

What Does The RASC Do For The Student-Athletes of NHS?

- ✓ **Strength** is a foundational attribute for improving athletic performance.
 - Too often, high school athletes focus instead on developing speed, power and explosiveness..
 - **Speed, agility, flexibility, mobility, power and explosiveness** are all aspects of athleticism that can be significantly improved by increases in strength.
- ✓ **The Reagan All-Sports Complex** was designed and built with these attributes in mind.
 - The **weight room** space in the complex is modeled after successful college and high school programs.
 - Alone, it can comfortably accommodate over 50 athletes at any one time, and when used simultaneously with the turf room, over 100 NHS Students-Athletes can get a well-rounded workout in the space of 90 minutes.
 - It contains high quality equipment essential to efficient, effective and safe athletic **strength** training.
 - Free weights for barbells
 - Multi-Station “Power Racks” with built-in safety features
 - Dumb bells from 3 to 100 pounds
 - Pin-loaded auxiliary machines
 - Kettle Bells
 - Austin Drive Sleds
 - Jump Ropes
 - Resistance Bands for training and stretching
 - Antiseptic wipes for all soft surfaces that may collect sweat/germs
 - The **turf room** is the movement room where the other athletic attributes besides strength are honed. This is where **sport-specific drills** can be set up, including but not limited to:
 - Agility/mobility stations using mobile obstacles, cones, etc.
 - Conditioning and speed drills
 - Resistance Band Training on the wall-mounted resistance rack
 - A **Drop-Down Batting Cage** for softball, baseball, discuss/shot put, and golf
 - Push/Pull Sleds
 - Battle Ropes
 - Medicine and Slam Balls from 4 to 14 pounds
 - Swiss Balls for low-impact core strengthening
 - Space enough for any outdoor sport to practice set pieces and basic skills during inclement weather or “open gym” sessions during a sport’s off-season

But Why Is All Of This Hard Work & The Facility That Makes It Possible, Important?

1. **Injury Prevention:** The repetitive nature of sports and sport training may result in the over-training of certain muscle groups, depending on the sport. The nature of sport in general, whether a contact sport or otherwise, tests the limits of muscular strength, muscular balance, cardio-vascular conditioning and mental focus of athletes. Poor training, muscle or mental fatigue, or sport-specific muscular imbalances are common culprits of injuries among athletes. Off-season strength training in preparation for athletic seasons will aid in the elimination of these types of injuries.
 - a. The RASC provides the opportunity for student athletes to build strength and flexibility in major muscle groups and their opposing muscle groups, which is important in injury prevention.
 - i. For example, a common injury like a pulled hamstring usually occurs for one of two reasons (or a combination of both):
 - ii. An athlete has over trained his or her quadriceps without sufficiently training the opposing muscle group, which is the hamstring. As in any tug-of-war, the quadriceps win when the hamstring cannot match their strength in the course of athletic play. With proper training of opposing muscle groups, the likelihood of the hamstring injury decreases immensely.
 - iii. The other possibility is a significant lack of flexibility in the hamstring muscle. This can accompany undertraining, but it can certainly occur when the warm-up, cool-down, and stretching portions of training sessions are taken lightly or omitted.
2. **By The Numbers:**
 - a. High school athletes account for an estimated 2 million injuries and 500,000 doctor visits and 30,000 hospitalizations each year.
 - b. Overuse injuries are responsible for nearly half of all sports injuries to middle and high school students (52% of total injuries are sprains or strains)
 - c. Among athletes ages 5 to 14, 28 percent of percent of football players, 25 percent of baseball players, 22 percent of soccer players, 15 percent of basketball players, and 12 percent of softball players were injured while playing their respective sports
 - i. Most of these injuries come from “specialization” and are related to “over-training” the sport-specific muscles. Notice that the cut off age of the study is about the age that students enter high school, where strength and conditioning programs are in place to help prevent such injuries.
 - ii. While participation in high school athletics has risen, the frequency of injury has fallen, due in large part to strength and conditioning programs that better prepare student athletes for practices and competition than their “little league” counterparts.
 - d. Since 2000 there has been a fivefold increase in the number of serious shoulder and elbow injuries among youth baseball and softball players
 - i. Again, these are pre-high school athletes who are over using muscles before they ever begin a proper training program
 - e. According to the CDC, more than half of all sports injuries in children are preventable
3. **Competition:** The level of competition has increased in every sport. In order to keep up in the basic areas of strength and speed, facilities like this are becoming more prevalent as each school wants to provide its student-athletes with the opportunity to succeed. No matter what the sport, athletics is based around the application of force. Usually, the team who can apply the most force for the longest period of time will have given themselves the opportunity to win. Successful running, jumping, tackling, spiking a ball or hitting a ball with a bat or a racket is a result of applied force. Without a program and a facility to build athletic strength, the success will decline along with the athletes’ abilities to apply force.

- a. The RASC allows for general athletic/strength training as well as sport-specific training which will benefit each athlete as well as his or her team(s).
 - b. Levels of Competition:
 - i. With oneself to get better and earn an opportunity for playing time
 - ii. With teammates when there is a position or reps up for grabs
 - iii. With opponents when the game is on the line
 - c. Benefits of competition
 - i. Setting and working towards goals as a student, and athlete, and throughout life
 - ii. Pushing past perceived physical, mental, and emotional limits
 - iii. Making yourself and your teammates better
 - iv. Winning a game or match for the benefit of the team and school
4. **Confidence:** The gains and successes a student-athlete can achieve in every phase of sport can have a major impact on his or her confidence. Getting stronger, feeling and looking better, or being able to simply *do more* in an athletic capacity are all positive outcomes for young athletes. It is no mystery that confident students as well as confident athletes expect more of themselves and are often motivated to reach those expectations. On the other end of the spectrum, student-athletes who have little or no confidence can achieve new levels of self-esteem as their hard work pays off with the successes of athletic training, which though small at first, can grow throughout their high school careers and beyond.
5. **Long Term Benefits of Strength Training Program:**
- a. Strong Foundation for athletic fitness now and into the future
 - b. Stronger heart and lungs
 - c. Stronger, denser bones
 - d. Reduces the risk of diabetes
 - e. Improved range of motion, coordination, and posture
 - f. Improved cognitive function
 - g. Decrease in sleep problems, like Apnea or Insomnia

Clark Culbertson
Culbertson Brand Group

###