Helping Young Runners Develop

Coach Mark Hadley
Topics

1) Primary Obligation: Fun, Fundamentals & Safety
   a) Keep It Fun!
   b) Make It Safe
   c) Teach Solid Fundamentals

2) 4 Tenets of Training
   a) Consistency
   b) Capacity
   c) Frequency
   d) Mixture/Balance

3) Training Phases

4) Special Considerations
   a) Nutrition
   b) Growth
   c) Life Style

5) Progressions

6) Predispositions

7) Benefits

8) Example – Alana Hadley
Working with young runners is a privilege

We are helping the next generation of athletes get a solid start in the sport

Primary obligations of a coach working with young runners:

• Keep It Fun
• Make It Safe
• Teach Solid Fundamentals
Keeping It Fun

• As Adults, kids will take cues from us – we set the tone.

• It’s about: Attitude, Attitude, Attitude

• “Get To” not “Have To” Mentality

• Never use running as a punishment

• Never force a kid to run
Make It Safe

- Enthusiastic kids tend to over do it
  - Fast kids want to race everything
  - Most kids believe more is better
  - Most kids lack patience

- Structure helps ensure safety
  - Proper structure doesn’t eliminate fun, it helps preserve it
  - Structure should be based around the fundamentals

- Individualize as much as possible
  - Every kid is different
  - Develop small groups of similar ability/level
Teaching Fundamentals

“We are coaches of people not just bodies”

Fundamentals is something that will stay with the young runner their whole life.

The easiest and most effective time for them to learn the fundamentals is when they first start in the sport.

• Stress & Recover Principle
  - Fight against the “Rocky Montage”, it doesn’t work in distance running
  - They don’t get all the benefits of the hard work until they have recovered from it
  - Make sure they know the purpose of each run

• Warm-Ups and Cool-Downs
  - Proper use of dynamic and static stretching

• Form & Strength
  - Work on instilling proper form – increases efficiency & reduces injuries
  - Strong core and proper balance between muscle groups

• Proper execution of different types of workouts / runs
  - Define success – proper execution and proper effort
The 4 Tenets of Training

Kids are people too (sort of). The same basic physiological principles we use as adults apply to kids as well.

Many of the same things that get adults into trouble are the same things that get kids into trouble: mainly increasing quantity or quality too quickly.

I believe there are 4 basic tenets to training distance runners:

• Consistency
• Capacity
• Frequency
• Mixture

And if we balance them together (each with the others), they provide a synergy of fitness we can not get by focusing on 1 or 2 tenets alone.
Running is an endurance sport that is more dependent on fitness than skill.

A major key to maximizing improvement in distance running is the ability to string together long periods of consistent training.

To Be Consistent, Training Must Be Sustainable
• We can not allow sustained deficiencies (in energy, nutrients, rest, etc.)
• Training must be done in a way that it can be repeated micro-cycle after micro-cycle
“Sustainable capacity is one of the greatest tools a distance runner can have to help them realize their maximum potential.”

Capacity is the amount of work you can handle on a sustainable basis
• The quantity of work
• The amount of quality in the work

To Build Up Sustainable Capacity
• Has to be done very slowly over time
• Increases in capacity have be small and incremental
• Long adaptation period before another increase is introduced
• If rushed it will often lead to injury or burn-out

Ultimately each individual will have their own maximum useful capacity, based on genetics, lifestyle and other factors.
Frequency

“The body adapts well to things it does regularly, and poorly to things it does not do regularly.”

Every time we run our bodies make some further adaptations to running or maintain some existing adaptations to running.

Every day we do not run we lose some of adaptations to running.

Because of this we are often better off running easily rather taking a day off during the recovery portion of the stress and recover cycle.

Running is a very specific sport, so cross training while good for general fitness and maintaining some aerobic conditioning, does not fully prepare you for running nor maintain all of the adaptations to running.

Similar to capacity, frequency needs to be increased slowly over a long period of time, with changes made small and incremental and significant adaptation time permitted before being increased again.
Once a base level of fitness is obtained, “stress workouts” can be slowly added: long runs, speed workouts and tempo runs.

I use a 3 Category – 6 Training Zone system of stress workouts:

<table>
<thead>
<tr>
<th>Category</th>
<th>Zone</th>
<th>Type/Pace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>Zone 1</td>
<td>Repeats done at 800 to 3k race pace</td>
</tr>
<tr>
<td></td>
<td>Zone 2</td>
<td>Repeats done at 5k to 10k race pace</td>
</tr>
<tr>
<td>Stamina</td>
<td>Zone 3</td>
<td>Tempo or repeats done at (LT) 15k to HM pace</td>
</tr>
<tr>
<td></td>
<td>Zone 4</td>
<td>Tempo run done at (AT) 30k to Marathon pace</td>
</tr>
<tr>
<td>Endurance</td>
<td>Zone 5</td>
<td>Steady State Long Run</td>
</tr>
<tr>
<td></td>
<td>Zone 6</td>
<td>Easy Pace Long Run</td>
</tr>
</tbody>
</table>

All areas of running are interconnected, so a weakness in one area will eventually hold back other areas as well or cause stagnation.

