



YEAR ROUND THROWING MANUAL

ALAN JAEGER

What People Are Saying About Jaeger Sports Year Round Throwing Manual

"Jaeger Sports' Year Round Throwing Manual is a must-own for all pitchers, position players, and coaches alike. The information contained within it will help players of all ages develop healthy, durable, and hard-throwing arms. Driveline Baseball cannot recommend this product enough!"

— **Kyle Boddy** President and Founder of Driveline Baseball

"For Coaches/Players that are serious about their throwing program and the investment of building their arm, what a great place to refer to! This Throwing Manual can be used at any time to guide a player to a healthy arm, year round! This manual should be a staple on the shelf"

— **Scott Brown** Pitching Coach, Vanderbilt University

"Jaeger Sports has long been at the forefront of what it takes to develop elite throwers — this Year Round Throwing Manual is a direct reflection of their passion, knowledge and diligence -- it is truly outstanding."

— **Matt Hobbs** Pitching Coach, Wake Forest University

"You only have one throwing arm — if you want to get the most out of it hop on board this Year Round Throwing Manual. I can't think of a better program to maintain, strengthen and unleash the potential of one's arm."

— **Kirk Saarloos** Pitching Coach, TCU

I wanted something to teach me the most about the Art of Throwing and to help me continue to grow as a Coach, and I found it."

— **Butch Thompson** Head Coach, Auburn University

"The Jaeger Year Round Throwing Manual is a holistic approach to Arm Development and Long Toss. It's organic foundation provides a platform for each player to discover the potential of their arm without any restrictions."

— **Nate Yeskie** Pitching Coach, Oregon State University

Year Round Throwing Manual

This “Year Round Throwing Manual” is designed to give players, coaches and parents a plan of action to not only optimize the Health, Strength, Endurance and Recovery Period of the arm, but to gain insight into how to best “navigate” the four major seasons or periods throughout the year (Off Season, In Season, Summer Months, Rest Periods).

Alan Jaeger





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Foreword

One of the primary goals of every athlete is to optimize their skills and abilities. In baseball, there is not a more important skill than *throwing*. Put rather bluntly, if you can't throw, you can't play.

But throwing is more than just being injury free. It should be the goal of every baseball player to find out "what's in your arm" -- to find out how *healthy*, *strong* and *durable* your arm can be. Considering that *pitching* wins championships and *defense* clearly influences games it's safe to say that *throwing* — and more specifically, arm *training* and *development* — should be given it's proper due.

Our philosophy toward throwing is simple -- the arm is waiting and willing to go to work for us. It has so much potential and upside if given the time and attention. And contrary to opinions that suggest that you "only have so many throws in your arm", we come from an entirely different school of thought whereby you "build" throws in your arm by throwing more, rather than less. Just as you don't "count" how many steps you take each day for fear of "using them up", the arm responds best to activity rather than inactivity. The arm is ready to go to work for you -- the question is, are you ready to make the investment into it?

Over the past 25 years we have not only seen and experienced the incredible benefits of a well trained arm, but likewise, how avoidable arm injuries can be if the "Seasons" or "Periods" throughout the year are *navigated* properly: the Off-Season *Build Up* (Period 1), the In-Season *Maintenance* (Period 2), *Rest Periods* (Period 3) and the *Summer Months* (Period 4).

As you will see, our Year Round Throwing Manual is designed to do just this -- address these "seasons" with a plan that helps you understand, strategically, "when" to Build Up, "how" to Maintenance, "when" to Rest, and "how" to navigate the Summer Months.



This is best accomplished by understanding a few of our most essential principles up front, namely: 1) That all arms are *unique*, 2) The importance of “listening to the arm” and allowing *it* to dictate what it needs from day to day, 3) The positive effects on an arm (Health, Strength, Endurance, improved Recovery Period) by throwing more, rather than less, and 4) The importance of Arm Care and Long Toss.

As you will see, figuring out how to navigate an entire year can be very tricky. Therefore, the goal of our Year Round Throwing Manual is to take the guess work out -- to establish a plan that makes sense and is easy to follow...a plan that gives you clarity and confidence as you make your way through each *season*.

In addition to the guidelines of the Year Round Throwing Plan, you will also find an *Addendum* section at the end of the Manual that will address a number of additional topics, including: the Mental Side of Throwing, Pitch Counts, Rehabilitation Protocols, Inclement Weather (Indoor) Training, and Protecting Your Arm as you move forward in your career.

As you implement this Year Round Throwing Plan, you may be pleasantly surprised how Healthy, Strong, Durable and Accurate your arm can become just by making a major investment into it, and how well it can actually thrive throughout the year.

It's simply amazing what our bodies (arms) are capable of doing if there is a clear and direct intention toward training, along with a map that gives us the guidance to best navigate that path. This Manual was written with this in mind.

Enjoy the process.

— Alan Jaeger



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Introduction

*“Your arm is like a treasure chest — we may not know what’s in it for sure,
but it sure would be nice to find out”*

When you think of the game of baseball there are a few central themes that are at the core of this great game. For example, we know how important hitting, fielding and running are. But it would be hard to argue that anything is more important than throwing. For starters, if you can’t throw, you can’t play. And some of the oldest adages in baseball — *“Pitching wins championships”* and *“Pitching is 90% of the game”* — clearly reflect the arm’s essential role. And yet, throwing goes far beyond pitching. As we know arm strength and accuracy clearly influences defense, and defense influences games.

Thus, the act of throwing a baseball is at the very core of baseball, and should be treated that way. It is not something that pitchers should do to *“warm-up”* prior to a bull-pen, or position players should do *“just to get loose”*. It’s not something that is done to *“get to the next station”*, or something that is “squeezed” into a practice plan — it should be seen as its own, dedicated station. Throwing (*and Arm Care*) should be given its proper due, and like the development of any other skill, should be allotted and afforded whatever time necessary to train and develop this skill.

The essence of this Year Round Throwing Manual comes out of this mode of thinking, and from the experience of training arms over the past 25 years (*including input and feedback from players and coaches*) and seeing the amazing gains an arm can make simply by putting the time and dedication in to training it. Quite simply, your arm is an amazing organism, and like any organism, it wants to grow and evolve. And like any organism in order to optimize its growth and potential it wants to be nurtured and fed. It’s the gift that keeps on giving if it is treated that way.

A photograph of a baseball player in a ready stance on a field, wearing a dark uniform and a cap. The image is overlaid with a solid red color. The player is positioned in the center of the frame, with his legs spread wide and his arms extended forward, holding a baseball glove. The background shows a chain-link fence and trees.

The Four Periods of the Year Round Plan

Overview

“Listen To Your Arm —
Only *It* Knows How Much, How Often,
And How Far to Throw”



The Four “Periods” of the Year Round Plan

There are many factors that go into developing and maintaining a healthy, strong and durable arm. From all of our on field experience we feel strongly that the format and plan that is being outlined and recommended in this article will not only help keep arms extremely healthy, but help players optimize their endurance, strength and recovery period throughout the year.

The reason this manual is based on a “*Year Round*” *throwing plan* is because the primary goal of every player and coach should be to develop and maintain a healthy arm, year round. The secondary goal should be to find out “*what’s in the arm, and what it’s capable of doing*”. Again, the arm is capable of doing extraordinary things if given the proper attention, care and training. And that “*proper*” training starts with a clear level of awareness and plan of action as to how it should be treated throughout the different seasons or “*Periods*” that occur throughout the year.

As you will see in this manual, we have broken down the entire year, sequentially, in four main *Periods*: 1) The Build Up or Base building *Period* in the Off-Season, 2) The Maintenance or In-Season *Period*, 3) The Rest and Recovery *Period* (which in turn will lead back to the Build Up Period), and 4) The Summer Months *Period*. By knowing how to navigate through these four main periods throughout the year you can best position your arm to not only *get* healthy, but *stay* healthy.

Note: Because the year round schedule in this manual is set up chronologically to start at the beginning of Fall practice for High School and College (September 1st) and finish at the end of the following Summer (*August 31st*), please note that Period 1 begins based on the assumption that there was an extended Rest Period (*approximately 6-8 weeks*) prior to September 1st. As you will see, it’s all relative as to “*when*” you start the year round cycle (*ie Professionals may “start” on December 1st after and extended rest from October/November*).



4 Keys to Training

Though, we will go into great detail with regard to how to best navigate and optimize each of these Four Periods of your Year Round Schedule, it is important to establish, up front, the four most *fundamental* principles regarding our philosophy toward training the arm, which are: 1) All arms are *unique*, 2) Any Throwing Program should *adapt* to the individual players needs, rather than a “pre-determined” program or format, 3) The number one rule of a Throwing Program should be for a player to *Listen to their Arm* through the entire process (we will “suggest” a general schedule and workload with regard to the volume/distance of throwing, but it will ultimately be up to each individual players arm to dictate from day to day what amount of throwing they will want or need), and 4) The *Mind/Body Connection*, namely, the benefits and influence of having, among other things, a clear mind and relaxed body when developing your arm (this will be addressed in more detail in the Addendum section at the end of this manual. Also, please visit the following link for more information regarding our approach to the Mental Game, and Mental Practice: <http://www.youtube.com/watch?v=7h4er5U38SU>).

Though, we do believe strongly that every athlete is different, and will eventually find their own routine, we have also found from years of experience that certain commonalities tend to exist regarding Arm Development and Training -- namely, that the body can do amazing things when it's introduced, in a *progressive* manner, to higher volumes and thresholds of throwing (training in general). Likewise, it seems that players, in general, who are introduced to higher volumes of throwing have thrived on throwing more, rather than less.

Therefore, you will be encouraged to extend your volume and extend your distance (Long Toss) in a progressive manner. Since, the number one principle of our throwing program is to “Listen To Your Arm”, ultimately, you will be in charge of your workload and distance at all times.

As you will see, our Throwing Philosophy (Build up, Progression, Workload, Maintenance, Long Toss, Rest Periods, etc) and Arm Care Program (Arm Circles/Band Work) form the foundation of this Year Round Plan, but there

are a number of other great resources (Strength & Conditioning, Sport Science, etc) that can be applied to help train and condition the arm, and we strongly encourage you to look into these resources in the reference section at the end of this manual.

You will also find a number of additional topics that come up throughout the year with regard to maintaining the health of your arm -- these topics will be addressed in the “Addendum” section at the end of the manual, and include: Summer Baseball, Rehabilitation Protocols, Inclement Weather (Indoor) Throwing, Long Toss and Mechanics for Position Players/Catchers, Pitch Counts, Two Way Players, Soreness versus Pain, Youth Training, Mental Training and Throwing, and suggestions of how to best Protect your arm if someone tries to take away your throwing routine.

Ultimately, the goal of this manual is to lay out a safe, clear, effective and reliable plan that can be easily followed throughout the year -- a plan that best insures the health of your arm, while optimizing it's endurance, strength and recovery.

Throwing Philosophy: Principle Number One — Listen to your Arm

“Your arm is the boss”

Deskaheh Bomberly, Sacramento City College, Pitching Coach

Before we get into the Four Main Periods of the Year Round Plan, let's first address the topic of our *“Throwing Philosophy”*. Naturally, since throwing is going to play a major role in the development and maintenance of a player's arm, it's essential that we go over some of our basic principles and philosophies about arm preparation and throwing.

As mentioned earlier, the first and most important aspect of our throwing philosophy is to Listen To Your Arm (*or if you are a coach, to teach your players what it means for them to get to know their arm intimately well*). Only you (*the player*) know on any given day how much, how far and how aggressive to



throw (*or rest*). Regardless of what phase of the year that you are in, you will always dictate the amount of throwing that you will need to make. The irony is, the more you throw the more you are probably going to want to throw and the more intimate you will tend to get with your arm anyway.

Which brings us to Rule Number Two...having a predetermined throwing “program” is now obsolete (*timed throwing, counting of throws, distance parameters*), since listening to your arm supersedes everything else. And this is ideal, because again, only you and your arm know best -- your arm is the boss.

The Role of Long Toss

Naturally, the single most important course of action you are going to undertake for your arm is throwing. And for us, there is no substitute for throwing, throwing often, and training your arm how to extend out, progressively, to it's furthest potential distance (*"stretching out"*), and then, learning how to translate that "extension" (*freedom into aggressive and explosive throwing in a safe manner "pulling down"*).

This is what we call Long Toss.

Our Long Toss routine has two major components: the Stretching Out Phase (moving away from your partner), and the Pulling Down Phase (*coming back in toward your partner*). The *"Stretching Out Phase"* is just that...stretching. And the most ideal way to *"stretch your arm out"* is by throwing the ball with arc as you slowly move away from your throwing partner.

Throwing with arc allows the arm to experience several health benefits, including freedom and range of motion. Also, by throwing with arc you are allowing the arm to stretch out, progressively, at different angles, while making "low impact" throws. This promotes a sense of relaxation because you are throwing with ease from the onset, rather than starting out by throwing the ball aggressively and/or on a line.

This *"stretching out"* phase of Long Toss is not only the most ideal way to *"open the arm up"*, but it best positions the arm for the more aggressive, downhill phase of throwing, or what we call "Pulling Down".

The Second Phase of Long Toss is the *"Pull Down"* or Strengthening Phase. The goal here is that once the arm has been completely stretched out and well conditioned the arm is ready for aggressive throwing, or *"Pulling Down"* (*keep in mind that just as we progressively built up the Stretching Out Phase, we also want to introduce the Pull Down phase, progressively*).

The way the Pull Down Phase works is that once we know our players are in ideal shape and have reached their maximum distance in the Stretching



Out Phase (*a good barometer is that they are able to make a few throws at their maximum distance*), we have them come back in toward their throwing partner approximately 10 feet per throw, while maintaining the same effort or intent of their furthest throw (*assuming this is a Pull Down day*).

Therefore, if a player went out to 300 feet on a given day the goal would be to maintain the same effort or “intent” of their 300 foot throw all the way back in toward their throwing partner. We like to use the analogy that if 300 feet were equal to “x”, then every throw coming back in toward your throwing partner is also equal to “x”. Naturally, the only thing that changes is that the arc (*and aim*) gets lower.

