



### **Training Principles Overview:**

1. Everything is present. Always.
2. We don't count miles. We measure stress.
3. Progression—know the REAL demands of the goal.
4. Our feet move fast every day.
5. We don't stretch statically. We prime our bodies.
6. Individualize—psychobiological approach
7. We systematically teach toughness, character and leadership

#### **1. Everything is present. Always.**

- All aspects of our training is involved at all times of year. The emphasis changes greatly.
- “Foundation” or “Base” does NOT mean easy miles. We set the foundation for all of our work.

#### **2. We don't count miles. We measure stress.**

- Miles/week? I don't know and neither do our athletes.
- The human body doesn't know miles, it knows stimulus, stress and recovery.
- We don't use a weekly structure. 12-14 day cycles.
- We measure by time, not distance, except for race pace or goal race pace workouts

## Measuring Stress

What does this mean? It's an Art and Science. We are talking about eliciting hormonal responses to training. To ignore the differences in emotional and physical maturation would be foolish.

Consider the stress levels of training and life of athletes:

- Weather
- Time of year
- Ability to complete workouts
- How long have you been training at a high level?
  - Every 20-30 days we allow "training gains to consolidate"=3-4 days of regeneration
  - Allow optimal hormonal levels to come back
- New workouts create different stress patterns
- Sleep, school and work
  - 1<sup>st</sup> week of school in August = lower training stress
  - Week off for seniors end of May = ignite metabolic engines more than freshmen-juniors
- Evaluate neural impact
  - Don't fry the nervous system
- Other emotional stress level/state of arousal
- Be cognizant of when you expect adaptation to occur. ALLOW THAT TO HAPPEN—DON'T ADD A NEW STRESS IN AT THAT POINT.
- **Be aware of when you observe prolonged drops in specific measurables or in your communication and feedback from your runners in your monitoring. You should expect maladaptation at certain points, but when you have a prolonged drop in performance in your workouts/races then you need to make a change. By "drop," I mean the training you measure (workout results), or your runners' feedback as to how they are feeling.**
- Monitor range of motion, ability to pattern correctly, and the "eye test"
- And a million other things—we need to know our athletes and communicate constantly.

## 3. Progression:

- Control volume and density of each training stimulus.
- REALLY know the demands of the goal. Example: 15:00 3 mile goal  $\neq$  5:00/mile. 1:55 for 800 meters  $\neq$  :57.5/400
- We use intense statistical research

Examples:

- We know the exact opening 800/1600/1.5/2 mile average split for every finishing place bracket at the state meet (1<sup>st</sup>; 2-10; 10-15; 25-50; 50-75; 75-100) from the past 10 years.
- We know splits needed to run final times for every course we run
- We know every runner's splits from every top 5 team in the Illinois 4 x 800, and every top five finisher in 3200, 800 and 1600 for the past five years.
- Find patterns in goal race then create goal specific demands workout.

- “Slide” down the aerobic spectrum and toward specificity

#### **4. Move Fast, Everyday:**

- Every day is an opportunity to pattern efficiency. You can pattern efficient and fast movement without putting demands on metabolic energy systems.
- Educate runners on proper technique of drills...or don't do them. Runners should be able to educate and monitor each other. (We break runners up into smaller groups with group leaders. Every now and then I will go into a group of runners, find someone not doing the drill correctly and yell at the leader, not the runner who is doing the incorrect drill).

Examples:

- Strides
- Ladder drills
- Step ups
- Short, explosive hill sprints
- Plyometrics
- Dynamic drill
- Speed drills or short sprints

#### **5. Priming/dynamic stretching/no static stretching:**

Start with muscle engagement. We do lower abdominal curl, hip hikers and a bridge. Static comes before dynamic. Note: these aren't static stretches, but a bridge is static. Additional note: your hand is one of the greatest ways to engage a muscle group. The human brain evolved in conjunction with the hand. Our survival skills depended on the brain-hand communication. Touching a muscle group helps activate it.

Dynamic drills. Start with slower, easier movement and advance toward faster movements. Warm up should build momentum.

#### **6. Individualize and Fluidity:**

I do not use the calendar in my day to day. In fact, I don't actually fill out a calendar. I find it too limiting. I have a plan—I know when I want to bring different focus into the training scheme, perpetually aware of the goal date. I keep in mind the expected amount of time to see adaptation. Typically, a specific focus on a specific stimulus is a 4-6 week focus. By keeping everything present in the system, I shift emphasis (volume and frequency) and move toward race specificity as the season goes on. During race specific training cycles, everything is still present, only previously focused on stimuli lose emphasis (volume and/or frequency). For instance, a long run is an early emphasis and will be a weekly presence with few exceptions. When we get into goal race pace workouts, we lessen the emphasis on the long run, so it's frequency and volume shifts slightly down.