For a new or young runners I recommend a balanced approach to workout mixture, working regularly on speed, stamina and endurance, to develop all around running fitness.

This will aid their continual all around development in running, and allow them to find areas of natural weakness and strengths.
I recommend that young runners stay in the Fundamental Phase year round except for a couple of short regeneration breaks. Save Specific Phase training until they have something meaningful to peak for later in their careers, or if a Specific Phase is used then keep it short (4-6 weeks).

By doing this they will see the greater continual develop as a runner, experience a multitude of racing distances, and establish where their interests and predispositions lay.
There are special considerations we need to make in dealing with kids.

- Nutrition
- Growth/Maturation
- Life Style
We need to teach kids that nutrition is part of training. That they can sabotage the hard work they are doing in practice by not eating properly or eating enough.

Focal Points:

• Balanced Healthy Diet – good mixture, healthier foods

• **Eat Enough!** – Kids must not under run their caloric burn rates

• Calcium/Vitamin D – recent study found that the average high school girl only gets 50% of the calcium she should be getting for proper health and development. Body needs sufficient Vitamin D to absorb the calcium.

• Iron – becomes a bigger issue after puberty

• Healthy Fats – Incredibly important, especially for girls

• Hydration – developing healthy habits
Growth

Often kids go through growth spurts, not even/consistent growth, and this causes changes in performance.

During growth spurts, a young runner’s performance often will stagnate or regress slightly. But their bodies adapt best to the growth spurt if we remain mostly consistent with their schedules.

“Effort Trumps Time” – doing a workout at the proper effort level is what matters – as long as we do that we get the benefit from it, regardless of what the watch says.

Effort is the goal, time/pace is our guide
Life Style

Kids lives are complex and can be very stressful
  • Academics
  • Family
  • Friends/Social
  • Athletics

Many have a hard time finding a balance in their life
  • Where running fits in to this balance will determine what they can handle in training

Running/Training can also be a great stress relief

Sleep: epidemic of high school kids not sleeping enough
  • Similar to nutrition, sleep/rest is a important element of training
Progressions

Coaches Should Plan Ahead
• What is the logical next step(s) for young runner
• How do we begin to prepare them for the next step

Progressions / Next Steps
• Small and incremental steps
• Plenty of time for their bodies to adjust / get the benefits of the change before another change is introduced.

Flexible Timing
• Keep the time frames for next step(s) flexible
• Growth/Life Style considerations can and will cause changes to the schedule.

Anytime we are dealing with kids, all plans should be done in pencil.
Predisposition

Over time, you may notice certain predisposition in young runners that will begin to give you a clue as to ultimately what direction/events they wish to head in and where their best chance for success is.

The higher the level they get to in the sport the more apparent some of these predispositions become

Physical Predispositions:
- Muscle Fiber Make-Up
- Muscular-Skeletal Build

Mental Predispositions:
- Personality
- Predisposition towards certain types of fatigue
Benefits

Running is a GREAT sport for kids, one with tons of benefits.

Physical Benefits
• Cardio-vascular health
• Regulation of energy levels
• Weight control (anti childhood obesity)

Mental Benefits
• Discipline
• Focus
• Memory
• XC teams usually have one of the highest GPA averages of any sports

Emotional Benefits
• Stress Relief
• Self Esteem
• Ability To Deal With Peer Pressure
Alana Hadley

Year: 2011
Age: 14
Height: 5’4”

2011 Highlights
Mar – Win Corporate Cup Half Marathon – 1:21:15
Apr - Win VertKlasse Meeting 5,000 – 17:06
Apr - Win Radford Invitational 10,000 – 36:15
Sep – Virginia Beach Rn’R Half Marathon – 1:17:15*
Nov – Savannah Rn’R Half Marathon – 1:16:58**
Dec – Foot Locker Finalist – as a freshman

* 1st American & World Single Age Record (14 yr olds)
** 3rd Overall & World Single Age Record (14 yr olds)
(5:52 per mile avg. – 5k in 17:52 and 10k in 36:10 enroute)
Running As A Positive

Grew up around running – Mom and Dad were runners

Always has thought of running in a positive light

First begged to go on a run at age 3

Started running on a semi-regular basis at age 6

Ran first 5k road race at age 6 and fell in love with it

Kept asking when we could go to another “running festival”
## Example - Progression