Though, we have our players come back in toward their throwing partner in 10 foot increments, this is an arbitrary number. Ultimately, since you are making the same throw or “x” all the way back in to your throwing partner (*remember, the only thing is changing is the release point as you get closer*), it’s up to you how slowly or quickly you come back in. We have found that 10 foot increments are ideal because the change in release point is minimal and players can make a smooth transition as they get closer to their throwing partner.

Whereas, the first goal of the Pull Down phase is to maintain the same distance of your furthest throw or “*not*” decelerate, the second goal of the Pull Down phase is to miss lower rather than higher. Missing lower than higher promotes two important benefits. Since it’s more difficult to “*compress*” your entire distance (“x”) into shorter distances as you get closer, you are essentially forced into figuring out how to organize your body in an extremely efficient and effective way mechanically that promotes “*getting out in front*”, and having great downhill angle (*because if you decelerate at all, the ball will tend to be high or over your partners head*).

The second major benefit is relaxation and balance -- when the mind knows it must miss “*lower, rather than higher*”, it can actually be very relaxing to the mind and body because players can eliminate the number one, subconscious concern of a two players playing catch...“I don’t want to throw the ball over my partners head” (*this is also a major reason why players will ease up or “decelerate” their throws coming back in toward their throwing partner -- they simply don’t want to play chase, which also brings into play the issue of wasting time, or simply “not playing catch”*).

Though, it may be a bit difficult to figure out how to Pull Down correctly if you are new to this approach, you can really train your body/arm/mind what it means to accelerate rather than decelerate through your throw, and use the arc from the stretching out phase as a benefit to promote a great downhill plane.

When you truly learn the art of translating a great deal of distance of uphill throwing (*30 degrees or so*) into downhill throwing at a very short distance (*ie 70 feet*), without decelerating and have the ball end up at your partners ankles, it is a magical feeling. It's what we feel like is the perfect throw because you have to have a combination of ideal mechanics (relaxation, balance, alignment, direction, extension, leverage, athleticism, explosiveness, and finish) and repeatability (*because when the body/mind has been trained to maintain the constants of intent, acceleration and commitment, the release point can most ideally repeat*).

Though, it may be more difficult, at first, to figure out how to compress such massive distances (*300 feet or more*) of uphill throwing into a target below the knees at close range (*70 feet*), without decelerating the arm, this form of training can really force you into getting mechanically synched, and repeatable. And for pitchers, when you are able to do this consistently on flat ground, where's it's more difficult to get downhill because you don't have the slope of the mound to "*help you out*", the effect on how this translates to the mound for pitchers can be profound. You may find yourself getting down in the zone better than you ever have in your life...as a by-product of learning the value of training your body to throw uphill prior to throwing downhill (*not so ironically, pitching coaches have a drill for pitchers who are having a difficult time "getting extended over their front side" whereby they have pitchers stride uphill on the back of the mound to practice getting better extension over the front side*).

It is important to have a clear understanding of both the Stretching Out and Pulling Down phases of our Long Toss approach going forward. As we begin the throwing progression of Period 1 (*The Off-Season Build Up Period*), it is important to know the distinction between "*Stretching the arm out*" (weeks 3-4) and "*Pulling Down*" (*beginning, approximately in week 5*).



Though, we would never want to make a blanket statement as to what “every-one” should do, we strongly encourage players to Long Toss for countless reasons, including: Health, Conditioning, Endurance, Arm Strength, Athleticism, Mechanical Synch, Feel, Freedom, Accuracy, Arm Speed, Explosiveness, Mind/Body Connection, Creativity and Physical and Mental Relaxation. Long Toss has been at the core of our throwing philosophy for the past 25 years.

Note: Warning Regarding Pull Downs

As you begin to get the feel for what it means to Pull Down without decelerating on the way in toward your throwing partner, you may find a whole different level of “life”, “explosion” and “carry” on the ball. For this reason, we want to make sure that you are clearly aware of the danger of getting too close to your partner at the end of the Pull Down Phase. Though, there are a number of benefits for accuracy, explosiveness and mechanical reasons to get close to your partner without decelerating, for safety reasons, we urge you to have a geared up catcher, with a face mask, to finish your pull down work as you closer to your partner (anything closer than 70 feet). Please prioritize safety.

Note regarding Long Toss and Crow Hopping

How you use your legs when throwing a baseball plays a huge role in both taking the emphasis off of your arm, and promoting athleticism. For this reason, we strongly recommend that you begin to “crow hop” as soon as possible in your throwing session, and maintain it through the end of the throwing session.

Though there are many different ways to crow hop, and many different ways to move your legs based on your position, we strongly recommend, for several reasons, that you crow hop off your right leg if you are right handed, and left leg if you are left handed (see link for the proper crow hop at the 1 minute mark: <https://www.youtube.com/watch?v=oB7lcMy5Q0s>).

As you will see, this form of crow hopping is very consistent with a pitchers mechanics and arm circle. For position players, you may wonder why you would be using mechanics that are not necessarily consistent with how you are going to use your legs and arm circle based on the position you play.

The reason why we want you to crow hop this way is to best support and protect your arm during Long Toss. To whatever degree that you “*come out*” of your position specific leg work and arm circle can be corrected rather effectively once your Long Toss session is over simply by going back out to your position specific distance, and working on your specific mechanics (leg work and arm circle) consistent with your position . And finally, besides safety, this style of crow hop promotes balance, extension and athleticism, regardless of what position you play.

Long Toss plays such a huge role in both the Off-Season Build Up and the In-Season Maintenance Periods, and our throwing philosophy in general. For more information about both the Stretching Out and Pull Down phases of Long Toss, you can view our Long Toss demonstration on Youtube: <https://www.youtube.com/watch?v=9w3xwYlx17s>. Ironically, the form of crow hop being used in this video is a “shuffle step”, and we strongly recommend not doing it this way. Again, we much prefer that you load off of the back leg in the earlier example).

“When” to Start Your Off-Season Throwing Cycle (for Period 1)

Whenever we get questions about “*when*” to start a throwing program the answer always starts with, “*on what day do you need to be in great throwing shape for your first practice or bull-pen?*”. Therefore, “when” to start your throwing program or Build Up Phase is based on a simple formula of working backward a predetermined amount of time from your target date.

In the example of our Year Round Plan that begins on September 1st, assuming that you are coming off an “extended rest period”, we recommend that you work backward approximately 6-8 weeks for rest, and an additional 4-6 weeks of our Throwing Progression or Build Up in order to be ready for your first practice or bull-pen. (Note: Rest Periods don’t necessarily suggest complete inactivity -- as you will see in a later section, we recommend some



form of “Active Rest”, especially for any “extended rest periods”).

Naturally, there are going to be other times throughout the year where you may not be coming off of an extended rest of 6-10 weeks, and/or you may not need a full 4-6 weeks to build your arm up. Those scenarios will be addressed in a later the section.

The main principle here to keep in mind is that players (*coaches*) will always know “*when*” to start training their arm based on when they need to be completely ready for aggressive throwing for their first practice or bull-pen. And once this principle is understood, a player should theoretically never be put in a vulnerable position, or be “*out of shape*” entering their first practice or bull-pen.

As you will see throughout this manual, knowing when to build up your arm is essential. And once the base is built correctly, maintaining it (*In Season*) and knowing when to rest and when to build back up fall naturally into place (*as we delve deeper into Period 2, the In-Season Maintenance, Period 3, the Rest Period, and Period 4, The Summer Months, you’ll see why knowing “when” to start building up your arm is so important because you will probably have to “build up” your arm more than once throughout they year*).

“How” to approach your Off Season Throwing (Build Up — Period 1)

Because the number one rule of our throwing program is to “*listen to your arm*”, you’ll notice in our schedule below that there are only suggestions, rather than any mandated or predetermined “*counting*” of throws, or stipulations as to the “amount of time” to throw. There will be, however, clear guidelines from a great deal of experience regarding what the first 6 weeks look like (*8 weeks including 2 weeks of bull pens for pitchers*).

Again, our goal is for you to get to know your arm so well that it tells you from day to day (*moment to moment*) what it needs, and really, want it demands. And this is one of the greatest benefits you’ll appreciate about this approach — that you can get to know your arm extremely well. And this is where we

believe that you'll understand that your arm wants (needs) to throw more, not less, because it feels so good.

Though, you may be concerned from past experiences about *"how much throwing you do"*, or, *"is throwing too much going to use up what I have in my arm"*, we feel strongly that what you'll find out is that your arm feels better by throwing more, rather than less, just as you don't worry about how many *"steps"* you take when you walk each day for fear of *"using them up"*, or hurting your feet. In fact, quite the opposite – you know intuitively that you need to walk each day to prevent your feet, legs, hips, etc, from atrophying.

Remember, the arm is a living, breathing organism and like any organism it is trying to grow, evolve and expand. And just like any other *"training modality"*, you can easily argue that growth and development is based on putting more demands on the body (*wisely and progressively*) to build endurance, conditioning, resiliency and to break through new thresholds to attain more growth.

Thus, we encourage you to throw often...even daily, knowing that you can always take a day off (*or two, etc*), and/or you can always go lighter. Though, you may feel that throwing daily is a lot, we believe that you'll discover that your arm will thrive on it, considering that this may be the first time that you've ever built your arm up in an optimal way from scratch (*not to mention that this may be the first time that you have truly dedicated yourself to a complementary Arm Care Program as well*).

Since it comes down to trusting this process of slowly and progressively building up your arm, and ultimately, trusting your instincts and the feeling in your arm, it's always going to be up to you anyway. Our goal is to provide a format from experience that has positioned players to build up and maintenance their arm in an ideal way. We're the map... but your arm (*and instincts*) are the boss.



Pre-Throwing (and Post Throwing): Arm Care Program

Before we go through the Off Season throwing schedule for Period 1, let's take a moment to address the importance of having a pre-throwing Arm Care Program, or what we call Pre-Habilitation, in place. There are many great ways to prepare the arm to throw. The program we have taught for the past 20 years specifically targets the shoulder and surrounding areas, and is based on Arm Circles and Band work *(though, we don't specifically address the elbow, we highly recommend that you check out our resource page at the bottom of this article for more information about elbow care, and arm care in general)*.

These two components are ESSENTIAL to the preparation of the arm, immediately prior to throwing. And we do not let players pick up a baseball without going through these two steps *(Note: this does not preclude the fact that there are other helpful ways to prepare the arm -- again, please refer to our resource page at the end of this manual. Also note that we always want our players to do some form of cardio prior to their Arm Care Program)*.

The following two sections will go over our Arm Circle and Band program in detail *(for more information about our Arm Circle, Band Work-Out and Long Routine, you can reference our DVD, Thrive On Throwing 2)*.

Arm Circles

Our Arm Care program is comprised of two stations -- station one is Arm Circles, which is a “general” range of motion workout, that targets the shoulder and surrounding muscle groups *(Macro)* followed by station two, which is a Surgical Tubing or Band workout *(Micro)* that targets more specific areas of the shoulder, including, the rotator cuff muscle group and other supportive areas of the shoulder.

The Arm Circle routine comprises of two sets, palms facing downward with forward rotation, followed by palms facing upward with backward rotation. Both sets of Arm Circles are a precursor to the Band workout because they

address the most basic needs of the arm: blood flow, oxygen, range of motion and heat to the rotator cuff muscle groups, and supporting areas. This literal “warm up” of the shoulder and surrounding areas ideally prepares the shoulder area for the Band work out.

Each set of Arm Circles have 9 checkpoints (*small, quarter, half, three quarter, full, three quarter, half small*). Just as we begin our throwing program slowly and gradually, we do the same with Arm Circles. We'll have our players start with 8 repetitions at all 9 of these checkpoints (*72 repetitions total*) and increase to 12 repetitions (*once 12 is mastered, you can add a ball and go back to 8 repetitions and work up to 12 repetitions again*).

In addition to these 9 checkpoints, we also have a few other guidelines to insure that you are doing the Arm Circles properly, including: 1) Be sure that your arms are extending out away from the body at shoulder height with a slight bend in the elbows to relax your arms, 2) Be sure that your middle fingers (from both arms) form a line segment from one tip to the other through your shoulders, 3) Try and keep your shoulders and surrounding areas as relaxed as possible (*a good idea is to imagine that your circles are moving through “soft space”*), 3) As you rotate your arms, be sure that you are making symmetrical circles, ie, as high as you are low, and as far backward as you are forward (*because the tendency is to have your shoulders lean fwd, be sure to be aware of working backward as much as forward*), and 4) Be aware of keeping your breathing as fluid as possible (ie avoid holding your breath) ...try to keep your body and mind as relaxed as possible.

If at any point you find that your technique breaks down stop and take a break and either finish later, or know that you need more time (*or less repetitions*) to build up your endurance properly (*For more information and a visual demonstration regarding Arm Circles, please go to the following link on Youtube: <https://www.youtube.com/watch?v=OvuzuJunwgs> -- please note that this shows only the first set of Arm Circles, Palms down and forward. Again, our entire Arm Circle routine can be seen on our DVD, Thrive On Throwing 2*).



Bands/Surgical Tubing Exercises

It's hard to put into words the value and effect of Band work. Though Bands or Surgical Tubing has been around for many decades, the concept of using them tended to revolve around post surgery, rehabilitation. Though, Bands play a huge role in helping the athlete rehabilitate his or her arm back in shape, we have found that doing Bands prior to throwing is extremely beneficial and effective.

Just as players have to do a very thorough Band program to get their arms extremely healthy post surgery, we love the concept that by doing Bands first, you are actually doing "*Pre-habilitation*". We can tell you from first hand experience and from countless players and coaches that the beneficial effects on the arm from doing Band work, consistently, has been profound.

We have our own Band program (*J-Bands*) which consists of 11 exercises that is to be done immediately following Arm Circles and immediately prior to throwing (*For more information about our J-Band workout, please go to the following link: <https://www.youtube.com/watch?v=omdQgVfutic> -- Again, our Band Program is available on our DVD, Thrive On Throwing 2*).

NOTE/WARNING: Safety/Warning re Bands/J-Bands usage: Please be sure when doing any Band exercises that the Bands (silver clip on the J-Bands) are securely fastened into the fence or wall, and are NEVER in alignment with your neck, face or head. Please watch Safety/Warning Video here <https://youtu.be/DadrSfSb9fw>.

