

# ELITE SPORTS TRAINING

---

## PITCHING NOTEBOOK



**2021-2022**

# EXPECTATIONS

Expected of Me	Expected of You & Your Daughter
<p><b>New Student 1x Assessment:</b></p> <ul style="list-style-type: none"> <li>• 1<sup>st</sup> Lesson you will show me what you normally do for warm ups and a I will video a few full pitches.</li> <li>• We will then go over a few things to break down the pitch and go back through some drills.</li> <li>• Within the next few days you will receive an in depth video analysis. I will also record you fastball speed.</li> </ul> <p><b>Continuing Lessons:</b></p> <ul style="list-style-type: none"> <li>• I will provide a notebook for tracking measurements and improvements and it will also have rules, weight training programs, stretches, mechanical tidbits, games, ect.</li> <li>• Expect me to look at videos you send me via <b>OnForm App</b> and give verbal feedback @ next lesson or via OnForm or email.</li> <li>• Expect me to measure Speed, Spin, Spin Axis, &amp; Spot – 3x a year at minimum (1<sup>st</sup> Lesson or in Fall, December, &amp; March.</li> <li>• Expect me to take notes after some lessons &amp; record it on an assessment sheet.</li> <li>• Expect me to try to hold the pitcher accountable when in between lessons by having her do homework or provide me with video working on a skill.</li> <li>• Expect me to take video in the lesson and show it immediately to track progress.</li> <li>• <b>Expect me to break down the skill into chunks and slow it down so the pitcher can learn it faster. This may mean that we don't even throw from the mound or a full pitch in the lesson.</b></li> <li>• Expect me to keep learning and educating myself on pitching mechanics &amp; efficient teaching methods.</li> <li>• Expect me to be available via text/email about pitching or recruiting concerns.</li> <li>• Expect me to help with the recruiting process when it comes time and to help with a video and recruiting page.</li> </ul>	<p><b>New Student 1x Assessment:</b></p> <ul style="list-style-type: none"> <li>• Please Bring: glove, pitching sneakers/turfs, athletic clothes. Preferably not a baggy hoodie or top.</li> <li>• <b>Bring your Notebook</b> and pen to take notes. But also type notes into app after lesson.</li> <li>• Keep an Open Mind &amp; be Ready to Learn.</li> <li>• Payment of cash or check the day of the lesson. I don't offer packages, but you can pay ahead if you want if you keep track. If I don't have change you can overpay or underpay and catch up next time.</li> <li>• Recommended you take Intermediate Seminar 201 if you want to continue lessons.</li> <li>• The pitcher should be ready for the lesson by warming up or stretching, doing a band routine, and throwing overhand and/or underhand if space allows.</li> </ul> <p><b>Continuing Lessons:</b></p> <ul style="list-style-type: none"> <li>• Mandated to take Intermediate Seminar 201</li> <li>• Download the <b>OnForm App</b> so we can send &amp; rec videos and analysis (Free). Each person in the family will be given a separate code to login with</li> <li>• Expect me to go over a proper warm up routing with stretches to do before lessons or anywhere.</li> <li>• Expect you and your daughter to make a yearly commitment to lessons. Before fall, I will ask for your requested timeslots for the year from Sept-March. You don't have to start in September, but I will make up my schedule for the year. Once I put everyone in a timeslot you can then cancel/reschedule via the website.</li> <li>• I expect you to communicate with me if she decides to stop pitching or continue lessons with another instructor. Keep it cordial, it is not a contest, it's what you think is best for your daughter.</li> <li>• I expect that if you are around the age of 14 that you will invest in a personal strength/speed trainer if pitching in college is your goal.</li> <li>• If pitching in college is not <b>your daughter's goal</b>, by the age of 14, then you may want to consider a cheaper instructor, or possibly group lessons. If she does not have a mental investment in playing at a higher level then you may not want to invest \$ in lessons. She may be more interested in affirmation than development.</li> </ul>



# YEARLY PITCHING PROGRAM

Key	
Hip Mobility & Wall Sprints	HIP - 4-5x
Workout	3x
J Bands or Velo	Bands 3-4x
Practice	2-3x

		SUN	MON	TUES	WED	THURS	FRI	SAT	Jesse-Lesson
Week Start Date	Sample	Practice, Bands, HIP	Practice, Bands, HIP, workout		Lesson, Bands, HIP	workout, HP		Practice, Bands, HIP, workout	50%Mechanics 5% Speed 20% Spin 25% Location
9-5-21	Week 1								
	Week 2								
	Week 3								
	Week 4								
	Week 5								
	Week 6								
	Week 7								
	Week 8								
	Week 9								
	Week 10								
	Week 11								
	Week 12								
	Week 13								
	Week 14								
	Week 15								
	Week 16								
	Week 17								
	Week 18								
	Week 19								
	Week 20								

*Check for Hip Mobility Exercises, Wall Sprints, J-Bands, or Velo program near back of notebook*









# 4D Motion Assessment

4dmotionsports.com

## Kinematic Sequence

<b>Transition</b>				
<b>Deceleration</b>				

## Peak Rotational Speed

<b>Pelvis</b>	<b>Chest</b>	<b>Arm</b>		
---------------	--------------	------------	--	--

## Peak Rotational Speed Gain

<b>Pelvis to chest:</b>	<b>Chest to Arm:</b>			
-------------------------	----------------------	--	--	--

**Forearm deceleration at release**

**Upper Arm Angle**

**Chest side bend**

**Hip/Chest rotation separation**

**Max hip opening rotation**

# Practice/Drill/Cues Ideas








# What do you see?

- Red = Lag, distance hand is trailing behind elbow at Connection.
- Connection = blue lines where in her bicep meets ribs
- Orange arrows= hips slightly lead shoulder by a few degrees
- Green box = Still and level shoulders



Lastly notice her head is behind her torso, which is behind the knee, which is behind her foot



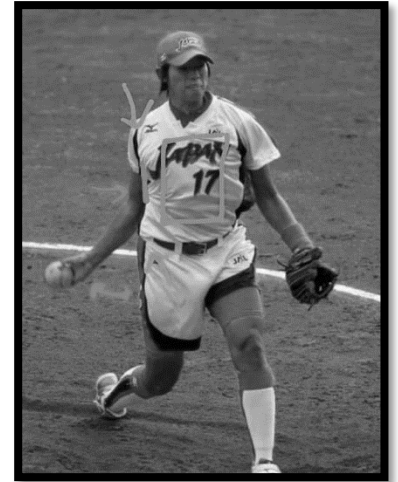
# Mechanical Main Points



## ARM CIRCLE



12:00 HOOK



HAND LAG ON RELEASE

---

## DRIVE



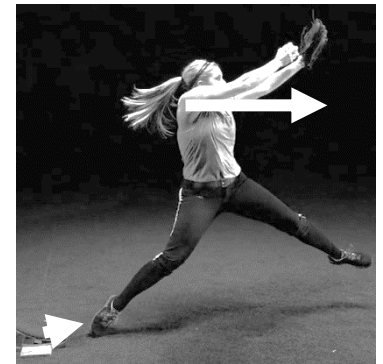
SPRINTER STANCE  
MATCHING SHIN ANGLES



LOCKED ANKLE



DRIVE LEG EXTENSION



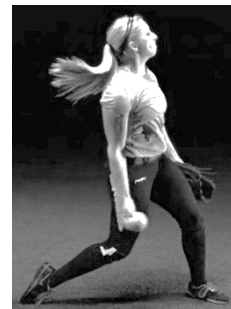
SEPERATION TIMING



FOOT PLANT TIMING



FOOT PLANT ANGLE



KNEE DIRECTION &  
UNDER HIP AT RELEASE

# POSTURE

(SHOULDERS @ TIMING CHECKPOINTS, HIPS @ TIMING CHECKPOINTS, LANDING ANGLE)



---

# STABILITY

SHOULDERS STILL FROM FOOTPLANT TO RELEASE TO RECEIVE THE ARM



---

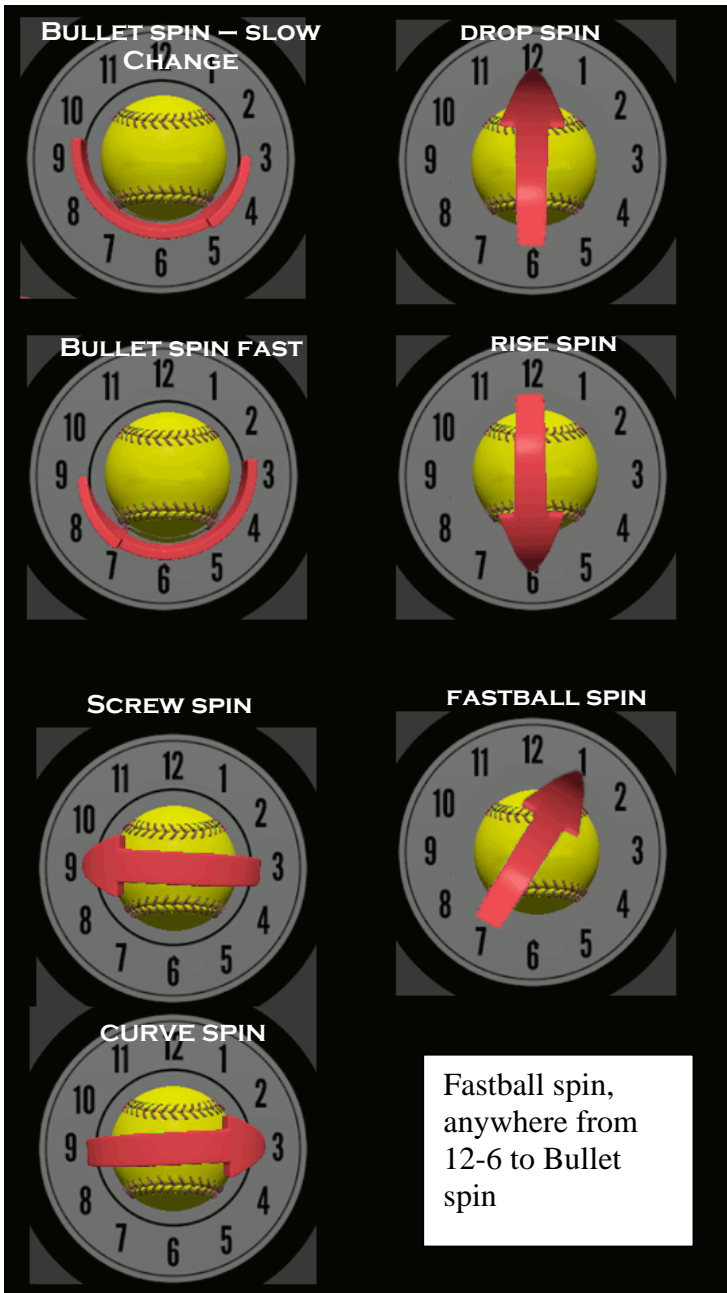
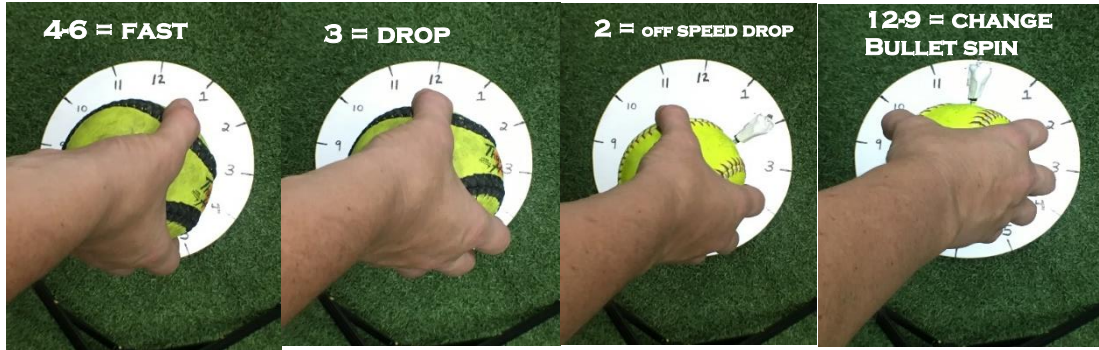
# RESISTANCE

Use ground to create resistance though body.

Resistance in shoulders, hips, shin through torso.



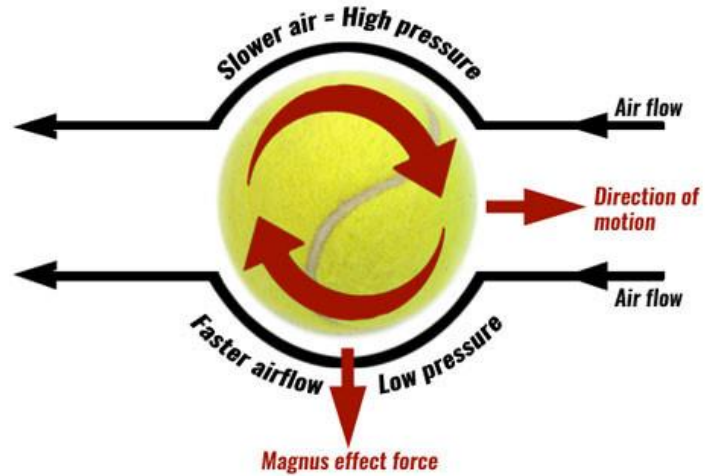
# Sample Spins based on Right Handed Pitchers



Fastball spin, anywhere from 12-6 to Bullet spin

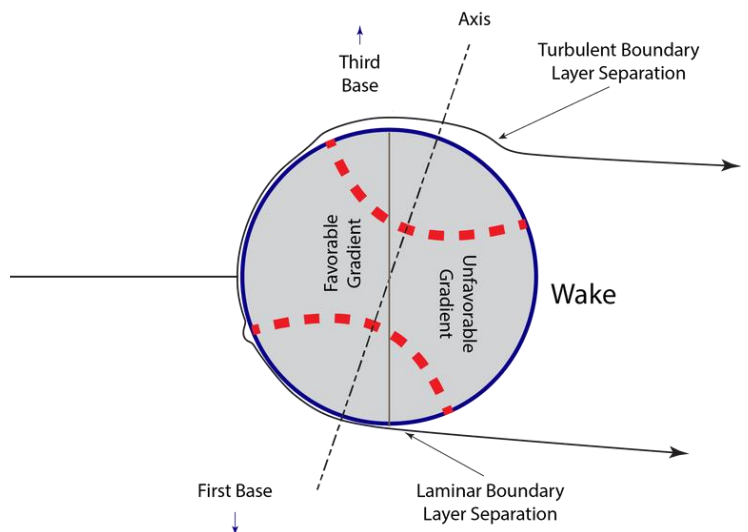
## Spin & The Magnus Effect

The spin on the ball slows down the air flow on one side and speeds it up on the other side creating a pressure difference and causing the ball to move.

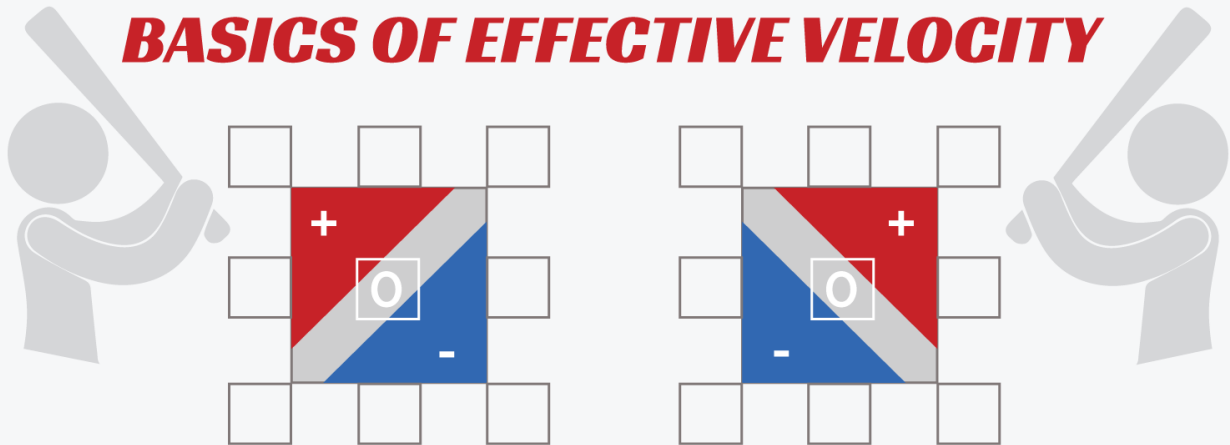






## LAMINAR EFFECT

The idea of a "Laminar Express" is to cause the flow on one side of the ball to be laminar, and thus have an early separation from the ball surface, while the other side is turbulent and has a later separation. The difference in these separations would cause a lateral force on the ball.



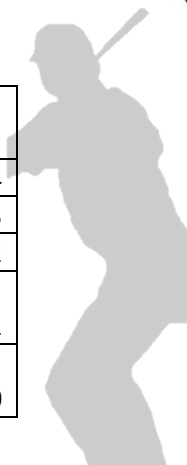
# BASICS OF EFFECTIVE VELOCITY



-  The red triangle represents the up and inside area in the strike zone where pitches gain effective velocity, from 1 to 5 MPH increase depending on radar speed and exact location.
-  The blue triangle is the outside part of the strike zone down and away where pitches are losing effective velocity from 1 to 5 MPH depending on radar speed and exact location.
-  The boxes outside the strike zone are called the pressure zones. Offensive production goes down from 45-80% in these areas and the effective velocities of pitches in this area are increased or decreased dramatically from 7 to 10 MPH.
-  The grey area is the diagonal zero Line where pitches have the same effective velocities as the radar readings. Pitches do not gain or lose velocity in this area. Hitters offensive production is the highest in the area.

