



PERFORMANCE BASEBALL/SOFTBALL CONDITIONING

A NEWSLETTER DEDICATED TO IMPROVING BASEBALL AND SOFTBALL PLAYERS

Volume 16, Number 4

Creating a Cooperative Club/High School Conditioning Environment- Based on our "Fit-to-a-T" 7-T System of Program Design

Club and high school youth sports have two distinct programs. Sometimes they work in harmony other times in conflict. These two very different environments actually can work in concert to benefit the young athlete and provide a great focal point in creating a good working relationship between the two. Here's how.

Applying the 7-Ts- T-3 Tools

Club and high school youth conditioning have two very distinct and different training environments. The club usually trains on their "field of play". This environment has its limitations due to equipment/tools limitations but it allows for "with ball" skill related conditioning activity. High schools usually have access to well equipped weight rooms but limited by open space. By building on these limitations, a positive working environment can be created by emphasizing the "strengths" of each environment.

Based on these strength clubs can focus on agility, movement skills, acceleration/speed, sport specific energy system endurance and jumping power with body weight, portable tools and "with ball" when desired. Circuit training protocol is a good way of efficiently handling large numbers of athletes.

The high school weight room is equipped to overload the athlete creating strength and muscular development opportunities. This provides the basis of improved athletic performance and injury prevention if done with proper exercise techniques with considerations to balanced development and well managed progressive overload. Very Important! (T-4 Teaching of the 7-Ts).

Applying the 7-Ts- T-2 Time

The question now becomes when does the athlete do the work (T-6 Total Workload of the 7-Ts) and avoid over use/training? This is where communications become important. To realistically take advantage of this model, priorities have to be established and agreed upon by the club and high school coach. This is well beyond the scope of this editorial but essential if it is going to work. But I would like to establish a #1 priority for the young athlete in this conditioning relationship. The basis of all movement is muscle, therefore strength training done in a proper Movement to Muscle sequence should be done first. This would best be accomplished at the high school but with strength training consideration that are sports specific not football specific. This is best accomplished in the young athlete's off-season. In today's youth sports, the word "off-season" is not in the vocabulary, but we need to bring it back to serve the best interest of the athlete not the club or the high school.

Something to Think/Talk About

Ken Kontor, Publisher

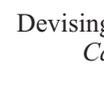
More on "Fit-to-a-T" click [HERE](#)

More on M2M click [HERE](#)

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IS YOUR STRENGTH PROGRAM DOING MORE HARM THAN GOOD FOR YOUR ATHLETES? FIND OUT NOW - **FREE!**



Movement Training-Before Muscle Training
Avoid Injury Created by Poor Movement Skills

Follow the 5 Simple Steps

1. Do the [9 Movement Tests](#)-Takes 10 Minutes requiring little equipment-Try it NOW-FREE!

2. Record Results On [Athlete's Score Card](#) Provided FREE!

If they Pass All 9 Tests-Congratulations! Continue Your Strength Program knowing that your athletes are getting stronger, faster with minimum risk of injury.

3. If they Fail any Test, Go to the step-by-step Movement Program as presented in the M2M E-Book

4. Re-Test after 2-6 weeks of doing the Movement Program

5. If they Pass, Go to Muscle Program

Don't Strength Train? Test Your Athletes Movement Skills to insure good movement skills and are avoiding overuse and overtraining. Remember...it's FREE

Moving to the Muscle Program

Over 500 strength exercises presented with illustrations- use as a stand alone or when viewing exercises on the internet to confirm proper exercise techniques.

Follow these Muscle Principles-to gain strength and maintain good movement skills

#1 No Exercise is bad, it is how it's done and applied that makes it bad.

#2 Strength exercises should be done in a safe environment.

#3 Avoid Muscle Compensation by

- Having muscles move (fire) in the proper sequence to insure proper technique.
- Not loading too much weight that encourages improper technique.

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PERFORMANCE BASEBALL/SOFTBALL CONDITIONING

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Volume 16, Number 4

Movement to Muscle - Designing a Program #1

LISA BARTELS, PT, DPT, PRC

Lisa came to Lincoln Nebraska in 1995 to accept an athletic scholarship and work towards an undergraduate degree in biology. She was a member of the University of Nebraska volleyball team from 1995-1997. Lisa was personally introduced to the field of physical therapy when she sustained significant injuries during her collegiate career. After finding success with a treatment approach termed Postural Restoration, Lisa decided to attend physical therapy school. She received her Doctorate of Physical Therapy from the University of Nebraska Medical Center in 2005. Following her training, she went to work at the Hruska Clinic for four years, and then accepted an opportunity to practice at the Rejuvenation Center in Omaha. Lisa joined Crossroads Physical Therapy in 2011.

Lisa has been certified in using Postural Restoration techniques since 2008. Lisa has been a consultant to several university sports medicine departments and authored numerous articles regarding biomechanics and preventative training strategies.

BGN
INT
ADV
T4

M

M2M is a series of nine movement skill tests graded on a pass/fail basis. **Diamond Link** - Click [HERE](#) to view the 9 tests. If the athlete fails any of the tests, they are placed on a movement skills corrective program which they do until they pass all the tests. Then the athlete can successfully start a strength and conditioning program. This muscle program must be done using correct exercise techniques and proper progressive overloading with planned recovery, to ensure the continuation of proper exercise techniques. M2M movement skills tests should be done periodically throughout the athlete's career to insure good strength training practices and to monitor the impact of year-round sports play. If the athlete fails any test at any time, they return to the M2M movement skills corrective program; the strength and conditioning program is discontinued until all test are passed. It is recommended that the year-round sports play load volume is reviewed and the strength and conditioning program evaluated and corrected to ensure future M2M test passage.