Post Throwing Arm Care

Since you took great care of your arm prior to throwing it makes sense to take great care of your arm after throwing. Just as pre-throwing Arm Care is essential to “prep” the arm on many levels, post-throwing Arm Care is essential for helping the arm recover more effectively. As mentioned throughout this article, how you recover plays a huge role in not only getting healthy, but staying healthy.

There are a number of options available for post-throwing, Arm Care including: Band Work, Electrical Stimulation, Jobe Exercises, Cardio, etc. These are all fantastic options. For us, because it is so effective and practical, we have our pitchers go through our J-Band program immediately following their mound work, focusing specifically on all 4 of the external rotation or “*deceleration*” exercises, including: Exercise #5, Reverse Flyes, Exercise #7, External Rotation Hip Height, Exercise #9, External Rotation Shoulder Height, and Exercise #10, Reverse Throwing Motion. We’ll have them do 1 set and 25 repetitions of each of these 4 exercises. These 4 exercises are essential to helping your arm recover dramatically better.

Other than taking a few minutes to get some water, we want these exercises done immediately following their mound work, and then they can do their cardio (for position players, who will tend to have great recovery period from day to day and do not have to deal with the potential “effects” of throwing off of a mound, there arm care program may be much lighter).

Again, we recognize that there are many experts in this field that can give you a lot more information on this topic (*physical therapists, trainers, sport science specialists*), but we have seen players get great benefits over the past 20 years simply from adding a post-throwing, band workout into their routine. Again, please see our reference list at the bottom of this manual.

Finally, “*icing*” seems to have become a very debatable topic, with research seeming to lean away from icing. Please be sure to do your homework before making your decision.

Off Season Build Up

Section 1

“Optimal Endurance,
Strength and Recovery Starts With
An Optimal *Base*”

Period 1: Off Season Build Up — Overview

Now that we've gone through the Arm Care Program, the 4 keys to our Throwing Philosophy, our Long Toss principles and the "When" and "How" to start our Throwing Program, it is time to address the actual schedule of Period 1, the Build Up/Off Season Period.

Again, remember, regardless of what suggestions we make it's going to come down to following the feel of your own arm and using our schedule and suggestions as a map. We'll give you the guidelines — and we do encourage you to go out every day to do some throwing — but only you will know how much throwing to do each day, how far out your arms wants to go and what days you may need to go lighter or take off.

Building The Base, Stacking The Base, Volume Over Distance

Whereas our approach to throwing centers around Long Toss, the initial stage (*first 3-4 weeks*) of the Build Up Phase centers around only the "stretching out" phase of Long Toss. As you will see in a moment, the idea is to completely "stretch" the arm out, progressively, to its maximum distance prior to any type of aggressive throwing or Pull Downs (*weeks 5-6*).

Remember, stretching out means just that -- maintain loose, relaxed arm action and put some arc on the ball as you gradually move away from your throwing partner. Remember, because you will be "listening to your arm", there aren't any parameters with regard to "how many" throws to make or at "what pace". Simply move away from your throwing partner each time you begin to sense that you are going to throw the ball over your partners head (*1-2 feet per throw is a simple rule of thumb*).

Go out as far as the arm wants to take you that day, and stay at your furthest distance for as long as it feels good to your arm. There is no need to come back into your partner with any aggressiveness for the first 3-4 weeks of throwing (*this will come in the Pull Down or Strengthening Phase in about week 4 or 5*). Again, the goal of the initial Build Up Period is to focus on building a great base by "stretching the arm out" with arc and opening it up in a gradual progression.



In addition to stretching the arm out over this 3-4 week period, it is also essential to prioritize repetitions (*volume*) over distance, knowing that the distance will increase naturally as the arm “opens up” and gets into better condition. This is especially true for the first two weeks, where the focus should be on increasing low impact throws (*volume*) at these shorter distances. The idea of prioritizing volume over distance is what we call “stacking the base”, and is crucial to setting the proper foundation in place.

Also, keep in mind that depending on the amount of time you took off at the end of your last “*In-Season*”, and how strong your arm is, you may find that your first day or two you need to be extra conservative. Regardless of how far out you get on Day 1 or how much time you may throw for, if you go out virtually everyday for the first 3-4 weeks, and you are religious with your Arm Care Program, your arm should begin to feel dramatically better with each passing day. Though Day 1, for example, may only be 5 minutes of throwing out to 60 feet and Day 2 may be only 7 minutes of throwing out to 90 feet, by Day 7, you may be out to 150 feet for 15 minutes, and by day 10, 200 feet for 20+ minutes of throwing (*again based on your arm strength*).

It’s hard to state a number of throws to “*count*”, or a “*time*” or “*distance measurement*”, but again, from our experience based on a pitcher or position player that throws in the 82-90mph range, you will probably start pushing the 250-300 foot range by the end of week 3 or 4. And the beauty of going out each day without the demands of bull-pens, etc., is that players can gain many benefits and push past old thresholds simply because they are allowing their arms to open up and recover most effectively. This is where many pitchers, who have never truly built their arm the correct way in the off-season, may have a pleasant surprise waiting for them. For these pitchers, and even pitchers who have been on a good throwing program, they often find themselves pushing beyond distances they didn’t know they had in them (*not to mention, increasing endurance and feeling fresher the next day*).

These further distances are critical for gaining flexibility, range of motion, extension, which in our experience lead to looser/quicker arm action, explosiveness, freedom and increased velocity. For example, in the case of a pitcher who throws 80-85 mph but has never thrown beyond 120 feet (*and/or has*



never done a thorough Arm Care Program), we can see where his 120 foot throw could turn into 300, 330, maybe even 350 feet over time, and add significant velocity and endurance (Note: from our experience, a pitcher who can get out to 300 feet will typically be somewhere in the 84-90 mph range, a pitcher that can get out to 330 feet may be into the 86-92 mph range and a pitcher who can get out to 350+ feet is typically in the 92-96+ mph range.

Again, the beauty of allowing the arm to stretch out without any aggressive throwing for the first 3-4 weeks is that it best positions the arm for weeks 5-6, which is the *“Pull Down”* or Strengthening Phase of the throwing program.

Finally, even though you will only be Stretching Out your arm out for the first 3-4 weeks of the Build Up Period, we still want you to come back in toward your partner in 10 foot increments or so. The difference is to maintain a mentality of *“stretching”* all the way back in. Remember, it’s not until about week 5 that you will begin the Pull Down or aggressive phase of Long Toss. Therefore, until you begin the Pull Down Phase in weeks 5 and 6, we suggest that you come back in toward your throwing partner with about 60-70 percent effort.



Sample Schedule

Period 1: 5-6 Week Off Season Build Up

(3-4 Weeks of Stretching Out, 2 Weeks of Pull Downs)

Note: *Because there are a number of different variables when it comes to creating a throwing program and schedule for the masses (age, arm strength and previous throwing history), all of our throwing plans and schedules are going to be based on the typical characteristics of an above average High School arm, including typical distance and arm strength (approximately 250-300 feet/82-90 mph). By having this as a reference point, you can adjust the recommended volume and distance based on age and/or arm strength.*

Week 1

**Stretching Out/Massage/Arc — No Pulling Down*

Monday: 5-10 minutes of throwing (30-75 feet) or ~ 5 Throws every 5 feet

Tuesday: 5-10 minutes of throwing (30-90 feet) or ~ 5 Throws every 5 feet

Wednesday: 5-10 minutes of throwing (30-105 feet) or ~ 5 Throws every 5 feet

Thursday: 5-10 minutes of throwing (30-120 feet) or ~ 5 Throws every 5 feet

Friday: 5-15 minutes of throwing (30-135 feet) or ~ 5 Throws every 5 feet

Saturday: Off/Light

Sunday: 5-15 minutes of throwing (30-120 feet) or ~ 5 Throws every 5 feet

** Volume supersedes Distance*

Week 2

**Stretching Out/Massage/Arc — No Pulling Down*

Monday: 10-15 minutes of throwing (30-135 feet) ~ 5 Throws every 5 feet

Tuesday: 10-15 minutes of throwing (30-150 feet) ~ 5 Throws every 5 feet

Wednesday: 10-20 minutes of throwing (30-165 feet) ~ 5 Throws every 5 feet

Thursday: 10-20 minutes of throwing (30-180 feet) ~ 5 Throws every 5 feet

Friday: 10-20 minutes of throwing (30-195 feet) ~ 5 Throws every 5 feet

Saturday: Off/Light

Sunday: 10-20 minutes of throwing (30-150 feet) ~ 5 Throws every 5 feet

** Volume supersedes Distance*

Week 3

**Stretching Out/Massage/Arc — **No Pulling Down*

Monday: 10-20+ minutes of throwing (30-195+ feet)

Tuesday: 15-20+ minutes of throwing (30-210+ feet)

Wednesday: 15-20+ minutes of throwing (30-225+ feet)

Thursday: 15-20+ minutes of throwing (30-240+ feet)

Friday: 15-20+ minutes of throwing (30-255+ feet)

Saturday: Light/Off

Sunday: 15-20+ minutes of throwing (30-200+ feet)

** Volume supersedes Distance*

*** If you begin to feel that your distance is maxed out (for at least 2-3 straight days) at any point during Week 3, you can begin the Pull Down Phase at that point*

NOTE: The plus sign (+) doesn't mean you should feel obligated to go beyond the suggested distance, but is there to give you the option of going past this suggested distance if the arm wants more distance (it is also okay if the arm wants less distance on that given day).

Week 4

**Stretching Out/Massage/Arc — **Pull Down Option*

Monday: 15-25+ minutes of throwing (30-255+ feet)

Tuesday: 15-25+ minutes of throwing (30-270+ feet)

Wednesday: 15-25+ minutes of throwing (30-285+ feet)

Thursday: 15-25+ minutes of throwing (30-300+ feet)

Friday: 15-25+ minutes of throwing (30-300+ feet)

Saturday: Light/Off

Sunday: 15-25+ minutes of throwing (30-300+ feet)

** Volume supersedes Distance*

*** If you begin to feel that your distance is maxed out (for at least 2-3 straight days) at any point during Week 4 you can begin the Pull Down Phase at that point (you'll probably be ready to integrate Pull Downs based on even the strongest of arms by the end of Week 4, or entering Week 5).*

NOTE: The plus sign (+) doesn't mean you should feel obligated to go beyond the suggested distance, but is there to give you the option of going past this suggested distance if the arm wants more distance (it is also okay if the arm wants less distance on that given day).



Note Regarding Stretching Out Phase

Remember, we believe the most ideal way to build up the arm is by throwing more (*low impact/conditioning*) rather than less. Again, these are just guidelines -- and they are relatively conservative guidelines based on 4 weeks of Stretching the arm out without any aggressive throwing. But, we'd rather you err on the side of building it *"too slowly, rather than too quickly"*. And by spending an extra week at the onset to "stack the base", we feel that this is as important as anything you can do to position your arm to get off to a great start moving forward.

This doesn't mean that you won't find yourself wanting to increase your distance faster. You may find based on your age or arm strength that you approach your maximum distance by the end of Week 3, and are ready to start the Pull Down Phase in Week 4 in which case we would still suggest that you use that unused *"stretch out week"* and add it to the Pull Down Phase (*so you have 3 weeks of pull downs, rather than 2 prior to your first day of practice/first bull-pen*). That's ultimately your call. Remember, part of your *"progression"* is based on not only your age or arm strength, but what kind of shape your arm was in (or not in) leading up to the Build Up phase.

Again, your arm will dictate the pace. The main idea is to show you how to optimally build up your base over the 4 week, Stretching Out phase, and best position your arm for the subsequent 2 weeks of the Pull Down phase, and moving forward in general.

The Pull Down Phase (Weeks 5 and 6)

Once the base has been built in the first 4 weeks in the Stretching Out Phase, the arm should be safely and optimally ready for aggressive throwing, or the Pull Down Phase. As you will see in a moment, Pull Downs are introduced on Monday, Wednesdays and Fridays of weeks 5 and 6 in order to best transition the arm into aggressive throwing. Just as we introduce each new threshold of throwing progressively, we also want to balance out the aggressive and lighter days of throwing in these first 2 weeks of Pulling Down.

For position players, who don't have to deal with the variables of mound work (*unless they are two way players*), they will tend to increase their Pull Down days to 4 days a week by week 7, and potentially 5 days a week by week 8. From our experience, once an arm has been progressively built up this well, it will tend to get in a mode where it wants to Stretch Out and Pull Down daily (ie, if you are practicing daily). What may change from day to day is "how far you stretch out", "*whether or not you completely Pull Down*" and/or "*whether or not you decide to go lighter*". Naturally, if you need to take a day off, this is always an option (*assuming you won't be making any aggressive throws that day*).

For pitchers, weeks 5 and 6 not only mark the beginning of aggressive throwing or Pull Downs, but it also begins to set the format for how bull-pens are going to be integrated in weeks 7 and 8 (*Monday/Friday*), and eventually, when live innings are introduced (when Period 2 or the In Season Maintenance Period begins in week 9).

Also, once mound work is introduced in week 7, your most optimal "*Long Toss days*" are going to be on your mound days (*Off and In Season*). This is because the arm has been conditioned to be completely "*opened up*" prior to any aggressive throwing. And because it is used to this workload, aggressive throwing (mound work) tends to minimally "*effect*" the arms recovery for the next day.

Once this Monday, Wednesday and Friday format is established, it becomes the same format for starting pitchers throughout the remainder of the Off-Season and In Season (relief pitchers will be addressed as well a bit later).



Finally, as a reminder, because arms will tend to feel so good after the first 4 weeks of the Stretching Out Phase, the tendency for players is to be over excited about Pulling Down...there is a tendency to be, almost, over aggressive. Our advice is to keep the same mentality we keep presenting in our overall approach...walk before you jog, and jog before you run. Therefore, even though “*Pulling Down*” is aggressive by nature, please build into the first few Pull Down days slowly and progressively as well.

Thus, on the first day of your pull downs be sure not to over do it. Remember, once your Pull Down Phase begins, you will tend to have at least 3 aggressive Pull Down Days a week (*Monday, Wednesday, Friday*). So use the first week to integrate and acclimate to your Pull Downs. Maybe go “85%” effort on Monday, “90%” on Wednesday and “95%” on Friday of the first week, as an example. And remember that on days that are not “Pull Down days”, we still suggest that you make throws on the way back in toward your throwing partner, thinking “stretch”, and using maybe 60-70% effort as an example.