	0	+1	+2	+3	+4
-1	0	+1	+2	+3	
-2	-1	0	+1	+2	
-3	-2	-1	0	+1	
-4	-3	-2	-1	0	

# Student Pitching Effectiveness



PITCH #1  
PITCH #2  
PITCH #3  
  
PITCH #4  
  
PITCH #5  
PITCH #6  
PITCH #7  
PITCH #8

Pitch	Avg Speed	Accuracy
FASTBALL		

EFFECTIVE VELOCITY				
0	1	2	3	4
-1	0	1	2	3
-2	-1	0	1	2
-3	-2	-	0	1
-4	-3	-	-1	0

FASTBALL				



























List your ideal Pitch combinations	

*Jesse has excel sheet to enter data and automatically calculate*

# AVG. SPEEDS

*This is fairly accurate in my opinion.*

<b>Age</b>	<b>Average Pitching Speeds</b>	<b>High-end Averages (Travel Starting pitcher)</b>
<b>10</b>	35 – 39 MPH	40 – 43 MPH
<b>11</b>	38 – 42 MPH	43 – 46 MPH
<b>12</b>	41 – 48 MPH	49 – 53 MPH
<b>13</b>	45 – 53 MPH	54 – 56 MPH
<b>14</b>	46 – 54 MPH	55 – 58 MPH
<b>15</b>	49 – 54 MPH	55 – 60 MPH
<b>16</b>	51 – 55 MPH	56 – 62 MPH
<b>17</b>	52 – 56 MPH	57 – 65 MPH
<b>18</b>	55 – 59 MPH	60 – 68 MPH
<b>College+</b>	58 – 65 MPH	66 – 74 MPH

# Jesse's Speed Board as of July 2021

High Top Speed

## 2020-2021

18-Under		16u		14U		12-Under		10-Under	
first	mph	first	mph	first	mph	first	mph	first	mph
J	65	M	67	E	63	P	54	E	48
S	63	J	64	A	60	M	54	L	46
A	58	M	60	J	58	C	51	I	45
L	57	J	59	E	58	K	51	A	43
A	54	K	58	R	55	B	50	M	43
		T	56	A	55	A	50	L	40
		L	56	T	55	A	47	M	38
College		K	56	J	55	B	46	N	37
E	64	H	56	E	55	T	44	M	32
M	64	M	56	B	54				
B	61	S	54	E	54				
M	60			K	54				
L	59			N	53				
A	55			L	52			9-Under	
				K	52			C	36
				B	52				
				P	52				
				N	50				
				E	49				
				B	48				
				L	47				



# Jesse's Speed Board as of March 2020

High Top Speed

18-Under		16u		12-Under	
L	59	M	63	R	52
J	62	M	59	A	51
M	61	A	58	T	50
M	60	J	57	P	49
		L	55	E	49
College		G	54	B	48
E	64	A	54	E	47
B	61	B	53	A	47
A	54	M	52	P	46
		H	49	E	46
10-Under		M	48	B	49
Ah	44	G	52	C	45
PS	43			C	44
C	40	14U		T	44
N	37	A	60	B	43
M	37	E	57	A	43
V	35	T	55	G	40
A	34	J	55	M	40
S	33	E	55	M	40
S	33	L	52	A	39
L	33	K	52	K	38
B	32	N	49	A	36
A	30	L	46	B	35
M	29	K	46	B	34
M	32	P	45	L	33
E	29	M	53	M	32
AF	27			C	31
AS	27			J	31

# **Highest Average Speed 2022**

# Highest Location # 2022

<b>Level</b>	<b>#</b>	<b>Name</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		
<b>5</b>		
<b>6</b>		



## **Training Schedule**

Speed training is something that needs to be worked on just like location and movement. But speed drills should not be performed every day. It is recommended to space at least one or two rest days in between a good pitching practice that included speed drills. The speed drills will tend to cause micro tears in the muscles. These tears need at least a day to repair. For example if you do speed drills on Monday night, don't pitch/do speed drills again until Wednesday night. Varying the speed drills is a good idea and certainly breaks up the boredom of routine.

If you are going to pitch in a game/games on the weekend I suggest that Wednesday is the last day you should do speed work.....give yourself ample time to recover. If you pitched several games on a weekend, I suggest you not do speed work until Tuesday.

Highly conditioned College level pitchers may be able to increase this intensity slightly. Younger-less mature pitchers should decrease this intensity slightly.

Pitchers should establish a strong core stability and balance prior to performing intensive speed drills. Assuming a college pitcher has maintained a reasonable summer workout routine, she should be able to safely do speed drills two weeks after beginning her fall strength and conditioning routine. Strengthening muscles around all joints and especially the shoulder joints is important to maintain safety and allow the pitcher to increase performance. One of the key areas of focus for increased performance should be finger grip strength. After all, the fingers are the last body part putting energy into the ball

## **Walk-in pitching**

Walk-in pitching should be performed such that the ball is released at about 43 feet (similar to pitching distance off the mound). But the pitcher should start at about 48 feet or whatever distance allows her to take three to four aggressive steps prior to release. The start of the walk-in should be such that the pitchers first step is normal but each subsequent step builds speed so that her last step is her fastest. Running into the pitch is not recommended.

The momentum built by the fast walk-in pace should assist in an explosive push-off. Subsequently, the landing foot must attempt to stop all forward energy and thus help transfer energy from linear into rotational. The pitcher should not put too much emphasis on pitch location (however, low pitches are faster if timing on a radar gun) ----the emphasis should be on developing energy and maximizing it at release. (Grunting is encouraged).

Performing 10—12 walk-ins at the end of a practice session is a good enough to maintain high speeds or increase speed.

## **Underloading**

Notice I said underloading (not overloading). I am not a proponent of weighted balls for increasing speed. In my opinion weighted balls create slow reactions.....just the opposite of what we try to do to be faster.

Underloading is accomplished by using three balls that are progressively lighter than a regular softball. The intent of Underloading is to create faster muscle reaction and nervous system reaction. My recommendation for Underload training is such:

- 1) Throw 6 pitches as hard as possible from the mound using a regulation weight ball
- 2) Throw 6 pitches as hard as possible using a 5 oz. ball
- 3) Throw 6 pitches as fast as possible using a 4 oz. ball
- 3) Throw 6 pitches as hard as possible using a 3 oz. ball
- 4) Throw 6 walk-in pitches as hard as possible using the 3 oz. ball

Each time you progress down to a lighter ball you will notice a tendency to throw high-----of course; because the lighter weight allows everything to react faster and thus release timing is changed initially. Location is not the top priority here---it is “throwing so hard your eyeballs pop out”

## **60 Second drill**

The 60 second drill will increase both speed and endurance. Here is how it works:

1. Pitcher and catcher stand about 30 feet apart.
2. Pitcher has a ball and catcher has a ball. There should be 4-5 extra balls within arm's reach of the catcher in case of an errant pitch (typically I put them on top of a bucket).
3. The first pitch thrown can be full motion, but after that the pitcher should start her motion from wherever she takes the ball out of the glove....ideally she will be able to throw in a slingshot fashion on all subsequent pitches.
4. As soon as the catcher receives a pitch she throws her ball back to the pitcher....the idea is for the catcher to have a quick release also.
5. The goal is to see how many pitches can be thrown in 60 seconds. 28 pitches is a good number.
6. You will note the pitcher getting tired and mechanics falling apart at about 20-21 pitches. The pitcher needs to work thru this.
7. The coach or extra player should count out loud and give a 30 second and 10 second warning. This seems to inspire the pitcher.
8. Two sets of this 60 second drill are plenty in one lesson.

## **Walk-in Lite Flight Ball**

9. The pitcher will perform these pitches using a lite ball. We prefer using an Atec soft machine ball that weighs about 3.5 ounces. Again we are looking for high energy. Performing this drill will definitely increase the arm whip speed into the release zone and the finger snap speed. It is an indication of what speed a young pitcher should be striving to achieve. Young pitchers should be able to eventually throw a regular ball at these same speeds. The more mature pitchers will near their lite flight speeds but probably will not be able to achieve these with a regular ball.
10. Part of the intent of this drill is to train quick reactions of the small muscles in the finger snapping movement.
11. It is common for pitchers to throw 110% of their mound speed using this Lite Flight method.



# SPEED DRILLS

## **Sprint Ups**

Run full speed and throw into net. Don't worry about mechanics just go as fast as you can. Do this no more than 8x.

## **Distance Throwing**

**\*\*Not for pitchers with posture issues (especially leaning too far back).\*\***  
Start out at 43', if you can throw a pitch in the air to your catcher keep moving back. Keep moving back until you can't reach the catcher in the air. No more than 20 pitches.

## **Two Step**

Start with one drive foot on rubber and stride foot behind in start back position. Keeping weight on front leg to start, then transfer to back leg, while keeping back leg straight fall forward while lifting front foot up and tapping to a locked ankle, immediately extend and push away after tap.

## **Trust Fall Drill**

Starting with 2 feet behind rubber and even, fall forward as far as you can, lift drive foot and immediately push away to catch yourself from falling.

**\*\*Modified version of it:** Start in sprinter stance and lift front leg and tap and push away before falling.

## **Jump Backs**

Start with 2 feet even in front of the rubber, jump back into sprinter position and go. Do not try and hesitate.

















# LOCATION CHART LEVELS

**LEVEL 1:**

Throw a pitch (fastball or change ect.) down the middle. If it's a strike +2 pts, close +1, not close 0.

**LEVEL 2:**

Throw a pitch on a corner. 2pts for on target, 1pt for a strike, 0 not close.

**LEVEL 3:** Alternate fastball and change up on a corner. 2 pts for target, 1pt. for just off the plate, -1 pt for towards the middle of the plate, 0 pts. for anything else.

**LEVEL 4:**

Alternate fastball and other pitch on a corner. 2 pts for target, 1pt. for just off the plate, -1 pt for towards the middle of the plate, 0 pts. for anything else.

**LEVEL5:**

Alternate fastball, change up, and another pitch on a corner. 2 pts for target, 1pt. for just off the plate, -1 pt for towards the middle of the plate, 0 pts. for anything else.

**LEVEL 6:** Alternate fastball, change up, and 2 other pitches on a corner. 1pt for target, 1pt. for correct spin, , -1 pt for towards the middle of the plate, 0 pts. for anything else.

Fastball	Change Up	Drop	Rise	Curve	Other
Highest level & Date					









# LOCATION CHART

Okay +1      Good +2      Bad 0      Middle -1

1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10











<b>Notes:</b>

















# Practice Drills & Games

## Minute drill (competition)

\*Throw for 1 minute straight to see how many strikes are thrown

Round 1- fastball

Round 2- change

Round 3- drop

Round 4- rise

Round 5- screw

Round 6-curve

FASTBALL	CHANGE	DROP	RISE	SCREW	CURVE

## Tic Tac Toe (for 2 pitchers)

One pitcher is "X" one pitcher is "O". Moderator call out a pitch and location(low fast out). Each pitcher attempts to hit the spot. The first pitcher that gets it wins the spot. If there is a tie keep attempting it until someone fails. The pitcher that gets their letters in a row wins the game. You can throw all fastballs or different pitches.



# Corner Challenge

- Everyone starts at the beginning. It is easy. Some will make it and some won't this is ok. Do not get frustrated. Work through it and note down weaknesses to work on on your own time.
- To be done after a quick warm up. Warming up locations and a bit of change ups and fastballs (to take around 15-20 mins)
- Older girls can use all of their tools not just fastballs from the beginning if they wish for an extra challenge.

## **Beginner**

1. Throw three strikes In a row (height and exact location do not matter)
2. Throw 5 pitches to each side of the plate (height doesn't matter, focus is locations) - have to get at least 3 strikes to pass
3. Throw 5 pitches high (corners do not matter focus is height) - 3 must be successful out of 5
4. Throw five pitches low (corners not matter, focus is height) - 3 must be successful out of 5
5. Throw an inside strike and outside strike in a row (focus on command. Height doesn't matter. Can you switch gears)
6. Throw a high strike and then a low strike in a row - (focus on command. Corners don't matter. Can you switch gears)
7. Hit all four corners in a row

## **Intermediate**

1. Hit all four corners in a row with one being a low change up
2. Hit all for corners in a row using another pitch in at least one corner (no change ups) or two change ups
3. Hit all four corners In a row twice (8 total in a row starting over with each miss).
4. Same as 9 but with a change up each round
5. Kris cross 4 in a row fb
6. Kris cross 4 In row with two change
7. One change one fast in a row
8. Change, fast, change in a row
9. Etc



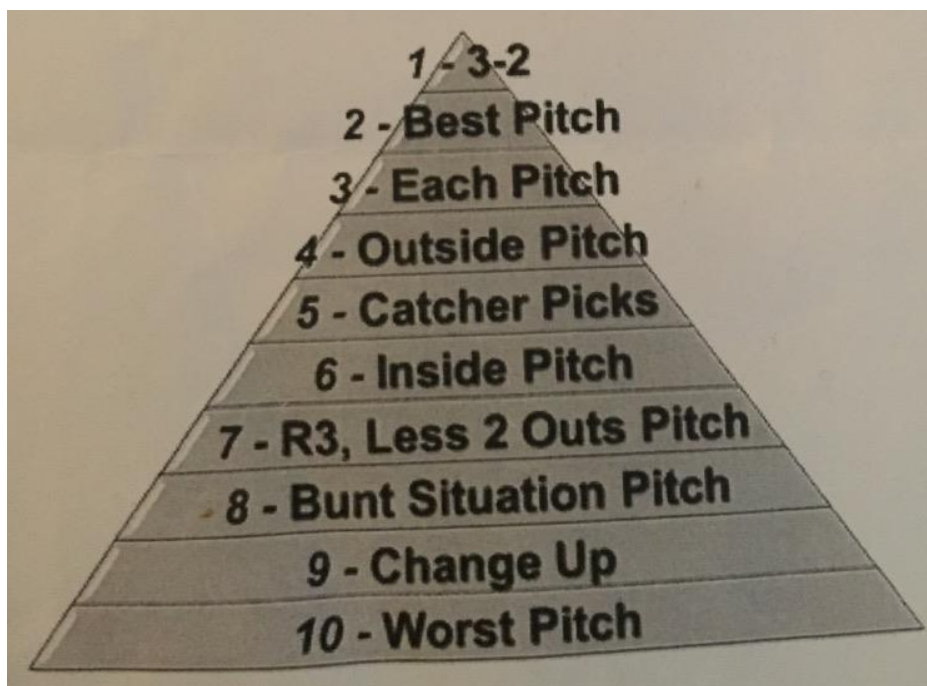
# Pitching Pyramid Workout

## General notes:

- o Start at the bottom and work your way up (10-1) then once finished getting to the top, work your way back down (1-10).
- o These numbers are the quantity of the pitches not the amount of pitches thrown that are executed correctly. This number is the attempts. The pyramid shouldn't take too long to do!
- o Once at the top, if not successful in striking the girl out / throwing a strike on command the pitcher will do 10 burpees. If the pitcher hits her spot then continue on without burpees and work your way back down the pyramid.

## Notes for each level:

- o 10- for advanced throwers with multiple pitches throw 10 of your worst pitch. For beginners throw 10 fastballs at your worst location.
- o 9- throw 9 change ups. All low targets of course. Older girls can work 1-2-3 slots too, working on change ups off the plate too.
- o 8- throw 8 pitches (your choice of pitch to hit the specific target) that you would throw in a bunt situation (high at the hands, 4 to each corner. Hoping to force a pop up in this situation and get both the hitter and the runner out)
- o 7- throw 7 pitches that you would throw with a runner on 3rd, less than 2 out. LOW right side of the plate (inside low to righties and outside low to lefties). To force a ground ball to the left side of the infield. They can check the lead runner and get the out.
- o 6- throw 6 inside pitches (assume a right handed hitter is up to bat). Both high and low targets. Whatever pitches the pitcher wants to throw to Hit the correct side.
- o 5- throw 5 pitches that the catcher picks. Location and pitch
- o 4- throw 4 outside pitches (assume a right handed hitter is up to bat). Both high and low targets.
- o 3- throw 3 of each pitch the pitcher has (fastball, change, drop, etc)
- o 2- for advanced throwers, throw 2 of the pitchers best pitch, for beginners throw 2 fastballs at their best target.
- o 1- throw 1 pitch that you would want to throw with a 3&2 count. Don't walk the hitter. Throw a strike!! Force the defence to make a play vs letting the hitter just get on!! Be tough!!



# Fake it till we make it drill

The goal of this workout is to get ahead on the hitter using the pitchers strength and then working the umpires desired zone of choice (this will change each inning for practice purposes). Use balls slightly more off the plate in the "umpire's zone" to get calls in our favour while not having to put the ball on the plate.

If we demonstrate the following skills we will be successful with this specific drill:

- work on getting ahead with a strike on the first pitch (use pitchers strength location and pitch to accomplish this)
- work on hitting called targets and work on hitting targets in the umpires zone or "preferred corner"
- work on hitting your "hit spots" and also hitting your "miss spots." When u are ahead 0-2 or 1-2 it is very important to throw a ball and be able to do that on command. It is just as important to be able to throw a ball in certain situations as it is to throw a strike in certain situations.
- Work on no walks or limited walks
- Absolutely balls in the middle of the plate/zone (auto sprint)

Rules:

- Hitters either walk or strike out
- ball down the middle is an auto walk and a sprint set for the pitcher right at that moment
- Must hit target exactly to be counted as a strike (ex. if target is high and inside and the pitcher misses low and inside but the ball is still on the corner for a strike; that pitch is still a ball because it wasn't where the catcher called it)
- A properly sold change up that misses a bit low may still be called a strike
- Every inning the pitcher has conditioning for number of runners on base

Inning #1 - umpires preferred corner is inside high on a righty; 10 burpees per runner on base

Inning #2 - umpires preferred corner is outside low on a righty; 30 single mountain climbers per runner on base

Inning #3 - umpires preferred corner is outside high on a righty; 6 push ups per runner on base

Inning #4 - umpires preferred corner is inside low on a righty; 8 squat jumps per runner on base

## Change up challenge

Measurable items:

1. **Location** - catcher #/10 (5 each side) - Left and right sides low
2. **Command** - net (close to pocket) # /5 Ability to throw to whichever side u r told too. 5 chances
3. **Spin** - rev fire or DK - Ability to put max spin on the ball (Not for Knuckle or pop change)

Less than 10 - 0 points, 10-15 - 1 points, Above 15 - 2 points

4. **Sell** - Coach judgement # /5 points, 1-5 rating scale

Ability to sell the change up (not slow arm down. Fastball like body movement and follow through.

1 pt - no sell

3 pts - inconsistent but can do it

5pts - sells every time

5. **Speed** - Ability to throw a slower ball than your fastball.

Clocked 5-9 mph slower - 2 points clocked 10-12 mph slower - 5 points

Clocked 12-15 mph slower - 8 points

\*\*\*10 bonus points if u can go from 10-12 to 12-15 on command\*\*\*

# General Pitching Challenge

- everyone starts at the beginning. It is easy. Some will make it and some won't this is ok. Do not get frustrated. Work through it and note down weaknesses to work on on your own time.
- To be done after a quick warm up. Warming up locations and a bit of change ups and fastballs (to take around 15-20 mins)
- Older girls can use all of their tools not just fastballs from the beginning if they wish for an extra challenge.