Lisa Bartels

Symbols to Success
Articles preceded by:

- BGN** indicate author believes content is for beginning-level athletes with training age of 0 to 2 years.
 - INT** indicates author believes content is for sport (intermediate)-level athletes with training age of 2 to 4 years.
 - ADV** indicates author believes content is for expert-level athletes with training age of over 4 years.
- NOTE: Training age year is continuous year-round conditioning beyond just playing baseball/softball.

R following articles indicates the content has been reviewed by the editorial board.

O following articles indicates the content is the sole opinion of the author.

Article preceded by a T + a number 1-7 indicate the article is relevant to one or more T's in our 7-T system of program design.

- T-1= Training Age (see above)/History
- T-2= Time
- T-3= Tools
- T-4= Teaching
- T-5=Testing
- T-6=Total Workload
- T-7=Team Position

To find out more about Fit to a T program go to:
www.performancecondition.com/ultimate-conditioning-library/baseball

Official Publication of:



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& CONDITIONING COACHES SOCIETY

Brought to you
in cooperation with:
NATIONAL HIGH SCHOOL BASEBALL
COACHES ASSOCIATION
and
NATIONAL FASTPITCH COACHES
ASSOCIATION



Movement Program Introduced

When should this workout be done in relation to practice and can it be integrated into practice/warm-up?

The corrective exercises that comprise M2M are helpful to do anytime of the day but it is most advantageous to perform at least some, if not all, of the exercises as part of the athletes' warm-up. Why? M2M forces that athlete to "turn on" the muscles that frequently become "turned off". The athlete can begin their workout or practice with the good muscles primed and ready for functional training. Now, if it is a conditioning workout rather than practice it is recommended you not only warm up with M2M, but continue to integrate with M2M activities during the workout.

M2M

Movement TO MUSCLE

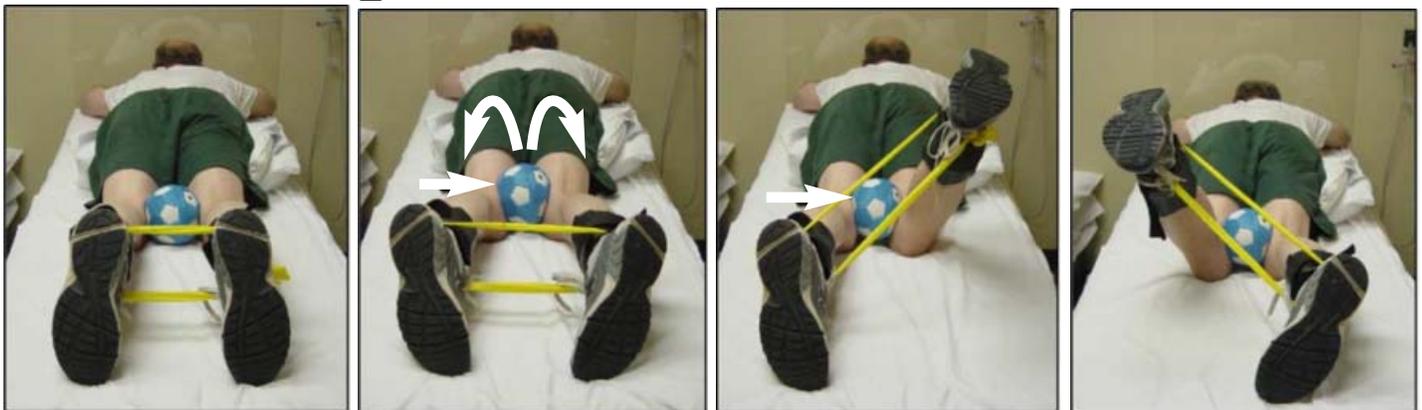
Summary Points

- The Movement to Muscle program assumes that all of your athletes are in varying degrees of muscle and skeletal imbalance. The solution is to have a conditioning program with a built in counter mechanism that significantly reduces an athlete's tendency towards this imbalance.
- The counter mechanism is to test for imbalance and then train and isolate musculature asymmetrically; in other words, if left vs. right differences are identified, then train the left and right side of the body differently. The goal being symmetrical strength and flexibility to the paired hips and shoulders
- The Movement to Muscle program has been set up in a way to provide specific instructions while at the same time allowing the reader or coach to have autonomy in choosing what upright dynamic drills to use and in what combination.
- Initially, implementing the Movement to Muscle program with your accustomed conditioning and resistance training methods will be a little time consuming and may pull you out of your comfort zone, but as you familiarize yourself with the techniques (even try them yourself) the process will become more efficient and will streamline nicely into your scheduled workouts.

Starting with the Hamstring-

The initial training focus should emphasize posterior pelvic rotation via hamstring facilitation. Most people don't think of the hamstrings as "core stabilizing muscles", but actually they are the longest and could be argued the most influential core stability muscles we have.

Exercise 1) Prone Reciprocal Hamstring Curls; is a great facilitation technique but it requires some set up time and equipment. The pillows (or arc barrel) keep the lumbar spine passively flexed so the back extensors cannot be recruited as easily. The ankle weights provide some resistance but primarily function to keep the Thera loop at the ankles. You should start with 1-2 lbs. and go no higher than 5 lbs. The Thera loop is the integral piece that facilitates correct concentric hamstring contraction. This resistance method is similar to Nautilus weight training technology. Because the loop is attached to both ankles, the resistance actually increases as knee flexion increases. You cannot get the same effect with a traditional hamstring curl machine. Make sure your athletes perform this activity slowly. The pelvis cannot move. Instruct them to keep their tailbone tucked as they pull the ankle up. The ankle should be pulled up to roughly 60-90 degrees of knee bend and then held for roughly 15-20 seconds on the left, 5 seconds on the right. If you see the low back extend or the rear end move up, they are either compensating with the back extensors or their two joint hip flexors are restricted; you probably need to decrease the resistance of the loop and the degree of knee bend. Most athletes will initially perceive a significant difference in strength, with the left hamstring being weaker. I would recommend utilizing this activity 3-4x/week for 6-8 weeks, starting everyone with a red loop, increasing the loop resistance as appropriate, and then decrease the frequency to 2x/week for maintenance. 



