Baseball Phases:

Off-season	During the off-season, little to no competitive baseball is played.
Early pre-season	In this period, players start to return after their breaks. The training in this phase is lighter and more general. As you approach the next phase, your training should become more intense.
Late pre-season	In the late pre-season, the training is the most intense, but it's focused on explosive power rather than maximum strength. The aim of training in this stage is to peak by the time the season begins.
In-season	Training during the season is lighter and is aimed at maintaining the gains from the previous three phases.

Off Season Program

Throwing a baseball creates one of the fastest and most violent movements by any joint in the body. Your entire body is involved in creating this incredible amount of force; your legs and core (the most powerful groups of your body) generate most of this force. To help maximize velocity, your body must find a balance between laxity and stability. Overhead throwers have extreme range of motion in their shoulders allowing them to generate more force on the ball. However, it is very important to make sure the stabilizers are strong and working properly to eliminate subluxation and instability when creating this amount of force.

Your muscles throughout your shoulder as well as your core then must work to decelerate and stop this massive force. If you have a weak link in the chain, a weaker structure will suffer. For example, if your core and hips are weak and not working properly, your shoulder (specifically the rotator cuff muscles and posterior capsule) takes on more force…due to this, these structures are unable to dissipate the entire force and therefore your elbow may suffer the consequence.

Your core and legs serve as the force generators, allowing adequate production and efficient transfer of energy to propel the ball upon release. The coordination of this "kinetic chain" is essential to alleviate the need for the shoulder to generate large forces. The throwing motion facilitates the synchronization of the kinetic chain. The scapula plays a key role in the positioning of the glenoid, allowing for the necessary extremes of motion to occur without impingement. Breakdown of the kinetic chain at any level requires increased force generation by the shoulder in order to maintain normal pitching velocity, control, and performance.

To ensure the kinetic chain is working properly it is vital you follow an exercise program that focuses on the key structures. These structures are often missed in your typical weight lifting routine. It is just as important to do these exercises correctly. If there is any confusion with any of these exercises, please do not hesitate to contact me. Furthermore, be creative with the equipment needed. If you do not have an agility ladder, make one using tape or string, if you do not have dumbbells, utilize a local community center, your high school, or even a hammer at your house can be used to add the needed weight. Again, please contact me with any questions or concerns you may have with anything in this program

6 Keys For a Successful Offseason Baseball Strength and Conditioning Program:

- Key #1 – **Arm Care Program for Baseball Players** (We do and have in place Pre - During and Post Throw. Overall health of the baseball player, soft tissue build and maintenance
- Key #2 – Power Development for Baseball Players
    - Medicine Ball Work
    - Jumping and Plyometrics
- Key #3. Strength Training and Workout Programs for Baseball Players
- Key #4. Speed and Conditioning for Baseball Players
    - Acceleration for Baseball Players
    - Absolute and Top End Speed for Baseball Players
    - Multi-Direction and Agility for Baseball Players
- Key #5 – Core and Hip Stability for Baseball Players
- Key #6 – Nutrition and Recovery Methods for Baseball Players

Key #1 – Arm Care Program for Baseball Players

If you are a baseball player, you should be performing an arm care program.

Key #2 – Power Development for Baseball Players

Your workout program should incorporate the following:

- **Medicine Ball Exercises**
- **Jumping and Plyometrics**
- **Strength Training (more on that in a the next section)**
- **Sprints (more on that later, too)**

With baseball being a rotational power sport, this is where we like to utilize medicine balls. Here are just a few of the benefits for med balls:

→ Improved coordination in movements demanding high rate of force development in all planes of motion (especially rotational power)
→ Improved ability to control and decelerate rotational forces
→ Improved kinetic linking through which helps the ability to generate and transfer force through the body.
→ Injury prevention because athletes are training to control rotation and deceleration

While there are many ways to use med balls, we typically like to start with slams, scoops, and shot puts for many of our athletes. Here are some examples:

Med Ball Side to Side Overhead Slam
Stepping Med Ball Scoop Toss
Med Ball Rotational Shot Put Toss

Another crucial aspect for developing power is jumping and plyometrics. Now, I'm just going to put this out there, you do not need an entire workout day devoted to jumping. That becomes more of a conditioning workout, and defeats the true purpose of developing power.

Band Resisted Broad Jump
Seated Weighted Vertical Jump
1 Leg Hop to Lateral Bound
2 Leg Lateral Pogo Hop

Key #3. Strength Training and Workout Programs for Baseball Players

A good strength training program will incorporate in some shape or another, what we call foundational movement patterns. These movement patterns are broad umbrella categories, which many exercises can fall under.