Week 5

Stretching Out with Arc + Pull Down Phase

Monday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Tuesday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on way back in)

Wednesday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Thursday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on way back in)

Friday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Saturday: Off/Light

Sunday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on way back in)

Week 6:

Stretching Out with Arc + Pull Down Phase

Monday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Tuesday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on the way back in)

Wednesday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Thursday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on the way back in)

Friday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw on the way back in)

Saturday: Off/Light

Sunday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light on way back in)

NOTE: Keep in mind that on your "light days" (Tuesday/Thursday), you may want to go beyond 180 feet depending upon your arm strength, or possibly, less than 180 feet (or possibly even take the day off). There are many variables to consider, so as always, listen to your arm. This is the end of Period 1, the Off Season Build Up/Conditioning period.

A full-page background image of a baseball player in a ready stance on a field. The image is overlaid with a solid red color. The player is wearing a dark jersey, shorts, a cap, and a glove. The text "In Season Maintenance (Fall/Winter)" is centered over the image in white.

In Season Maintenance (Fall/Winter)

Section 2

“Generally, Your Arm
Responds Better To Throwing
More not Less”

Period 2: In Season Maintenance (Fall/Winter) — Integrating Mound Work

(Note: Even though this is technically not the beginning of the “Spring, In-Season”, it is considered “In-Season” because bull-pens, and eventually live innings are about to be introduced. Therefore, the format below is set up for the purpose of transitioning from the Build Up Phase of Period 1 into mound work of Period 2, regardless of what time of year it is. Whereas a pitcher may only be building up to 45 pitches in the Fall/Winter, the format and transition into mound work will be the exact same in the Spring -- there is just a couple of extra weeks needed to build up to a higher pitch count.)

Now that the base is in place, for position players, the bottom line is to continue to follow this program until you enter your next Rest Period at the end of the Fall/beginning of Winter. Though, the schedule is set up to Pull Down three days a week, again, we would suggest that you build up to stretching out and pulling down virtually every day.

This doesn't mean that you can't go lighter, or take a day off. The point is that once you get in great shape, and do not have to deal with variables of pitching off a mound, don't be surprised if you find that your arm wants to stretch out completely, and pull down to some degree each day. It's the nature of an arm that's built to throw, and doesn't have to deal with any of the potential effects of throwing off a mound and the unknowns of “when” you may need to throw off of a mound. Without any of these variables that pitchers may have to address, your arm, like any other muscle, is going to probably thrive on throwing every day.

As for pitchers, once they get on a mound, the format doesn't change very much because pitchers will tend to be on a mound twice a week entering Week 7 (*either 2 bull-pens or a bull-pen and a “live” situation*), and as previously mentioned, can insure that their best Long Toss days are on their mound days (*ie Monday & Friday*). Again, by Long Tossing on your mound days, the arm is best prepared for the mound work load, and thus, should feel noticeably better the next day.



Along with Wednesday being the other main Long Toss day, this format is also very beneficial because the focus is now on “*spacing out*” and “*counterbalancing*” your aggressive and lighter days throughout the week. As you will see, this allows the arm to optimally maintain its conditioning, optimize recovery period and potentially get stronger as mound work is introduced.

Because your recovery period is so good from day to day, though Tuesday follows a heavy workload day of Long Toss and Bull-Pen work, you may be surprised to find out that your arm wants to stretch out further than you’d expect. Whatever you do on Tuesday, know it is helping you “set up” Wednesday (*and theoretically Thursday, Friday, next week, and so on*). By Wednesday, the arm will probably be in need for a real aggressive Long Toss day, knowing that there isn’t any mound work and there is another day away from the mound the next day. Thursday, will then tend to be more of a combination of Tuesday and Wednesday, and by Friday, the arm is ready for another aggressive Long Toss day plus mound work. As you approach the weekend, you’ll have two days to play with how much time you want to throw or rest in order to best set up Monday again.

Keep in mind that you may want to add an extra day of pull downs to your schedule for the first 2-3 weeks of bull-pens because your arm is in such great shape from the first 6 weeks, and because mound work tends to be so light in these first few weeks.

As always, your arm will dictate what it wants and needs from day to day, but the rule of thumb that will be outlined in the next section is to maintain at least 3 aggressive Long Toss days (*Monday, Wednesday, Friday*).

Until you get a few weeks of the “*In Season Maintenance*” under your belt, you may find that your arm works best when you go lighter on the in between days. Later on, you may find, especially if your pitch counts are still low in bull-pens/live work, that the in between days demand more distance, and even some degree of pulling down.

In Season is as much about maintaining your base and insuring that your Recovery Period is ideal. And as just referenced, the most important factor to maintaining your base and optimizing your recovery period is to Long Toss on your bull-pen and start days. Remember, your arm is trained and conditioned to throw a lot now. Thus, if you are going to throw aggressively, your arm wants to be fully opened up, stretched out and have gone through the pull down phase prior to getting on a mound.

Anything less, and your arm is probably going to not feel as stretched out, extended and freed up as its used to being. And when an arm is tested after it hasn't been fully opened up, it can have the same effect of the feeling that your legs get after sitting on a plane for 4 hours -- they tend to feel tight, short and rigid. Thus, not fully opening your arm up prior to getting on a mound can dramatically effect your recovery period *(which then puts the arm in a vulnerable position going forward, and may begin what we call a negative cycle)*.

In essence, mound work is actually just the icing on the cake for the day. Because it was so well prepared and conditioned in the weeks leading up to mound work, the mound work becomes an extension of the work load, and allows the arm to recover better than had someone not "thrown as much in order to save their arm for the mound".

This is also true of starting pitchers on their start day, and relief pitchers in general. We want the starting pitchers getting fully extended, and fully through their Stretch out and Pull Down Phase on game day so they are not only ready to throw deep into the game, but their arm recovers the next day more effectively because of it *(as will be explained later, relief pitchers will fully stretch out most days, but not necessarily pull down on the majority of their days)*.



Week 7:

In Season (Fall/Winter) *The Introduction of Mound Work*

- Monday:** 15-25+ minutes of throwing
(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 15-20 pitches)
- Tuesday:** 15-25+ minutes of throwing
(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)
- Wednesday:** 15-25+ minutes of throwing
(30-300+ ft & Pull Down Phase, 10 feet per throw)
- Thursday:** 15-25+ minutes of throwing
(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)
- Friday:** 15-25+ minutes of throwing
(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 15-25 pitches)
- Saturday:** Off/Light
- Sunday:** 15-25+ minutes of throwing
(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)

Week 8:

In Season — *The Introduction of Mound Work*

- Monday:** 15-25+ minutes of throwing
(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 15-25 pitches)
- Tuesday:** 15-25+ minutes of throwing
(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)
- Wednesday:** 15-25+ minutes of throwing
(30-300+ ft & Pull Down Phase, 10 feet per throw)
- Thursday:** 15-25+ minutes of throwing
(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)



Friday: 15-25+ minutes of throwing

(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 20-30 pitches)

Saturday: Off/Light

Sunday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)

Week 9:

In Season -- *The Introduction of Mound Work*

Monday: 15-25+ minutes of throwing

(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 20-30+ pitches)

Tuesday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)

Wednesday: 15-25+ minutes of throwing

(30-300+ ft & Pull Down Phase, 10 feet per throw)

Thursday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)

Friday: 15-25+ minutes of throwing

(30-300+ ft Stretch Out, Pull Down Phase 10 feet per throw, Bull-Pen 25-30+ pitches, Live Inning 15 pitches)

Saturday: Off/Light

Sunday: 15-25+ minutes of throwing

(30-180+ ft & Stretching Out Phase only, light to no Pull Downs)



At this point, the format would continue as “live” innings are introduced. In this scenario, Monday would be the bull-pen day and Friday would be the day that “live innings” are introduced, and game situation pitch counts could be increased (*in a perfect world, we’d actually recommend a Tuesday bull-pen and Saturday bull-pen/live inning schedule so that you would have Monday as an extra day to build up to Tuesday in the event that a pitcher didn’t throw on Sunday for a number of reasons. In this scenario, Thursday would be the other key Stretch Out and Pull Down day and Tuesday, Thursday, Saturday would be the 3 aggressive Pull Down days*). In all scenarios, the key is to have your 3 most aggressive Long Toss days spread out evenly over any 7 day period.

With this format of 6 weeks of conditioning, 2 weeks of bull-pens (*4 bull-pens total*), week 9 marks the beginning of the build up for pitch count and game innings. By theoretically adding 15 pitches a week, it would only take an additional 3 weeks to build up to 60 pitches (*12 weeks total from the onset*).

Though, we strongly recommend players always err on the side of spending more, rather than less time getting in shape, some players may simply get into throwing shape and mound shape faster than others. The good news is that regardless of how many weeks it takes to properly build up the pre-mound base, again, the first 2 weeks of bull-pens are also great conditioning weeks for the arm because the effect of 15 pitches on a mound, twice a week, will have essentially little effect on the arm as far as recovery period goes.

For starting pitchers and relief pitchers, this format just continues all the way through the Fall/Winter, where even a starting pitcher will probably not be asked to throw more than 45-60 pitches on any given day. And this format will run itself -- the only adjustments you will need to make is based on your mound days versus the days “in between”.

Again, everyone is different -- but the main thing we want you to focus on is that if you are going to throw off the mound in the Fall/Winter, be sure you have a full, Stretching out and Pulling Down, Long Toss session prior to any day you get on the mound. What you do the other 5 days or so is based on your level of conditioning, recovery period and what your arm demands. And you can ride this wave all the way through your break in the late Fall/Winter.

A photograph of a baseball player in a ready stance on a field, wearing a cap and a jersey. The entire image is overlaid with a semi-transparent red filter. The player is positioned in the center, with his body angled towards the left. His left leg is forward, and his right leg is back, both knees bent. His arms are extended forward, with his left hand in a baseball glove. The background shows a chain-link fence and some trees, also under the red overlay.

Rest Period (Fall/Winter), Build Up Again (Fall/Winter into Spring)

Section 3

“If You Care About Your Arm,
Invest into Arm Care”

Period 3: Rest, Restore, Recover *(Early Winter, Prior to the Spring Season)*

(Note regarding Rest: Taking “time off” from throwing is a very individual thing. And “how much” time you take off may depend on a number of variables. What we do recommend, whether you are taking an abbreviated or extended rest, is to spend some or most of your time off with some form of Arm Care/Band Work training, or what is called “Active Rest”).

Now that you have been through a full cycle of Period 1 (*the Off-Season Build Up*) and Period 2 (*the In Season Maintenance*), depending on how late you train into the Fall/Winter (*November, December or January*), and how much time you need to Rest prior to the next Build Up Phase (*ie prior to the Spring Season*), Period 3 is designed to give you time to Rest, Restore and Recover prior to your next Build Up Period heading into the Spring.

This Rest Period will tend to be much more “abbreviated” (*2-5 weeks*) compared to a more extended Rest Period (*6-8 weeks*) that may be needed at some point after your Spring season, and prior to your next main Build Up Period in the Fall/Winter.

As mentioned earlier, the irony of this abbreviated “*rest period*” is that you may actually find it hard to stop throwing — you may find that your arm feels too good to take time off. This is the by-product of an arm that has been built up and maintained so well that it gets stronger through the Fall/Winter (*just as you will probably feel stronger late into the Spring Season*).

However long you decide to take off is naturally up to you. Just know that there is going to be a transition period of building your arm back up again in addition to the “*Rest Period*” (*we suggest that you match each week of time off with a week of conditioning your arm again, away from the mound*). The good news is that your arm should get “*back into shape*” relatively quickly because the break is both relatively short, and because you will be maintaining your Arm Care program during the break (*unless you need a total mental break for a couple of weeks*).



Regardless of how long the break is we strongly suggest that you work backward at least 3 weeks prior to picking up a baseball for the first time to do some light Band work (*3-5 times a week*), using the final 2 of these 3 weeks to increase your workload to 5-6 times a week. We also recommend for these final two weeks leading up to your first throw that you increase the amount of “*forward throws*” with Bands (*the one that simulates forward throwing motion*) from approximately 25 repetitions a workout, to two sets of 25 repetitions a workout (*2 weeks prior*), to three sets of 25 repetitions per workout (*last week prior*).

Also, when figuring out “*when to begin your rest*” and “*how long to rest for*”, use the same formula as prescribed at the beginning of this article — work backward from the day that you need to be ready for your first practice (*position players*) or your first bull-pen (*pitchers*) after the Winter break. As an example, let’s say that you spent 3 months (*September, October, November*) or 12 weeks building your arm up and maintaining it throughout the Fall/Winter, and you know that your first bull-pen back at school is scheduled for January 21st.

Based on what was addressed at the opening , you now know that you need to work backward approximately 5 weeks from your first bull pen on January 21st (*3 weeks for the Stretching Out Phase, 2 weeks for the Pull Down Phase*). The reason it’s only 5 weeks in this example, rather than 6, is because you’re not starting from scratch (*especially if you are doing your Arm Care program thoroughly through this 2-5 week down period*). Therefore, it will tend to take less time to build your base and get into Pull Down Shape.

Also, keep in mind that once you get into the first 2 weeks of Pull Downs, you are still getting great conditioning in because you are able to Long Toss each day without having to deal with the effects of throwing off a mound. Not to mention, even with 4-5 weeks off or so, the arm still feels pretty connected to it’s base from the previous 3 months of training. It’s not like you are totally having to “*wake it up*” again (*like you may need to do if you were to take an extended break of 8-10 weeks*).

Therefore, your arm should have a great base and be in an ideal position to make a smooth and seamless transition back to throwing -- and this is what we want -- for the arm to be so healthy and prepared coming back into the Build Up phase, prior to the Spring, that players don’t feel vulnerable, or in a “*rush*” to get back in shape.

Rest Period is over (Fall/Winter)

— Build Up again into the Spring (Period 1 Revisited)

Once the Winter Holidays come and go and players return back to school (*this is traditionally a 4-6 week window*), the players will begin the Build Up phase again. Again, because the Rest Period may not have been that extended the Build Up Period will tend to be a bit shorter. Also, once you get back to school, you will have needed to factor in where you need to be in your throwing progression based on “*when*” you are supposed to report back to practice and “*what*” kind of shape you are expected to be in.

