Picture this: imagine you have a beautiful car (heck, let's say you've got a Ferrari!). Every day you wake up with a full tank of gas and drive it non-stop until the tank is close to bone dry. Before returning home you pull up to the gas station on fumes for a fill up. Imagine that you did this everyday.

- How long would the Ferrari last?
- Would you qualify this behavior as taking care of your investment?
- Would the Ferrari's parts wear down and need maintenance?
- Would the Ferrari's performance decrease?

As athletes YOU are the Ferrari, the mileage is your training/practice effort, and the fuel is your daily nutrition. As strength and conditioning coaches we must be master planners. We must identify high mileage, medium mileage, and low mileage days in your annual training plan. If we fail to do this you will eventually breakdown. Just like the Ferrari. This should NEVER happen.

What good is a Ferrari in the shop? Just like an athlete sidelined due to injury. This is why athletes must accumulate different mileage each day. It is important to remember that what we see in Nike commercials isn’t reality. It isn’t wise to work hard everyday and slam away at the machine without properly timed doses of recovery. This is why planning is so important.

The key take away from this message is that you should feel different volumes and intensities (some low or high) at different times when training. We are not doing our job as strength coaches if we make you feel like curling up in a ball after every session. The human body is a living, breathing organism that adapts to its surroundings. It is clearly not a machine. It needs sleep, nutrition (to refuel) and proper doses of stress to make it better!
THE THREE R’S OF RECOVERY:
REHYDRATE, REPLENISH, REBUILD.
FUEL SMART BY LAUREN TROCCHIO, RD LD

As collegiate level athletes, you are almost always being required to recover from activity. Tough workouts are happening daily, and in some cases two times per day. Add to that weekly competitions, back-to-back games, and/or multi-day tournaments and recovery becomes even more important. The prime recovery window is 30-60 minutes after a workout or competition is finished. This is especially important for athletes participating in multiple workouts per day. So what makes up a recovery meal or snack? Use the three R’s to remember: rehydrate, replenish, rebuild.

REHYDRATE
Replacing lost fluids is critical for recovery. For every 1 pound of fluid lost during a workout, you need to consume 20-24 oz of fluid to replace it afterwards. Remember, electrolytes are lost in sweat as well. These can be replaced with things like sports drinks or regular foods and beverages – for example, milk has more sodium and potassium than most sports drinks, and the addition of protein and carbohydrates appears to help with fluid absorption.

REPLENISH
Carbohydrates are the primary source of fuel for high intensity workouts. Unfortunately, our bodies have a limited storage capacity for carbs, which means we need to consume them on a regular basis to replenish the supply. Post-workout is an ideal time to replace carbs used and ensure you have some on board for the next workout. Things like fruit, milk, granola bars, breads, and pastas are examples of carbs to include.

REBUILD
Whether a strength-based or endurance-based sport, muscle repair after a workout is necessary to achieve training adaptations. Protein is the building block of muscle and should be included in post-workout recovery. Smaller athletes should aim for 15-25 grams, while larger athletes may need 20-40 grams. Including dairy and other animal sources ensures an adequate amount of leucine, an amino acid that may enhance muscle repairs.

EXAMPLE RECOVERY SNACKS:

**PB&J sandwich +**
- 8 oz chocolate milk +
- Apple +
- Water

**Muscle Milk +**
- Honey Stinger Bar +
- Water

**Turkey sub +**
- Vegetable soup +
- Water

**Eggs +**
- Whole wheat toast +
- Orange juice
**Bonus Section: Sports Performance Edition**

By Ryan Spaulding

Data is what drives research, and that includes what we do here with our athletes at GW. When you weigh in or provide fatigue values, fuel tank percentages, and sleep times, those are data points. When you put on the heart rate monitor, the information we gather from them is valuable data. And they are all data we use to determine if an athlete is improving towards peak performance. By collecting enough information, we can follow patterns and trends in these numbers and compare them to the training schedule an athlete is following. If an athlete shows greater signs of fatigue, this may be a result of harder practices and strength/conditioning sessions, uneven sleep patterns, or changes in nutrition. This new information shapes how future training periods may be scheduled so we don’t overtrain athletes. Overtraining occurs when a person sees a decrease in performance because the level they’re performing at exceeds their capacity to recover. This is when you lose strength and fitness!

One of the more technological ways we monitor performance is with the use of the Polar Team 2 heart rate monitor. When you strap one of these onto your chest, we are able to collect training load and a breakdown of minutes spent in specific heart rates zones or percentages. Training load is an indication of how hard the training is, and you can compare data to determine how you respond to different workouts over time. If you did the same workout every day, your training load would decrease because your body has adapted to handle the stresses of that workout. That’s why the strength coaches here at GW increase or decrease intensity throughout a training schedule based on how your body responds to the workouts. By tracking your heart rate and training loads throughout the season, we can adjust the intensity of a workout to better match the needs of the preseason and in season in the future. Your data could help keep GW stay competitive for years to come!
Why Do We Train?

Train Hard by Chris Hays

Since its release in late 2011, Simon Sinek’s “Start with Why” has captivated millions across the globe to challenge their way of thinking. You may have noticed our own Strength & Conditioning department pushing this thought-provoking philosophy more recently within your training sessions. Why start with why, you ask? Because, in the words of motivational speaker Eric Thomas’s “Resiliency” video - “If you don’t know what your why is, you’re gonna get knocked out every single day.” Here’s a look at three reasons why we train.

1. Performance.
This is the most obvious, but important nonetheless. Regardless of the focus or stimulus strength, size, speed, conditioning - we train to optimize our performance (and minimize risk of injury) within our respective sport whether that sport be basketball, water polo or simply the game of life. In the words of my former collegiate basketball coach, “training should be harder than practice, and practice should be harder than the game.” Meaning, by the time you step onto the court/field/turf, your preparation should make the competition feel fluid and natural.

2. Camaraderie.
There’s something special about a team or group of individuals that come together for the common purpose of getting better together. Whether it be the baseball team squatting the whole weight room, or a group of female swimmers completing full bodyweight chin-ups for the first time, there is no better feeling for the athletes and strength coach alike. This atmosphere, when fostered correctly and embraced by the team, can greatly enhance the culture of a program.

3. Life Skills.
Barbells and dumbbells aside, 99.9% of student-athletes will become professionals in something other than their sport. It is no mystery that the collegiate athlete has a wealth of responsibilities; understanding that these challenges will prepare you for life after sport is a valuable perspective to maintain. As coaches, we must never forget that we are developing young men and women. As athletes, the skills that you acquire during your training hard work, attention to detail, teamsmanship, respect - will all play a pivotal role in whatever profession you choose to pursue.

The next time you go to train, try to remember your why. After all, it can mean the difference between winning and losing.
Thank You

Thank you— all of you. Thank you for the hard work you put in. Thank you for being coachable, for trusting us enough to train you and help you reach your physical potential. Thank you for giving us your best effort, when everything inside of you doesn’t want to go 100%. Thank you for showing up on time, putting in the work, fueling properly, and getting to bed on time. It’s not always easy, and none of us is perfect. You’re going to have a bad meal occasionally. You’re going to stay up late at some point to finish a project you’ve been putting off. But, regardless, thank you the effort. Thank you for trying to be better. We don’t say it enough, and every chance you get to say thank you to someone I encourage you to do so. From all of us here in the strength and conditioning department, let me just say, thank you! You make our jobs fun. You make our days better. You are all the reason why we love what we do!

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