More Information Please! Contact Lisa at: lisa_bartels@hotmail.com

Diamond Links: Click [HERE](#) for the 9 Tests to the Movement to Muscle Program

Click [HERE](#) for information on the M-2-M program e-book.



PROFESSIONAL BASEBALL
**STRENGTH &
CONDITIONING**

COACHES SOCIETY

Presents

Members' Forum

Devising the Master Plan

Carl Kochan, Head Strength and Conditioning Coach, San Francisco Giants

Carl is in his seventh season as Major League Strength & Conditioning Coordinator for the San Francisco Giants. Prior to 2012, he served in the minor leagues with the Giants San Jose and Fresno affiliates for several seasons. Before joining San Francisco, Carl spent time working with minor league athletes with the Seattle Mariners (2006-2007) and the Boston Red Sox (2008). He has the following certifications:

- *Registered Strength & Conditioning Coach (RSCC) with the National Strength & Conditioning Association (NSCA)*
- *NSCA-Certified Strength & Conditioning Specialist (CSCS)*
- *NSCA-Certified Personal Trainer (CPT)*
- *National Academy of Sports Medicine (NASM) Performance Enhancement Specialist (PES)*
- *United States of America Weightlifting (USAW) Sport Performance Coach*



Carl Kochan

In this profession, one of the most important aspects is to develop and then lean on your strengths. One of my strengths is that I was a Division I collegiate baseball player. I experienced a high level of play, although I didn't play professionally. My college roommate played pro ball for ten years. I am able to speak the baseball language to get my point across from a training standpoint. I can relate things to a swing or pitch, because although I'm not a hitting or pitching coach, I teach strength and conditioning based on those movements.

The beauty of our sport is that we have the minor leagues. Over time, we can track and trend to see what players are like when they report to spring training. Did they work on the things we suggested, or if not, what are the challenges during the course of the season that we need to address? For instance, we screen the functional movement screen. If someone is a consistent fifteen or sixteen in the movement screen, and they continue to have dysfunction, we must ask ourselves if we are properly teaching and correcting players? Does the athlete understand what we want to do?

Dysfunction: Now What?

What resources do the MLB team has access to: trainers, position coaches, physical therapists, sports medicine

doctors, etc.? That includes me, the conditioning coach. We all decide what to do that is best for the player. The first thing to remember is that these athletes can play at a high level, regardless of what the screens say. Players may not test well on paper, but they can get three hits in a night or throw 100 mph. The tests can't be the only thing you use, though. The San Francisco Giants take pride in collaborating with the staff. What do our trainers, physical therapist, and our sports science coordinator all observe? This includes our manager and position coaches.

But the most important aspect in all this is what the player feels. You can't take that factor out, because what we see and what they feel might be two different things. We talk to a player, show them the results of what we see, provide them information and a plan on what we want to do, and see if they agree or disagree with that.

The Approach

The first thing I take into account in approaching an athlete is that I'm not a strength coach, but a teacher. My job is to lead, teach, educate, and coach that player down the path of being a successful baseball player. One of the difficulties in being a strength coach is that, many times, we are the one who break the bad news. We don't pat them on the back and say, "Good job!" I must tell them that what their weaknesses are, and how we can fix them. But if you know that athlete, it doesn't have to be combative; in some cases, it can actually be fun! This goes back to their experiences in the minor leagues and the staff there who educate them on what we are doing for them. When they come to San Francisco, I have a clear understanding of what I'm dealing with before they even walk in the door.

Look at it from an athlete's perspective. He walks in and we carry on a conversation like we have known each other for the past ten years. That makes them feel good. I know their health history, what they have been working on, and their needs.

The Process: How It Works as an Annual Plan

Let's paint a picture from the end of the season, the off-season, and then going into spring training. Near the end of the season, I meet with the pitching coach and go through every pitcher on our roster. I do the same with our hitting coach, and then I go over every player on the roster with the manager. We talk about what we observed over the season, and what the players was good at, and where the challenges are. I am an extension of the coaches, but they are the skills coach, not me.

We might want to increase stride length in a pitcher to take tension off the shoulder. Maybe a player isn't using his back, side leg enough in hitting. What can we do in the weight room to help that? I will then look at all of our training results of that athlete over time and see how they are trending. Then I devise a game plan before the start of the off-season. I will also walk through the information with each athlete because I can't assume. They make a lot of money, and I have a huge responsibility to them. I don't take this responsibility lightly. They must have a clear understanding because ultimately, I'm not around. I do visit some of the players, and this helps, but a two-day snapshot does not give you a lot of information.

To make things simple, I limit what I want the athlete to work on to two items. Any more than that becomes too much. Their job is to hit and pitch; strength and conditioning is only a byproduct to their success. I'm just a tool in their toolbox. We stay in constant communication with each player. This is the only way I can adjust and make changes. I ask how they feel, what they like, and dislike. If they don't like it, more often than not, they skip it. But that's fine because we have many options.