This is why it is so important to work out all of these details ahead of time so you are never put into a vulnerable position. Remember, you are always in charge of your throwing progression. Therefore, be sure to factor in “*when*” you break, along with “*how*” much rest you need, and “*when*” to start your build up based on “*when*” you need to be in great shape for your first practice (*unless the coach has stipulated time that you can use toward your throwing progression/build up*). Be sure to always err on the side of taking your time than being in a hurry.

In most cases, pitchers will probably need at least 4-5 weeks away from the mound to recondition their arm (*position players may only need 3-4 weeks*). For the same reasons why pitchers stay off the mound in the first 5-6 weeks in the Fall to build their base players need to “*rebuild*” the base for the first 4-5 weeks without even thinking about mound work. Again, it could happen faster based on how long the rest period was, how well the player committed to his Arm Care Program throughout the rest period (*unless he needed a total break from everything*), and how well his arm responds after the break.

Once this 3 week period of Stretching Out and 2 additional weeks of the Pulling Down phase has been established, you can simply follow the same format that was set up in the original Build Up phase in the Fall that lead to the In Season Maintenance schedule (*introduction of bull-pens, game situations, pitch counts*). This too should come rather quickly because of the base that’s in place. Thus, a pitcher should be able to go from throwing a 15-25 pitch bull pen in week 6 (*late January/early February*) to throwing 60 pitches or so by early March.



Naturally, because High School and College seasons begin at different times, how you integrate bull-pens and game situations depends on a number of variables. The priority here is still about learning how to establish your conditioning away from the mound for the first 4-5 weeks after the Winter break so that the base is reinforced and recovery period is optimized once mound work is reintroduced.

Remember, once the Spring starts getting close the tendency is to ramp up the pitch count and prepare for game situations. This can put the arm in a very vulnerable position if the right amount of time hasn't been accounted for. This is why there is always a premium on base building and recovery period — by doing arm care work through the break, and establishing a 4-5 week base away from the mound you are best positioning the arm to make a seamless transition into mound work, and eventually, the season in the most effective and optimal way possible.

A full-page background image of a baseball player in a ready stance on a field. The image is overlaid with a solid red color. The player is wearing a dark jersey, shorts, a cap, and a glove. The text is centered over the image.

The Spring Is Here: In Season Maintenance (Period 2 Revisited)

Section 4

“Keeping Your *Base*
Strong Through The Season
Is Essential”

The Spring Is Here: — In Season Throwing and Maintenance (Period 2 Revisited)

Once a starting pitcher (*relief pitchers will be addressed as well soon*) has reconditioned his arm in this 4-5 week period after the Winter break, and has built his pitch count up in the subsequent few weeks leading into the season, we would assume that by the first game of the season, the pitcher is now in a position to throw 60-75 pitches or the equivalent of 4-5 innings, and 75-90 pitches by his second game.

Though pitch counts may increase to numbers well above what was attained in the Fall/Winter, the nice thing about our In Season Maintenance approach is that essentially, things change very little compared to the Fall/Winter. This is because mound days are still typically the best Long Toss days in season, and based on the 5 or 7 day cycle of a starting pitcher (*including the middle day/days*), you will be in a cycle that optimizes your rest, recovery and build up from start to start (*see sample schedule below*). And by having essentially 2-3 days of Long Toss (Conditioning) on a 5 day cycle, and 3-4 days of Long Toss (*Conditioning*) on a 7 day cycle, you can not only maintain your health, strength and endurance throughout the season, but potentially increase it.

Starting Pitchers — 5 or 7 Day Cycling

Where a relief pitcher has to deal with some unknown variables as to “*when*” and “*how much*” he is going to pitch from day to day, starting pitchers have it much easier in season. Starting pitchers know exactly what day they are throwing each week and therefore can plan the other 6 days (*amateur*) or 4 days (*professional*) around their game day. For this reason, setting up a starting pitcher with an “*in-season*” routine is much easier than a relief pitcher.

Below, we are going to go through the format and work load for a basic 7 day routine, considering that more players are at the amateur level. Also,



once you understand the principles to the 7 Day routine, you will see that the rhythm of the 5 Day routine is relatively similar. As you will see below in the 7 Day Cycle, the key Long Toss/Bull-Pen days are on Day 1 (*Start Day*), Day 4 (*Bull-Pen*), and Day 8 (*Next Start Day*). On a 7 Day Cycle, you will probably have the luxury to also have a pretty thorough Long Toss day on Day 3 as well. The 5 Day Cycle is slightly different because you have less days between starts. Thus, for a 5 Day Cycle, your best Long Toss days are on Day 1 (*Start Day*), Day 3 (*Bull-Pen Day*) and Day 6 (*Next Start Day*). The two days after your start (*and prior to your bull-pen*) are crucial days to rest, recover and build up not only for the Day 3 bull-pen, but ultimately, the next start (*Day 6*).

As you will notice, on a 7 Day Cycle, we only recommend getting on a mound one other time than your start days (*you'll actually be on the mound 3 times in 8 days on a 7 Day Cycle*). This doesn't mean that, for various reasons, that you can't get on the mound more often to "*acclimate*" yourself to it...we just feel that getting on a mound three times a week is sufficient enough when you are getting in so many repetitions with your throwing routine, which in turn, leads to being very in tune with your mechanics, release point and your feel. Naturally, it's your call -- this is what we recommend. Always listen to your arm.

In Season, 7 Day Routine (*Cycle*)

In order to make this routine very simple to follow we're going to pick "*Monday*" as the reference point for the beginning of a 7 day cycle for a starting pitcher. By establishing our "*game day*" we can then focus on how to best navigate the other 6 days so we can both maintain and condition the arm well (*rest, recover, build up*) and position it to peak again for the next start day (*the following Monday*).

The sample 7 day schedule below will give you a clear idea and guidelines as how to best "*cycle*" your arm throughout the Spring Season. Keep in mind that from the beginning to the end of the season, you may need to make some adjustments. Once again, listen to your arm.

7 Day Sample Schedule (Cycle)

Monday, Game Day: (*Long Toss Day: Stretch Out, Pull Down*) -- as you will see in a moment when we get to the end of this 7 Day Cycle, your start day is ironically one of your best Long Toss days “*in-season*” because you’ve had 6 days to rest, recover and build up leading into your game day from your previous start. As a simple example, whether you’ve been Long Tossing in the off season out to the 250 foot range, or the 330 foot range, your arm is going to want to “*open up*” to the same or similar distance on your start day.

In essence, your game day is very similar to one of your more liberal, “*off season*” Long Toss days, except that you may cut down on the volume of throws that you typically would make in both the Stretching Out and Pull Down phases.

If you do feel like shortening your distance or cutting down on your pull downs (*ie it’s later in the season*), that’s fine. But, more than likely, the better conditioned your arm has been built up the more likely your arm is going to want (need) a pretty thorough Long Toss session on the day of your start.

Tuesday, Day 1 after your start (*Recovery/Light Catch/Stretch Out Phase Only*) -- Depending on how many pitches you made, Day 1 after your start is all about blood flow, ranger of motion and “*stretch throwing*”. If you threw 90 pitches the day before you may only want to go out to, for example, to 50% of your normal long toss distance (90-180 feet) with really low impact throws.

If you threw 50 pitches on your start day, you may want a distance closer to the 150-200 foot range. Again, the priority is RECOVERY -- therefore, the focus is on positioning the arm to recover well “*today*” so that the next day can be optimized in the recovery and rebuilding process for your next start. There should be little to no “*downhill*” or aggressive throwing on Day 1.

Wednesday, Day 2 (*Recovery/ Stretch Out*) -- Ironically, Day 2 is when pitchers can actually be the most sore after a start. Thus, Day 2 is a “*continuance*” of the stretching out, low impact mentality. Again, keep in mind that your arm is going to tend to have tremendous recovery period in general due to your



arm care program and off-season throwing program, but to be safe, we tell pitchers to let their arm breathe again on Day 2, and if it wants to stretch out further, per se, 150-200ft or 200-250ft for harder throwers, great (*Note: because you are on a 7, rather than a 5 day cycle, you have the luxury to take at least two extra days to really take your time, recover and build up at a more conservative pace than a 5 day cycle*). Again, we would suggest to minimize downhill or aggressive throwing unless the arm tells you differently.

Thursday, Day 3 (*Full or Modified Long Toss: Stretch Out, Pull Downs*) -- Day 1 and 2 have now ideally set you up for a more normal Long Toss session on Day 3. This is the beauty of having a 7 day routine -- you can use an extra couple of days to recondition your arm in season. The arm is positioned on Day 3 to both stretch out to its normal out of season Long Toss distance and to “pull down” relatively aggressively. Again, how far you go out depends on the individual, but for someone who throws in the 82-88mph range, you can expect to be in the 225-300 foot range. Harder throwers are looking at 300 feet or more. So we’re both extending the arm out on Day 3, and we’re beginning to integrate the pull down or aggressive phase of Long Toss. The key here is to use Day 3 as your first comprehensive conditioning day and to prep for Day 4, which is your bull-pen day, and arguably, your best Long Toss day in season.

Friday, Day 4 (*Long Toss Day: Stretch Out, Pull Downs, Bull-Pen*) -- Now that you’ve used the first 3 days after your start to do nothing but progressively and effectively condition and build your arm back into shape you are now set up for your bull-pen day. The key here is not to “*save your arm*” by minimizing your throwing prior to the bull-pen -- it’s actually to do the opposite. You have set your arm up for another great Long Toss session, and that is your priority. Again, your bull-pen tops off your throwing program that day as opposed to being the focal point of it -- your mound work is the icing on the cake. Remember, if your arm has been well conditioned, it will tend to want to throw more, rather than less. And that’s the way you want it to be.

Saturday, Day 5 (*Stretching Out/Optional Pull Downs*) -- Day 5 is a bit like Day 1 after your start. You’ve had an aggressive Long Toss session followed by mound work the day before, and a pretty good amount of workload leading up to this point, in general. So, we advise pitchers to go lighter on Day 5. Again, listen to your arm, but you may find that four days of optimal build

up and only one bull-pen may have you feeling like you want to get some distance in. A typical day may involve just stretching it out to 50-80% of your normal off season distance without any aggressive pull downs. Or, you may want to go a bit lighter and go out to 120-150 feet. Or, you may actually find that you are feeling really good and want another good day of stretching the arm out relatively far, especially knowing that Day 6 may be a very light day of throwing. Of course, how you feel and what stage of the season you are in will also dictate your throwing workload. Always listen to your arm.

Sunday, Day 6 (*Stretching Out, Rest, Optional*) -- The day before any pitchers start tends to be a truly personal preference. So, we always advise pitchers to do what feels comfortable. You may want to take the day off completely (probably with some arm care work), or play some light catch by stretching it out to anywhere from 25-75% of your maximum distance, but with little to no aggressive throwing at any point. It is the core principle of our program to listen to your arm, and this day is no different. Do what feels right.

Monday, Day 7, Game Day (*Long Toss Day: Stretch Out, Pull Downs*) -- Now you can see how your “start day” is actually one of your best days to Long Toss in season. You’ve spent the previous 6 days resting, recovering and rebuilding in the most optimal and effective way so the arm is strong, durable and thriving. And because the arm has been built up, progressively, so well, it will tend to thrive on a great Long Toss session prior to getting on the mound again.

In summary, because the arm has been so well conditioned throughout the week, the tendency is for the arm to recover extremely well. Remember, recovery period not only plays a huge role in the health of your arm, but it best positions the arm to start your next 7 day cycle in an optimal way. And this is why it wouldn’t be unusual for your arm to actually get stronger, rather than depleted throughout the season.



Relief Pitchers — “Opening The Door, Keeping The Arm Incubated”

Because relief pitchers don't have a set rhythm during the season, it can be more difficult to figure out when to Long Toss and when to rest from outing to outing. For example, you may have made 40 pitches in relief the previous day, or you may have not thrown in a game situation for a week. And relief pitchers also have to factor in how many times they have gotten “up” in the bull-pen on a given day, or over the course of a few days, without actually getting in the game.

Other than the role of the “*long relief pitcher*”, which will be addressed at the end of this section, our approach for all relief pitchers is very straight forward. In addition to your pre-throwing, Arm Care Program (*Bands, etc*) before the game, we strongly suggest that you stretch your arm out each day to a distance comparable to what you would consider to be your “*off season*”, Long Toss distance, unless there are an unusual set of circumstances.

Naturally, what happened the day or days leading up to each game will dictate “*how far*” you will actually stretch out. But the idea is that unless there are some unusual circumstances (*ie consecutive outings, a considerably long outing the day before, the end of a long season*), plan on getting a good deal of extension (distance) prior to the game.

By getting this full extension and range of motion the arm will have had the effect of being completely opened up for the day, or what we call, “*the opening of the door*”. Whereas, we do want you to get a great deal of distance and open the door prior to the game under most circumstances, what we do not want you to do is “pull down” aggressively, or “*close the door*” prior to the game unless there are some unique circumstances, which will be discussed in a moment (*Note: remember to keep in mind that we still want you to come back in toward your partner even if you are not pulling down -- we would suggest somewhere in the 50-80% range*).

The reason that opening the arm up completely (*in most scenarios*) is so important is because the arm has been trained to completely open up on days where there is going to be aggressive throwing, so, to not completely open

up the arm up on a day that you may get into the game doesn't make sense anymore, even if it's 3 hours later.

In addition, the consequences of “not” opening up an arm that is conditioned so well can have an adverse effect on the arm because anything less than completely opening up the arm to what it's used to (*prior to aggressive throwing*) may actually position the arm to not be as free, loose and explosive in the game if you end up getting in the game. Also, you may not recover as well the next day because the arm was not opened up to the degree that it has been trained, and, as a result, a pitcher can actually feel tighter, fatigued and more sore the next day.

Once an arm starts throwing aggressively on a more restricted arm from not being opened up properly, the arm can feel much sorer and tighter the next day. And this is one of the fastest ways to put the arm in harms way because the arm not only feels sore, but clearly the strong base that you have been working from starts depleting. And then, if called upon to pitch the next day, it is now being put in an even more very vulnerable position.