## BEGINNER

1. Throw three strikes In a row (height and exact location do not matter)
2. Throw 5 pitches to each side of the plate (height doesn't matter, focus is locations) - have to get at least 3 strikes to pass
3. Throw 5 pitches high (corners do not matter focus is height) - 3 must be successful out of 5
4. Throw five pitches low (corners not matter, focus is height) - 3 must be successful out of 5
5. Throw an inside strike and outside strike in a row (focus on command. Height doesn't matter. Can you switch gears)
6. Throw a high strike and then a low strike in a row - (focus on command. Corners don't matter. Can you switch gears)
7. Hit all four corners in a row

## INTERMEDIATE

1. Hit all four corners in a row with one being a low change up
2. Hit all four corners In a row twice (8 total in a row starting over with each miss).
3. Same as 9 but with a change up each round
4. Kris cross 4 in a row fb
5. Kris cross 4 In row with two change

## ADVANCED

No one has made it here yet

Lol

Change ups the rest of the time if they make it here

# CHALLENGE NIGHT 2

2 out of 3 strikes

3 out of 5 strikes

6 for 10

14 for 20

**AFTER FINISHED**

Create a 3 pitch sequence to throw to each side of the plate

- Order or pitches is important (aka get ahead)

Throw 4 sets of pitch sequence to each side and keep track of how many sets are won

- are any pitches being thrown consistently for balls? Can u replace with something dependable??

Once the pitchers are warmed up do the workout of the day

## GET AHEAD DRILL

- 1) Pitcher throws to simulated hitters (9 hitters in total per “inning”)
- 2) Each hitter gets 3 pitches ONLY as their “at bat”
- 3) Goal is to throw 2 strikes out of 3 pitches to each hitter (aka - getting ahead).
- 4) Each at bat that at least 2 strikes are thrown out of 3 pitches, the pitcher WINS that at bat and moves on to the next hitter
- 5) Each at bat that less than 2 strikes are thrown out of 3 the pitches, the pitcher WALKS the hitter and needs to do a “positive reinforcement.”

First time through lineup positive reinforcement are to do 5 burpees per hitter walked; ON THE SPOT!! Second time through is 5 push-ups ON THE SPOT. 3rd time through is 5 squat jumps, etc. Coaches to adjust as they want and need.

Ways to make the drill easier. All groups to start with this.

General strikes count. Use Fastballs.

Placement of the strike doesn't matter.

Ways to make it harder

- Pick locations to hit and ONLY hitting the location counts
- throw general strikes with movement pitches
- Hit locations with movement pitches

# Waterfall Workout

\*you are not throwing more than 4 pitches. You are throwing 4 attempts with the focus in mind (focus is in brackets)

## **BEGINNERS**

Throw 4 fastballs (down the middle)

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 walk throughs (all LOW in height focus)

Take a water break here rest for as long as you need and then complete circuit again from top to bottom (not waterfall style)

Throw 4 fastballs (down the middle)

Do 4 pushups

Throw one fastball to each corner

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 walk throughs (all LOW in height focus)

## **ADVANCED**

Throw 4 fastballs (target to think about - your worst location)

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 walk throughs (all LOW in height focus)

Take a water break here rest for as long as you need and then complete circuit again from top to bottom (not waterfall style)

Throw 4 fastballs (target to think about - your worst location)

Do 4 pushups

Throw 4 change ups (all LOW in height focus)

Do 4 jumping jacks

Throw 4 flamingos (all LOW in height focus)

Do 4 squat jumps

Throw 4 quick quick pitches (all LOW in height focus)

Do 4 bicycle crunches

Do 4 walking lunges

Throw 4 walk throughs (all LOW in height focus)

**YOU ARE DONE!**

# Hip Mobility Exercises

Check OnForm for videos of exercises

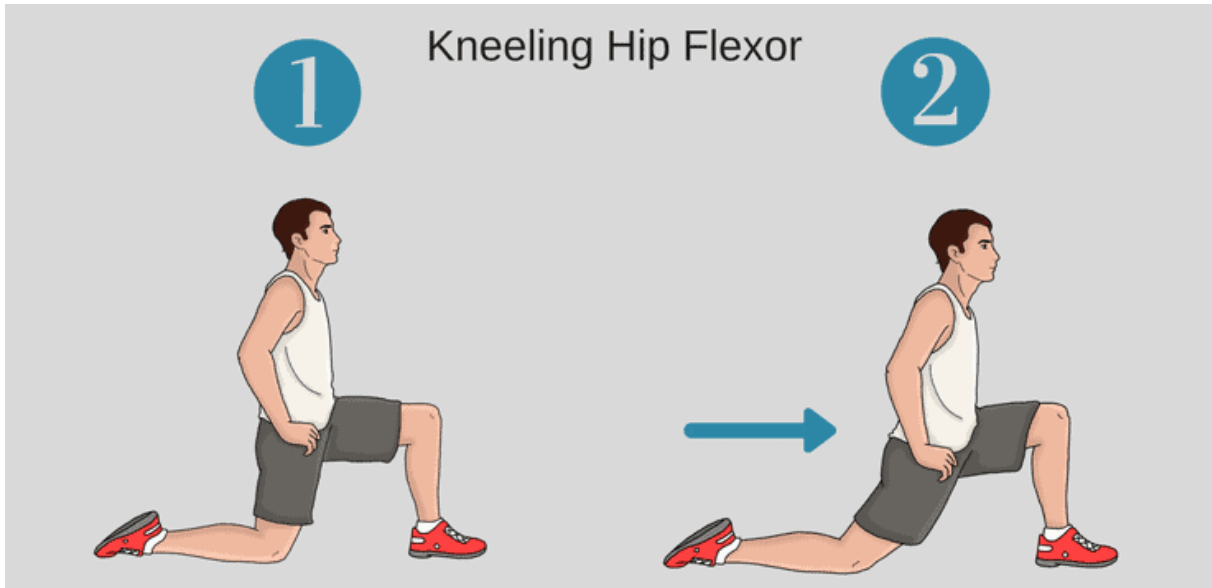
General Frequency: 10 reps per set/2 sets; 4-5 days per week

## Shin Box



Start seated on the floor with the bottom of one foot in contact with the top of the other thigh **(A)**. Press through both knees and feet, and squeeze your glutes hard to elevate your hips. In the top position, you will be balancing on your knees with both feet facing the same direction **(B)**. Lower yourself carefully back to the seated start position and rest your body weight on your butt **(C)**. While keeping your feet on the floor, swivel both knees in front of you and reverse your foot and leg position **(D)**. Repeat the movement, pressing through your knees and feet while again squeezing the glutes to elevate your hips **(E)**. Return to position D; that's one rep. Do 10 total reps (that's five in each direction).

# Hip Flexor Stretches



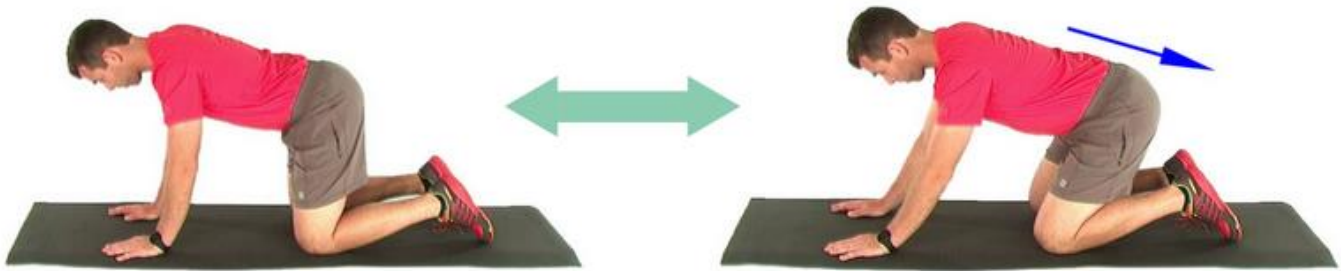
- Begin in a kneeling position with left knee in front of the right, at 90 degree angle.
  - Now tilt your pelvis posteriorly (Bring your tailbone forward).
  - Lean slightly forward until you feel a stretch in your right hip flexor (psoas).
  - Hold the stretch for 30 seconds and then repeat on the other side.
  - Do 2-3 reps on each side.
- \* Do not arch your back when you do this. Keep your pelvis tucked in.



- Begin in a kneeling position with left knee in front of the right, at 90 degree angle.
  - Tilt your pelvis posteriorly (Bring your tailbone forward).
  - Raise your right arm straight above your head.
  - Now stretch/extend your right arm to the left side, as you lean over to get deeper stretch.
  - Hold the stretch for 30 seconds and then repeat on the other side.
  - Do 2-3 reps on each side.
- \* Do not arch your back when you do this. Keep your pelvis tucked in.



## Lumbar Rock Stretch



Start with hands and knees on the floor with elbows straight, hands shoulder-width apart, knees under the hip, and hands under the shoulders. Back is arched, and the hips are pushed back towards the ankles as shoulders are lowered toward the floor (Yoga Child's pose). Without moving hands or knees, move forward to starting position, continue forward until in press-up position (Yoga Seal Pose).

## Lateral Trunk Stretch



Lay face up on floor, hips and knees bent, feet flat on floor, pelvis in a neutral position, and arms away from sides, so you look like a T. One leg is crossed over the other. Try to get the top leg at a perpendicular angle to the bottom leg, while both shoulders remain in contact with the floor. Repeat on other side.

## Iliopsoas Stretch



Start in a half kneeling position, with the stretching side knee on the floor, and the other leg with your foot on the ground in front of you, with your knee at a 90 degree angle. Keep your back straight, and shift your hips forward, further bending your front knee. You should feel a stretch in the front of your kneeling leg and hip. If possible reach back and pull the toe of the back foot up, flexing the bottom knee.

# Hip Mobility Exercises Continued

## 1 Crossover Stretch

Lying on back, bend left hip to 90 degrees. Use right hand to gently bring left knee over towards the right side. Allow hips and back to rotate, and left buttock to leave surface, but keep shoulders flat on floor. Hold stretch for 20-30 seconds and repeat 2-3 times on each side. Don't push into any pain, especially back pain.



## 5 Figure 4 Glut Stretch (Pretzel Stretch)

Lying on back with knees bent and feet on floor, cross one foot over the opposite knee, keeping your top leg turned out. Gently pull your lower leg toward your chest, until you feel a comfortable stretch in the top thigh. Hold stretch by using hands to hold the support leg for 20-30 seconds, repeating 2-3 times on each leg.



## 2 Knee to Chest

Lying on your back, clasp your hands around one bent knee (or under the knee) and pull your knee into your chest, until you feel a gentle lower back and hip stretch. Hold stretch for 10-20 seconds and repeat 3-5 times on each leg.



## 6 Press up or Cobra Stretch

Start by lying relaxed on your stomach, with your hands directly under both shoulders. Use your arms to gradually press up into a "cobra" position, letting your lower back relax and your buttocks sag. Stop and hold the stretch before the point of pain, or when your stomach and pelvis begin to leave the surface. Hold 5-10 seconds at the top, making sure to relax the back and buttock muscles. Repeat 5-10 times.



## 3 Both Knees to Chest

Lying on your back, clasp hands under both legs and pull one knee up at a time, until you can pull both knees into your chest. You should feel a gentle lower back stretch, and can pull your head up towards the knees if you want an increased intensity. Hold stretch for 10-20 seconds and repeat 3-5 times. Lower one knee at a time to the floor to protect your back.



## 7 Cat Stretch

Start on all fours, with your hands under your shoulders and your knees under your hips, and your back flat. Gradually push up into an "angry cat" posture, with your stomach muscles tight and your back rounded as much as possible within your comfort zone. The head and neck should relax and drop while back is stretching up. Hold 5-10 seconds and repeat 3-6 times slowly and gently.



## 4 Piriformis (Buttocks) Stretch

While lying on your back with knees bent and feet on the floor, cross one leg completely over the other. Gently pull opposite knee towards your chest until you feel a stretch in the buttock area of the knee on top. Hold stretch for 20-30 seconds and repeat 3 times on each leg.



## 8 Prayer Stretch

From the neutral or cat position on all fours, rock your hips back over your ankles and sit all the way back, while your arms remain in front and your hands stretch down. Relax into the resting position as shown in the photo. Breathe slowly in this position, and hold for 30-60 seconds. Rock back onto all fours and repeat 2-3 times, as comfortably as you can.



# Wall Sprints\*

NEVER sacrifice proper form for speed. It's never the quantity of workout that matters, it's the quality. Speed is the result of these routines – and must not be the goal in performing them.

Starting Position for all exercises, is on one leg, like this:



Put your hands on a wall in front of your shoulders. Keep your arms straight. Step back until your body is roughly at a 45-degree angle. Lift one leg off the ground as shown above. Posture is paramount; maintain The Power Line. Maintain the shin angle and focus on reaching a high knee drive WITH a dorsi-flexed ankle (See OP for more detailed explanation).

Single Leg March: Slowly raise and lower the same leg. Lower it so that it is side by side with your rear foot – and raise it so that you achieve the position in the picture above. Perform 10 repetitions with each leg.

Slow March – Slowly march, alternating legs. Perform 20 repetitions.

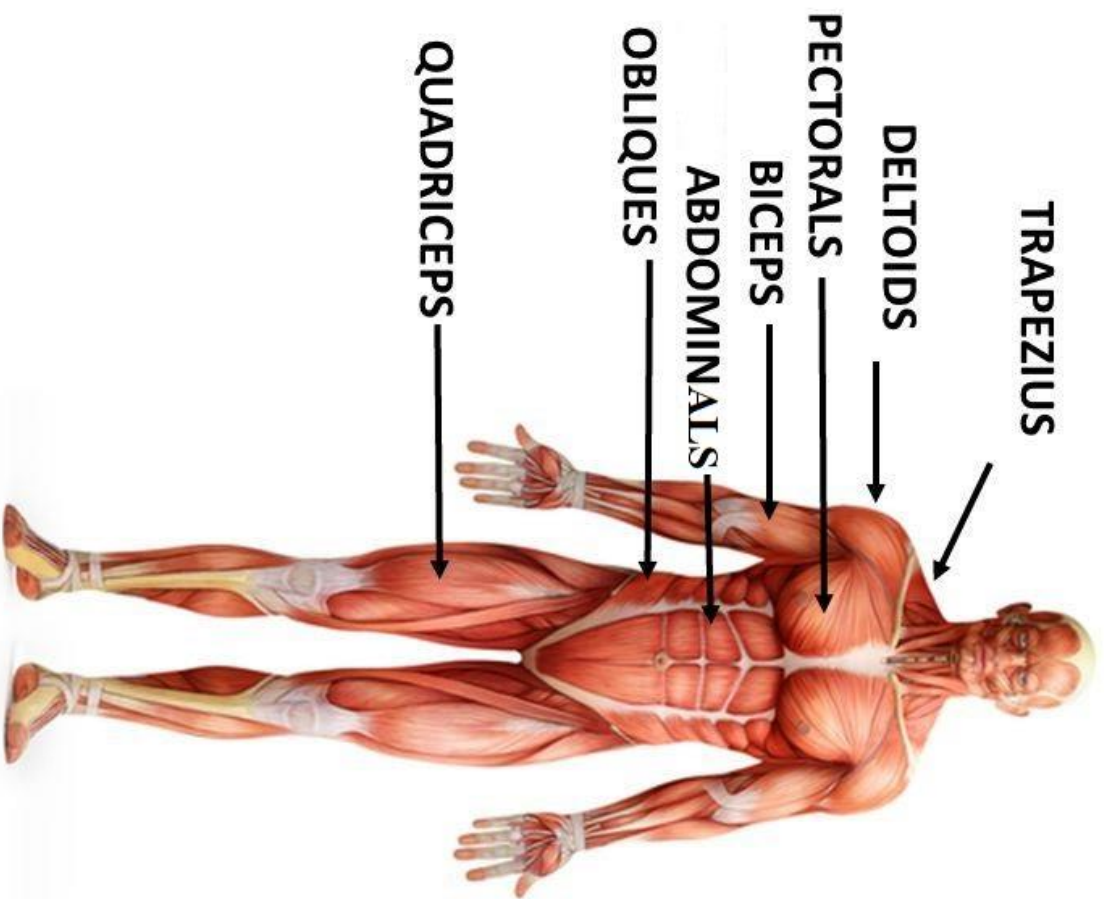
Two-Count March – Perform one march by switching quickly from one leg to the other. Hold the landing for 2 seconds - then switch legs. Continue in alternating fashion. Repetitions = 8-10.

2-Step, Two Count March – Same as the Two Count March, but perform two marches.

3-Step, Two Count March – Same as above, but with three marches.

