

(As seen in the USATF-NJ Quarterly)

Sprinters, Distance Runners and Pullers

While sitting next to a Coach at a track meet in North Jersey this past season, the gentleman exclaimed “...I haven’t seen a stride like that since the ‘70’s...”. Well I am a fan of all things retro, I took it as a compliment. Seriously, he was referring to a ~2.3 meter pulling stride of one of our athletes. This year, we had successes with some of our taller athletes who in years past struggled to compete at the NJ state level. Perhaps the same vicissitudes that affected them have affected other athletes as well. In this article we present a brief snapshot of the path to success for those long-legged pulling athletes.

One of the things that we had established on the Sudden Impact Track Club was the position called the strength coach. On a youth track club, one might think this position to be very limited. But at this level of competition, the primary function of the strength coach is injury prevention. Since our existence, we had noticed and could almost predict the injuries that would happen to some of the athletes in our club. After getting very good advice from fellow clubs in New Jersey, we were able to put a great handle on most impairments before they happened. But some injuries still slipped through into the competitive season. It must be noted that the injuries described in this article are the strain/sprain variety.

To get to the bottom of this, we had to be patient, ask other Coaches for their perspective, read a lot and just observe every aspect of our practices to see if we could further identify the root cause of injury to the athlete. By far, most athletes had no problems making it through an entire season. It was just a few (1-3) ‘strong’ athletes that would encounter some setbacks due to injury.

The root cause analysis starts with the type of injuries we were seeing. Primarily hip flexors and sometimes knees needed attention most often. Interestingly enough, the build of the athlete plays a part in this trending as well. The affected athletes always happened to be “tall” or more specifically, long-legged. How do you measure what tall is on a youth track club? If the athlete has an α (the ratio of the distance from the floor to the athlete’s *Greater Trochanter* divided by their height) of 53% or greater, then they would be defined as ‘tall’. So in reality, the α is not so much a measurement of how tall the athlete is as much as it is a measure of leg proportion to the body (And I promise that’s as technical as I will get for this article). To further put this issue into perspective, the Sudden Impact Track Club has a focus on all races ending in the word Dash. Therefore the traditional workout is just chocked full of intense repetitive impact.

So we have a few strong, tall athletes being hindered by common strains and sprains. How do we fix it? The answer to this was very basic to being successful. (1) Keep doing what works and (2) Stop doing what doesn’t. These athletes (two of them in 2009) had their workout routine aggressively paired down. No sprint repeats...No speed work...No skips!!! (Except the ‘A Skip’) As a matter of fact, prior to the competitive season (i.e. the NJ State meet), these athletes saw <5 days of actual track time. I know at this point, it’s starting to sound like ‘Snake Oil’ but bear with me.

Hill work was an absolute staple to their workout and was the source of their conditioning as well. As was sled pulling and resistance bands. For those of you truly familiar with sled and hill work know that it is more a core workout than it is just legs. With this resistance training, you get to accomplish a great deal of “track-like” work without all the impact. Said impact was the primary insult in the traditional workout. Without going through all of the combinations and permutations of drills and practice routines per athlete and per event, I will list the base drills that bore fruit last year.

Hill runs – 40m	“A” Skips – 25m	Rocket hop – hill, 15m
Karaoke drill – hill, 15m	Rocket jumps – left hand, right hand, both hands up	Lunges – 25m
Jump rope – 400 (100L, 100R, 200Both)	Dynamic “6 inches” with medicine ball between feet	Dead bugs
Plyometric boxes (1ft to 2.5ft, 6in increments)	Superman with medicine ball	Tigers (High knees 10m, transition to full sprint 20m)

These are the drills that comprise the twice per week “Dynamic Day” of workout. They are very low impact drills that establish a power and conditioning base. The amount of reps done are a purely a function of the athlete’s event.

Sled work begins a month out from the competitive season. A good starting point would be

- Not more than twice a week
- Minimum of two days rest between sled days
- Only 3 pulls per day (4 minutes rest between each)
 - Baseline
 - On the track
 - Male – ¼ body weight pulled 50m, 60m, 70m
 - Female – 1/6 body weight pulled 50m, 60m, 70m
 - Advanced
 - Sled in grass
 - Vary the contour
 - Increase resistance per athletes capability

The dynamic and sled days produced results that were palpable. Even under increasing resistance, those same athletes had no complaints of flexor or knees as in years past and ended up placing highly at the Junior Olympics. And each athlete had a running form that was a power, elongated pulling stride with very little fade. For the sake of brevity, this article will not detail offseason or pre-competitive season workout routines. But for more information on the Sudden Impact Contour Resistance Training program, give us a shout at info@suddenimpact-track.org

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