When they report to spring training, they are retested. I will know immediately if they accomplished their two goals. If they didn't, we'll continue to work on it. If they did, we find the next two issues and keep moving. I relay this information to the coaches to help them make their decision during the spring. How do marginal players look? What about players coming off injuries? It depends on the situation. My job is to have the information when asked because I am a resource.

through the season, we look at trends and we use that information for the good of the group. For example, during our dynamic warm-up session, the exercises we select for the team are based on some of these dysfunctions that we see. If we do this warm-up every day so, as a strength coach, how can I manage time more effectively? If we have issues on our lunge movement with some players, I must address it as a team. When we reevaluate at mid-season, I can see if things are working. If not, I have to change it. We had some players who needed more focus on mobility last year. This process also creates conversation with the medical staff. They might ask why the program is different than the first half of the season. With the data, I have can answer why we must refocus. It is an educational process; we are not randomly trying something different. This brings us back to the end of the season, when the entire process starts again.

Medical Staff Considerations

I am lucky because we have a staff that has the best interests of the athlete in mind. This helps me do my job more



effectively. I have a great working relationship with our medical staff. If there is a movement dysfunction, we have a specialized physical therapist who is really good at movement. I'm a strength coach; I know how to push and pull weight and get people to run faster and jump higher. This year, I sat down with our physical therapist and walked through different scenarios and how they would address some of these dysfunctions.

The next step is how to take this information and create a program design based on what I want the athlete to do. Finally, I meet with our head trainer to help him understand why I ask certain guys to do certain things so that we are all on the same page. The bottom line is to teach and drive your athlete to make good decisions. I think the sign of a good strength coach is what your athletes do when you are not in the weight room as opposed to when you are there, and that is the ultimate goal in devising a master plan. 🙌

More Information Please! Contact Carl at carlkochan@yahoo.com

Challenges of Softball Conditioning: The Ideal vs. Reality

Lauren Harris, Head Softball Strength and Conditioning Coach, University of Nebraska-Lincoln

A certified strength and conditioning specialist, Lauren Harris became part of the strength and conditioning program for the Nebraska softball and rifle programs in 2012.

Before joining the Nebraska staff, Harris served as the director of strength and conditioning at Texas A&M-Corpus Christi, beginning in 2009. While at TAMUCC, Harris was responsible for the training and supervision of all fourteen Division I sports and oversaw the design and completion of TAMUCC's first athletics-only weight facility in 2011.

Harris served as an assistant strength and conditioning coach for Olympic sports at Ohio State from 2006 to 2009. She gained experience training numerous all-Big Ten, all-American, and national team athletes. She served a six-week stint as the USA national synchronized swimming strength coach while they trained on-site at OSU. Harris was also part of the Olympic sports strength and conditioning staff at Marshall.



Lauren Harris



Softball conditioning really starts with talking about which energy systems are involved. The second consideration in conditioning the softball player is comparing what the ideal is with the reality of what actually happens.

Ideal Energy Systems

Softball is unique in that it has a component of very high intensity in a play. Players throw as hard as they can or, in the pitcher's case, with as much spin as they can in throwing a change-up. Their throwing force is generated in the lower body to absorb and slow down movement. When they run to steal a base, they run as hard as you can. So when something happens, it is intense and the rest of the time, it is not. The player stands around or sits in the dugout for a half inning. It is similar to football, where most activity happens in one to five seconds until the next play. Therefore, training should encompass repeated, intense efforts followed by inactivity over a sustained period of time.

Pitchers are a little different in the ATP PC energy system. Rest is a shorter interval because a pitch takes one second, followed by about 15-20 seconds of recovery. There is a slight aerobic element since pitchers do more over the entire game compared to the other players. It is reasonable to expect at least 85% efforts pitch after pitch. This can be sustained as long as you train correctly.

Ideal Conditioning Considerations

Sprints are important in softball conditioning. A lot of programs have the players run miles and do cardio days. It might have some benefits as part of recovery, but it is not part of what makes the player better. Players must be in good shape to achieve good

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running techniques and repeated bouts of work bouts, and strength is also a factor. The good news is that softball player doesn't need any convincing that if they are a little stronger, they will be able to hit the ball farther. Even slap hitters understand that the harder they hit, the better their chance is of reaching base. The higher their absolute strength base is, the less each swing takes out of them. Players must maintain a certain speed level to be successful. The stronger athletes are in that effort, the less it will take out of them with each effort. It is the same as with distance runners; the stronger they are, the more efficient they become.

Some female athletes worry about becoming big and bulky. The stereotype of the big, hefty softball player isn't necessarily true; what you eat that plays a much bigger role. The rule of thumb for body size is 80% nutrition and 20% weight training, but I feel it is more in the range of 90-10. No matter how hard your training is in the weight room, if you down a bag of Cheetos every night before you go to bed, body composition will still struggle to move in a positive direction.

The Reality of Dealing with Coaches

Coaches may have had success early in their career doing a certain workout style. If this is what I was doing and I was successful, why can't we just keep doing that? This is hard to argue, but are players successful because of the workout, or in spite of it? Maybe they were athletic as a kid and could handle that workload, so it didn't hurt them. It is a delicate thing to address. I had a coach that wanted to time a mile and felt that was important, but the rest of the time during the workouts, we didn't run more than 40 yards. The one-mile times still got better when we did it again. Why? Because distance running isn't the only way to improve cardio endurance. It's very easy to get caught up in defining the different energy systems' impact for a sport, and then think that you have to train every system separately. The truth is, IT'S ALL ONE SYSTEM! All energy systems are working at the same time, maybe one system more than the others at different points. Everybody got better, but we didn't train for the mile run. That's because the cardiovascular system is still stressed when you run sprints. There is a heart rate spike, then the system has to work to recover and slow down before the start of the next rep. That repeated stress will improve cardiovascular endurance without having to spend the extra time doing steady-state running. The point is that things you have to do to convince sport coaches isn't always ideal; you must demonstrate the value of what is ideal in softball conditioning to have a chance to change a coach's perception. You may not get out of doing the test, but you can get out of training for it.