Rapid Fire March – Assume the starting position and perform as many marches as possible in 10 seconds. **DO NOT SACRIFICE FORM FOR SPEED!**

I'll try to continuously evolve this thread each day, introducing new concepts and building on existing ones. My goal is not to just teach beginners – but also help experienced players, parents, and other coaches (if they so desire). Be warned, there will be all types of info on here... boring technical stuff, routines, video, and who



**TRAPEZIUS**

**DELTOIDS**

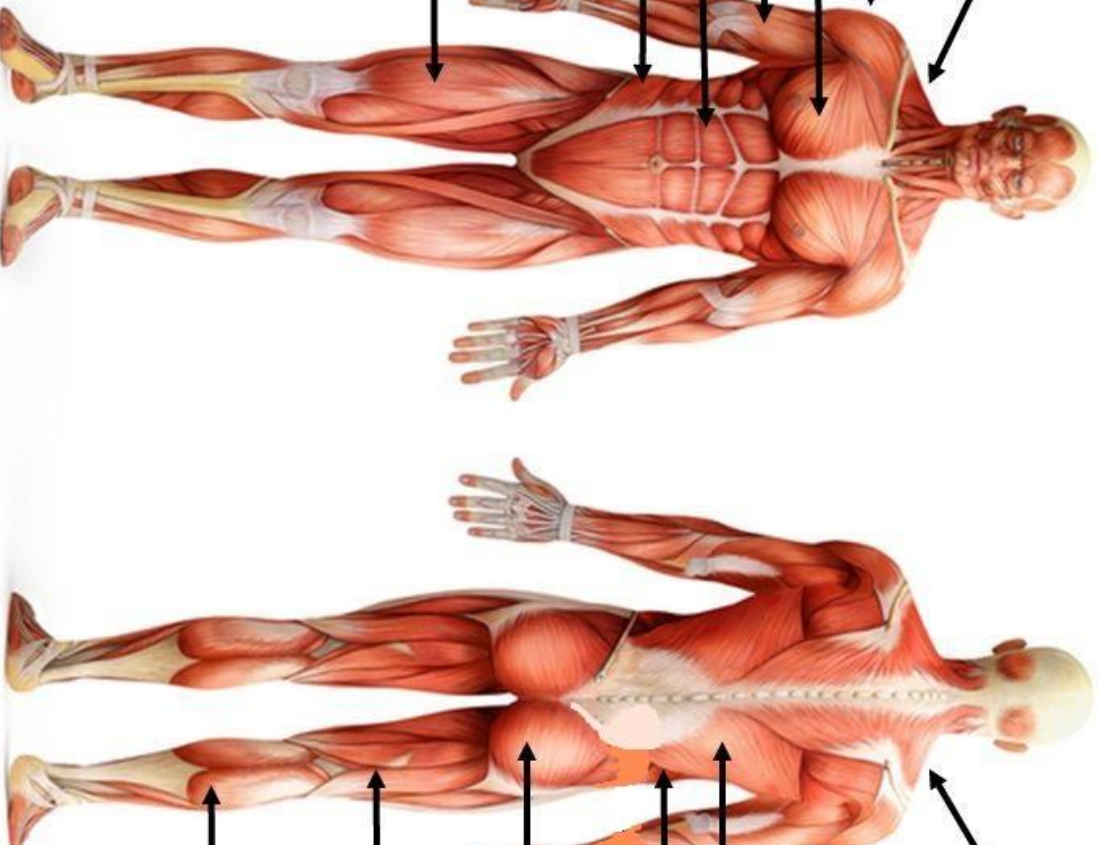
**PECTORALS**

**BICEPS**

**ABDOMINALS**

**OBLIQUES**

**QUADRICEPS**



**TRAPEZIUS**

**DELTOIDS**

**TRICEPS**

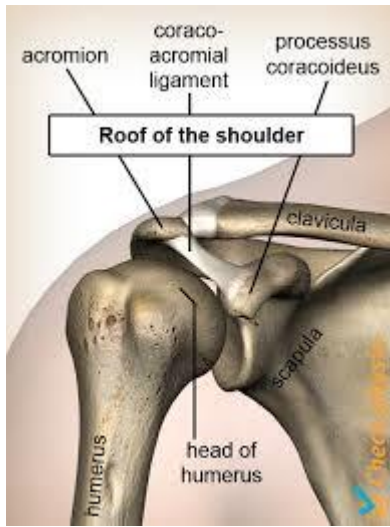
**LATISSIMUS DORSI**

**OBLIQUES**

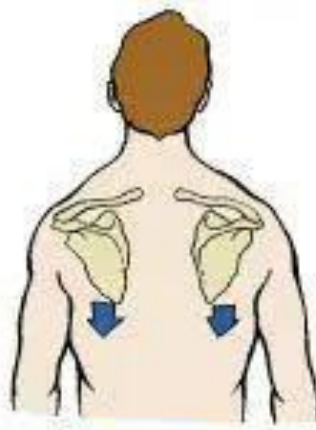
**GLUTEUS MAXIMUS**

**HAMSTRINGS**

**GASTROCNEMIUS**



Elevation



Depression



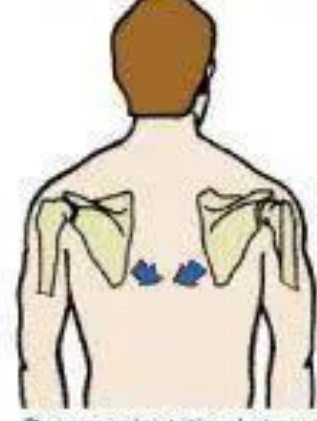
Adduction (retraction)



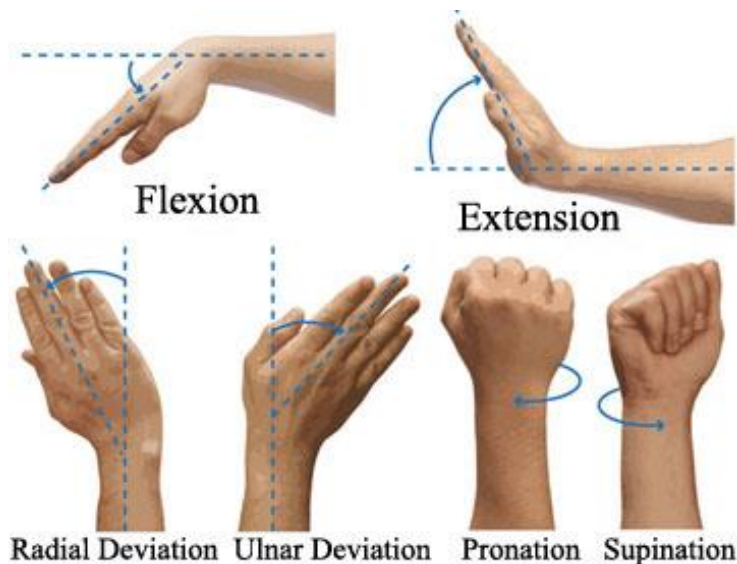
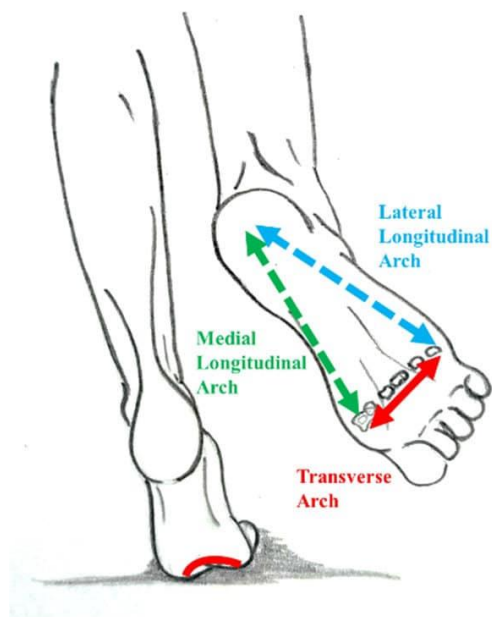
Abduction (protraction)



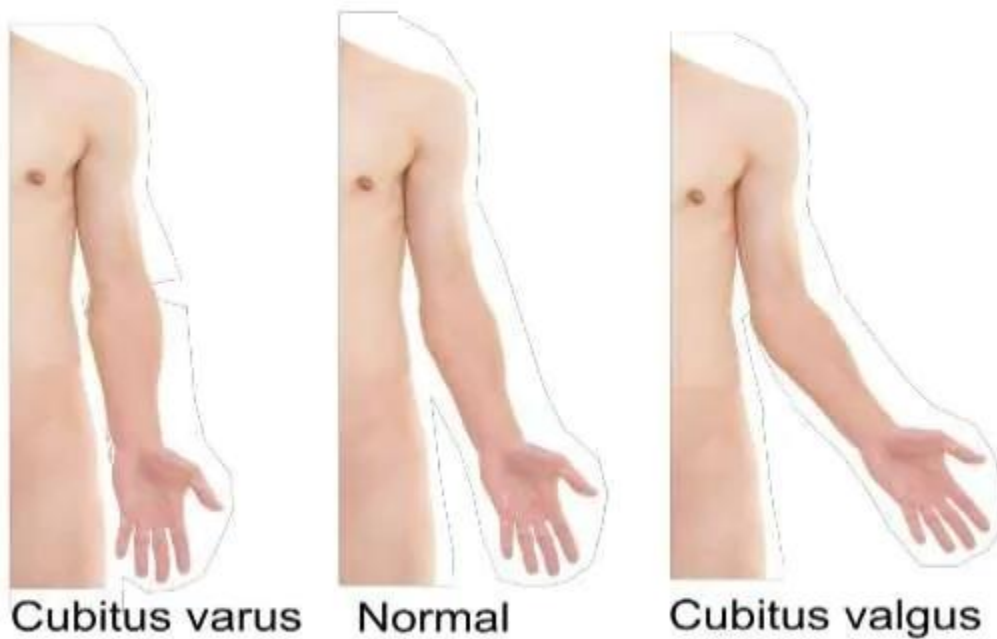
Upward rotation



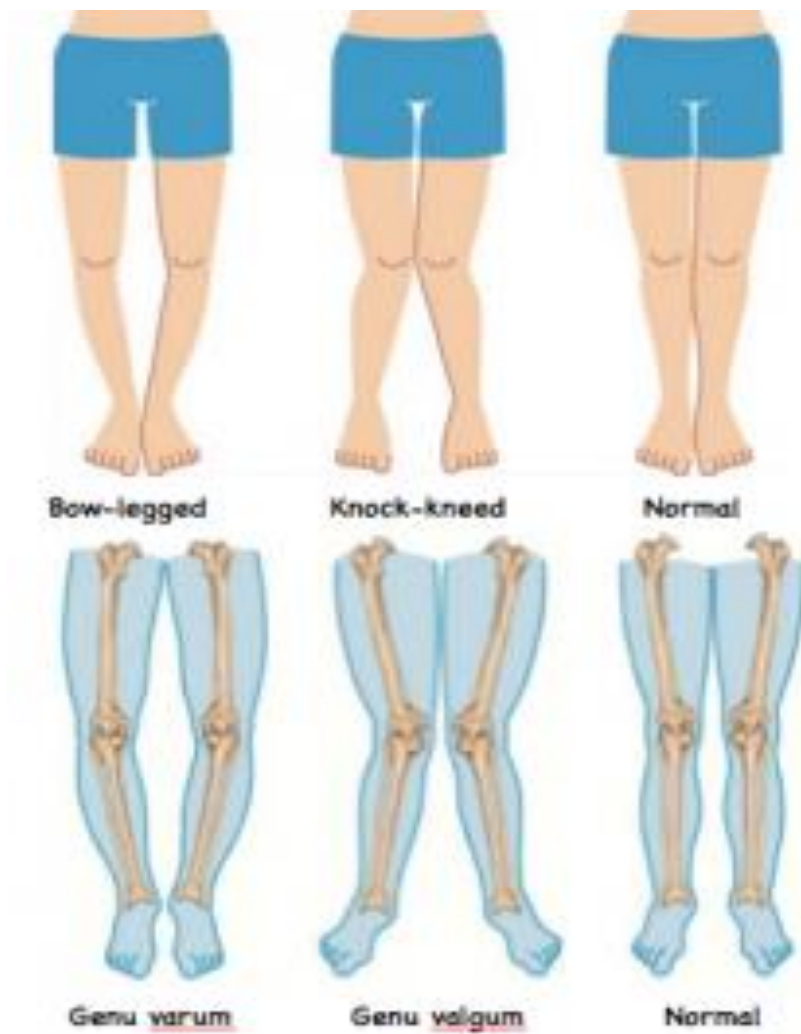
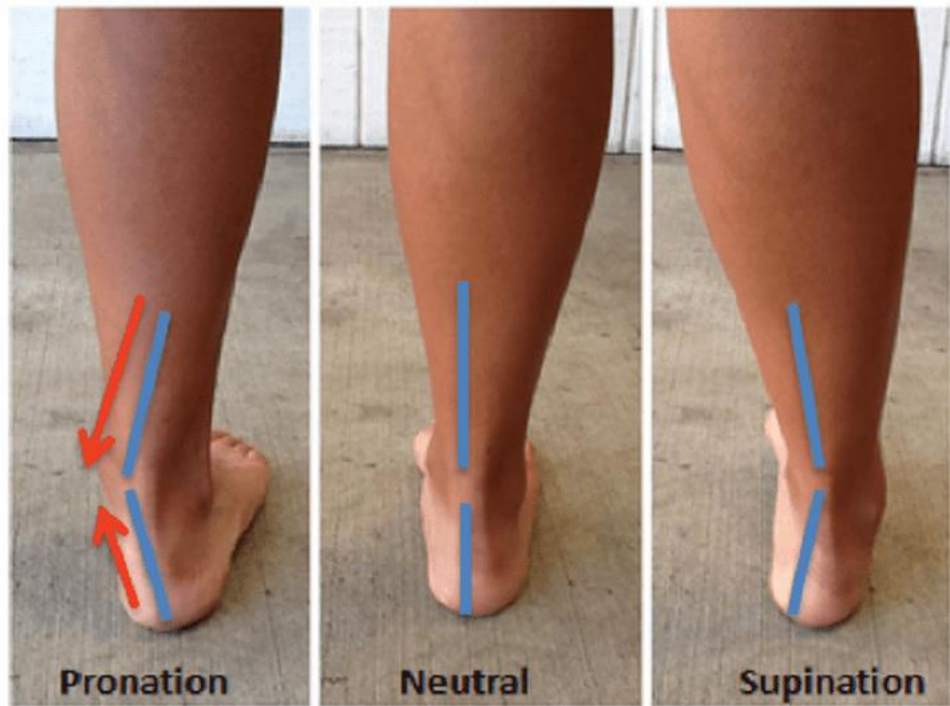
Downward rotation (return to anatomical position)



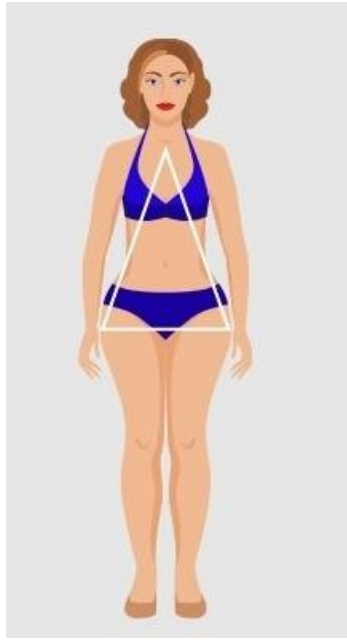
## Abnormality of carrying Angle



Any variation of the angle that is more than  $15^\circ$  is known as *cubitus valgus* and less than  $5^\circ$  are called *cubitus varus*.



# Circle One



## ECTOMORPH

- TYPICALLY SKINNY
- SMALL FRAME
- LEAN MUSCLE MASS
- DOESN'T GAIN WEIGHT EASY
- FAST METABOLISM
- FLAT CHEST
- SMALL SHOULDERS

## MESOMORPH

- ATHLETIC & RECTANGULAR SHAPE
- HARD BODY, DEFINED MUSCLES
- NATURALLY STRONG
- GAINS MUSCLE EASILY
- GAINS FAT EASIER THAN ECTOMORPHS
- BROAD SHOULDERS

## ENDOMORPH

- SOFT & ROUND BODY
- TYPICALLY "SHORT & STOCKY"
- GAINS MUSCLE EASILY
- GAINS FAT VERY EASILY
- FINDS IT HARD TO LOSE FAT
- SLOW METABOLISM
- LARGE SHOULDERS

### WORKOUT TYPE

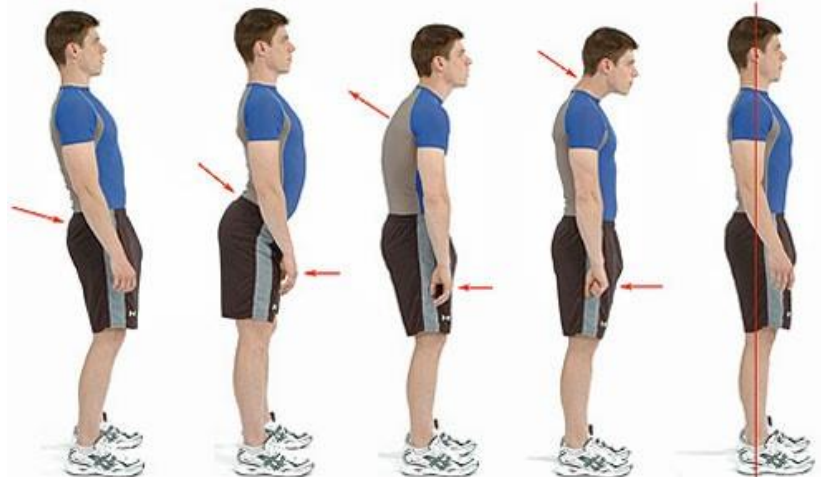
SHORT & INTENSE,  
FOCUS ON BIG MUSCLE GROUPS  
EAT BEFORE BED TO PREVENT MUSCLE  
CATABOLISM

### WORKOUT TYPE

CARDIO & WEIGHT TRAINING  
RESPONDS BEST TO WEIGHT TRAINING  
WATCH CALORIE INTAKE

### WORKOUT TYPE

ALWAYS DO CARDIO TRAINING AND  
WEIGHT TRAINING  
WATCH CALORIE INTAKE



Sway Back

Lumbar Lordosis

Thoracic Kyphosis

Forward Head

Good Posture



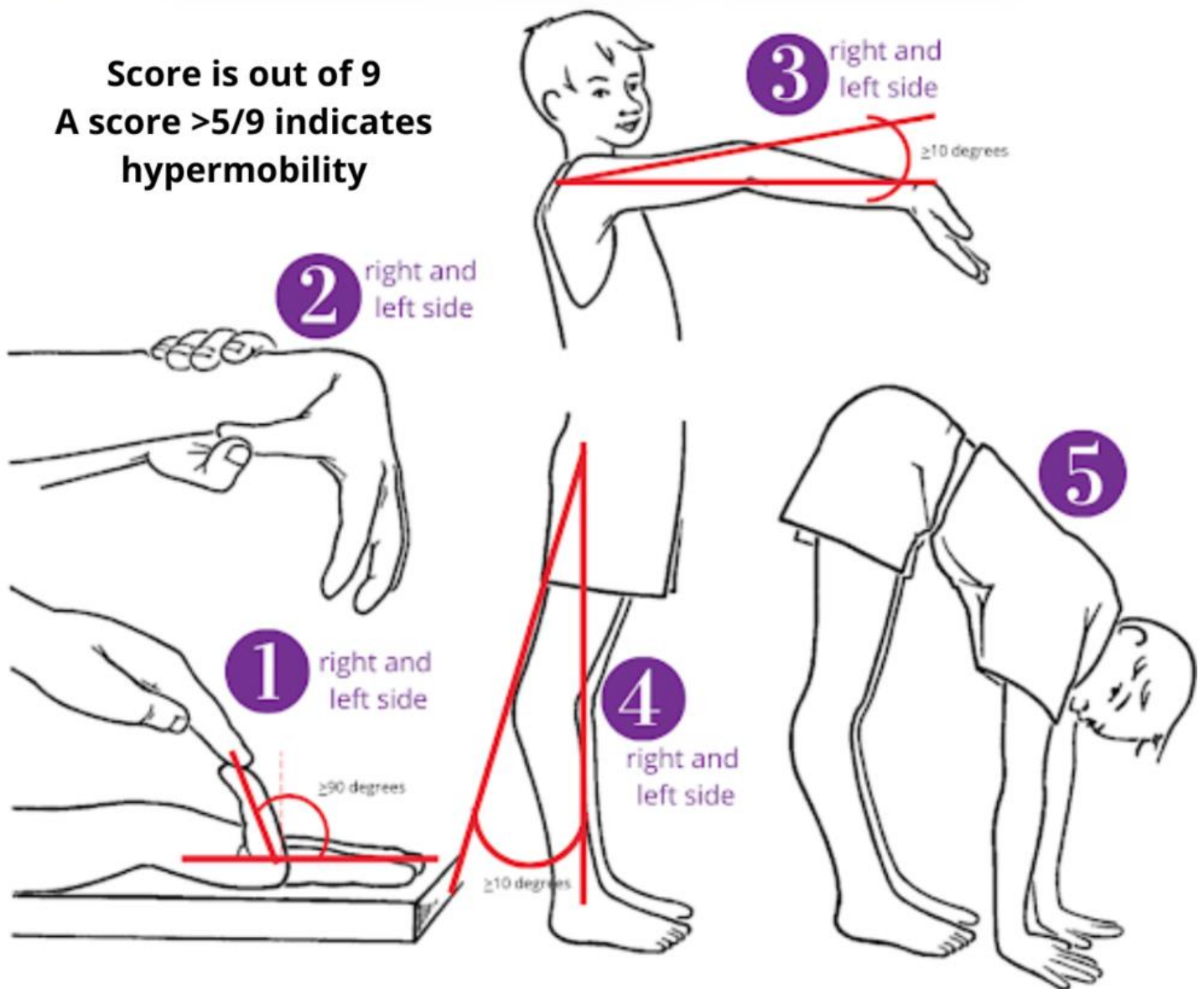
# What is hypermobility? Your Score: \_\_\_\_\_