This is what we call a “*negative cycle*”, where soreness begets soreness... tightness begets tightness, and a catch 22 occurs in which you would desperately need to stretch your arm out to “*re-condition*” it, but your arm may be too sore to do so. This is a very dangerous place for your arm to be in (*another clear sign that you are in a negative cycle is not only a loss in velocity, but a loss in “life” on the ball*).

Thus, the concept of “saving the arm for the game” versus “throwing more and fully opening up the arm prior to the game” is a crucial point to understand. It's the difference between keeping your arm in a “positive cycle” versus putting your arm in a position to get into a “negative cycle”.

It may be hard to completely process this idea of stretching your arm out and throwing more than you are used to prior to the game. But if your arm is conditioned well (properly), you will almost certainly find that it will demand that you throw more, rather than less prior to the game.



Closing The Door

As you begin to stretch your arm out more assertively than you are probably used to you'll tend to discover that the arm wants to at least *"open the door"* each day (*unless it needs total rest*). In the event that you have gone more than 2-3 days without pitching in a game, the arm will probably not only want to "open the door" to a long distance, but also need to *"pull down"* aggressively on the way back in to your throwing partner, just like a normal, out of season Long Toss session.

This would be the type of scenario in which *"Closing the door"* prior to the game is essential, even if you end up pitching that night. First of all, it will probably be a benefit anyway, but most of all, you have to keep in mind that the payoff for keeping your arm strong and well conditioned throughout a long season is still the priority. Ironically, on a day that you do have an aggressive pull down session because you haven't been on a mound for a number of days, you'll probably find that you not only throw as hard or harder than had you not pulled down, but you may find that you actually have better recovery period the next day.

Incubating The Arm

Once the arm has been fully opened and *"warmed"* up prior to the game you'll want to keep it *"hot"* or *"incubated"* throughout the rest of the day (*night*) by following a few key principles, including: 1) Doing light band work every 20-30 minutes after you've finished your pre-game throwing, or as often as necessary (the idea is to keep your arm *"warm"* via blood flow and low impact range of motion exercises), 2) Play some light catch every 20-30 minutes or so, and 3) Do a more thorough band work out for your shoulders and surrounding areas (*especially 20-30 repetitions of "forward throws" with your bands*) an inning or so (*10 minutes*) prior to when you know you are going to need to start getting loose in the bull-pen.

Keep in mind that when your arm is so well conditioned it will tend to like to *"work"*, whether it's stretching your arm out to a relatively far distance pre-game, doing extra band work or playing light catch until you get into the

game. The idea is that from your first pre-game throw until you get in the game, keep your arm heated or “*incubated*” so it can safely transition into aggressive throwing. This is how the arm is not only best protected when it gets in the game, but best positioned to be explosive in a safe manner. And all of these principles can really promote optimal recovery the next day.

The idea of doing your arm care program, and playing catch a couple of hours before the game, and “not” doing anything until you get in the game doesn’t make any sense (*especially if it’s cold out or you aren’t pitching until the latter innings*). Keep your arm as warm as possible throughout the game by doing some proactive things like band work and throwing. The last thing you want to do is “*shock*” your arm right before you go into the game because you haven’t done any active work with it for the past 4 hours. It doesn’t take much effort to keep it warm or incubated throughout the game. In addition, your arm will probably love the attention anyway.

Long Relief Pitchers

The only relief pitcher that is difficult to gauge is the “*long relief*” pitcher, because on any given day, he may need to throw 50 pitchers or more. Thus, our advice is to still get some distance and open the arm up to some degree each day, and pick your spots when you know you aren’t going to be in the game (*ie a day off*) to get a good Long Toss in, both fully stretching out and pulling down. We still feel strongly that even if a long reliever completely “*opened the door*” (*with minimal pull downs*), and kept the arm incubated throughout the game, the arm would still be in a great position to thrive, even if it needed to throw 50 pitches or more.



Summary: Relief Pitchers

In short, relief pitchers should do their arm care program each day and plan on stretching out or *“opening their arm up”* to distances that reflect a typical off season Long Toss session (*unless there are unusual circumstances*). How far, how long and whether or not you *“pull down”* aggressively (*close the door*) depends on how much throwing you’ve done the previous day or days.

Be sure to keep the arm *“incubated”* -- band work and light throwing every 20-30 minutes or so can make a major difference. Also, if you know your role well, keep in mind that you can plan an extra inning ahead of getting on the mound to get a more thorough band workout in, including at least 20-30 forward throws (*and if it’s cold out, this approach to incubating the arm becomes even more vital*).

Though, on the surface, this may seem like a lot of *“demands”* are being put on the arm, the reality is that your arm will most likely thrive on this workload. It’s built and conditioned for it, and it’s what best positions the arm to stay healthy, strong and in a positive cycle throughout the season.

Summary, In Season (Spring)

Remember, the ideal way to maintenance and condition an arm *“in season”* is to have a great base in place from the *“off season”*. This off season base is what provides the arm with optimal recovery, which in turn helps pitchers make a seamless integration into mound work. And this, in large part, is why a players arm can actually get stronger and more durable, in season.

As you can see, the 7 day (*High School/College*) or 5 day (*Professional*) throwing schedule runs itself for starters. Because mound days are generally your best Long Toss days In Season, it really comes down to what you do on the other days regarding restoring and building up your arm to *“set up”* your mound days, which in turn leads to optimal recovery from start to start, and the potential of getting stronger throughout both the cycle and the season.

And for relief pitchers, you now know that the intent each day is to at least “*stretch*” the arm out to distances that are more liberal than you are probably used to, and decide based on the previous day or two as to how far you stretch out, and whether or not you need to Pull Down at all, lightly or even aggressively based on your role, or for conditioning purposes (*because you haven’t been in the game for a while*). This can be especially true if you are a long relief pitcher.

Again, always “*listen to your arm*”. Only it knows from day to day what it needs and what it wants. Because you have learned to condition and maintenance it so well the reality is that you will probably find yourself wanting to stretch your arm out (*Long Toss*) more often than you are used to -- and this is a great sign. It’s a reminder that the body responds best to activity rather than inactivity -- the body (arm) wants to regenerate, not degenerate. And when the arm gets into this “*positive cycle*”, the arm is in the best position possible throughout the year to get healthier, stronger and more durable.



The Summer is Here + Fall /Winter Revisted

Section 5

“The Summer Is A Pivotal
Time To Both Maintenance Your Arm And
Wisely Transition Into The Fall”

Period 4: The Summer Is Here **— Transitioning From Spring Into** **Summer, And Summer Into Fall (Plus Rest** **Period Revisited)**

“What goes in motion, stays in motion”

Once the Spring season has ended you may notice that you want to continue to play into the Summer for a number of reasons: 1) You are still feeling strong, 2) Some showcases/tournaments are on the horizon, and 3) You simply need more work because you may not have thrown that many innings in the Spring.

In all cases, if you do continue to throw into the Summer, the key is to continue your “In-Season Maintenance” schedule, regardless of how long into the Summer you decide to go and how many innings you throw from week to week.

The most important keys of this transition from Spring to Summer, and Summer to Fall is to AVOID “*stopping and starting*” throughout the Summer, and plan ahead for an EXTENDED Rest Period at some point prior to the next Build Up Period in the Fall/early Winter (12-14 weeks comprised of 6-8 weeks off, and 6 weeks to build up the arm again). As long as you are acutely aware of these principles, “*how long*” you throw into the Summer is completely up to you (*and your arm*).

Ironically, pitching deep into the Summer doesn’t concern us at all if you are feeling good and you are staying on your In-Season Maintenance schedule. What does concern us is if you stop and start throughout the Summer by throwing in game situations sporadically without the proper build up, or your base in place.

Considering that the core principles of our philosophy is to slowly and progressively build your arm into shape, build a deep foundation, and throw/pitch from that strength, the idea of “getting out of shape” throughout the Summer



and having to get “*game ready*” sporadically goes against the very foundation of our approach. The idea that a pitcher, for example, throws a “*few innings here and few innings there*” throughout the Summer without keeping their arm in shape because, “*it’s not that much throwing*”, is a dangerous proposition. Therefore, avoid throwing/pitching in any game situations unless you are in your In Season Maintenance schedule or have “*rebuilt*” your arm properly according to our Build Up protocols (as discussed below).

Options to Taking a Mini-Break in the Summer

In the scenario that you are going to keep throwing into the Summer immediately after your Spring season ends, you do have an option of taking a “*mini break*” of 1-3 weeks (*be sure to maintain your Arm Care program during this mini break*). Just be sure that you match the amount of weeks you take off with that many weeks of “reconditioning” the arm (*away from the mound*). And even when you are finished matching the weeks, you will need at least an additional week of bull-pens (*two*) just to set up the following week of one “*live*” inning (*or about 15 pitches*).

So, for example, if you were to take off 1 week after the Spring season ends, you would need to match that week off with 1 week of conditioning and 1 week of bull-pens (*which is also conditioning*) just to get your arm ready for 1 live inning (*thus, 2 weeks total*). If you were to take 2 weeks off, the formula would then be 2 weeks of “matching” for reconditioning, 1 week for bull-pens/conditioning, or 3 weeks just to set up 1 live inning. In the case of 3 weeks, it would be 3 weeks of matching the time off with conditioning, 1 week of bull-pens/conditioning, just to set up 1 live inning the following week.

In all cases, there is always a buffer of “*matching*” each week that was taken off with an additional week of bull-pens, all just to set up 1 “*live*” inning. You could then theoretically add 1 inning or 15 pitches a week. In any case, once you start throwing off of mound, revert back to your In Season Maintenance mode.

In the case that you need 4 weeks or more off, we would suggest at that point that you go into an extended break, possibly, 6-8 weeks, because 4 weeks off is starting to create such a gap that you not only need to match the 4 weeks,

but you need to add an extra week of bull-pens as well (*not to mention that you are nearing the end of the Summer*).

So, if you need 4 weeks off or more, we would suggest that you consider taking your Extended Rest Period at that point, as much as 6-8 weeks, prior to the next Build Up Phase. Keep in mind that regardless of how much time you do take off during this extended rest, be sure to maintain some form of Arm Care Program.

In summary, the key again is to AVOID stops and starts. If you want to pitch through the Summer, you can -- as long as you stay consistently on your In-Season Maintenance schedule. Other than the case of taking mini breaks, we would suggest that you consider starting your extended break as soon as you know you are going to need to take off 4 weeks or more in the Summer knowing that an extended rest is coming at some point anyway prior to the Fall/Winter. Just remember that the golden rule is to always work backward approximately 12-14 weeks (*6-8 weeks of Rest and 6 Weeks to Build Up*) prior to your first bull-pen/practice in the Fall or Winter to start your Build Up Phase again (*approximately 10-14 for position players*).

By knowing that this 12-14 week window is on the horizon it creates it's own checks and balances, even for someone that wants to continue to pitch late into the Summer (other variables about Summer baseball will be addressed in a moment). And based on the chronology of our Year Round Plan, which began in the Fall (September), it would seem like your only real window to take this extended break is going to be at some point in the Summer (*unless you don't need to start your Build Up Phase until the late Fall/early Winter*).

Again, "*how*" long you throw into the Summer and "*when*" you start your extended break is up to you. In any scenario, the key is always going to be to include your Rest Period and your Build Up Period when you calculate backward from your target date of your first practice or bull-pen in the Fall/Winter.



In Summary — Navigating The Summer

As you can see, Summer can be the trickiest time of year to navigate during the year round cycle. This 3 month window between the end of your Spring season (May/June) and the beginning of your school year (*August/September*) is as important as any other time of year to have a clear plan. With the growth of Showcases, Tournaments and Travel Teams, it can be a very complicating time because there may not be a set rhythm like the Fall, Winter and Spring. Questions like, *“How much throwing should I do”, “When should I rest”* and *“How much rest should I take”* are extremely common.

Because of these many variables and potential *“stops and starts”* giving advice can also be a bit tricky. So, here are a reminder of the basic concepts to help you use this crucial 3 month period to support your arm, rather than put it in harms way: 1) If you do want to continue to pitch during the Summer, be sure that you always have a strong base in place, 2) Avoid stops and starts throughout the Summer and, 3) Know that a very extended Rest Period (6-8 weeks) is coming, in addition to another 5-6 week Build Up Phase prior to the Fall/Winter (*keep in mind that you may be given time at school to properly rest and/or Build Up your arm prior to your first bull-pen, so factor that in*).

A Reminder About Arm Care During Any Extended Breaks - Active Rest

One last note about taking an extended break at anytime. Unless you feel that you need a complete mental break from training, or you just want to shut everything down for an extended period of time, we don't suggest that you leave your arm completely idle for more than 4 weeks at any time. In fact, regardless of the amount of time you do take off, always know that the last 4 weeks of your Rest Period (*ie the 4 weeks prior to you picking up a ball for the first time*), we strongly suggest that you start doing some Arm Care work (*please see the Arm Circles and Band work section at the beginning of this manual*), at least 3-5 times for those first two weeks, increasing your workload to at least 4-5 times a week for the final two weeks leading up to throwing, with increased focused on the *“forward throwing motion”* (*see below*).

As an example, with our J-Band workout, we have 11 exercises that we'd recommend you do 25 repetitions of each exercise, 3-5 times a week, including the final exercise, *"forward throwing motion"*. Though, 25 repetitions is plenty throughout this 4 week period of each exercise, we would suggest that you increase only the last exercise, forward throwing motion, up to two sets of 25 for week 3, and possibly 3 sets of 25 repetitions for week 4.

This 4 week *"build up"* of Arm Care can have a dramatic effect on the arm, and give it the sensation that it not only has a great base prior to picking up a ball for the first time, but also helps to counter balance any upper body lifting that may be done during this down time, especially for position players.

The Fall/Winter is here again **-- Summary of the Year Round Program**

As you can see, all 12 months are now accounted for. And the nice thing about this format is that you always know when to start your Build Up cycle based on working backward approximately 12-14 weeks from your first bullpen (*6-8 weeks to Rest, 6 weeks to Build Up*), or 10-12 weeks for a position player before your first practice. So, you can theoretically start your Build Up phase at any time throughout the year.