Another reality is that the coach may say, "All we need to do is work hard." An athlete may be behind in their conditioning, so the solution is to work harder (translation: more & longer). This may be true, but the problem may also be (and more often is) a nutritional issue we are trying to correct. When a coach comes to me with that request, the athletes who are successful make nutritional and related mental changes first—the physical changes are almost just a byproduct of those conscious decisions to commit. My job is to get the player into the habit of doing something extra, but that has specific purpose. The players that enjoyed the most physical success were not coming in an extra hour three times a week, but around twice a week for 30 minutes or less of very explosive work. They did 8-15 reps of 15- to 20-yard sprints, and that was about it. Sometimes we added difficulty with weighted sleds or med balls, but not much more. It is a matter of habit of doing a little extra. This helps them clear the initial hurdle that holds them back, and now they are physically ready to do even more to address their performance issue going forward.

The other bit of advice I have is do things on the athlete's terms, rather than slogging through it for an hour. Create a positive habit so that athlete enjoys what they do. Do this by making it their idea. They have goals that they want to meet. They don't always know how to get there, which is where you come in. Ask them what kind of work they think will make them better. They won't always have the right answer, but if what they come up with isn't too far off, it's a lot easier to start with their idea than forcing them into yours. If they are WAY off, you steer the conversation with some simple education about power, strength, energy systems, or whatever the goal is, presenting them with examples of what training with those goals in mind looks like. Then let them try again, picking from that menu. As a disclaimer, direct cardio can sometimes be a good place to start, so don't read too much into my aforementioned resistance to steady-state training. I simply run into so many coaches that believe that it is the first and only option that I spend a lot of time educating to the counter. 

Reading Research - Resting Heart Rate Variability Among Professional Baseball Starting Pitchers

Cornell, David J.; Paxson, Jeffrey L.; Caplinger, Roger A.; Seligman, Joshua R.; Davis, Nicholas A.; Ebersole, Kyle T.

Abstract: Cornell, DJ, Paxson, JL, Caplinger, RA, Seligman, JR, Davis, NA, and Ebersole, KT. Resting heart rate variability among professional baseball starting pitchers. *J Strength Cond Res* 31(3): 575–581, 2017—The purpose of this study was to examine the changes in resting heart rate variability (HRV) across a 5-day pitching rotation schedule among professional baseball starting pitchers. The HRV data were collected daily among 8 Single-A level professional baseball starting pitchers (mean \pm SD, age = 21.9 ± 1.3 years; height = 185.4 ± 3.6 cm; weight = 85.2 ± 7.5 kg) throughout the entire baseball season with the participant quietly lying supine for 10 minutes. The HRV was quantified by calculating the natural log of the square root of the mean sum of the squared differences (lnRMSSD) during the middle 5 minutes of each R-R series data file. A split-plot repeated-measures analysis of variance was used to examine the influence of pitching rotation day on resting lnRMSSD. A statistically significant main effect of rotation day was identified ($F_{4,706} = 3.139$, $p = 0.029$). Follow-up pairwise analyses indicated that resting lnRMSSD on day 2 was significantly ($p < 0.05$) lower than on day 1.

0.05) lower than all other rotation days. In addition, a statistically significant main effect of pitcher was also identified ($F_{7,706} = 83.388, p < 0.001$). These results suggest that professional baseball starting pitchers display altered autonomic nervous system function 1 day after completing a normally scheduled start, as day 2 resting HRV was significantly lower than all other rotation days. In addition, the season average resting lnRMSSD varied among participants, implying that single-subject analysis of resting measures of HRV may be more appropriate when monitoring cumulative workload among this cohort population of athletes.

Practical Applications

The results of the current study suggest that resting measures of HRV can be used by researchers and practitioners alike as a method of noninvasively monitoring the acute systemic physiological workload, and subsequent recovery, during a standard 5-day rotation schedule among professional baseball starting pitchers. Specifically, the results of the current study suggest that the ANS among this population cohort is altered 1 day after completing a normally scheduled start (i.e., day 2), but that this ANS dysfunction is restored to baseline values 1 day later (i.e., day 3). Based on these results, practitioners may be able to use in measures of HRV among professional baseball starting pitchers in an attempt to prevent OTS and potential musculoskeletal injury from occurring because of inappropriate cumulative physiological workloads and/or inadequate recovery between starts.

However, although previous research suggests that only 3 measures of HRV are required for an accurate weekly representation of HRV for an individual (29), it is possible that these measures of HRV may need to be collected daily among professional baseball starting pitchers. Specifically, the results of the current study suggest that the measures of HRV vary across rotation days, and thus, if practitioners wish to appropriately capture the changes in ANS function throughout the rotation schedule, daily measures of HRV may need to be collected when longitudinally monitoring workload across the entire baseball season.

In addition, the results of the current study also suggest that the resting measures of HRV differ drastically between individuals, and thus, when attempting to use resting HRV in a longitudinal manner, a single-subject case analysis approach may be warranted. Although future research is required, it is possible that resting measures of HRV could be used by practitioners to monitor cumulative workload and recovery patterns across an entire season in an attempt to prevent OTS and overuse musculoskeletal injury among individual professional baseball starting pitchers. 

Journal of Strength & Conditioning Research:
[March 2017 - Volume 31 - Issue 3 - p 575-581](#)

CONDITIONING MOTIVATION: GETTING CUT STINKS! BUT IT JUST MIGHT BE THE BEST THING THAT EVER HAPPENED TO YOU...

Phil Loomis, President Baseball Fit

Phil Loomis is founder of Baseball Fit an educational resource/coaching service. Baseball Fit provides current and relevant information to the youth baseball community (ages 8-18) through the Complete Baseball Performance program.