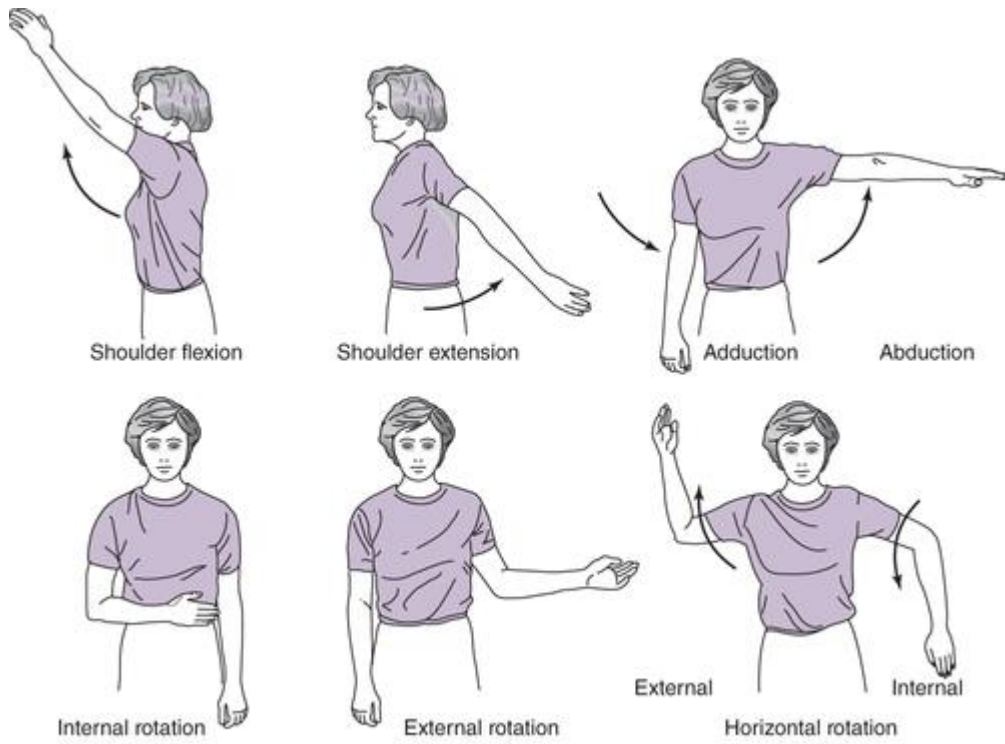
Hypermobility is the term used to describe the ability to move joints beyond the normal range of movement. Joint hypermobility is common in the general population. It may be present in just a few joints or it may be widespread. It is most common in childhood and adolescence, in females, and Asian and Afro-Caribbean races. It tends to lessen with age. In many people joint hypermobility is of no medical consequence and commonly does not give rise to symptoms. Hypermobility can even be considered an advantage, for example athletes, gymnasts, dancers and musicians might specifically be selected because of their extra range of movement.



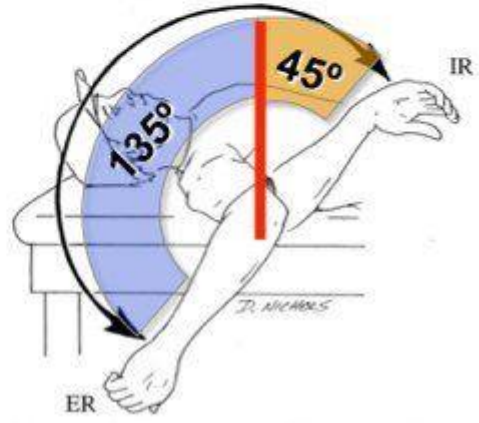
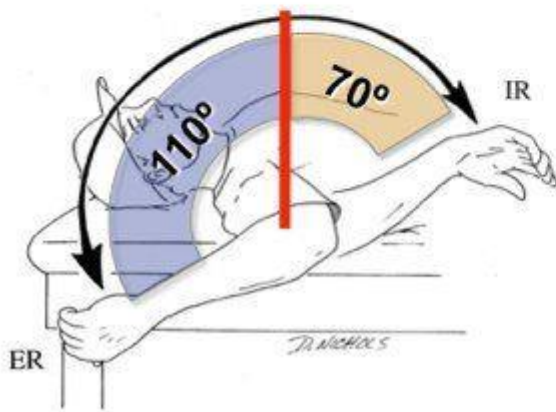
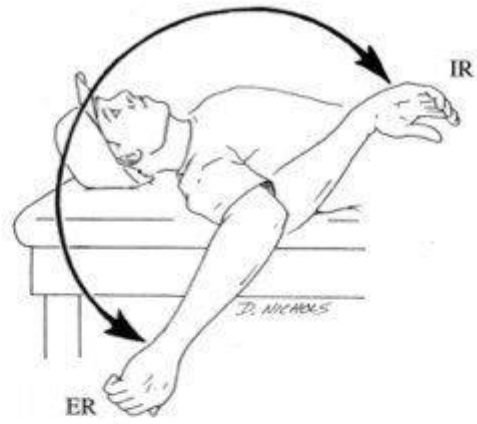
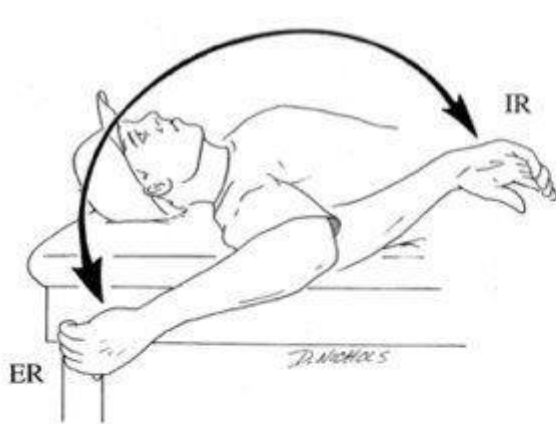
## BEIGHTON'S SCORE

Score is out of 9  
A score >5/9 indicates  
hypermobility





Source: Skinner HB, McMahon PJ. CURRENT Diagnosis & Treatment in Orthopedics, 7th Edition. www.accesssurgery.com  
 Copyright © The McGraw-Hill Companies, Inc. All rights reserved.



	Dominant	Nondominant
ER		
IR		
Total		

	Dominant	Nondominant
ER		
IR		
Total		

	Dominant	Nondominant
ER		
IR		
Total		

# J-BANDS

## DUAL ARM EXERCISES

### 1: Over-the-head Forearm Extensions

- **BE SURE** to place clip so it is not in alignment with head
- Get in lunge position with front knee over front heel at right angle.
- Elbows stay stationary
- Palms extend forward

Exercise 1 Step 1



Exercise 1 Step 2



### 2: Side Extensions

- **BE SURE** to place clip so it is not in alignment with head, & that there is lag in the J-Band
- Front knee over front heel at right angle
- Lengthen (not round) the side
- Extend from back hip through fingertips

Exercise 2 Step 1



Exercise 2 Step 2



### 3: Diagonal Extensions

- Clip at mid-back height
- Front knee over front heel at right angle
- Extend from back hip diagonally through fingertips

Exercise 3 Step 1



Exercise 3 Step 2



### 4: Forward Flies

- Clip at chest height
- Slightly bent elbows at chest height
- Bring palms toward each other

Exercise 4 Step 1



Exercise 4 Step 2



### 5: Reverse Flies

- Clip at mid-back height
- Same as Forward Flies in reverse direction
- Palms move away from each other
- Bend knees; keep chin over toes and head still

Exercise 5 Step 1



Exercise 5 Step 2



### Workout Reminders

1. Exercises are to be done **PRIOR** to throwing (or on average of 3-5 days a week during periods of time off)
2. One set of 25 repetitions per exercise (Exercises 2 & 3 involve using the breath while stretching in 30 second increments)
3. Quality over Quantity
4. Maintain proper technique, alignment, etc
5. Keep pace fluid in both directions
6. Keep arm, body, and mind relaxed
7. Keep long, fluid breathing patterns
8. Walk closer to the fence to reduce tension
9. Work to the point of fatigue rather than failure.

## THROWING ARM SPECIFIC EXERCISES

### 6: Internal Rotation

- Clip at hip height
- Elbow on hip
- Arm at right angle
- Place off-hand under armpit
- Maintain level shoulders
- Rotate arm towards opposite hip

Exercise 6 Step 1



Exercise 6 Step 2



### 7: External Rotation

- Clip at hip height
- Arm at right angle
- Same as Internal Rotation in opposite direction
- Opposite hand on outside of elbow to stabilize
- Maintain level shoulders

Exercise 7 Step 1



Exercise 7 Step 2



### 8: Elevated Internal Rotation

- Clip at shoulder height
- Arm at right angle
- Throwing elbow stabilized perpendicular to shoulder at shoulder height and in line with silver clip

Exercise 8a Step 1



Exercise 8a Step 2



### 8: Elevated Internal Rotation (Alternative)

- Clip at shoulder height
- Have chest facing away from fence
- Have throwing elbow in alignment with clip at shoulder height & maintain right angle (wrist over elbow)
- Keep elbow as stable as possible

Exercise 8b Step 1



Exercise 8b Step 2



### 9: Elevated External Rotation

- Clip at shoulder height
- Same as Internal Rotation in opposite direction

Exercise 9 Step 1



Exercise 9 Step 2



### 10: Reverse Throwing

- Clip at waist height
- Front shoulder facing clip
- Take arm in reverse direction maintaining the same arm action and arm slot of forward throwing motion
- Make a complete arm circle

Exercise 10 Step 1



Exercise 10 Step 2



### 11: Forward Throwing Motion

- Clip at waist height
- Place throwing fingers through wrist cuff & in alignment with clip
- Keep clip and tubing in line with arm slot
- Maintain normal throwing mechanics
- Extend out in front & make a complete arm circle with loose & relaxed arm action

Exercise 11 Step 1



Exercise 11 Step 2



### 12: Forward Throwing Underhand

- Clip at chest height
- Place throwing fingers in wrist cuff
- Keep proper throwing mechanics
- Keep clip and tubing in line with arm slot
- Maintain loose and relaxed arm action and feel resistance on the way up

Exercise 12 Step 1



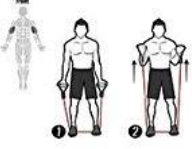


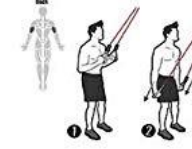

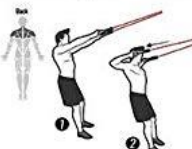
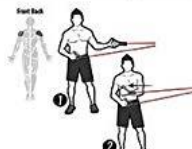


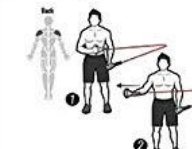
Exercise 12 Step 2






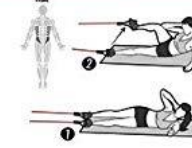






J-BANDS

# RESISTANCE BAND WORKOUTS




## UPPER BODY

 <p><b>Bicep Curl</b></p>	 <p><b>Push-Up</b></p>	 <p><b>Tricep Kickback</b></p>	 <p><b>Tricep Pushdown</b></p>	 <p><b>Tricep Extension</b></p>
 <p><b>Face Pull</b></p>	 <p><b>Internal Rotation</b></p>	 <p><b>Chest Fly</b></p>	 <p><b>Shoulder Press</b></p>	 <p><b>External Rotation</b></p>

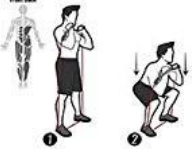
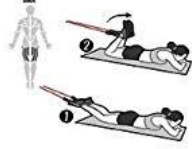




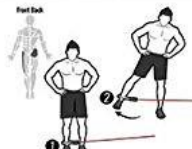

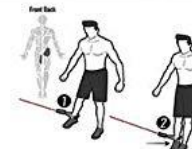
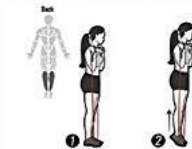
## CORE

 <p><b>Crunch</b></p>	 <p><b>Kneeling Crunch</b></p>	 <p><b>Reverse Crunch</b></p>	 <p><b>Lying Oblique Crunch</b></p>	 <p><b>Side Bend</b></p>
 <p><b>Bicycle</b></p>	 <p><b>Alternating V-Ups</b></p>	 <p><b>Side Plank</b></p>	 <p><b>Reverse Wood Chop</b></p>	 <p><b>Sit-Up</b></p>

## BACK

 <p><b>Pull Apart</b></p>	 <p><b>Lying Pullover</b></p>	 <p><b>Bent Over Row</b></p>	 <p><b>Squat Row</b></p>	 <p><b>Split Row</b></p>
--	--	---	--	---

## LOWER BODY

 <p><b>Squat</b></p>	 <p><b>Hamstring Curl</b></p>	 <p><b>Lunge</b></p>	 <p><b>Lateral Lunge</b></p>	 <p><b>Romanian Deadlift</b></p>
 <p><b>Glute Bridge</b></p>	 <p><b>Hip Abduction</b></p>	 <p><b>Donkey Kick</b></p>	 <p><b>Hip Adduction</b></p>	 <p><b>Calf Raise</b></p>

## TOTAL BODY

 <p><b>Thruster</b></p>	 <p><b>Mountain Climber</b></p>	 <p><b>Pull Through</b></p>	 <p><b>Swing</b></p>	 <p><b>Sumo Squat Pull</b></p>
--	--	--	--	---

J-BANDS



# THROW HARD. STAY HEALTHY.

## HOW TO FOLLOW PROGRAM

Weeks 1 & 2 are designed to get the arm in shape and help create better throwing patterns.

Weeks 3-8 of this program are designed for healthy athletes that are not in-season and have been screen and cleared by a medical professional or qualified athletic trainer. This should not be attempted by anyone less physically mature than a high schooler.

Take time to properly go through exercises. If necessary, high speed video is a great aid for quick feedback and checkpoints.

All reps should be started at 50% RPE and worked up to 80% when athlete begins to display greater competence and ability with drill work.

**WARM UP AND RECOVERY IS NEVER TO BE DONE AT 100% RPE.**

Program should be followed from beginning to end without skipping drills an athlete doesn't like. In our experience when an athlete doesn't like a drill, it's usually because they're not particularly proficient at the drill itself. Dedicate time and energy to properly accomplishing these exercises, and the results will follow. Skipping exercises, or piecemealing the program together is a good way to get hurt.

Our velocity routines include Run Thrus - this is simply taking a running start in to a walk thru. These exercises are designed to be done into a net and preferably with a radar gun.

## WHO SHOULD DO THIS PROGRAM?

Any healthy, mature athlete looking to gain strength, increase recovery, and create more efficient mechanics.

Athletes that have been properly assessed and cleared by a qualified professional.

## WHO SHOULD NOT DO THIS PROGRAM?

Anyone already following a throwing program.  
Mixing and matching is a sure way to get injured.

Anyone with pain. If you are experiencing ANY pain or discomfort, consult a medical professional immediately.

## CAN I START THIS ARM CARE PROGRAM MID-SEASON?

**ABSOLUTELY!**

If you are in season, stick to OR 1 until you are done with your competitive season. Attempting to add this full program to your competitive season drastically increases likelihood of injury.