Once Period 2, or the In Season Maintenance begins, (*after the Build Up Phase*), you now have a reliable schedule in place to guide you as mound work is introduced. Period 3, or your Rest period tends to begin for the first time in the late Fall/early Winter (*abbreviated break*). Because this break tends to be shorter than an extended break we would suggest you take at some point after the Spring season, you can see how quickly you can *"re-catch"* the wave leading back into the Build Up Period in late Winter, and the introduction of mound work leading into the Spring.

With your In Season Maintenance schedule running itself during the Spring season (*for starting pitchers and relief pitchers*), the last window to be aware of is the end of the Spring leading into the Summer (*and how to transition back into the Fall/Winter*). Once Period 4, the Summer Months begin, as just



discussed, it will be up to you how you manage your arm, keeping in mind that there is approximately a 12-14 week window coming (*which includes 6 weeks of Build Up*) prior to getting back on the mound (*practice*) in the Fall or Winter.

As mentioned several times throughout this article, the ultimately guide is your arm. So listen to it, knowing that the more time you spend with it, the more intimate you are going to be with it, and the more likely it's going to want to throw because that is one of the fundamental principles of nature -- organisms grow when they are fed.

Finally, please keep in mind that this Year Round Plan was based on an above average High School aged arm. Naturally, for players that are younger or older, know that you may need to make adjustments with regard to volume, distance, rest periods, etc. But note that the basic format, rhythm and principles of this article are fundamental to all players, regardless of age.

Hopefully, through clearly understanding this year round time line -- by knowing not only when to start, but how to progressively build up and maintenance your arm, you are now in a position to not only stay healthy, but can actually get stronger and more durable throughout the year.



Addendum:

Additional Topics To Keep Your Arm Healthy Year Round

Section 6

“Your Arm is The Gift
That Keeps on Giving”

Addendum

Additional Topics To Keep Your Arm Healthy Year Round

Mental Training and Throwing

You may at first ask, what does “*Mental Training*” have to do with throwing. Well, perhaps an easier way to answer this question is to ask what you think the effect on your arm (*body*) would be if your mind was in a clearer, calmer and more focused state, both on and off the playing field?

We’d like to think that this makes a lot of sense when it’s put this way.

Not only do we feel that your arm, body and mind are in a more advantageous position to train and develop, but most of all, having a Mental Practice routine in place can promote a number of significant benefits, including: Clarity, Relaxation, Focus, Awareness, Discipline, Confidence, Energy, Quieting of the Mind and Peace of Mind.

Considering that your mind can play such a major role in both your physical and mental well being, it would seem like a good idea to invest into this part of your game.

For more information on our Mental Game Talk & Guided Breathing Exercise, please visit the following link: <https://www.youtube.com/watch?v=7h4er5U38SU&t=2s>.



Position Players/Catchers Mechanics: Macro versus Micro

“Your Best Mechanics Come Out Of Long Toss”

Because there are so many different “*arm actions*” based on a players position, we’ll get asked if position players (*especially infielders and catchers*) should max out their distance in Long Toss if this is going to “alter” their mechanics and promote a “*longer*” arm circle.

Our answer to this question is pretty simple — YES.

First of all, as in the case with pitchers, whatever mechanics that are “*altered*” during long distance throwing (*release point, arm circle, etc*) are “corrected” on the way back in during the Pull Down Phase of Long Toss. We’d argue that there are actually benefits from “training” the body (*mind*) to adapt and acclimate to different athletic movements for the big picture anyway (*see below*).

The reason this occurs is because whatever “*length*” the arm got via the Stretching Out Phase, it is essentially “*forced*” to get shorter (*quicker*) as you move back into your throwing partner, assuming you are Pulling Down without decelerating. And even in the case that a position player feels like he didn’t completely “*get back*” to their position specific arm circle, we would have them go out to their position specific distance after they completed their entire Long Toss session and work specifically on that particular arm action. In the case of a catcher, regardless of how “*long*” his arm got after a Long Toss throwing session, we’d have them go back out to 127 feet and work on their catcher’s arm action and mechanics.

Though, it would seem like it would make sense to simply stop at the appropriate distance on the way “*back in*” from the Pull Down Phase, we actually prefer all players to “*finish*” their Pull Downs because of the benefits (*athleticism, explosiveness, repeatability*) that come from finishing your throws as you get closer to your partner. Once the entire Long Toss session is completed, again, this is when you can go back out to your position specific distance if you feel a need to work on your arm circle, release point and mechanics.

Again, we strongly recommend that you begin to crow hop as soon as possible in your throwing session, and maintain your crow hop through the end of the throwing session. Remember to crow hop off of your right leg if you are right handed (*back leg*), and left leg if you are left handed (*back leg*).

Just as you would go back out to your position specific distance to “*re-acclimate*” your arm circle and arm action, we would suggest that you do the same regarding your footwork. Remember, whatever degree that you “*came out*” of your position specific “*leg work*”, it can be corrected rather effectively once your Long Toss session is over by going back out to your position specific distance.

In summary, the essential point to understand is that we want all players to first think about the major benefits of Arm Health, Strength, Endurance, Feel and Athleticism from Long Toss by stretching out and pulling down in as an athletic way as possible (*Macro*). Once the Pull Down session is over, feel free to go back out to your position specific distance and work on your position specific mechanics and footwork (*Micro*).

Note: Outfielders are the one position where you can consider to work on your position specific mechanics during the Pull Down Phase of Long Toss, considering that your arm circle, release point and mechanics are probably identical to the throws that you would be making in a game. Again, in a perfect world, we would still want outfielders to come all the way back in to their throwing partner to get the benefits of the Pull Down Phase of Long Toss.



Suggestions For Two Way Players

Trying to address the many different variables that can occur for two way players can be tricky. Therefore, we'll go over a few of the more common scenarios, knowing that most of the questions should be answered if, 1) The 7 Day Progression for Starting Pitchers is followed, 2) The "rule of thumb" for Relief Pitchers is followed), and 3) The Pitch Count Chart is always kept in mind.

Assuming that in all situations the arm was properly warmed up prior to the game (*Arm Care and Long Toss program*), the main two scenarios that will tend to be in question are, 1) What should you do if you "start" the game as a pitcher, and then are asked to play a position if you are taken out of the game, and 2) How should you best prepare to go into the game as a pitcher if you started the game as a position player.

In the scenario where a starting pitcher comes out of the game, the safest thing to do is have the pitcher become the designated hitter (*unless there is only an inning or two left in the game*). If the players stays in the game, we strongly recommend that the player do some band work, especially "*forward throws*", approximately every 10 minutes until the game is over (*and then immediately begin the post-throwing, arm care program*).

The second scenario is a bit more complicated because we always want a pitcher to enter the game on the heels of a great Band work out, and Long Toss session. Naturally, this may not be very practical when you are in the middle of a game, playing a position. But in scenarios where you are able to come out of the game and re-enter (*this may be permissible in High School*), we strongly recommend you come out of the game 2 innings before you are scheduled to come into the game to get a thorough band workout in, some "*extension*" if possible in the bull-pen area (*or by getting the outfielder lose between innings*), and the bull-pen itself (*you can also get the sensation of a pretty good Long Toss session just by doing anywhere from 1 to 2 sets of 25 repetitions of the forward throwing motion with bands*).

We understand where coaches feel like they have to make an unexpected decision to bring a position player in immediately from their position during an inning on defense. Our advice, for starters, is to simply avoid this situation by

always having any player that may have a chance to come in on short notice to do extra band work prior to each inning, especially forward throws.

One other unique scenario to be addressed is when you have a catcher go into pitch or a pitcher go into catch. Naturally, it would be much more ideal for a catcher to go into pitching. But in an ironic kind of way, if a pitcher hadn't thrown that many pitches and had to go into catching it would actually be "*safer*" than going into any other position because of the consistent throwing a catcher does throughout the game.

Post Throwing Arm Care Revisited

Since you took great care of your arm prior to throwing it makes sense to take great care of your arm after throwing. Just as pre-throwing Arm Care is essential to "*prep*" the arm on many levels, post-throwing Arm Care is essential for helping the arm recover more effectively. As mentioned throughout this article, how you recover plays a huge role in not only getting healthy, but staying healthy.

There are a number of options available for post-throwing, Arm Care including: Band Work, Electrical Stimulation, Jobe Exercises, Cardio, etc. These are all fantastic options. For us, because it is so effective and practical, we have our pitchers go through our J-Band program immediately following their mound work, focusing specifically on all 4 of the external rotation or "deceleration" exercises, including: Exercise #5, Reverse Flyes, Exercise #7, External Rotation Hip Height, Exercise #9, External Rotation Shoulder Height, and Exercise #10, Reverse Throwing Motion. We'll have them do 1 set and 25 repetitions of each of these 4 exercises. These 4 exercises are essential to helping your arm recover dramatically better.

Other than taking a few minutes to get some water, we want these exercises done immediately following their mound work, and then they can do their cardio (for position players, who will tend to have great recovery period from day to day and do not have to deal with the potential "effects" of throwing off of a mound, there arm care program may be much lighter).



Again, we recognize that there are many experts in this field that can give you a lot more information on this topic (physical therapists, trainers, sport science specialists, but we have seen players get great benefits over the past 20 years simply from adding a post-throwing, band workout into their routine. Again, please see our reference list at the bottom of this manual.

Finally, “icing” seems to have become a very debatable topic, with research seeming to lean away from icing. Please be sure to do your homework before making your decision.

Throwing Suggestions for Inclement Weather

Throughout the year you may find yourself in a position, for possibly months at a time in some states, where you are unable to get outdoors due to Inclement Weather. It can be very frustrating to be in great throwing shape, and want to stay in great throwing shape but you are confined to the limited space of a gym or indoor building.

In these situations, we have a number of suggestions that you may find extremely helpful in order to get a great day of throwing/Long Toss in without the luxury of an indoor facility or field house that’s 100 yards or more in length.

For more information and ideas of how to maintain the conditioning of your arm when confined to limited space or the inability to get outdoors, please click on the following link: Inclement Weather Throwing Program: <https://www.jaegersports.com/off-season-throwing-program-for-inclement-weather-fall-winter>

How to Protect Your Arm: Stand Your Ground and Do Your Homework — *Your Arm Knows Best*

*Though you may have many stops along the path,
your arm is always with you.*

One of the quickest ways to atrophy an arm and put it in harms way is to go from a routine that promotes a great deal of conditioning and endurance to a structured program that places a great deal of limitations and restrictions on your arm. The contrast of going from a well conditioned arm to a “*de-conditioned*” arm can happen quickly, and the effect can be career threatening.

Therefore, once you have identified the keys to building up and maintaining the health, strength and durability of your arm, you will, naturally, want to maintain these feelings for the rest of your career. And because you will know the formula that “*got you there*”, and because you will know your arm better than anyone else that you will ever meet the last thing you will want to happen is for someone else to tell you what to do or take away your routine.

Therefore, be aware of anyone trying to impose “*their*” throwing program on you, especially if it is a one-size-fits-all throwing program, or is inconsistent with how you’ve trained. It is essential to insure that your individuality is left alone, and that if you like to throw a lot and/or you like to throw long distances, be acutely aware of being put on a throwing program that places strong restrictions on distance, time, arc and throws.

This doesn’t mean that you can’t be open to suggestions or ideas to tweak your routine. It just means to be aware of anyone trying to change your foundation, or worse yet, mandate a way to train that clearly contradicts your routine. And if that is the case, always communicate with respect and diplomatically, but ultimately, *stand your ground*.



Protect Your Arm: Do Your Homework

Whether you are a pitcher who is getting ready to transition into High School, College or Professional Baseball, the bottom line is that you need to be proactive, protecting your arm by doing your homework. For starters, find out what kind of throwing program is being implemented by the coach in the High School or College program you are considering attending.

Since you have a choice at the High School and College Level, it comes down to asking the right questions and finding a fit with those schools that are open to what you do, and open to allowing you to continue with those things that have made you successful, including your throwing routine. Thus, as you move forward with your career we urge you to always communicate with anyone that comes along your path, be it a Coach, Recruiter or Major League Organization, and let them know, in great detail, what you have done to get your arm to where it's at.

For those fortunate enough to enter the professional world, be sure to do your homework on the throwing philosophy of each MLB Organization. What you'll find in the current culture is that many MLB Organizations strongly promote or endorse individuality and distance throwing, but a number of organizations have a homogenous program that places restrictions on everything from time, arc and distance (*ie 120-180 feet*).

And for a pitcher, who may make as many as 20,000 throws a year and whose livelihood depends on your arm, it's safe to say that you'll know what your arm wants and needs better than anyone else you'll ever meet. Therefore, we hope you take care of it by doing your homework and standing your ground. And if you get suggestions from a coach that feels right, utilize those resources. But if someone is trying to impose restrictions on you that doesn't feel right, don't deviate from what "got you there". Always listen to your arm, for your arm and your careers sake.

Pitch Counts

Pitch counts can be a very difficult topic to address because there are so many variables, including: a players age, the time of year/season, the type of shape the arm is in, the role of prior or future outings, the role of a starter versus relief pitcher, and even the “*type*” of pitches that occur in a game situation (*regular versus stressful pitches, the ratio of fastballs to breaking balls, etc*).

Rather than try and address each of these topics the goal here is to address the most general and essential principles of pitch counts -- namely, a simple system regarding pitch thresholds that insures that the arm gets proper rest between outings. At the end of the day, besides the “*development*” of the arm the other most crucial aspect of the arm is the maintenance of it, and optimizing its’ recovery period.

Therefore, our most fundamental principles have to do with how you schedule your rest period between outings. Yes, the amount of pitches made during the game are also of great importance (*see chart below*), but if you manage the rest period well between outings, you will find it hard to put a pitcher in a precarious position. Not to mention, the better that your arm is Built Up the better your recovery period is going to tend to be, and the more likely you are going to be less effected by higher pitch counts in one given outing.

Though, we feel strongly that players that have trained their arms well will be in a better position to go deeper in games, and have ideal recovery period, we are still rather conservative when it comes to rest between outings. Again, we place a premium on health, maintenance and recovery.

This chart below has been created with this in mind.