Complete Baseball Performance addresses 5 critical elements:

- Mental skill development
- Sports Nutrition
- Strength and Conditioning
- Injury prevention
- Intra-organization athlete/player development systems

Phil played Division 1 college baseball where he continued his education by studying under Dr. Edythe Heus where he learned the importance of training movement and not muscle. It was at Dr. Heus' practice that Phil worked with veteran MLB players Steve Finley, Mike Matheny, Mark Grudzielanek, and Brennan Boesch and developed the skills to address the unique needs of the baseball athlete.

Phil's passion for youth and baseball lead him to start Baseball Fit in his home state of Michigan in 2007. When several young athletes began developing adult type injuries he sought the counsel of musculoskeletal health expert Robert Kowalick.

Phil specializes in functional anatomy and biomechanics as they relate to program design and corrective exercise; youth athletic development; and rotational/overhead athlete performance enhancement.



In Southeast Michigan high school baseball evaluations took place over the last week or so. While plenty of young athletes are brimming with confidence having earned a spot on the team there are more kids that didn't make the cut.

This is a tough spot to be in particularly for those that have never experienced the disappointment of being cut from a team. Most of the boys I have queried in recent days want to blame the coaches for not giving them a “fair look,” and that they are a much better player than Jimmy Ballgame who did make the team because he knew the coach from middle school...

I sympathize with these young athletes because when something is taken away you tend to react emotionally and want to lash out at those whom you deem responsible.

These athletes need to look at being cut as an opportunity. You have to use the disappointing result of being cut to learn what you could have done better. If you dwell on the disappointment and allow the negative result to fester it will eat you up and you will bury yourself.

Even in the unlikely circumstance that the coach doesn't like you, is playing favorites or is just a “dummy” that's out of your control. Don't waste time and energy blaming other people; this negative response will not help you. In life and sport you will have bosses, coaches, teammates and co-workers whom you don't get along with at a personal level.

You Have to Choose You!

Pick you, by committing to developing an approach that will get you where you want to be. Get help to develop an approach or game plan that is appropriate for you taking into account your athletic ability and skill set. Once your game plan is in place you have to execute that consistently.

As a young athlete I was fortunate to learn a mental strategy that was vital for helping me navigate the up and down nature of baseball. The late Dr. Harvey Dorfman was a renowned baseball mental skills coach and he taught me the following formula:



Phil Loomis

Approach-Result-Response

You can control the two on the outside. You can't control the one in the middle.

As an example...

If I know as a hitter that I can't handle the high fastball on the inner half of the plate, my approach to each at-bat is "I am only going to swing at pitches middle away." If I follow my plan and hit a line drive that's caught by the right fielder, I made an out. However, to me I should consider it a successful at-bat because I stuck with my approach in spite of the negative result. In this situation I could not control the result, which was an out, but I can control my response to that result. And if my response is a positive one then I was successful.

However, if I get frustrated because it was caught and abandon my approach then the at-bat was not successful because I did not control my response. I allowed the result to dictate my success, likely leading me down the road of a long and painful slump.

If you want to excel at sports and baseball specifically you MUST learn how to deal with failure, it is ESSENTIAL to maximizing your abilities.

Consider the following Major League Baseball players that experienced a negative result and used it to fuel them on their path to success.

Paul Goldschmidt is fast becoming a household name in MLB. In fact, he has finished second in the NL MVP voting twice. Paul was never the best player on his little league team, travel team (he batted 9th and played second base on his 8th grade travel team), high school team nor was he the best player on his college team. The one quality that sustained Goldschmidt throughout his journey was his work ethic and his refusal to give up.

Paul Goldschmidt's story is also a cautionary tale that too often players are prejudged at a young age without acknowledging just how much they can improve over time.

At each step along the developmental path Goldschmidt realized he was not as good as his teammates or the best players on the opposition. But he did believe he could get better if he focused each and every day on doing so. Goldschmidt said...

"In college, I didn't get to go to one of the top schools in the state or the country, but I got to compete against those guys and just figured if I could just keep getting better, who knows what could happen."

Paul Goldschmidt made himself into a Major League star and his best tool wasn't his speed, power, or arm. It was his work ethic. Goldschmidt's hard work and dedication gave him a chance. Far too often young athletes have unrealistic expectations and in my opinion the limiting factor isn't their size or lack of baseball tools...

Kevin Kiermaier is the starting center-fielder for the Tampa Bay Rays. According to the statistic Wins Above Replacement (WAR) he was the 7th most valuable position player in MLB in 2015, despite hitting .263 with a mere 10 home runs. What made Kiermaier so valuable in light of his relatively pedestrian offensive production?

He used his elite speed and athleticism to save 42 defensive runs the highest number since that stat was created in 2003. Kiermaier is a human highlight film on defense not only with wall climbing and gap diving catches but with a rocket arm that accounted for 15 assists, the most by a center-fielder in 2015.

Talent evaluators and scouts overlooked Kiermaier every step of the way. As a freshman in high school he stood at 5'6" and

while one of the best players on the team in high school, he was “unspectacular overall.” Only junior colleges and NAIA schools were interested. He ended up at a Division II Junior College. Kiermaier ultimately led that team to a Junior College World Series title his freshman year and was named MVP of the tournament.

Tampa Bay Rays scout Tom Couston started showing up at Kiermaier’s college practices to watch one of his teammates. The scout knew right way, that Kiermaier was a prospect, and that “he’s still bewildered no one else saw what he did.” Couston had many scouts come up to him and say, ‘Good job. I just missed him’.”

When his former high school coach heard Kiermaier had a chance to be drafted, he joked, “Into what? The Army?”

Kiermaier was undrafted but did sign with the Rays and the rest is history. Kiermaier, like Goldschmidt, had to prove himself every step of the way. He believed when no one else did. Kiermaier picked himself!*

When you are trying out for a team it comes down to getting attention.