\*Athletes under age 14 should substitute Red/Blue balls for Gray/Red balls in Plyo Ball routines

# WARM UP ROUTINE

# RECOVERY ROUTINE

Band Series:			
Exercise	Sets	Reps	Weight
#1 Tricep Extension with Pronation	1	10	Jaeger Bands
#2 Elevated Bicep Curl	1	10	Jaeger Bands
#3 Fly w/Double Arm Raise	1	10	Jaeger Bands
#4 Reverse Fly	1	10	Jaeger Bands
#5 Reverse Double Arm Raise	1	10	Jaeger Bands
#6 Shoulder Internal Rotations	1	10	Jaeger Bands
#7 Shoulder External Rotations	1	10	Jaeger Bands
#8 Split Stance Arm Circle (Pitching)	1	10	Jaeger Bands
#9 Pronation Swings (Pitching)	1	10	Jaeger Bands

Wrist Weight Series:			
Exercise	Sets	Reps	Weight
#10 Double Pronation Swings	1	10	5 lb
#11 Pivot Brush	1	10	5 lb

Plyo Ball Warm Up Series: (50-80% RPE)			
Exercise	Sets	Reps	Weight
#12 Reverse Throw	1	10 ea	Red then Gray
#13 Reverse Brush	1	10 ea	Red then Gray
#14 Pivot Brush	1	10 ea	Red then Gray

Plyo Ball Recovery Series:			
Exercise	Sets	Reps	Weight
#15 Rebounders	1	10	Gray
#16 Drop-Catch	1	10	Red

Wrist Weight Series:			
Exercise	Sets	Reps	Weight
#10 Double Pronation Swings	1	10	5 lb
#11 Pivot Brush	1	10	5 lb

Band Series:			
Exercise	Sets	Reps	Weight
#1 Tricep Extension with Pronation	1	10	Jaeger Bands
#2 Elevated Bicep Curl	1	10	Jaeger Bands
#3 Fly w/Double Arm Raise	1	10	Jaeger Bands
#4 Reverse Fly	1	10	Jaeger Bands
#5 Reverse Double Arm Raise	1	10	Jaeger Bands
#6 Shoulder Internal Rotations	1	10	Jaeger Bands
#7 Shoulder External Rotations	1	10	Jaeger Bands
#8 Split Stance Arm Circle (Pitching)	1	10	Jaeger Bands
#9 Double Pronation Swings (Pitching)	1	10	Jaeger Bands

Band Recovery Circuit:			
Exercise	Sets	Reps	Weight
#17 No Money Drill	1	15	Jaeger Bands
#18 Band Pull Aparts	1	15	Jaeger Bands

# PROGRAMS - OUTLINE

## 14+ Years Old

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Week 1	OR 1	Off	OR 1	Off	OR 1	Off	Off
Week 2	OR 1	Off	OR 1	Off	OR 1	Off	Off
Week 3	OR 2	Off	OR 3	Off	OR 3	Off	OR 3
Week 4	OR 2	Off	OR 3	Off	OR 3	Off	Velo 1
Week 5	OR 2	Off	OR 3	Off	OR 3	Off	Velo 1
Week 6	OR 2	Off	OR 3	Off	OR 3	Off	OR 3
Week 7	OR 2	Off	OR 3	Off	OR 3	Off	Velo 2
Week 8	OR 2	Off	OR 3	Off	OR 3	Off	Velo 2

## 10-14 Years Old

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Week 1	OR 1	Off	OR 1	Off	OR 1	Off	Off
Week 2	OR 1	Off	OR 1	Off	OR 1	Off	Off
Week 3	OR 2	Off	OR 2	Off	OR 2	Off	Off
Week 4	OR 2	Off	OR 2	Off	OR 2	Off	Off
Week 5	OR 3	Off	OR 3	Off	OR 3	Off	Off
Week 6	OR 3	Off	OR 3	Off	OR 3	Off	Off
Week 7	OR 3	Off	OR 3	Off	OR 3	Off	Off
Week 8	OR 3	Off	OR 3	Off	OR 3	Off	Off

The velocity part of this program is not for athletes that are less physically mature than an average high school athlete.

Make sure to read this entire e-book before starting any of these programs.

All plyo work should be done at 80% RPE (Rate of Perceived Exertion, or how much effort an athlete is putting in to an exercise).

**DO NOT SKIP RECOVERY!**

Program is meant to be followed from beginning to end. Attempting to add to this program or adjust without supervision increases likelihood for injury.

**IN SEASON ATHLETES** - repeat Weeks 1&2 until competitive play is over.

Athletes younger than 14 can increase velocity simply through more efficient mechanics and better arm fitness. They **DO NOT** need the velocity portion of this program. Please follow the correct program to avoid injury.

# PROGRAMS - OR 1

Warm Up:			
Exercise	Sets	Reps	Weight
Band Series	1	10 ea	Jaeger Bands
Wrist Weights	1	10 ea	5 lb weights
Plyo Ball Warm Up Series	1	10 ea	Red/Gray

Recovery:			
Exercise	Sets	Reps	Weight
Plyo Ball Recovery Series	1	10 ea	Gray/Red
Wrist Weights	1	10 ea	5 lb weights
Band Series	1	10 ea	Jaeger Bands
Band Recovery Circuit	1	15 ea	Jaeger Bands

# PROGRAMS - OR 3

Warm Up			
Exercise	Sets	Reps	Weight
Band Series	1	10 ea	Jaeger Bands
Wrist Weights	1	10 ea	5 lb weights
Plyo Ball Warm Up Series	1	10 ea	Red/Gray

Plyo Ball Drill Series: (50-80% RPE)		
Exercise	Sets	Reps/Weight
K Drill	2	1 throw each/Blue, Green, Yellow, Purple
Rocker	2	1 throw each/Blue, Green, Yellow, Purple
Walk Thru	2	1 throw each/Blue, Green, Yellow, Purple

Recovery:			
Exercise	Sets	Reps	Weight
Plyo Ball Recovery Series	1	10 ea	Gray/Red
Wrist Weights	1	10 ea	5 lb weights
Band Series	1	10 ea	Jaeger Bands
Band Recovery Circuit	1	15 ea	Jaeger Bands

# PROGRAMS - OR 2

Warm Up			
Exercise	Sets	Reps	Weight
Band Series	1	10 ea	Jaeger Bands
Wrist Weights	1	10 ea	5 lb weights
Plyo Ball Warm Up Series	1	10 ea	Red/Gray

Plyo Ball Drill Series: (50-80% RPE)		
Exercise	Sets	Reps/Weight
K Drill	1	10 throws each/Red then Gray
Rocker	-	-
Walk Thru	-	-

Recovery:			
Exercise	Sets	Reps	Weight
Plyo Ball Recovery Series	1	10 ea	Gray/Red
Wrist Weights	1	10 ea	5 lb weights
Band Series	1	10 ea	Jaeger Bands
Band Recovery Circuit	1	15 ea	Jaeger Bands

# PROGRAMS - Velo 1

Warm Up			
Exercise	Sets	Reps	Weight
Band Series	1	10 ea	Jaeger Bands
Wrist Weights	1	10 ea	5 lb weights
Plyo Ball Warm Up Series	1	10 ea	Red/Gray

Plyo Ball Drill Series: (50-80% RPE)			
Exercise	Sets	Reps/Weight	
K Drill	2	1 throw each/Blue, Green, Yellow, Purple	
Rocker	2	1 throw each/Blue, Green, Yellow, Purple	
Walk Thru	2	1 throw each/Blue, Green, Yellow, Purple	

Weighted Ball Velo Series: (100% RPE)			
Exercise	Sets	Reps	Weight
Run Thru	1	3 throws	6 oz (1st throw 80%)
Run Thru	1	3 throws	7 oz (1st throw 80%)
Run Thru	1	3 throws	6 oz (1st throw 80%)
Run Thru	1	3 throws	5 oz (1st throw 80%)

Recovery:			
Exercise	Sets	Reps	Weight
Plyo Ball Recovery Series	1	10 ea	Gray/Red
Wrist Weights	1	10 ea	5 lb weights
Band Series	1	10 ea	Jaeger Bands
Band Recovery Circuit	1	15 ea	Jaeger Bands

## Run Thrus

Run Thrus are our primary velocity and intent building exercise.

To properly execute a Run Thru, simply create as much momentum as possible into throw. This is similar to a Walk Thru but with significantly more momentum and intent to throw hard.

Run Thrus should be executed in to a net.

A radar gun is preferable to record data and keep track of progress. We recommend Stalker or Pocket Radars.

# PROGRAMS - Velo 2

Warm Up			
Exercise	Sets	Reps	Weight
Band Series	1	10 ea	Jaeger Bands
Wrist Weights	1	10 ea	5 lb weights
Plyo Ball Warm Up Series	1	10 ea	Red/Gray

Plyo Ball Drill Series: (50-80% RPE)			
Exercise	Sets	Reps/Weight	
K Drill	2	1 throw each/Blue, Green, Yellow, Purple	
Rocker	2	1 throw each/Blue, Green, Yellow, Purple	
Walk Thru	2	1 throw each/Blue, Green, Yellow, Purple	

Weighted Ball Velo Series: (100% RPE)			
Exercise	Sets	Reps	Weight
Run Thru	1	3 throws	6 oz (1st throw 80%)
Run Thru	1	3 throws	8 oz (1st throw 80%)
Run Thru	1	3 throws	6 oz (1st throw 80%)
Run Thru	1	3 throws	4 oz (1st throw 80%)

Recovery:			
Exercise	Sets	Reps	Weight
Plyo Ball Recovery Series	1	10 ea	Gray/Red
Wrist Weights	1	10 ea	5 lb weights
Band Series	1	10 ea	Jaeger Bands
Band Recovery Circuit	1	15 ea	Jaeger Bands



# TRICEPS EXTENSION W/PRONATION

#1

Start with chest facing away from band anchor. Elbow should be bent and raised to shoulder height in front of chest. Palms should be facing down with thumbs pointed away from mid-line of body.



Extend arms out in front of body, keeping elbows at shoulder height. Pronate forearms as arms extend. Thumbs should end up facing downward towards floor with palms facing away from mid-line of body.

Bending elbows, bring wrists back towards shoulder, supinating forearms during return to starting position.



# ELEVATED BICEPS CURL W/SUPINATION

#2

Start with chest facing band anchor. Extend arms out in front of body at shoulder height with palms facing down and thumbs facing towards midline of body.



Leaving elbows where they are, bend arms and bring hands back to shoulder while supinating forearms.

Extend arms back out to starting position, pronating forearms as they move away from body.



# FORWARD FLY W/OVERHEAD RAISE

#3

Start with chest facing away from band anchor. Arms should be extended straight out to the side of body, with thumbs facing upwards.



Bring extended arms towards each other, keeping them at shoulder height.

Raise, then lower extended arms in controlled motion above shoulders and then back down to previous position



Control bands while returning to starting position.

# REVERSE FLY

#4

Start with chest facing towards band anchor. Arms should be extended straight in front of body at shoulder height.



Pull extended arms back to the side of body, focusing on using back muscles. "Pinch" spine with scaps instead of pushing wrists.

Control bands while returning to starting position.



# REVERSE RAISE #5

Start with chest facing towards band anchor. Arms should be extended straight in front of body at shoulder height.



Control bands while returning to starting position.



Pull extended arms back over shoulders. Thumbs should be pointing back.

# SHOULDER INTERNAL ROTATION #6

Start with shoulders perpendicular to wall. Arm should be bent at 90 degrees, with wrist straight out from hip and elbow against body.



Allow band to pull wrist and arm back to starting position, keeping elbow locked at 90 degree angle.



Rotate upper arm in towards center of body, keeping elbow locked at 90 degrees. Pull away from wall until hand reaches opposite hip.

# SHOULDER EXTERNAL ROTATION #7

Start with chest parallel to wall. Arm should be bent at 90 degrees, with wrist against opposite hip and elbow against body.



Allow band to pull wrist and arm back to starting position, keeping elbow locked at 90 degree angle.



Rotate upper arm away from center of body keeping elbow locked at 90 degrees. Pull away from wall until hand is straight out from hip.

## SPLIT STANCE ARM CIRCLE

#8

Start with chest facing wall. Feet should be separated in split stance, with plant leg in front of hips and drive leg behind. Throwing arm will dangle in front of hips.



As arm comes down, brush against hip and end up in starting position. palm should start facing the ground, end up facing away from body at the top of arm.



Rotate chest backward towards throwing arm side. Simultaneously, raise throwing arm in pitching motion.

## UNDERHAND PRONATION SWING

#9

Start with back facing band anchor and hands slightly raised behind back. Hands should be close to body with thumbs pointing away from center of body.



Allow hands to swing back in controlled motion to starting position, this time supinating forearms as they return to starting position.



Bring hands forward, pronating when hand reaches hip. Palms will turn backward, with thumbs turning in towards body as athlete swings arms forward and up.

# UNDERHAND PRONATION SWING W/WRIST WEIGHTS

#10

Start with hands slightly raised behind back. Hands should be close to body with thumbs pointing away from center of body.



Allow hands to swing back in controlled motion to starting position, this time supinating forearms as the return to starting position.



Bring hands forward, pronating when hand reaches hip. Palms will turn backward, with thumbs turning in towards body as athlete swings arms forward and up.

# BRUSH PIVOT W/WRIST WEIGHTS

#11

Start with chest, toes and hips in the same direction. Roughly 45 degree closed off from target.



Turn upper half of both 90 degrees toward throwing arm as both arms begin arm circle motion.

Move both glove and throwing arms in motion as similar to actual pitching motion as possible.



As throwing arm begins brush contact, allow chest to continue rotating back to starting position, as forearm pronates and extends to target.

## REVERSE THROWS #12

Kneel onto throwing side knee. Chest should be facing away from wall, and be vertical. Knees, ankles and hips should be lined up on each side.



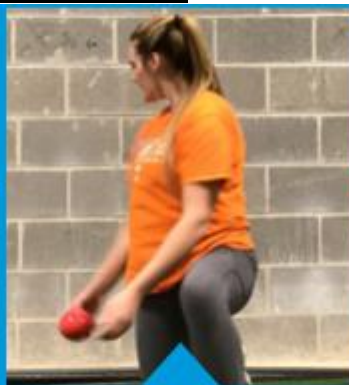
Bend at the hips, touch the ball to the ground in front of throwing side knee

Drive chest back and rotate towards wall as throwing arm swings back through natural overhand arm slot.



## REVERSE BRUSHES #13

Kneel onto throwing side knee. Chest should be facing away from wall, and be vertical. Knees, ankles and hips should be lined up on each side.



Drive chest back and rotate towards wall as throwing arm swings back through natural brush slot.

As hand passes hip, supinate forearm and toss ball against wall.



## BRUSH PIVOT #14

Start with chest, toes and hips in the same direction. Roughly 45 degree closed off from target.



Turn upper half of both 90 degrees toward throwing arm, as both arms begin arm circle motion.

Move both glove and throwing arms in motion as similar to actual pitching motion as possible.



As throwing arm begins brush contact, allow chest to continue rotating back to starting position, as forearm pronates and extends to target.

## REBOUNDERS #15

Stand directly next to trampoline. Ball should be held by shoulder with palm facing inward.



Toss ball down towards trampoline, allowing arm to pronate into release.

Catch and hold ball after it rebounds off of trampoline with arm extended out.



## DROP-CATCH #16

Stand with arm extended out to side at shoulder height, ball in hand.



Drop ball and catch quickly.

Pull ball up as quickly as possible to starting position.



# NO MONEY

## #17

Stand with elbows bent at 90 degrees and palms facing up in front of hips. Band should not have major tension on it. If necessary to get through full range of motion, allow for some slack on the band.



Focusing on using back muscles, pull band hands away from each other.

Allow band to pull hands back together to starting position, while keeping palms facing up.



# BAND PULL APARTS

## #18

Stand with arms outstretched at roughly 45 degree angle overhead. Band should be held by both hands and have no major tension on it. If necessary to get through full range of motion, allow for some slack on the band.



Focusing on using back muscles, pull hands back and down in line with shoulders and stretched out to side. Band should end up stretched across upper chest.

Allow band to pull wrist and arm back to starting position





# ATHLETIC PLACEMENT PROCESS

## Physical Fitness: Scores Required for the Athletic Placement Process

**SAMPLE  
VARSITY TESTING**

SEX	AGE	Curl-Ups # in one minute	Shuttle Run in seconds	Choose one <sup>1</sup>		1 Mile- Walk/Run min/sec*	Choose one <sup>2</sup>	
				V-sit Reach in inches	Sit & Reach in centimeters		Pull-Ups # completed	Right Angle Push-ups # every 3 sec.
Females	11	42	10.5	6.5	34	9:02	3	19
	12	45	10.4	7.0	36	8:23	2	20
	13	46	10.2	7.0	38	8:13	2	21
	14	47	10.1	8.0	40	7:59	2	20
	15	48	10.0	8.0	43	8:08	2	20

**Curl-ups Testing** - This activity measures abdominal strength and endurance.

- Have the student lie on a cushioned, clean surface with knees flexed and feet about 12 inches from buttocks. A partner holds the feet.
- Make sure the arms are crossed with hands placed on opposite shoulders and elbows held close to chest.
- Keeping this arm position, the student raises the trunk, curling up to touch elbows to thighs, and then lowers the back to the floor so that the scapulas (shoulder blades) touch the floor, for one curl-up.
- To start, a timer calls out the signal "Ready? Go!" and begins timing the student for one minute. The student stops on the word "Stop."

**Curl-ups Tip** - Instruct helpers to count aloud the number of repetitions.

**Curl-ups Scoring** - "Bouncing" off the floor is not permitted. The curl-up should be counted only if performed correctly.

**Shuttle Run** - This activity measures speed and agility.

- Mark two parallel lines 30 feet apart and place two blocks of wood or similar objects behind one of the lines.
- Student starts behind the opposite line. On the signal "Ready? Go!" the student runs to the blocks, picks one up, runs back to the starting line, places the block behind the line, runs back and picks up the second block, and runs back across the starting line.

**Tips** - Be sure the participants understand the importance of running through the finish line. Participants should perform this activity on a gym floor or other appropriate surface.

**Scoring** - Blocks should not be thrown across the lines. Scores are recorded to the nearest tenth of a second.

**One Mile Run/Walk** - This activity measures heart/lung endurance.

- On a safe, one-mile distance, students begin running on the count "Ready? Go!"
- Walking may be interspersed with running. However, the students should be encouraged to cover the distance in as short a time as possible.

**Tips** - Use a large enough running area so that no more than eight laps are necessary to complete a mile. Help participants learn proper pacing for the mile by having them run at the mile pace for short distances during warm-up time.

**Scoring** - Always review students' health status before administering this test. Give students ample instruction on how to pace themselves. Allow them to practice running this distance against time, as well as sufficient time for warming up and cooling down before and after the test. Times are recorded in minutes and seconds.

**Pull-ups** - This activity measures upper body strength and endurance.

- The student hangs from a horizontal bar at a height the student can hang from with arms fully extended and feet

- free from the floor, using either an overhand grip (palms facing away from body) or underhand grip (palms facing toward body). Small students may be lifted to the starting position.
- The student raises his/her body until chin clears the bar and then lowers his/her body to the full-hang starting position. The student performs as many correct pull-ups as possible.

**Pull-ups Tips** - Spend as little time hanging from the bar beforehand as possible because the extra time on the bar may reduce the number of pull-ups performed. Discourage any leg kicking or body swinging, as this may also decrease the number of repetitions.

**Pull-ups Scoring** - Pull-ups should be done in a smooth rather than jerky motion. Kicking or bending the legs is not permitted and the body must not swing during the movement.

