In the previous article, I offered the suggestion that as trainers and coaches, we must take a deeper look at how we program for and train our athletes.

I have made a career out of advocating for the use of more moderate training intensity’s and volumes with young athletes, but this goes even further - it goes to the route of our programming abilities and skills. How much time do we truly spend in designing, monitoring and dynamically adjusting our training programs?

General overtraining syndromes impact both the central nervous system as well as the endocrine system. Given that the regulation of many hormones within the endocrine system serve to oversee and manage our stress levels, it is fair to imply that general overtraining could be considered a stress related issue.

Two types of general overtraining have been recognized -

1. Addisonic Overtraining - This version is related to Addison’s disease and involves a reduction in the activity of the adrenal glands. This class of overtraining impacts the parasympathetic portion of the autonomic nervous system, but shows no striking signs at first. A general stagnation or dip in an athlete’s performance (day-to-day) may be an indication or symptom.

2. Basedowic Overtraining - This version is connected to thyroid hyperactivity and named after Basedow’s disease (also known as Graves’ disease). This class of overtraining impacts the sympathetic portion of the autonomic nervous system and brings with it a host of identifiable symptoms (reduced reaction time, tire easily, poor motivation, appetite and sleep requirement changes).

I offer these two definitions in an attempt to encourage us all to take a closer look at our athletes when they walk in our doors. As I mentioned in last week’s article, over the past number of training sessions, I could see subtle signs of both these overtraining conditions in the actions and reactions of my athletes.

The Winter Holiday (complete with inappropriate nutrition and sleep deprivation) had combined with Final Exams Week (complete with undue amounts of psychological stress, inappropriate nutrition and sleep deprivation) leaving many of my young athletes looking and feeling lethargic.

That isn’t to say that notable extraneous circumstances alone (i.e. Winter Holiday coupled with Finals) will always account for a potential overtraining situation, in fact, very often it can be quite subtle -

- Broke up with girlfriend or boyfriend
- Received a ‘C’ in math
- Doesn’t understand English homework
- Is freaked out about driver’s test coming up in a few weeks

These all may seem like no big deal to you and I, but I again encourage you to think back to your high school days - some or all of these issues can be devastating to a teenager and feel insurmountable.
And these represent only psychological concerns... how about physical ones? -

- Baseball coach makes your athlete stay after school to lift with the team 3X/week
- Football player has to test 1RM on bench, squat and clean in a month - decides to go to the school gym everyday to train for it (and then comes to you later on that afternoon for your session)

- In gym class, your athlete had to run 2 miles for the schools’ standardized testing requirements (and then had to perform push-ups, sit-ups and rope climbing)
- The track and field coach makes your athlete go through a killer, vomit-filled workout full of running and sprinting because he wants his throwers to have a tough mentality

We all must look to generate close, special relationships with our athletes and be firm on the notion that the first thing we do when these kids walk into our training room is ask them how they are - take 5 minutes to learn about what's going on in there lives today. How do they feel? How was school? How are classes? Learn to understand who each of your athletes are as people and allow this to help guide your programming.

That brings me to a particular point on programming I have long stood for -

**Coaching is an art.**

With all the periodization dogma and ‘scientific means’ of designing programs out there, the truly special interaction of application and relationship seems to be a dying art in our industry. I certainly believe very much in the science of what we do, but there is so much more to coaching than just understanding principals, exercise selections and executions.

As Mel Siff wrote in ‘Facts & Fallacies of Fitness’ - “The organization of training is as much a matter of art, trial-and-error and intuition as it is of science”

Aside from talking with your athletes and actively watching their abilities day-to-day, here are some ideas to put into your training programs and routines:

- This article could have gone on forever about periodization dogmatic philosophy and the potential concerns of training athletes in only 6 - 8 week increments when a longer-term approach is so clearly warranted... I opted not to take it that way, but will say that in an effort to stay away from overtraining issues, as a practitioner, steer clear from selling your services to young athletes in short time frames. Understand that technical education alone can prolong a training routine beyond 6 weeks and that the expectations (either because they are assumed or because you are promoting them as such) are that this will be a high energy, butt-busting 6 weeks within which my vertical will increase 8” and my 40 will come down 2 tenths.............