Not everyone is going to understand you as a player. Everyone will not see your potential.

This means you have to make a choice...

Don't worry about those that don't see your potential. Show up and play your heart out for those that might!

- 5 Teams rejected Derek Jeter before the Yankees picked him.
- There were 1329 players selected before Hall of Fame catcher Mike Piazza
- All 30 teams said NO to Albert Pujols 12 TIMES!!! The Cardinals picked him in the 13th round. Pujols got 401 Nos and only 1 yes. That's all it takes.

It's all about getting a look then it's up to you. Have you done everything you can to prepare for that opportunity? Have you put the work in and have you developed a game plan that will allow you to succeed?

In any of the multiple roles we play (student, athlete, friend), we're inevitably going to face trials and periods in life when we simply don't know how everything is going to work out.

But we must realize that just because we're going through a difficulty doesn't mean we've failed in some way or we should shrink back from doing what we love to do.

Perseverance is the key to overcoming.

The testing of your self-belief produces perseverance. Let perseverance finish its work so that you may be mature and complete, not lacking anything.

Make the choice today to proactively develop and maintain the mental muscle of endurance.

In doing so, you will be able to fulfill your potential.

If you need proven program that will get you on the right track to playing your best click [HERE](#) 

Reference:

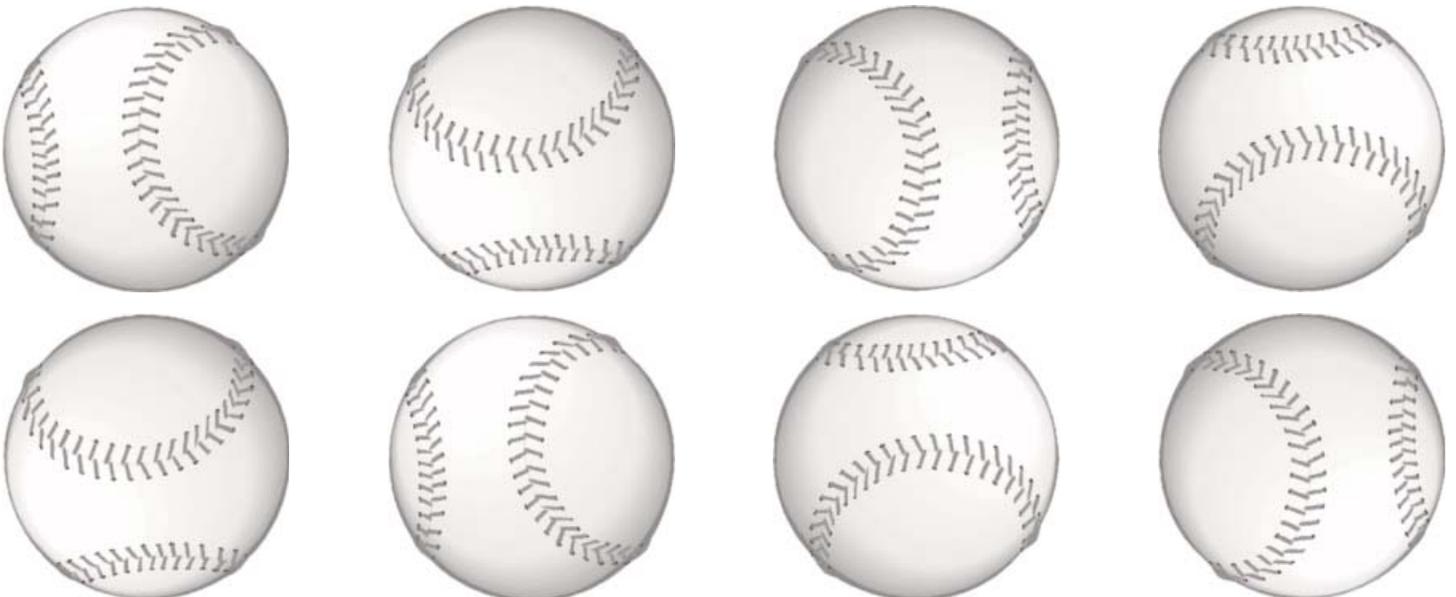
*Apstein, Stephanie. "Glove and War." *Sports Illustrated* 21 Mar. 2016: 81-83. Web.

Additional Reading

[The Mental ABC's of Baseball](#)

This was a great book that I read near the end of my playing career. I wish I would have known about it in high school! Easy read for young athletes with plenty of proven mental skill strategies for baseball.

Contact Phil at: Philloomis@yahoo.com



Library LINKS - From the "Fit"-to-a-T 7-T System of Program Design Library

T-6 Total Workload

Re-Conditioning: What it is and How it Works, Frank Velasquez

Learn the Process

“Re-Conditioning” is the process of synchronizing the rehabilitation of the injured body area to the healthy portion of the body for a seamless return to play.

An athlete comes in with an elbow injury with a script for physical therapy after his visit with the orthopedic surgeon (or sports medicine doctor).

The communication between the physical therapist and the strength & conditioning professional is critical in the initial process of re-conditioning as we work towards the common goal of functional activity for the athlete. Priority #1 once the elbow is asymptomatic and has full ROM is to resume strengthening of the Scapula stabilizers, core/trunk, glutes and rotator cuff that Aimee has already started. As the stabilization and strength increases and the athlete has been asymptomatic for 2-3 weeks now we have the athlete set a follow up visit with the referring physician. If all checks out well, we then proceed with the “throwing program” for the athlete.