---

### **Right Angle Push-ups Testing**

- The student starts in push-up position, with hands under shoulders, arms straight, fingers pointed forward, and legs straight, parallel, and slightly apart (approximately 2-4 inches) with the toes supporting the feet.
- Keeping the back and knees straight, the student then lowers the body until there is a 90-degree angle formed at the elbows, with upper arms parallel to the floor. A partner holds her/his hands at the point of the 90-degree angle so that the student being tested goes down only until her/his shoulders touch the partner's hand, then back up.
- The push-ups are done to a metronome (or audio tape, clapping, drums) with one complete push-up every three seconds, and are continued until the student can do no more at the required pace. The student should remain in motion during the entire three second interval.

**Right Angle Push-ups Tip** - As with the pull-up, spend as little time in the starting position beforehand in order to increase the number of repetitions. Any extra movement may also decrease the number of repetitions.

**Right Angle Push-ups Scoring** - Record only those push-ups done with proper form and in rhythm.

---

**V-sit Reach** - This activity measures flexibility of the lower back and hamstrings.

- A straight line two feet long is marked on the floor as the baseline.
- A measuring line four feet long is drawn perpendicular to the midpoint of the baseline, extending two feet on each side and marked off in half-inches. The point where the baseline and measuring line intersect is the "0" point.
- Student removes his/her shoes and sits on floor with measuring line between his/her legs and the soles of his/her feet placed directly behind the baseline, with the heels 8-12 inches apart.
- With hands on top of each other, palms down, the student places them on measuring line.
- With the legs held flat by a partner, the student slowly reaches forward as far as possible, keeping fingers on the measuring line and feet flexed.
- After three practice tries, the student holds the fourth reach for three seconds while that distance is recorded.

**V-sit Reach Tip** - Participants are most flexible after a warm-up run. Best results may occur immediately after performing the endurance run.

**V-sit Reach Rules** - Legs must remain straight with soles of feet held perpendicular to the floor (feet flexed). Students should be encouraged to reach slowly rather than "bounce" while stretching. Scores, recorded to the nearest half inch, are read as plus scores for reaches beyond baseline, minus scores for reaches behind baseline.

---

### **Sit and Reach Testing**

- You'll need a specially constructed box with a measuring scale marked in centimeters, with 23 centimeters at the level of the feet.
- The student removes shoes and sits on floor with knees fully extended, feet shoulder-width apart and soles of the feet held flat against the end of the box.
- With hands on top of each other, palms down, and legs held flat, student reaches along the measuring line as far as possible. After three practice reaches, the fourth reach is held while the distance is recorded.

**Sit and Reach Tip** - Participants are most flexible after a warm-up run. Best results may occur immediately after performing the endurance run.

**Sit and Reach Rules** - Legs must remain straight, soles of feet against box, and fingertips of both hands should reach evenly along the measuring line. Scores are recorded to the nearest centimeter.

# PITCHING RULES

Different Rule Sanctions: USSSA, USA (ASA), NFHS, NSA, PONY, PGF, NCAA  
WNY Local Leagues: Niagara Frontier League, Metro League, High School

---

## Niagara Frontier League (NFL) - follows NSA Rules

Website: <https://nfgsa.teampages.com/organizations/19756/pages/167063>

- All games played under NSA Rules with ASA rain-out rule and finishing with 8 players added-on for league and playoff games.
- In an effort to keep games progressing without pitcher interruption, the NFGSA will allow USA softball pitching rules, "Step-Back Rule" for the 2020 season.

## Metro Girls Softball League (MGSL) – follows Pony Rules:

<https://mgsl.teampages.com>

"The first demo is "start back" this is the PONY and MGSL pitching rule"

" The "Step Back" is not part of the MGSL and PONY"

<https://www.youtube.com/watch?v=H-bY8AYVkk4>

## High School – Section 6 follows NFHS rules

<https://www.section6.e1b.org/Softball>

## NSA

Rule 6, Section 1(a): The pitcher shall take a position with both feet on the ground and one or both feet in contact with the pitching plate. The non-pivot foot may be on or behind the pitching plate as far back as desired, however, once the toe is set, no movement further backwards is allowed.

Rationale: Revises the Pitching Requirements

Rule 6, Section 1(b): Both feet must be on the ground and within the 24" pitching plate, hips aligned with first and third base, with the hands separated and the ball being held in either the glove or pitching hand.

# USA v NCAA v NFHS

From NFHS website: <https://www.nfhs.org/media/1019874/2020-usa-softball-ncaa-nfhs-rule-differences-final.pdf>

USA Softball		NCAA		NFHS	
<b>RULE 6: PITCHING</b>					
<b>Preliminaries</b>					
Before starting the pitch the pitcher shall comply with the following. Both feet must be on the ground and <b>in contact with or behind the pitcher's plate.</b>	6.1.A- E 6.1.C	The pitcher is considered to be in the pitching position when she has her hands apart, her pivot foot in contact with the pitcher's plate, both feet on the ground within the 24-inch length of the pitcher's plate, the hips in line with first and third bases. The stride foot may be on or behind the pitcher's plate as far back as desired. Once the pitcher initially sets the toe of her stride foot, she may not step back any farther to increase the distance behind the	10.2.1. 1	Same as USA Softball	6-1-1 6-1-2a &b FP
<b>Taking a Signal</b>					
While on the pitcher's plate, the pitcher shall take a signal or appear to take a signal with the hands separated. The ball must remain in either the glove or pitching	6.1.D	While in this position, the pitcher must take or appear to take a signal while on the pitching plate. They are not allowed to take a signal from anywhere other than	10.22	Same as USA Softball	6-1-1b
<b>Start of the Pitch</b>					
The pitch starts when the hands are separated once they have been placed together.	6.2	Same as USA Softball		Same as USA Softball	6-1-2a
<b>Number of Revolutions</b>					
The pitcher must not make more than two revolutions of the arm on the windmill pitch. A pitcher may drop the arm to the side and to the rear before starting the windmill	6.3.D	Not more than one and a half revolutions.	10.6.1	Not more than one and a half clockwise revolutions of the arm in the windmill pitch.	6-1-4d
<b>Continuing the Revolution</b>					
The Pitch shall not make another revolution after releasing the ball	6.3M	Same as USA Softball	10.6.5	The Pitcher does not continue to wind up after taking the forward step or after the ball is released. NOTE: Continuation of wind up is considered any action that, after the ball is released causes the arm to continue to rotate past the shoulder.	6-1-4e
<b>Legal Delivery</b>					
The Pitcher may not throw behind their back or through their legs and the ball must be delivered on the throwing side of the	6.3F	No such Rule		Same as USA Softball	6-1-3c
In the act of delivering the ball, the pitcher shall take one step with the non-pivot foot simultaneous with the release of the ball. The step must be forward and toward the batter within the 24-inch length of the pitcher's plate. It is not a step if the pitcher slides the pivot foot across the pitcher's plate toward the batter, or if the pivot foot turns or slides in order to push off the pitcher's plate, provided contact is maintained with the plate. Raising the foot off the pitcher's plate and returning it to the plate creates a rocking motion and is an illegal act. <b>Any step back with the non-pivot foot must begin before the start of the pitch. Once the pitch has started (the hands separate), the pitcher shall not take more than one step which must be forward toward the batter and</b>	6A.3.1	<b>The stride foot may be on or behind the pitcher's plate as far back as desired. Once the pitcher initially sets the toe of her stride foot, she may not step back any farther to increase the distance behind the pitcher's plate.</b>	10.2.1.1	Same as USA Softball	6-1-2b

PITCHING RULES

USA Softball		NCAA		NFHS	
<b>Illegal Pitch Effect</b>					
1) If the batter hits the ball and reaches first base safely, and if all other runners have advanced at least one base on the batted ball, the illegal pitch is nullified. All action as a result of the batted ball stands. No option is given. When a runner passes a base, the runner is considered to have touched that base. 2) <b>Otherwise, the manager has the option to take the result of the play, or the illegal pitch is enforced by awarding a ball to the batter.</b> 3) <b>If an illegal pitch hits the batter out of the strike zone, the batter is awarded first base and all runners are awarded one base only if forced.</b>	6.3 Effect	...2) If the batter does not reach first base safely or if any runner fails to advance at least one base, the coach of the offensive team may choose the result of the play or the standard effect for an illegal pitch, which is that a ball is awarded to the batter, and each base runner advances one base. (3) If the batter is hit by an illegal pitch not swung at, the batter is awarded first base, and each other base runners advance one base, only if forced. (4) If ball four is an illegal pitch, the batter is awarded first base, and each other base runners advance one base, only if forced.	10.8 EFFECT	Same as USA Softball	6-1-1 Excepti on 1, 2, 3,4
<b>Covering the Pitcher's Plate</b>					
No such Rule		A team representative or player shall not intentionally cover the pitcher's plate nor erase the line of the pitcher's lane. EFFECT: For a first violation in a game, a ball shall be awarded to the batter. Subsequent violation by the same team shall result in the violator(s) being ejected.	2.20.3	No Rule in NFHS	
<b>Pitching Lane</b>					
The Pitcher's step must be forward and stay within the 24" length of the pitchers plate. We do not draw a pitcher's lane.	6.3l	The Pitcher's Lane: The area to which the pitcher is restricted when pitching. The lane is lines drawn on the field of play.	2.26 10.4.2	Same as USA Softball	6-1-2c
<b>Foreign Substance</b>					
A defensive player shall not at any time during the game be allowed to use any foreign substance upon the ball, pitching hand or fingers. Under the supervision and control of the umpire, powder resin, and/or an approved drying agent that is included on the list published by USA Softball may be used by the pitcher. The resin must be left on the ground and the approved drying agent in the pitcher's pocket. A pitcher who licks their fingers must wipe the fingers off before bringing them in contact with the ball. EFFECT: Illegal pitch.	6.6A	Under the supervision and within view of the umpire, a resin (i.e. a drying agent) may be used on the pitcher's hand/fingers. <u>Any</u> substance (including resin, dirt or saliva) applied to the pitcher's hands and fingers must be wiped off <u>if it would transfer to the ball</u> . 10.13.2 No player or other team personnel may apply moisture or <u>any</u> substance to the ball <u>or into a glove</u> <u>which will then contact the ball</u> or do anything else to deface the ball.	10.13.1 10.13.2	Same as USA Softball	6-2-2
<b>Warm-Up Pitches</b>					
At the beginning of each half inning or when the pitcher relieves another, not more than one minute may be used to deliver not more than five pitches. This does not apply if the umpire delays the start of play due to substitution, conference, injuries or other umpire responsibilities.	6.9 Effect	At the start of the game and the beginning of each half inning, the pitcher of record may throw not more than five pitches or four pitches and one throw to first base or any combination that is limited to five throws from the pitcher in a continuous manner.	10.19 10.19.2	At the beginning of each half-inning or when a pitcher relieves another, not more than one minute may be used to deliver not more than five pitches to the catcher or other teammate. NOTE: If the incoming pitcher has already pitched in the game, she will receive 5 warm-up pitches. When a pitcher is removed by rule or due to injury and the incoming pitcher has not pitched in the game. the umpire is authorized to allow	6-2-5 3-7-1 NOTE

# USA (FORMER ASA)

**Rule 6A, Section 1C:** Both feet must be on the ground within the 24-inch length of the pitcher's plate. The shoulders shall be in line with first and third bases. The pitcher shall take a position with their pivot foot in contact with the pitcher's plate and their non-pivot foot in contact with or behind the pitcher's plate.

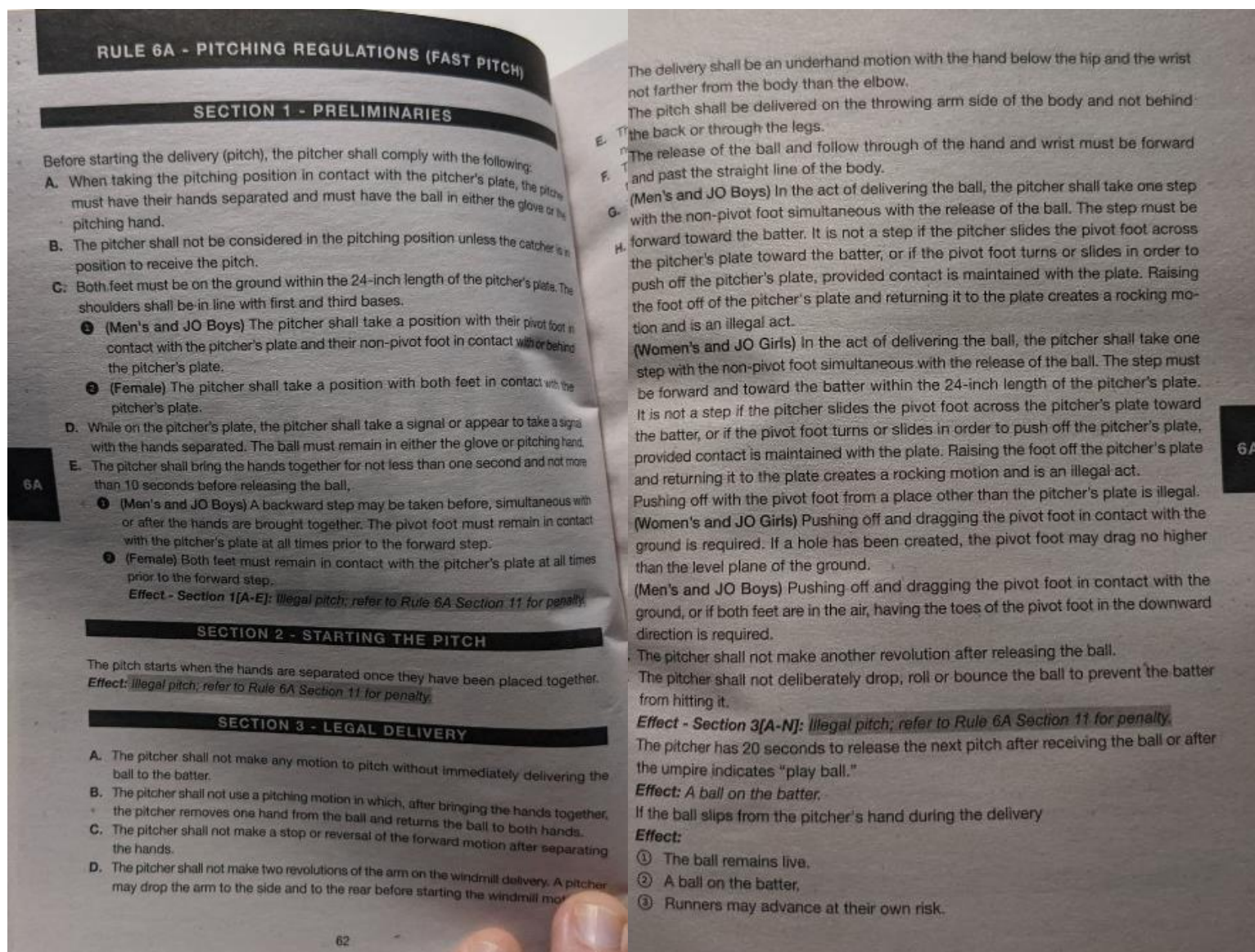
Comment: Allows female pitchers to start with one or two feet on the pitcher's plate. This aligns the male and female pitching rule as it relates to foot placement.

**Rule 6A, Section 1E:** The pitcher shall bring their hands together for not less than one second and not more than 10 seconds before releasing the ball. A backward step may be taken before, simultaneous with or after the hands are brought together. The pivot foot must remain in contact with the pitcher's plate at all times prior to the forward step.

Comment: Allows female pitchers to take a backward step from the pitcher's plate, before, during or after the hands are brought together. This aligns the male and female pitching rule as it relates to stepping back from the pitcher's plate.

**Rule 6A, Section 11B&C, Rule 7, Section 5D:** (Junior Olympic Fast Pitch Only) Eliminates the penalty of advancing a runner one base without liability to be put out from the effect of committing an illegal pitch.

Comment: In Junior Olympic Fast Pitch ONLY, when an illegal pitch is declared, the penalty is only a ball on the batter. We no longer advance runners in Junior Olympic Fast Pitch as part of the penalty.



## SECTION 4 - INTENTIONAL WALK

If the pitcher desires to intentionally walk a batter, all pitches must be legally delivered.

## SECTION 5 - DEFENSIVE POSITIONING

- A. The pitcher shall not deliver a pitch unless all defensive players are positioned in their territory, except the catcher who shall be in the catcher's box.
- B. A fielder shall not take a position in the batter's line of vision, with deliberate unsportsmanlike intent, or act in a manner to distract the batter. A pitch does not have to be released.

**Effect:** The offending player shall be ejected from the game.

**Effect - Section 5A&B:** Illegal pitch; refer to Rule 6A Section 11 for penalty.

## SECTION 6 - FOREIGN SUBSTANCE/PROTECTIVE WRAPS

- A. A defensive player shall not, at any time during the game, be allowed to use any foreign substance upon the ball, pitching hand or fingers. Under the supervision and control of the umpire, powder resin and/or an approved drying agent that is included on the list published by USA Softball may be used by the pitcher. The resin must be left on the ground and the approved drying agent in the pitcher's pocket. A pitcher who licks their fingers must wipe the fingers off before bringing them in contact with the ball.

**Effect:** Illegal pitch; refer to Rule 6A Section 11 for penalty.

- B. A pitcher shall not wear any item on the pitching hand, wrist, forearm, elbow or thigh which may, in the umpire's judgment, be distracting to the batter. Batting gloves shall not be worn on the pitching hand.

## SECTION 7 - CATCHER

- A. The catcher shall remain within the lines of the catcher's box until the pitch is released.

**Effect:** Illegal pitch; refer to Rule 6A Section 11 for penalty.

- B. The catcher shall return the ball directly to the pitcher after each pitch, except after a strikeout, a put out or an attempted put out made by the catcher.

**Effect:** A ball on the batter.

**Exception:** Does not apply with runners on base or the batter becoming a batter-runner.

## SECTION 8 - THROWING TO A BASE

The pitcher shall not throw to a base during a live ball while either foot is in contact

64

with the pitcher's plate after taking the pitching position. If a throw from the pitcher's plate occurs during a live ball appeal, the appeal is canceled. The pitcher may remove themselves from the pitching position by stepping back off of the pitcher's plate prior to separating their hands. Stepping forward or sideways is illegal.

**Effect:** Illegal pitch. A ball on the batter and award all runners one base.

## SECTION 9 - WARM-UP PITCHES

At the beginning of each half inning, or when a pitcher relieves another pitcher, not more than one minute may be used to deliver not more than five pitches. Play shall be suspended during this time. A pitcher returning to pitch in the same half inning will not receive warm-up pitches. There is no limitation as to the number of times a player can return to the pitching position as long as the player is legally in the game.