Many of these numbers and suggestions have been around for years, but at least it will give you a clear point of reference. Please make note of the “*days off*” -- this is what we are suggesting as a format to insure proper rest and build up for your next outing. And the formula is pretty straight forward and clear. Anytime you get to the following pitch thresholds, take the suggested amount of days off. This is the single most important policy when it comes to staying healthy, and getting stronger throughout the season (*Note that when*



we talk about a “day” off, it equates to 24 hours away from any “live” situations on the mound. Also keep in mind that there is some gray area between each threshold. That’s where you are going to have to use your instincts, and error on the side of being safe).

15 pitches = 1 Day off

30 pitches = 2 Days off

45 pitches = 3 Days off

60 pitches = 4 Days off

75+ pitches = 5 Days off

Again, everyone’s arm is different, and depending upon the kind of shape the pitcher is in, what the previous outings were like and what the pitcher is scheduled to do going forward, there are a lot of factors at work. The key is to error on the side of not putting your arm in a vulnerable position, and taking advantage of replenishing the great base that you have created from the off season as effectively as possible. If you sense that your arm feels sore or tired, it’s best to give it time to recover. Remember, the easiest way to put an arm in harms way is to throw when it is vulnerable.

Rehabilitation Protocols For Players — *Rehabilitation Versus Training*

*“There is a huge distinction between a Rehab Program
and a Conditioning Program -- they have two different purposes”*

-- **Stan Conte**, Senior Director of Medical Services,
Los Angeles Dodgers

If you are coming off of some form of elbow or shoulder surgery, or are beginning some type of Rehabilitation program in general, the first thing you will traditionally do for your arm is some type of physical therapy. Once you have completed this phase and are cleared for throwing, you will then begin a Rehabilitation Throwing Program that generally lasts around 6-10 weeks, whereby your arm will be built up slowly and progressively (similar to how we approach the Build Up phase).

In the traditional Rehabilitation Throwing Programs once the player reaches the 120-180 foot threshold the throwing program is essentially complete, and the pitcher is ready for mound work (*some Rehabilitation Throwing Programs may introduce some light mound work prior to this point*).

The issue we have with this approach is that a very important step was missed — the “conditioning” phase of the arm.

Albeit, 120-180 feet may suffice for a 10-12 year with average arm strength, but for a High School aged player with average arm strength (*based on 220-300 ft*), this distance wouldn’t satisfy the complete needs of an arm that may have Long Tossed out to 300 feet pre-surgery. Not to mention, if the player was at the College or Professional level, where there pre-surgery Long Toss distance may have exceeded 300 feet, it’s safe to say that 120-180 feet may only be a fraction of the distance that the arm was not only accustomed to training at pre-surgery, but the distance it will tend to need to attain prior to any form of aggressive throwing, or getting on a mound.

We do support the intention behind the first phase of the Rehabilitation Throwing Program, which goes back to the 1970’s — to slowly and pro-



gressively build the arm up in the initial phase of the throwing program. But the original intent of the Rehabilitation Throwing Program was essentially to “rehabilitate” the players arm so they could “return to their team for normal throwing”. In other words, the initial Rehabilitation Throwing Program was not intended to be the end of the players training or conditioning prior to getting back into competition. There was another transition that needed to take place — *“to return to their team”* and subsequently train and condition in a manner similar to how any *“healthy”* arm would train (*or theoretically, similar to how they trained pre-surgery*).

Therefore, the current Rehabilitation Throwing Programs skips a crucial 3-4 week period of conditioning. Remember, if a player is a High School or above aged player, their “pre-surgery” Long Toss distance may be closer to 300 feet, or more. To further put this in perspective, 120-180 feet is only at the end of Week 2 of our Throwing Progression. Again, a very important stage (*weeks 3-6 of the Build Up or Conditioning stage*) was skipped.

You may asked why would the traditional Rehabilitation Throwing Programs cap the distance at 120-180 feet, and “skip” this needed 3-4 week window of conditioning. As you will see in the article ([link](#)) at the bottom of this section, the reason why is because, quite frankly, 120-180 feet is considered to be “Long Toss” based on our experience with medically based, post-surgery throwing programs. Thus, it would make sense according to this protocol that the *“necessary distance needed to be attained”* was *“accomplished”* prior to getting on a mound.

In essence, the post-surgery throwing program does do a good job of progressively building your arm up to the 120-180 foot marker, but again, this is only about half way through our throwing progression and build up. So, once you have *“completed”* the post-therapy, post-throwing program protocol, just know that you probably have another 3-4 weeks of Long Toss Build Up, and Progression prior to any aggressive throwing or getting on a mound.

This is crucial to understand because otherwise a player will assume that this pre-determined distance (*120 to 180 feet*) is the benchmark for when a pitcher should get on a mound (*and a position player resume “normal” throwing*). We feel strongly that this gap between the end of Rehabilitation

Throwing and the beginning of mound work must not be missed (unless your pre-throwing Long Toss distance was 120-180 feet, for example, you've never Long Tossed or you are 12 years old or younger).

Rehabilitation Protocols: Be Aware Of Predetermined Throwing Parameters

A second major concern of the Rehabilitation Throwing Program is that the parameters are traditionally based on time, distance or repetitions of throws. To some extent, we don't have a huge problem with this because it is conservative in nature from the onset, which is great for base building. The issue we do have with this approach is that Rehabilitation Throwing Programs have the player move away from their throwing partner (*therapist*) in 15 foot increments (*ie 45, 60, 75, 90*), again, typically based on a predetermined amount of throws or time.

As you now know with our approach, we not only want your arm to dictate "how many" throws to make before you move away from your throwing partner, we also want you moving away from your partner at your own pace. So, if you are truly listen to your arm you'll find that it wants to be stretched out (*opened up*) slowly and surely, like any other muscle group. In theory, for every throw you make you'll probably want to move back one foot at a time. Again, this allows the arm to open up slowly, progressively and without any potential jolts.

Based on the rehabilitation protocols we've seen, in addition to seeing Long Toss capping at 120-180 feet, "*counting throws*" and moving the player away from his throwing partner in "increments" of 15 feet is something that is very concerning to us. We simply want the arm to open up according to it's own pace, and we want the arm to move out in very small increments (*1-2 feet per throw*), rather than 15 foot gaps between throws. We'd rather use "*15 throws at 45 feet*" to get to 60 feet, and "*15 throws at 60 feet*" to get to 75 feet rather than stay at one marker, and then just move back 15 feet.



Rehabilitation Versus Training Summary

“The 120 foot program is a model that was developed a couple decades ago for rehabbing throwers. This is important, but it wasn’t created with an interest in athlete performance or maximal development”

— **Marcus Elliot**, MD, Director of Sport Science and Performance

For those players whose pre-surgery Long Toss distance is well beyond 120-180 feet, if you are given a medically based throwing program that culminates at 120-180 feet, we strongly suggest that you stay away from a mound until you complete the next phase of your Build Up or Conditioning phase of your throwing program (*typically an additional 3-4 weeks*). This means, that until you have extended your arm out (*Stretching Out Phase*) to what feels similar to your, pre-surgery, Long Toss distance, and completed your Pull Down Phase of Long Toss, we strongly recommend you stay OFF the mound or away from ANY aggressive, or downhill throwing (*pitchers or position players*).

For more information regarding “The Origin of the 120-180 foot Rehabilitation Throwing Program”, please click on the following link to read this article: <https://www.jaegersports.com/121-feet-and-beyond-the-myth-of-the-120-foot-throwing-program>.

Soreness Versus Pain

One of the quickest ways to put your arm in harms way is to throw when it’s in a vulnerable position. Therefore, knowing the difference between soreness and pain is incredibly important. Fortunately, because our approach is based on *“listening to your arm”* and *“being intimate with your arm”*, we’d like to think that you will be especially sensitive to the state of your arm.

Because we spend so much time talking about Arm Care and Building your base in the most ideal way, we’d like to think that your arm is going to feel healthy and strong throughout the year. But, if you do start feeling *“some-thing”* in your arm, and you are unsure as to whether it’s temporary soreness versus some sort of pain that needs attention or rest, our rule of thumb is to always err on the side of being conservative.

If the arm is truly “just” sore, you’ll know right away by going out and making light impact throws to see if you can “*throw through it*” (ie, the soreness subsides). In this case, we’d still suggest that you be highly sensitive to how your arm responds as you throw through it, especially if you test it to some degree.

If you find that you are able to throw through it, and this is further supported by the fact that when you test it, the soreness is no longer there, it was probably what we would call a “false” sense of soreness, and not of any real concern. The other big test will come the next day based on how the arm responds. If it was a false sense of soreness, the arm should feel completely normal the next day (*possibly even better because you threw through it*). But if there is any indication that the arm feels sore again the next day, that is your sign to stop throwing immediately and give it some time to rest.

If in the example above, when trying to “*throw through it*”, the “soreness” doesn’t subside, but actually feels worse without even being tested, that is a clear sign that you are dealing with pain, rather than soreness.

In either case, we always prefer you err on the side of being extra conservative, knowing you can back off and slowly rebuild your arm in a rather short period of time if it is just soreness. If it is something that is lingering, or is aggravated by even low impact throwing, than we would consider that real pain, and a sign that you either need significant time off, and/or you need to see a doctor right away.

Again, if in doubt, always consult a doctor or physical therapist. But knowing the difference between soreness and pain can really help you not only transition through this period safely if it’s a false sense of soreness, but also alert you to the reality that if it isn’t just soreness, to get medical attention immediately before you may injure your arm unnecessarily (*Note: you may find that extra band work can help alleviate soreness rather quickly. Just be sensitive as to whether it is helpful, or potentially irritating the issue*).



For the Kids

We often get a number of questions about throwing with regard to younger players, including “*when*” to start throwing, “*how often*”, “*how far*”, “*pitch counts*” and when to implement “*band work*”. Like many topics, there are a number of variables, so the goal will be to give you some basic principles that will hopefully answer the core questions about Arm Training and Conditioning for younger players.

For kids that are 8 years of age and under, we simply recommend “*playing catch*” as often as possible (*3-5 times a week*) -- in fact, in this age of technology, just getting kids outdoors 3-5 times a week is a great start. At this age we don’t really use the term “*Long Toss*” -- we just want kids to throw, and “*stretch their arms out*”. This doesn’t mean that we don’t want them to extend out and build up distance. It just means that the priority is to focus on conditioning the arm, and to build up endurance and strength by throwing more rather than less.

As for the year round cycle for younger kids the mentality of “*how*” and “*when*” to build the arm up doesn’t change much. What does change, naturally, is that the arm tends to get in shape much faster because kids aren’t throwing as far, or as much volume. But it is important to note that because younger kids tend to be more pliable and supple, it doesn’t mean that you want them to rush through Period 1 (*the build up/conditioning phase*) or even rush through their throwing on a given day. The goal is still to build their base up slowly and progressively, and complete the Stretching Out Phase of Long Toss prior to any aggressive or downhill throws (*Pull Downs*).

Also, as you go through the Year Round Plan, you’ll need to use your instincts as to how to best translate the workload and pace that works best for a younger player. Again, rule number one is to teach the kids how to listen to their arms, and to query them as to “*how their arms feel*” as often as possible.

Regarding Arm Care and Band work, we recommend kids start doing Band work around the age of 8. Though the arm is still developing, and again, may tend to be very supple, it is still ideal to get some blood flow, range of motion and begin the process of balancing and strengthening the small rotator cuff muscle group. It’s also important to start good habits at this age regarding arm care.

With regard to young pitchers throwing breaking balls, our philosophy is pretty simple — focus on fastball command and change-ups for as long as possible. Since our philosophy from the onset is to build up the arm through a strong foundation, and then learn how to best maintenance that foundation, likewise, we suggest that you avoid throwing breaking balls for as long as possible so that you don't inhibit the growth and development of the arm. Just as a small tree's roots are vulnerable after it's first been planted, if you give it a few years, it may take a bulldozer to get it out of the ground. Similarly, we want the arm to keep getting healthier and stronger during the formative years, and we don't want the arm to be put in a vulnerable position with breaking balls until it is incredibly strong and resilient.

So, if we had to put an age on when we'd suggest that maybe you start lightly spinning a curve ball in practice, it would probably be around 13 years of age (and possibly start integrating it into game situations by 14). We would suggest that you wait even later to integrate other breaking balls (*cut fastballs, sliders, etc*) because we feel that these pitches place even more demand on the elbow.

Lastly, deciding how much time to take off or rest younger kids may not be cut and dried. First of all, we think it's great that kids play other sports for many reasons (*which also fills some of the rest time*). But if we were to give you a general rule of thumb (and also based on some research), you'll probably want to give your kids two, 6-12 week rest periods throughout the year. Again, every arm is different — and it's not unusual for us to hear about older or more experienced players that do not like to take extended periods (ie more than 6 weeks) of time off from throwing — again, use your instincts and always listen to the arm. In any case, we suggest some form of “active rest” with regard to Arm Care (ie some form of Band Work) during these extended rest periods.

Again, we would suggest that you do some form of range of motion exercises during the down time (*Stretching/Arm Circles/Band Work*), especially the 4 weeks leading up to throwing after an extended rest (*3-5 times a week of Band Work*). This helps “warm up” the arm, condition it and help insure a much safer transition back to throwing (*Build Up phase*). Again, everyone is different so it will up to you as to how long your breaks are and how many times a year you will want to take them.



Resources: Arm Training/Sport Science/Strength and Conditioning

There are many great resources in the baseball community that are extremely valuable regarding Arm Training and Development. Below, you'll find a list of trainers in various fields that we have had experience with and strongly encourage you to look into their training programs -- they have so much to offer.

Kyle Boddy, www.drivelinebases.com, @drivelinebases

Dave Coggin, www.pfafitness.com, @pfabaseball

EM Speed Training, www.emspeedtraining.com, @EMspeedpower

Eric Cressey, www.cresseyperformance.com, @cresseyperformance

Casey Fisk, www.fiskpt.com, @fiskpt

Dr. Marcus Elliott, www.p3.md @P3sportscience

Ron Wolforth, www.texasbaseballranch.com, @txbaseballranch





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Year Round Throwing Manual | Alan Jaeger

Jaeger Sports was founded on the principle that athletes can best optimize their physical and mental skills through training and development. Jaeger Sports is comprised of China McCarney, Alan Jaeger and Jim Vatcher (*pictured below*).

