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- Graduated from Douglas County HS in 1994; ran 4:25 and 9:45
- Both parents taught and coached at DCHS in the 1960's
- Ran at the University of Colorado for 5 years; MS in Kinesiology and Applied Physiology from CU in 2000; 3:49.5 for 1,500m and 14:20 for 5k
- Head Coach - Pratt Community College, 2000-2002
- Assistant Track Coach - University of Colorado, 2002-2008
- Currently writing weekly training tips and a Q&A for NikeRunning.com; director of the Boulder Running Camps; producer of DVDs at RunningDVDs.com
- Married to former Georgetown All-American Laura Sturges; daughter Avery born September 2008

There are very few handouts for my two presentations for one simple reason. Every slide I show, every exercise I demonstrate and every training article I mention is on the web at [www.coachjayjohnson.com](http://www.coachjayjohnson.com)

I hope you'll use that site as resource this spring, but more importantly for these two 40 minute presentations, don't feel like you need to take copious notes - it's all on the web for you and the athletes you work with when you return to your school.

## First Talk: Simple Strength Training for High School Distance Runners

You might consider the following questions before, during and after the talk to best utilize the material presented:

- How much time should a distance runner spend running during a training week?
- How much time should a distance runner spend doing non-running activities during a training week?
- How much time do you have to conduct practice?

- What is the best use of that time to help all of the athletes improve as runners?
- Do you have enough time to teach proper lifting techniques to distance runners with the time allotted, given that the most important training for runners is running?

## Second Talk: Implementing “Speed” for 1,600m and 3,200m athletes

For the second presentation, “Implementing Speed for 1,600m and 3,200m athletes” I asked the following questions to a select group of HS coaches:

1. What is "speed" in terms of training distance runners?
2. For a prototypical boy who runs 4:24 for 1,600m , what would his 4 laps splits be? For his last 400m, what would his splits for each 100m be? For example, maybe he runs 67, 67, 67, 63; for his 63 lap maybe it's 16, 16, 16, 15.
3. What would this prototypical boy’s PR be at 800m, 3,200m and what would his 4x400m split (i.e. running start) be? If you coach at altitude please answer for a 4:24 performance, even though a 4:30 performance in the state meet in Denver or Albuquerque is probably worth 4:24 at sea-level.

Finally, for those of you who coach women as well and/or only coach women, please do the same for a 5:12 female 1,600m runner.

On the next page are the answers from three coaches who coach at altitude...I’ll put all of the answers on my website for you to compare and contrast.

# Adam Kedge, Albuquerque Academy

Speed is like red wine... an occasional glass is good, drink too much of it, too often, and one day you find yourself in an alleyway with a splitting headache wondering how life passed you by.

1) In terms of training for high school distance runners speed is the ability to train at race pace or faster and the physiological body adaptations that accompany that training over time. It incorporates neuro-muscular recruitment, power, strength, muscle fibers, and spans two or three energy systems. Speed training is multi faceted so different parts of "when to apply speed to mile- and two-mile training" can be addressed throughout the entire long term training plan of an individual.

My opinion, the whole 6 week rule of applying speed training really is not applicable to most high school runners. Very few high school runners are fit enough to work towards a traditional season-culminating "peak".

Although my above-listed definition of speed talks about sub race pace, I consider aerobic conditioning an essential a component of "speed" training. It allows for increased VO2 max and an increase in potential workload volume. Better aerobic conditioning allows for the transitions from energy systems to be smoother.

2) Normal 4:24 splits that I often see are in the range of 64, 68, 68, 64 with the last 400 likely something like 16.5, 16.5, 16, 15. Altitude splits are likely more inconsistent than sea-level splits.

Hard to tell just from a 4:24 and the respective splits I gave. I'd say two of the 3 of the following. 9:30 - 9:35, 1:57 - 1:58, and 51-high to 52 low. If he runs 9:30 he does not likely run 51-high. If he runs 51 high he does not likely run 9:30. So,

4:24 runner A: 51.5, 1:57.0, 4:24, and maybe 9:55

4:24 runner B: 53.0, 1:58.0, 4:24, and 9:30.

# Alan Versaw, The Classical Academy

I think of speed as workouts at interval pace (which we run at 5K race pace in XC and 3200 race pace in track, only over shorter distances/time periods) and faster. I don't really count strides as speed work. They're done at faster than race pace but are more about muscle memory than providing a training stimulus.

I'd like to see 65, 68, 68, 63, I think. Maybe at the college level, that first lap is under better control, but I'd be elated to have my high school runners showing even this much discipline on the first lap. Something very close to those splits, anyway. Last 4 100s would be close to 17, 16, 15, 15.

I'd like to think a 4:24 1600 would run 1:55 and 9:25 to 9:30, at least in Colorado. At lower altitude, the 3200 should be faster than that. 4 X 400 split should hover around 51 or 52, but I think that's going to be more variable than the other marks here.

For girls....

This one I can answer with more certainty; I have more experience with 5:12 females. I'd like the splits to go 76-80-80-76, or close to that (same comment as above with boys on the first lap). Last lap, I'd like to see around 20-19-19-18. Her 800 time should be around 2:17. Her 3200 time should be around 11:15 to 11:20. 4 X 400 split is probably even more variable with girls than boys, but I'd like to think she's capable of 61, and possibly faster if she has good basic speed.

## Micah Porter, D'Evelyn

Speed at D'Evelyn means finishing a race with an anaerobic capacity that could allow the difference between running a 4:24 and a 4:20 or a 9:30 and a 9:18 :). We do speed-work starting week one. This includes strides (to develop muscle memory) and 200 "pickups": 25m accelerations, 150m @ approximate 800-1500m race pace, 25m deceleration. We do about 5 of these with "full recovery" between, about 5 minutes. We do this 3-4 times a week;

always after AT workouts when their aerobic capacity has been tested in a workout and sometimes on easy days.

67, 68, 65, 64 would be ideal. I always breakdown races, regardless of the racing distance into 4ths. The 3rd portion of a race is always the most important in my approach. I believe this is when races are made. We simulate this approach in all workouts for obvious physical benefits. I also believe that this helps young runners develop a mental capacity that will allow them to achieve their goals and beat competitors.

This all depends on age. In high school, there is great disparity among the distance boys in terms of their competitive range (400-3200m). In other words, a freshman boy may be able to race a 9:45 3200m but only 2:05 for an 800m and 56 for 400m. As they mature, the competitive disparity begins to disappear. For a senior boy, I would expect that a boy who can run 9:30 could also run 4:24 for 1600m, 1:55 for 800m and around 52 for 400m. Plyos and weight-room work helps to eliminate the disparity for young runners.

I should be able to answer this question with some certainty, but I admit I can't. I have yet to figure girls out. Alan is certainly more apt to answering this question. However, I can say that the disparity with girls at earlier ages is less. Their competitive range of racing seems more consistent throughout their high school years. Body type and development is huge here. Many girls, at least in my experience and observation, struggle in their later years in longer distances. They often respond to speed work and anaerobic conditioning better if their bodies change as they get older.