Knowing this as my guide, I am not focused on my specific calendar. I am focused on the specific emphasis and ensuring there is presence of proper training. **Note about fluidity:** when I stopped using a calendar and counting miles and instead focused on the goals of a training block,

it freed me up from self-imposed restrictions. Instead, I focused on my athletes and their progress. I became better in-tuned with who they were, how they were feeling, and how they were progressing. I felt more liberated to make adjustments. I make lots of adjustments both in practice and within training blocks. Here is how I feel about calendars, and I'll bold face it: **Sticking to pre-designed training calendars assumes that life and human biology are wholly predictable.**

**Early Emphasis:** aerobic development, sprint mechanics, lactate threshold.

**Competitive Season Emphasis:** higher end aerobic work, such as longer race paces (3 mile race pace), sprint mechanics, and to a lesser degree, shorter race paces (2 mile, mile, 800).

**Late Competitive Emphasis:** goal race pace and slightly more anaerobic work (below goal race pace effort). Everything else is maintaining all other elements. This is the shortest segment.

With this understanding, I create weekly and daily plans, posted on our meeting place wall every day. I individualize, like many coaches. I focus on what is the current training focus and watch my runners intently during practice to make adjustments. See the "Measuring Stress" section above for what I am monitoring.

## 7. We systematically teach toughness and leadership

Focus on performance character (If you teach kids to pay attention to character, then their character will transform). The following performance character traits are focused on:

- Teach athletes to be **self-aware** and reflective people
- Having **honest/realistic optimism**. Negativity v. positivity aren't just black and white: NYU psychologist Gabriele Oettinger—"mental contrasting": believing good things can happen but also knowing the obstacles that will prevent that good outcome and actively implementing strategies to overcome those obstacles. Choosing to be honest and optimistic
- **Self control/Emotional discipline:** delay immediate gratification for long term goals, see below for more on emotional discipline
- **Loyalty** to group's goals; avoids self-serving behavior that distracts from group's goals
- Display **gratitude**
- Ability to **communicate** honestly and respectfully with teammates, coaches, and other competitors
- **Collaboration**
- **Leadership skills**

- **Attentiveness/mindfulness/being present** “If you are going to have a degree of excellence then you have to have a degree of mental attentiveness to this activity.”—Dan Pfaff
1. Focus on process and growth
  2. Early results focus on the characteristics needed to be successful, not on the results.
    - We’ve given up wins in invitationals to challenge runners in different ways.
  3. Team goals drive everything
    - Perfect harmony in a group is a bad sign. That means someone is not being honest. Someone is not recognizing that the group is not perfect.
    - Loyalty toward group goals, not to individuals (friends, self-interest, etc)
    - Honest feedback both from self and each other
    - Having enough confidence to accept honest feedback and respect those giving it to you as someone who is looking out for the team
    - Collaboration and Competition are partners not enemies
  4. Learn/model elements of handling competition:
    - Focus on your standards
    - Focus on developing skills needed for success rather than early results
    - Focus on details that lead to success—control the controllables better than anyone
    - Developing Optimal Zone for Performance by controlling one’s own psychological environment “there are no stressful situations, only stressful reactions”
    - Develop gain-orientated attitudes, not threat-orientated attitudes of competition; welcome competition and see it as a positive force to find our best. It’s all about how we frame it
    - Welcome the possibility of failure; find joy in the uncertain outcome
    - View pressure as a privilege
    - Developing positive habit loops and learning how to intervene on poor habit loops- Cognitive self-control—the ability to inhibit an instinctive or habitual response and substitute a more effective one
      - Making “rules” for oneself. “I don’t eat French fries.” “I always step up at Sectionals.”
      - Repetition of intervening in habit loop. During intervals/tough workouts, asking them to evaluate their mind process and intervene accordingly.
      - Mantras and self talk
      - Creating cognitive rewards during challenging tasks
        - Building victories
        - Manageable chunks
    - Motivated by contributing to something bigger than oneself and attempting to create excellence or beauty. Carrots and sticks do not work. Narcissism won’t function well and usually is not a reliable motivator in the end
    - Hungarian Academy of Sciences professor Marta Fulop’s “adaptive and maladaptive” responses to competition. No excuses. No narcissism. Problem solving, honesty, and motivation. Joy, not relief.

- Problem solving mode, never formulate judgments on performances until they are concluded
  - Phrase everything as do's, not don'ts
5. Be mindful of what and who receives social regard.
    - Values we uphold should be celebrated when we see them
    - Values that stray from our standards should be disregarded or punished
    - Eliminate social loafing
  6. Provide extrinsic rewards and motivation directed toward intrinsic growth. Additionally, promote autonomy. Appreciate self-awareness and self-assessment.
  7. Effective groups have a shared vocabulary and communicate directly and with efficiency

**I've been an insatiable reader. But I'll limit my recommendations to the following books that have had profound impacts on my coaching:**

*Top Dog*, Po Bronson, Ashley Merryman

*Power of Habit*, Charles Duhigg

*How Children Succeed*, Paul Tough

*Drive*, Daniel Pink

*Made to Stick*, Chip and Dan Heath

*The Inner Game of Tennis*, W. Timothy Gallwey

*1776*, David McCullough

Several titles on leadership from John Maxwell—if you're looking stuff on leadership, grab some John Maxwell books. Inexpensive, quick reads. I think I have about 10 books by John Maxwell.