

REST, NUTRITION & RECOVERY FOR THE YOUNG ATHLETE

How an athlete takes care of his/her body every day, every week, and every year significantly affects his or her game performance and even more importantly their ability to recover from the rigors of multiple sessions per day training, quick turnaround competitions or participating in concurrent sports. Sound familiar? This is what our young athletes experience at various times throughout the year.

During the 2008 Olympics the world was captivated by 8 time goal medalist swimmer Michael Phelps. His performances are legendary. But more impressive is his routine for rest, nutrition and recovery which led up to and allowed him to sustain his high level of performance.

What does an Olympian's training regime have to do youth competitors? Plenty. The principles Phelps uses to get optimal performance from his body should be modified and used by young athletes to ensure peak performance during strenuous training and competitive times.

REST

Be like "Mike". There is no shortcut here. Youth athletes should ensure they consistently sleep between 8 ½ -9 ½ hours per evening (Phelps likes to grab up to 10 hours). Running on less sleep for long durations, especially during intense training and competitive cycles, is a prescription for mental sluggishness and non-full recovery of a fatigued body.

For young athletes this full sleep cycle is a critical basis for optimal physical and mental performance. Unfortunately, it is often overlooked. It is critical to allow the fatigued cells of the mind and body time to rejuvenate themselves which allows for consecutive high levels of performance during multi-day training sessions or short recovery period competitions.

Get a good night sleep!

NUTRITION – Eat, Drink & Be Merry!

The athlete's body is a machine that converts fuel (food) into work (energy to play). Just like it's silly to start out a long car trip with a near empty gas tank, it's silly to ask your body to do work with little food.

We have all marveled at the fact that during times of heavy training or competition Michael Phelps eats 9,000-12,000 calories per day (most people eat 1,500-2,400 per day). Admittedly, eating a diet of 9,000-12,000 calories per day may only be appropriate for an Olympic champion but it does bring home the point that an athletes' increased activity level requires an increase in food and fluid intake.

Energy used for muscular activity, commonly measured in units called calories, are provided mainly by the carbohydrates and fats in our diet. Proteins, though important staples, are not an energy source. They serve as the building blocks for growth and repair of cells.

As you can see an athletes' body needs all of these things to function properly.

There are all kinds of suggested diets for athletes. Which one is the best?

For our purposes young athletes should eat smart and eat often. Make sure carbs, fats and proteins are eaten appropriately. A common sense approach should be taken. The exact mix of fuel used by the muscles depends upon how hard an athlete is working and the timing of the food taken relative to the exertion. Here are some ground rules that can be modified by individuals as appropriate:

Pre-Training High Energy Meals - The object here is to emphasize high energy foods like complex carbohydrates and deemphasize others:

1. Take this meal the night before then again three to four hours before the event.
2. Make complex carbohydrates your primary component. They are easily digested and they help maintain blood glucose levels which give you energy (pancakes, waffles, bagels, muffins, toast and jelly, vegetables, fruit, pasta, and rice are all good choices).
3. Keep the meal lower in fats and proteins.
4. Avoid greasy and highly seasoned foods.
5. Include foods that you enjoy and are familiar to you.

The type of carbohydrates consumed is not important, as the complex (starch) and simple (sugars) carbohydrates are equally effective increasing high energy glycogen stores. Even so, for overall health reasons it would be wise for the players to consume complex carbohydrates rather than simple sugars.

Post-Game Nutrition - Proper refueling after the game is also important, especially if the player is going to be competing in two or three games over a span of several days. It is best to eat this meal within a few hours of the final game of the day, then a similar recovery-meal later if time allows. Here the introduction of proteins (the cell recovery food) is critical.

Note: If the athlete is between training sessions or competitions eat this recovery meal then during the pre-training period choose the high energy meal mentioned above.

The following guidelines will help offset fatigue and aid in the recovery process.

1. Drink plenty of fluids immediately following the game and throughout the day.
2. Within an hour after the game, start your glycogen replacement such as Gatorade.
3. Then eat a well balanced meal of approximately 60% complex carbs (fruits, vegetables, pastas, etc), 20% fats (olive oil, dairy, desserts, etc) and 20% protein (meats, fish, eggs, dairy, soy, etc) for best muscle recovery. The percentages here can be argued but the important point is to eat a well balanced meal that includes protein.
4. Don't forget that fruit juices are also an excellent source of fluid and carbohydrates.

Fluid Replacement - Inadequate hydration before, during and after training/competition is a major cause of poor performance, fatigue, and even illness during a game or practice. Replace fluids before, during and after practices and games. This is especially very important on days when both temperature and humidity are high.

Players should actually start monitoring fluid intake three days or more before the game or training especially if warm/humid conditions or high intensity training are expected. As a rule, they should consume foods high in water content and drink plenty of fluids.

Immediately before and during the game, the players should take small quantities of fluid at regular intervals. Water is always an excellent replacement drink and some of the commercial sport drinks are good. When using commercial sport drinks, choose one that contains few solid particles (low in sugar and salt content), and is not overly sweet. You may want to mix the sports drink with 25%-30% water.

Snacks During Activity – during periods of intense exercise consider having a small snack. A few bites of a banana, apple, energy bar, etc at half time, during a timeout or break in training can give an energy boost or more importantly prevent a performance let down.

Eat good foods. Increase calorie intake before, during and after high activity periods!

RECOVERY – The Overlooked Key to Top Performance

The last, and most times most overlooked, aspect of an athlete's performance is recovery – or what you do to allow your body to heal from the rigors of hard training or competition.

Aside from points mentioned earlier (i.e. good night's rest, post game meals, fluid intake) an athlete can use the following to help gain that competitive edge during strenuous training/competitive periods:

1. Naps – Not to exceed 30 mins allows the body additional recovery time between strenuous workout sessions.
2. Quiet rest periods – laying down, keeping your feet up, reading/watching TV.
3. Snacks during activity (mentioned before).
4. Warm-up and Cool-down exercises/stretchers (especially cool down)
5. 10-20 min cool/ice baths (not warm/hot) closely following intense exercise.
6. Self led extra stretching of large muscles (thighs, hamstrings before, during, after) before, during and after training.

Don't forget to give your body what it needs to recover!

FINALLY

The main point is that athletes need to REST, EAT & DRINK regularly to make up for the tremendous stress on their muscles, loss of calories they are burning and fluids they are using. As an active athlete don't be afraid to consume good foods and drinks regularly and increase rest/sleep periods in order to replenish your energy supply.

Don't fret over the type of food too much. Just choose wisely from what is available. If all else fails it's best to eat some "bad" foods than to avoid eating enough.