Sports Training Methodology

- WARM UP
- ACTIVATION
- STRENGTH TRAINING
- ANAEROBIC FITNESS

[Click HERE to Read Now!](#)

T-1 T-2 Training Age-Time

Strength Training for Baseball In-Season High School Program, Joey Greany

Learn

It is well documented that today's young baseball players specialize in only one sport (baseball) from an early age. Gone are the days of multi-sport play and the opportunity to develop athleticism from the demands of these various sports. Sports, such as soccer and basketball, provide opportunities for deceleration movement, something that is important in developing young athletes, but is missing from baseball.

Approach

We want our guys to become strong and powerful. In order to do this, they must be able to generate a great amount of force into the ground; this is a basic principle of strength training. We train for max strength in lifts, such as the dead

lift; the ability to pull a heavy weight off the ground. Then, we do plyometric-type speed training. This combination of heavy lifting (strength) and plyos (explosive movement) gives us an overall, powerful athlete.

High School In-Season Program

Here are two training days for the high school baseball player. They are simple, yet intense and efficient workouts can be done before or after school, before practices or games, or with practices.

Coaches must create good relationships and trust with the players so they can do the program in a quality setting. This is done a step at a time - not all at once. The most important thing is to get comfortable with the movement before increasing the load. It is all done on an individual basis, working with one player at their own pace and trust level.

Selected How-to Exercise Techniques-Provided

[Click HERE to Read Now!](#)

T-6 Total Workload

Less is More: Training for Baseball and Softball - Train Smarter, Not Harder, Dr. Michelle Fearheller

Learn

Baseball and softball are sports that place unique demands on its athletes, which may vary tremendously by position, gender, and level of competition. For example, the same stresses are not placed through the developing bodies of both a baseball and softball pitcher whereas the demands on the knees of a catcher in a squatting position are completely different than those demands placed on the knees of an outfielder. In addition to position specific differences, baseball and softball are asymmetrical sports, with side to side differences in forces placed especially through the neck, upper back, shoulder, elbow, and wrist. These sports require quick bursts of sprinting, change of direction, and rotational activities. Adequately preparing the body for these demands is the key to preventing injury and improving athletic performance.

The largest factor that separates one team from the other is how quickly they can actively recover between and within games and tournaments. For example, if a player dives to catch a ground ball in the gap, they must quickly return to their feet, ready for the next play. The same is true of a batter who fouled off a previous pitch and must return to the plate for the next pitch. To improve this type of conditioning, you must sprint train in addition to a good strength training program. Sprint training sessions are easy to fit into normal workouts and practices and will be far more beneficial than long endurance training, especially for sport such as baseball and softball. This type of training can be done right after practice in the off-season and preseason and up to twice per week when in season to maintain and improve level of conditioning. This would fit nicely with a well-designed strength and plyometric program as well. The ideal training program would include sport specific consideration to achieve the highest level of strength, conditioning, and injury prevention while including the following factors.

Example Program

Dynamic warm-up:

- Walking quadriceps stretch
- Inchworms
- Walking leg cradles
- Walking lunge with rotation
- Walking no moneys
- Walking T's
- Lateral shuffle to sprint
- Example Program: Developmental Phase (off-season)

Day 1:

Complete a dynamic warm up

1. 6 lateral broad jumps with band pull-apart every minute on the minute x 5 minutes (3 jumps facing each direction)
- 2a. Forward lunge to a march holding baseball bat on shoulders (alternate with 2b)
- 2b. Push-ups with a scapular plus 5 sets of 5 (alternate with 2a)

- 3a. Side planks with rotation 30 seconds x 3 (alternate with 3b)
- 3b. Lateral band walks with good squat mechanics (with bat on shoulders) 2 x 10 yards (alternate with 3a)
- 4. 40 yard sprint, rest is the walk back, 10 cycles

Day 2:

Complete a dynamic warm up

- 1. 5 sets of 5 weighted squat jumps for max height with focus on good landing mechanics (dumbbell, kettlebell, medicine ball)- can alternate with partner, 1 minute rest each
- 2a. Single leg squats 3 x 10 each with good form with partner cueing for correction (alternate with 2b)
- 2b. Rotational medicine ball tosses to partner 3 sets of 10 (alternate with 2a)
- 3a. Planks with medicine ball push to partner 3 x 10 pushes each partner (alternate with 3b)
- 3b. Diagonal band walks with overhead baseball bat hold 2 x 10 yards forward/backward (alternate with 3a)
- 4. Side shuffle reaction drill 30 seconds, rest 1 minute (can add ball/fielding for advanced players)

Day 3:

Complete a dynamic warm up

- 1. 10 squat jumps every minute on the minute with plank hold for the remaining time x 5 minutes
- 2a. Single leg squat hold with wrist flick baseball tosses to partner x 15 each (alternate with 2b)
- 2b. Medicine ball overhead toss to partner 5 x 5 max distance throw (alternate with 2a)
- 3a. Plank alphabet on medicine ball with shoulder blade pinch 2 sets (alternate with 3b)
- 3b. Wall sit hold with arms overhead and wall press "Y" 2 sets of 30 seconds (alternate with 3a)
- 4. Pro agility drill 5-10-5 practice 5 x R/L

Day 4:

Complete a dynamic warm up

- 1. Agility ladder: 3 sets of 2 laps alternating with partner as fast as possible forward high knees, sideways 2 feet in each, icky shuffle
- 2a. Mass movement pattern lawnmower pull with shoulder external rotation 3 x 10 (alternate with 2b)
- 2b. Tall plank position scapular protraction/retraction 3 x 10 (alternate with 2a)
- 3a. Single leg bridge 3 x 10, rest is 1 minute (alternate with 3b)
- 3b. Blackburns- I/T/Y 3 second hold x 5 each (alternate with 3a)
- 4. Shuttle run 300 m with a 3 minute rest break (2-3 cycles)

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