<table>
<thead>
<tr>
<th>Age</th>
<th>Runs per week</th>
<th>Weekly Total</th>
<th>Type of runs</th>
<th>Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2-3</td>
<td>4-6 miles</td>
<td>all easy</td>
<td>5k - 29:13</td>
</tr>
<tr>
<td>7</td>
<td>3-4</td>
<td>5-10 miles</td>
<td>all easy</td>
<td>5k - 25:35</td>
</tr>
<tr>
<td>8</td>
<td>4-5</td>
<td>15-20 miles</td>
<td>mostly easy, occasional fartlek</td>
<td>5k - 23:53</td>
</tr>
<tr>
<td>9</td>
<td>5-6</td>
<td>20-25 miles</td>
<td>occasional fartlek or short tempo</td>
<td>5k - 21:07</td>
</tr>
<tr>
<td>10</td>
<td>6-7</td>
<td>30-35 miles</td>
<td>introduced long runs</td>
<td>5k - 19:17</td>
</tr>
<tr>
<td>11</td>
<td>6-7</td>
<td>35-40 miles</td>
<td>good mixture</td>
<td>5k - 18:12</td>
</tr>
<tr>
<td>12 - 12.5</td>
<td>7</td>
<td>42-46 miles</td>
<td>good mixture</td>
<td>5k - 17:35</td>
</tr>
<tr>
<td>12.5 – 13</td>
<td>7</td>
<td>47-52 miles</td>
<td>good mixture</td>
<td>10k - 38:08</td>
</tr>
<tr>
<td>13 - 13.5</td>
<td>8</td>
<td>53-58 miles</td>
<td>good mixture</td>
<td>5k - 17:09</td>
</tr>
<tr>
<td>13.5 – 14</td>
<td>9</td>
<td>62-67 miles</td>
<td>good mixture</td>
<td>8k – 29:37</td>
</tr>
<tr>
<td>14 - 14.5</td>
<td>10</td>
<td>70-75 miles</td>
<td>good mixture</td>
<td>HM – 1:21:15</td>
</tr>
<tr>
<td>14.5 - 15</td>
<td>11</td>
<td>75-80 miles</td>
<td>good mixture</td>
<td>HM - 1:16:58</td>
</tr>
</tbody>
</table>
Alana has set warm-up and cool-down routines for various workout types

Weekly Routine Includes:

2 drill/strength circuits per week

4 core circuit per week

Perpetual Fundamental Phase – no peaking, just sustainable work focused on improving all around balanced running fitness

3 “stress workouts” per week
  • Minimum of 1-2 easy days between “stress workouts”
  • 1 stress workout focused on speed
  • 1 stress workout focused on stamina
  • 1 stress workout focused on endurance
Example – Drill/Strength

**Drill / Strength Circuit (25-30 minutes)**

1) High Knees - 2 sets of 50 meters  
2) Butt Kicks - 2 sets of 50 meters  
3) Paw Skips (b-skips) – 2 sets of 40 meters  
4) Walking Lunges – 2 sets of 25 meters  
5) Cone Hops – 2 sets of 24 cones  
6) Diagonal Cone Hopes – 2 sets of 24 cones  
7) Acceleration Sprints - 6 x 100 meters  
8) Box Step – 2 sets of 20 (each leg)


**Core Circuit (5-10 minutes)**

1) Push-Ups – 2 sets  
2) Bicycle Crunches – 2 sets  
3) Prone Alternate Arm-Leg Raises – 2 sets  
4) Dynamic Plank – 2 sets  
5) Single Leg Bridges – 2 sets
“Healthy Appetite” – eats a lot and a good variety (fruits, veggies, grains, meat, dairy, junk)

Make sure she had plenty of sources of health fats (nuts, seeds, etc.)

Blood test once every 4 months checking CBC, Ferritin, Vitamin D

Takes supplements:
- Iron (2 days on 1 day off)
- Calcium (every day)
- Vitamins D & C (every day)
- Multi-Vitamin (every other day)
Balanced lifestyle is a must for Alana:

• Academics – straight A student in honors classes
• Family – good sister, works with her little sister, supports brother
• Service – teaches a Faith Formation class to first graders
• Social – lots of friends (good mix of runners and non runners)
• Groups – involved in various Chorus Groups
• Hobbies – reading, singing, texting/facebook
• Sleep – huge sleeper (9-11 hrs a night)
Alana’s Predispositions

Alana has a strong physical predisposition for distance running
• Small, strong bone structure
• Long legs in comparison to torso
• Strong ligaments (never been injured)
• Small calves

Alana’s has a very strong mental predisposition for the longer distance races
• Diligent Personality
• Handles energy system fatigue extremely well
• Enjoys and excels at long runs and tempo runs

Interests and predispositions seem to both indicate her best events may eventually be the longer races (half marathon to marathon).
Contact

Coach Mark Hadley
coach@mprunning.com