- Regularly plot technique days into your athletes’ training weeks. These by nature are low to moderate intensity/volume days and also serve to add to your athletes’ repertoire of lifting skills. I use a lot of Hybrid lifts in my training routines during various parts of the year (I will be discussing Hybrid lifts in a future article). In short, Hybrid lifts are two or more exercises strung together in a sequence. Some examples could include -

  - High Pull/Hang Clean/Push-Press
  - Shrug/Hang Clean/Front Squat
  - RDL/High Pull/Full Clean/Push-Press/Overhead Lunge
Hybrids are great at increasing base levels of fitness and adding technical merit to an athletes’ lifts. In order to add to my Hybrids (or any other type of lift for that matter), once a week when my athletes come in, we will warm-up, learn a lift, practice it, cool-down and go home.

To all you ‘intensity-crazed’ trainers out there, that sounds annoyingly easy I’m sure, but my athletes’ get to actually learn something, concentrate on important biomotor abilities aside from just strength or power development (I didn’t say that warm-up was easy), and keep there biological levels in check.

Here’s what a technique day may look like for me -

**Warm-Up (15 minutes)**
- Hip PNF (draw diagonal patterns across the sagittal midline of the body with accompanied hip internal/external rotations) - 3 sets, 10 reps/leg
- Hip Circuits (ROM movements performed in sequence while on all-fours) - 3 sets/leg, 8 reps/exercise
- Leg Raises (single-leg ROM activity while lying supine) - 3 sets/leg, 3 reps, hold each position for 5 seconds
- Prone Stability (elbows & toes, lifting 1 leg off the ground and holding for 2 - 3) - 3 sets, 8 reps/leg

**Technique Development (15 minutes)**
I will demonstrate one lift (likely using a whole-part-whole method). Each athlete will then take there time and attempt the lift themselves (bar is un-weighted and all other athletes in this group are actively watching the lift in order to provide constructive comments and/or learn visually)

Once the lift feels good for everyone, we will try it un-weighted within a Hybrid sequence. For example - today, I taught my athletes the staggered stance push-push. Once everyone tried it and began to feel comfortable, we add it to a sequence of exercises -

**Hang Clean/Front Squat/Push-Press**
Everyone will perform this once or twice until it feels comfortable

Training Time (15 minutes)

Now, we can use our new technique is a training sequence (keeping both the volume, intensity and load moderate).

Sequence (with 4 athletes) -
1. Hybrid Sequence - 1 set, 5 reps total
2. Stretch Piraformis (statically) - 30 seconds/leg
3. Posterior Reaches - 1 set, 15 reps

Athletes rotate through this sequence until everyone has gone through it 3 times.

We would then proceed to a cool-down.

So... we’ve had an hour training session that:

- Wasn’t high intensity
- Didn’t work hard at increasing a vertical jump
- Didn’t impact the athletes’ 40 time

But it was:

- Effective at not eliciting an over-training response
- Taught a young athlete a new lift that now can be utilized whenever needed
- Worked to increase hip ROM and strength (which is HUGE)

*You must as a coach inquire and keep records as to your athletes RPE during a workout - not so much during each rep, but certainly per session and perhaps per set. It is so much more than*
physical numbers that must be followed when constructing a training program.

Correlate your athletes RPE responses to the time of day, portion of the week, part of the year - ascertain why at certain times they may be less ‘upbeat’ than others. This type of subjective reading is crucial in making the program as cohesive as possible for the athlete.

Objective numbers just don’t tell the whole story and in fact, incorporating subjectivity into your analysis and dynamic adherence to a training program is often called Cybernetic Periodization.

Also record how skillfully exercises are performed. Although next week you are scheduled to reach for a max effort with your athletes, if you truly take a strong look at how well they are performing each exercise, you may opt to change or ratify your agenda. Create a rating of technique scale within which you record how well the exercise is being executed.

This type of subject feedback is crucial in monitoring the effectiveness of a training protocol. Don’t make this scale terribly difficult to incorporate - design it as a scale ranging from 1 - 5 and define what each scores means so you have a working and practical measurement.