1. Hinge Pattern – Deadlifts, RDL's Hip Thrusts
2. Squat Pattern – Goblet Squat, Front Squat, Back Squats
3. Pull Pattern – Cable Row, Dumbbell Row, TRX Row
4. Push Pattern – Pushups, Dumbbell Bench Press, Landmine Press
5. Single-Leg Training – 1 Leg RDL, Reverse Lunge, Step Ups

There are many things to keep in mind when building a program. Some big picture items to keep in mind though are:

- Your strength training should reflect and develop your current abilities, goals, and sport
- Train to failure can sometimes limit you, strength training is used to enhance your skills not hinder your performance, especially for younger athletes
- If you're a young athlete don't worry about specializing in your sport, train to master the movements, become more athletic, and work on long term development
- Strength training, like skill work, is a process so take your time and look at long term progressions, nothing will happen overnight

Key #4. Speed and Conditioning for Baseball Players

Let's breakdown what we feel are 3 big umbrellas that you must work on:

1. Acceleration
2. Absolute Speed
3. Multi-Direction / Agility

Plain and simple, acceleration is the act of increasing your speed while running. For baseball players, this is accelerating down the line to beat out the play at first, or accelerating to a ball in the gap as an outfielder. Acceleration will continue to build until you hit your top speed. This is a key point for baseball players, as most athletes will hit top speed around 40 yards (give or take).

Multi-Direction and Agility for Baseball Players

First off, what is agility? Agility in a nutshell is any dynamic sporting action or movement that involves whole body change of direction. There are many factors that are at play with multi-direction and change of direction movements.

If your body is not prepared for these forces, you run the risk of a slow recovery when changing directions, or worse; injury.

Key #5 – Core Stability for Baseball Players

Core strength and stability is one of the most requested questions and concerns we receive from players, coaches, and parents. For good reason as well…baseball and rotational sports generate some of the biggest forces within sports, all at high speeds and end ranges of motion.

Core stability is the center of it all.

When it comes to building core strength for baseball players, we must remember what the core is supposed to do and function as… protecting the spine. For baseball players and overhead athletes, you are rotating, extending, flexing, and at high forces. We must increase core strength and create stability to support the high demands of the sport of baseball.

Here are just a few of the benefits of having a strong core:

- Helps decrease lower back pain or stiffness
- Helps decelerate your body when throwing or rotating forcefully
- Improves sports performance
- Improves your stability
- Can help your mobility
- Will help with power production and becoming more explosive
- Helps build up strength in your lifting program
- Helps you repeat high dynamic effort (especially for tournaments)

Recent research from spine specialists such as Dr. Stuart Mcgill has shown that the major role of our core muscles is to resist movement rather than creating it. These “anti” based core principals help baseball players and athletes stabilize the hips and spine during athletic movements (such as throwing, sprinting, hitting, jumping).

When it comes to the “anti” core movements, we like to group these into the following categories.

Anti-extension exercises – Dead Bugs are a great example:
Anti Rotation exercises such as the tall kneeling anti-rotation iso hold:
Anti Lateral Flexion Exercises such as side planks:

It’s important to know that it takes a combination of each of these core principles to help you develop solid core strength and foundation. Think of each one as a bucket, we must fill up each bucket to maximize your performance, core strength, and help reduce your risk of injury.

Key #6 – Nutrition and Recovery Methods for Baseball Players

Proper nutrition and recovery can make or break your baseball performance. The foods you choose to fuel your body will directly impact your performance and recovery. Understanding how to choose the right foods at the right time will help you prepare your body to compete at the highest level.

Here are a couple of key items to help you when it comes to nutrition and recovery:

- Eat the right foods at the right time.
- Consume high-quality protein.
- Drink plenty of fluids.
- Save major changes and goals (i.e., weight changes) for the offseason.

What you eat and when you eat it plays an extremely large role in baseball performance. There are three major sources of fuel for your body: protein, carbohydrates, and fats. Each of these macronutrients are extremely beneficial to baseball players, but when you eat them at the right time they can take your performance to the next level.

Carbohydrates are a player’s primary source of energy. These should be consumed throughout the day, and around game or training times to help provide enough fuel and energy for performance.

High-quality proteins are a player’s primary source of muscle recovery. Protein helps repair and rebuild muscles, which directly impacts how well your body recovers after activity. These should be consumed throughout the day, and right after game or training times to help kick start the muscle recovery process. In order to improve recovery, pair your high-quality protein with carbohydrates!

Fats are the last piece of the puzzle for a baseball player’s nutrition. Healthy fats should be consumed throughout the day, but not too close to game and training times. Since fats are slower digesting, they tend to slow down performance if consumed too close to game and training times.

Proper nutrition and recovery directly impact baseball performance. Learning how to navigate and implement a nutrition and recovery plan specific to the individual will help improve performance and compete at the next level.