

IMPORTANT CONCEPTS FOR DISTANCE RUNNERS

- from presentation by Jason Karp, ph.D.; 2011 IDEA Personal Trainer of the Year

- Concept #1
 - Number of miles (or time) spent running each week is the **most important part of endurance training**
- Concept #2
 - Before picking up the pace, have a solid base
 - Distance running is a volume-dependent sport, with physiological adaptations resulting from time spent running. The more runners attend to the qualities of aerobic metabolism (volume & base), **the more they'll ultimately get from subsequent interval training.**
 - Focusing on speedwork alone will never be as effective as **first focusing on base mileage**
- Concept #3
 - Predictors of injury: **All are preventable**
 - low caloric availability (eat healthy & eat enough)
 - female athlete triad (related to eating & under-fueling)
 - large increase in training load
 - imbalances (strength; hips)
 - inappropriate or old (300-350 miles) running shoes
- Concept #4
 - Recovery is just as important as training
 - Improvements in fitness occur during the *recovery* between workouts, not during the workouts themselves. **The faster and more complete the athlete's recovery, the more she will get out of her training and the faster she will race.**
 - Positive physiological adaptations to training occur when there is a correctly-timed alternation between stress (workouts) and recovery.
 - Nutrition
 - Refueling nutrient-depleted muscles is possibly the single most important aspect of optimal recovery (**0.5 grams of simple carbs/glucose per pound of body weight plus 20-30 grams total of protein within 30 minutes of workout**)
 - examples (~70g carbs with ~20-30g protein)
 - Food:
 - pita & hummus w/almonds (1 pita; 3 tbsp. hummus; ~20-25 almonds)
 - peanut butter toast (2 slices on whole wheat bread)
 - apples & greek yogurt (2 apples and 1 1/2 cups greek yogurt)
 - english muffin & almond butter (1 muffin; 2 tbsp. almond butter)
 - eggs & toast (2 eggs; 2 slices wheat toast)
 - sub sandwich (Subway turkey sub with no cheese)
 - oatmeal and fruit (NOT instant oatmeal, if possible)
 - Bars:
 - Clif BUILDER's Bar
 - Clif Mojo Bar
 - Luna Bar (Blueberry Bliss)
 - Drinks:
 - 16 oz. fat free chocolate milk
 - Endurox R4 (powdered drink mix)
 - Odwalla Protein Monster drink (Vanilla - 16 ounce bottle)
 - GU Recovery Brew (powdered drink mix)
 - Muscle Milk Light (Vanilla - 14 ounce bottle)
 - Hydration
 - Blood volume decreases & blood thickens if fluid is not replaced, leading to decreased stroke volume - - less oxygen & nutrients delivered to muscles for recovery.
 - Inflammation
 - ice baths & contrast (alternating hot/cold) baths
 - Sleep
 - 8-9 hours of sleep/night
 - **body regenerates HGH (critical for muscle repair) during deep sleep**
 - Active recovery
 - **active stretching** (stretchy drills) as part of post-run routine
 - **Limit other activity (time on feet) during the day**