physiology in runners and swimmers. He has written dozens of scholarly papers and a physiology textbook. Costill is 82.

Kenny Moore broke Edelen's American marathon record in 1969, running 2:13:28 in Japan. He was the first USA finisher at Mexico City, placing 14th. Young won bronze in the steeplechase and placed 16th in the marathon. Daws was 22nd at Mexico City. All ran within one minute of their times on the Alamosa course.

Dr. Joe Vigil is 88 and presents clinics internationally to coaches, athletes, and physiologists.

Buddy Edelen died of cancer in 1997.



Frank Shorter (left) Jay Birmingham (right)



Frank Shorter (left) Jay Birmingham (right)

MY RIVER RUN 2019

I started running in 1979! (Wow! Where did all the years go?) The older I get the slower I get! Most of us over 65 are experiencing the same sadness. I have a shirt that says it all: The older I get, the faster I was.

I was out of town when I received an email from JTC Running about their Gate River Run training class. As there was a small window of time to save \$5 on the entry, I immediately signed up for the class. My thinking was that training with a group would keep me motivated, and a schedule of runs, with a trainer, was what I needed.

At our first meeting I was surprised to learn the class used the Galloway Method of running (run/walk). Having been a runner for 40+ years, I thought, “run walk, how is that going to help me?”

What a learning experience! I was assigned to the 90-seconds run/45-seconds walk group. At the first run I was a few steps behind everyone else. I’m 77-years-old and the next oldest was in her 50s. As the weeks went on, I started to LOVE this method of running! I loved my pace leaders, Sherry and Lori, our trainer, Jennifer DeSantis, and the Galloway Method of running.

My first race using this method was the Donna Half-Marathon. In 2018 my finish time was 3:20:02. (Very sad – my best half-marathon being 2:05.) This year, using the run/walk method, my finishing time was 3:04! I cut 17 minutes off my time from last year! At the Gate River Run last year I finished in 2:17:47, this year my time was 2:04:24!

I attribute this to the run/walk method I used during both of these races. Another benefit of using the Galloway Method? When I finished the race, I was not the least bit tired. I highly recommend training with this group. The next class starts in September and it will be training for another half-marathon. Come join me! You’ll be glad you did!

Editor’s note: When our club’s longtime coaches, John and Denise Metzger, retired there was concern over how two such great people could be replaced. Jennifer DeSantis has been a God-send. She has done a wonderful job. Our popular training groups have gone from strength to strength and continue to be one of the best things that we do. As Nancy Kern’s testimonial attests. You should give one of our training classes a try; she was pleasantly surprised and so might you.

JTC Running Presents
OUR FREE TRACK & FIELD MEETS
May 11, June 8, June 22, July 6, July 13

Full Details and Registration at
JTCRunning.com

JTC Running's
**ANNUAL AWARDS PRESENTATION
& BANQUET**

Thursday, June 13, 6 PM to 9 PM
Maggiano’s Little Italy restaurant, Town Center
Reserve your place at JTCRunning.com

Thank you so much!

**JTC RUNNING GIVES A HEARTFELT
THANKS TO ALL OUR VOLUNTEERS**

Who made this year’s Gate River Run such a success. Without you, it would be impossible

Editor: Bob Fernee
Designer: Amanda Mason

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Weekly Training Runs

Sunday 6:30 am, Mandarin: Various locations and distance. See Facebook page at www.facebook.com/pg/JaxSundayRun/posts/ NO Facebook account necessary

Sunday 6:30 am, Atlantic Beach: Atlantic Bl. & 1st Street. 5-10 miles. Contact: Linda White (C) 662-4928 whitelindab@bellsouth.net

Sunday 6:30 am, Orange Park: IHOP, Blanding Bl. 6-20 miles. Contact: John 264-8024 john.powers@floridapowertrain.com

Sunday 8:00 am, Jax Trails Group Run: visit Jax Group Trail Running on Facebook

Monday 5:00 pm, Bridges Run: River City Brewing Co. 2-6 miles. Acosta & Main St. Bridges. Contact: Bill Krause billkrause615@gmail.com 904-860-9189

Tuesday 5:45 am, San Marco: Southside Methodist Church 5-6 miles. 7-8:30 pace. Contact: JC Pinto, 655-1044

Tuesday 6:00 pm, Baymeadows: 1st Place Sports, Baymeadows Rd. 3-6 miles. All abilities, 731-3676

Wednesday 5:30 am, Bolles School: Track Interval Training, (JTC Running Members)
Contact: Paul Smith, smithfccj@hotmail.com, 982-3730

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Contact: Paul Smith, smithfccj@hotmail.com, 982-3730

Wednesday 6:30 pm, Jax Beach: 1st Place Sports various runs designed to improve your running.
Contact: Simon 270-2221

Wednesday 6:30 pm, San Marco: 1st Place Sports/Aardwolf Brewery, 4 miles, includes bridges.
Contact: 399-8880

Thursday 6:00 pm, Tapestry Park: 1st Place Sports, Bottlenose Brewing, 3-6 miles. Contact: 620-9991

Thursday 6:30 pm, Springfield: Hyperion Brewery, 3-4 miles
Contact: Bill Dunn, wmdunn222@gmail.com

Friday 5:40 am, Mandarin: Beauclerc, Forest Circle, 7.5 miles. Contact: Paul Smith, smithfccj@hotmail.com, 982-3730

Disclaimer on Weekly Workout Sessions:

The Wednesday morning and afternoon sessions at the Bolles School are sanctioned by JTC Running and open only to registered members. Information on all other sessions is provided as a courtesy only. JTC Running does not sanction, manage, or insure these workouts.