**Effect:** For excessive warm-up pitches award a ball to the batter for each pitch in excess of five. This does not apply if the umpire delays the start of play due to substitution, conference, injuries, or other umpire responsibilities.

## SECTION 10 - NO PITCH

No pitch shall be declared:

- A. When the pitcher pitches during the suspension of play.
- B. When the pitcher attempts a quick return of the ball before the batter has taken a position in the batter's box or when the batter is off balance.
- C. When a runner is called out for leaving a base prior to the pitcher releasing the ball.
- D. When a pitch is delivered before a runner has retouched their base after being legitimately off that base.
- E. When a player, manager or coach calls time, employs any other word or phrase, or commits any act while the ball is live for the obvious purpose of trying to make the pitcher commit an illegal pitch. A warning shall be issued to the offending team, and a repeat of this type act by any member of the team warned shall result in the offender being ejected from the game.

**Effect - Section 10A-E:** Dead ball. All subsequent action on that pitch is canceled.

65

## SECTION 11 - ILLEGAL PITCH PENALTY

- A. If the batter hits the ball and reaches first base safely, and if all other runners have advanced at least one base on the batted ball, the illegal pitch is nullified. All action as a result of the batted ball stands. No option is given. When a runner passes a base, the runner is considered to have touched that base.
- B. Otherwise, the manager has the option to take the result of the play, or the illegal pitch is enforced by awarding a ball to the batter and advancing all runners one base.
- C. If an illegal pitch hits the batter out of the strike zone, the batter is awarded first base and all runners are awarded one base.

# PONY RULES

[HTTPS://BSBPRODUCTION.S3.AMAZONAWS.COM/PORTALS/10758/DOCS/RULEBOOKS/2020%20PONY%20SOFTBALL%20RULEBOOK%20WEB.PDF](https://bsbproduction.s3.amazonaws.com/portals/10758/docs/rulebooks/2020%20PONY%20SOFTBALL%20RULEBOOK%20WEB.PDF)



## RULE 7. PITCHING REGULATIONS (Fast Pitch)

- Sec. 1 PRELIMINARIES.** Before starting the delivery (pitch), the pitcher shall comply with the following:
- She shall take a position with her pivot foot on the pitcher's plate and non-pivot foot on or behind the pitcher's plate. Both feet must be on the ground within the 24-inch length of the pitcher's plate. Her shoulders shall be in line with first and third bases. The hands shall be separated. The ball can be in the glove or pitching hand.
  - While in the position described above, she shall hold the ball in both hands for not less than one second and not more than 10 seconds before releasing the ball.
  - The pitcher shall not be considered in pitching position unless the catcher is in position to receive the pitch.
  - The pitcher may not take the pitching position on or near the pitcher's plate without having the ball in her possession.
- Sec. 2 THE PITCH** starts when one hand is taken off the ball or the pitcher makes any motion that is part of the wind-up after the hands have been brought together.
- Once the hands are brought together, the pitcher shall not take more than one step, which must be forward, toward the batter and simultaneous with the delivery of the ball to the batter.
- NOTE: Toward the batter is interpreted as within the 24-inch length of the pitcher's plate.*
- The pivot foot may remain in contact with or may push off and drag away from the pitching plate prior to the front foot touching the ground, as long as the pivot foot remains in contact with the ground. Pushing off with the pivot foot from a place other than the pitcher's plate is illegal.
- NOTE: It is not a step if the pitcher slides her foot across the pitcher's plate, provided contact is maintained with the pitcher's plate.*
- Sec. 3 A LEGAL DELIVERY SHALL BE A BALL WHICH IS DELIVERED TO THE BATTER WITH AN UNDERHANDED MOTION.**
- The release of the ball and follow through of the hand and wrist must be forward, past the straight line of the body.
  - The hand shall be below the hip, and the wrist not farther from the body than the elbow.
  - The pitch is completed with a step toward the batter.
  - The catcher must be within the lines of the catcher's box when the pitch is released.
  - The pitcher has 20 seconds to release the next pitch after receiving the ball from the catcher
  - Quick Pitch is an illegal pitch.



- Sec. 4 THE PITCHER MAY USE ANY WINDUP DESIRED, PROVIDING:**
- a. She does not make any motion to pitch without immediately delivering the ball to the batter.
  - b. She does not use a rocker action in which, after having the ball in both hands in the pitching position, she removes one hand from the ball, takes a backward and forward swing, and returns the ball to both hands in front of the body.
  - c. She does not use a windup in which there is a stop or reversal of the forward motion.
  - d. She does not make two revolutions of the arm in the windmill pitch. A pitcher may drop her arm to the side and to the rear before starting the windmill motion.
  - e. She does not continue to wind up after taking the forward step, which is simultaneous with the release of the ball.
  - f. Techniques such as the "crow hop," the replant of the pivot foot prior delivering of the pitch, and the "leap," prior to the release of the pitch are illegal.

**Sec. 5 THE PITCHER SHALL NOT DELIBERATELY DROP, ROLL OR BOUNCE THE BALL WHILE IN THE PITCHING POSITION IN ORDER TO PREVENT THE BATTER FROM STRIKING IT.** A pitch out for the purpose of intentionally walking a batter is not considered an illegal pitch. (Refer to note following Rule 9, Sec. 2c).

**Sec. 6 THE PITCHER SHALL NOT, AT ANY TIME DURING THE GAME, BE ALLOWED TO USE TAPE OR ANY OTHER FOREIGN SUBSTANCES UPON THE BALL, THE PITCHING HAND OR FINGERS NOR SHALL ANY OTHER PLAYER APPLY A FOREIGN SUBSTANCE TO THE BALL.** Under the supervision and control of the umpire, powdered resin may be used to dry the hands. Applying resin into the glove and then placing the ball in the glove is an illegal act. Resin must be kept on the ground behind the pitcher's plate. A pitcher who licks her fingers must wipe the fingers off before bringing them in contact with the ball. Dirt is not a foreign substance. A pitcher shall not wear any item on the pitching hand, wrist, forearm, elbow, or thighs, which may, in the umpire's judgment, be distracting to the batter. Batting gloves may not be worn on the pitching hand.

***EFFECT:** An illegal pitch shall be called on the first offense. If any defensive player continues to place foreign substance on the ball, the player shall be ejected from the game.*

**Sec. 7 THE PITCHER SHALL NOT DELIVER A PITCH** unless all defensive players, except the catcher who must be in the catcher's box, are positioned in fair territory.

***EFFECT:** Any infraction of Rule 7-1-7-7. The penalty for an illegal pitch is a ball awarded to the batter. If the batter hits the ball and reaches first base on the batted ball, the illegal pitch is nullified. All action as a result of the batted ball stands.*

***EXCEPTION:** The manager has the option to take the result of the play, or illegal pitch.*

***EXCEPTION:** If the pitcher completes the delivery of the ball to the batter; and, if the batter hits the ball and reaches first base safely; and if all baserunners advance at least one base on the action resulting from the batted ball, the play stands and the illegal pitch is nullified.*

**NOTE:** It is an illegal pitch if a fielder takes up a position in the batter's line of vision or, with deliberate unsportsmanlike intent, act in a manner to distract the batter. A pitch does not have to be released. The offending player shall be ejected from the game and an illegal pitch shall be declared.

**NOTE:** An illegal pitch shall be called immediately when it becomes illegal. If called by the plate umpire, it shall be called in a voice so that the catcher and the batter will hear it. The plate umpire will also give the delayed dead ball signal. If called by the base umpire, it shall be called so that the nearest fielder shall hear it. The base umpire shall also give the delayed dead ball signal.

**Sec. 8 AT THE BEGINNING OF EACH HALF INNING OR WHEN A PITCHER RELIEVES ANOTHER, NOT MORE THAN ONE MINUTE MAY BE USED TO DELIVER NOT MORE THAN FIVE PITCHES TO THE CATCHER, OTHER TEAMMATE OR COACH.** Play shall be suspended during this time. For excessive warm-up pitches, a pitcher shall be penalized by awarding a ball to the batter for each pitch in excess of five.

Teams that repeatedly take more than one minute to be ready to play, the manager will be warned and if the team continues to delay play the umpire may eject the manager for the remainder of the game.

**Sec. 9 THE PITCHER SHALL NOT THROW TO A BASE DURING A LIVE BALL WHILE HER FOOT IS IN CONTACT WITH THE PITCHER'S PLATE AFTER SHE HAS TAKEN THE PITCHING POSITION.**

**EFFECT:** Sec. 9: Illegal pitch, the ball is dead, a ball is called on the batter and all runners advance one base. If the throw from the pitcher's plate is during a live ball appeal play, the appeal is cancelled. Illegal pitch for fielder positioning themselves in a place to block a runner's ability to see the release of the ball by the pitcher.

**NOTE:** The pitcher can remove herself from the pitching position by stepping backwards off the pitcher's plate. Stepping forward or sideways constitutes an illegal pitch. It is an illegal pitch if a fielder takes up a position in the batter's line of vision or, with deliberate unsportsmanlike intent, act in a manner to distract the batter. A pitch does not have to be released.

**Sec. 10 NO PITCH SHALL BE DECLARED WHEN:**

- a. The pitcher pitches during the suspension of play.
- b. The runner is called out for leaving the base prior to the pitcher releasing the pitch.
- c. The pitcher pitches before a baserunner has retouched her base after a foul ball has been declared and the ball is dead.

**EFFECT:** Sec. 10a-d: The ball is dead and all subsequent action on that pitch is cancelled.

- d. No player, manager or coach shall call "Time", employ any other word or phrase, or commit any act while the ball is alive and in play for the obvious purpose of trying to make the pitcher commit an illegal pitch.

**SEC. 11 THERE SHALL BE ONLY THREE CONFERENCES BETWEEN THE MANAGER, COACH OR PLAYER FROM THE DUGOUT WITH ANY DEFENSIVE PLAYER(S) IN A REGULATION GAME.** Once the game enters ITB, the defense gets one charged conference per inning. Unused charged conferences do not carry over. It is not a charged conference if pitcher is removed from the pitching position.

**NOTE:** The fourth, and each additional charge conference in a regulation game, or for any charged conference in excess of one per inning in an extra inning game, shall result in the removal of the pitcher from the pitching position for the remainder of the game. The removed pitcher can play another position on the defense but cannot pitch again.

**Sec. 12 IF THE BALL SLIPS FROM THE PITCHER'S HAND DURING HER WINDUP OR DURING THE BACK SWING, A BALL IS DECLARED ON THE BATTER, THE BALL WILL BE IN PLAY, AND THE RUNNERS MAY ADVANCE AT THEIR OWN RISK.**

**Sec. 13 ANY PLAYER** serving as a catcher to warm up a pitcher shall wear a mask, helmet and throat protector whether the pitcher is warming up from the pitching rubber, in the bullpen or elsewhere.

# USSSA

Start back or step back allowed

Pitching Rule <https://www.ussa1.com/assets/pdf/2020%20Rule%20Changes.pdf>

Rule Book Full <http://ussa.com/docs/2020/FPRB Online revised 011620.pdf>

## RULE 6. PITCHING RULE

Sec 1. A legal pitch shall conform to the following:

- A. Prior to the pitch, the pitcher shall take a position with their pivot foot in contact with the pitcher's plate and their non-pivot foot in contact with or behind the pitcher's plate. Both feet must be on the ground within or partially within the 24-inch length of the pitcher's plate. The hands must be apart. The pitcher may not take the pitching position on the pitcher's plate without possession of the ball, and the pitcher may not simulate pitching with or without the ball when near the pitcher's plate.
- B. Preliminary to pitching, the pitcher must take a position with the ball in the glove or pitching hand, with the hands separated.
- C. While in this position, the pitcher shall take (or simulate taking) a signal from the catcher.
- D. After completing "C" above, the pitcher shall bring the hands together in front of the body for not more than 10 seconds before releasing the ball. The hands may be motionless or moving.
- NOTE:** Before the pitch starts, the pitcher may remove them self from the pitching position by stepping back from the pitcher's plate with both feet (either foot may be removed first) or by requesting time.

E. The Pitch:

1. The pitch begins and cannot be discontinued when the hands are separated once they have been placed together.
2. Any step back with the non-pivot foot must begin before the start of the pitch (6.1.E.1). Once the pitch has started (the hands separate), the pitcher shall take not more than one step which must be forward, toward the batter and simultaneous with the delivery.  
**EXCEPTION:** When removing self from the pitcher's position (6.1.D NOTE)  
**NOTE:** "Toward" is interpreted as within or partially within the 24-inch length of the pitcher's plate.
3. The pivot foot may remain in contact with or may push off and drag away from the pitching plate prior to the front foot touching the ground, as long as the pivot foot remains in contact with the ground. Pushing off with the pivot foot from a place other than the pitcher's plate is illegal.

**NOTE 1:** It is not a step if the pitcher slides their foot in any direction on the pitcher's plate, provided contact is maintained.

**NOTE 2:** Techniques such as the "crow hop" and "the leap" are illegal.

**NOTE 3:** If a hole has been created in front of the pitcher's plate, the pivot foot may be no higher than the level plane of the ground.

- F. A LEGAL DELIVERY - shall be a pitched ball that is delivered to the batter with an underhand motion.
1. The release of the ball and the follow-through of the hand and wrist must be forward past the vertical line of the body.
  2. The hand shall be below the hip and the wrist not farther from the body than the elbow.
  3. The pitch shall be delivered on the throwing arm side of the body and not behind the back or between the legs.
  4. The pitch is completed with a step toward the batter.
- G. THE PITCHER MAY USE ANY WINDUP DESIRED PROVIDED:
1. No motion to pitch is made without immediately delivering the ball to the batter.
  2. The pitcher does not use a rocker action in which, after having the ball in both hands in pitching position, the pitcher removes one hand from the ball, takes a backward and forward swing and returns the ball to both hands in front of the body.
  3. The pitcher does not use a windup in which there is a stop or reversal of the forward motion.
  4. The pitcher does not make more than one and one half revolutions of the arm in the windmill pitch. A pitcher may drop the pitching arm to the side and to the rear before starting the windmill motion. The ball does not have to be released the first time past the hip.
  5. The pitcher does not continue to wind up after taking the forward step or after the ball is released.  
**NOTE:** Continuation of the windup is considered any action that, after the ball is released, causes the arm to continue to rotate past the shoulder.
- H. The pitcher shall not wear any item on the pitching hand, wrist, arm or thigh that the Umpire judges to be distracting. If a pitcher wears a batting helmet while on defense, the outer covering and shield shall be a non-glare surface.
- I. Foreign Substance on the ball/Items on pitcher. The pitcher shall not at any time be allowed to use any moisture or foreign substance on the ball, the pitching hand or fingers nor do anything to deface the ball. A pitcher who licks their fingers must wipe the fingers off before bringing them in contact with the ball.
1. Under the supervision and control of the Umpire, the pitcher may use following items to dry the hand which is in contact with the ball: dirt (but not chalk), powdered resin, or an approved drying agent. When

34

15th Edition (Online Revised 1-2020)

using these items, the pitcher is not required to wipe the hand prior to contacting the ball; when using any other substance, the pitcher must wipe the pitching hand prior to contacting the ball. No tacky or sticky substances can be used as a substitute for a powdered drying agent.

No other player or team personnel shall apply moisture or a foreign substance to the ball nor do anything to deface the ball.

2. The pitcher's fingers, hand, wrist, forearm or elbow may be taped for injury, providing such tape is a neutral color.

**EFFECT** Sec 1. A - I - Illegal Pitch

- J. The pitcher shall not deliberately drop, roll, bounce, etc, the ball while in the pitching position in order to prevent the batter from striking it.  
**PENALTY:** The ball is dead at the end of playing action. The batter is awarded a ball which may be declined by the offensive coach. **FIRST OFFENSE** is a team warning. **SECOND OFFENSE** and any subsequent violation the offender is restricted to the bench for the remainder of the game and their current head coach shall be ejected.
- K. Once the ball has been returned to the pitcher to prepare for the next pitch or the Umpire says "play", the pitcher has 20 seconds to release the next pitch.  
**PENALTY:** Dead ball; a ball on the batter
- L. At the beginning of an inning or when a pitcher relieves another pitcher, one minute may be used to deliver not more than five practice pitches (or throws) to the catcher, or some other teammate. For excessive warm-up pitches (or throws), a pitcher shall be penalized by awarding a ball to the batter for each pitch in excess of five. **EXCEPTION:** This does not apply if the umpire delays the start of play due to substitution, conference, injuries, or other umpire responsibilities.  
A pitcher returning to pitch in the same half-inning shall not be allowed warm-up pitches.
- M. If the ball slips from the pitcher's hand during the back swing or forward motion, a ball is called on the batter. In either case, the ball remains in play and runners may advance at their own risk.

15th Edition (Online Revised 1-2020)

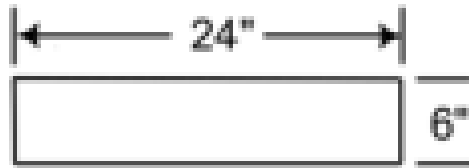
35

**PITCHER'S FOOT PLACEMENT** - this change eliminates the requirement that a pitcher must have part of her pivot foot (the right foot for a right-handed pitcher) on top of the pitcher's plate. The rule will now only require the pivot foot to be in contact with the plate.

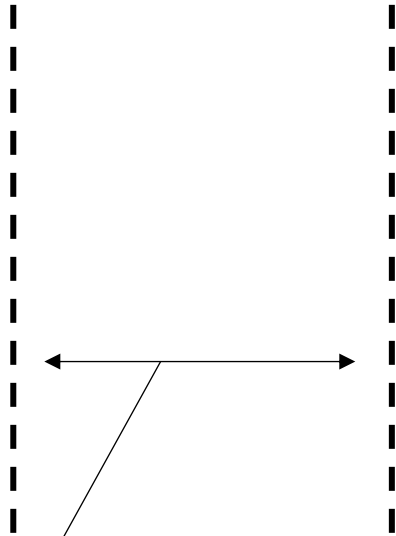
It also allows the pitcher to start with the non-pivot ("stride") foot in contact with or behind the plate and allows the pitcher to step back with the non-pivot foot, provided the step-back begins prior to starting the pitch by separating the hands.

"This change aligns our rule on pitcher's feet placement with the other major rule books in youth softball," said Jami Lobpries, National Director of Fastpitch. "With this revision, USSSA, USA Softball, and the National Federation of State High School Associations will have a unified pitching rule."

"This is a 'win-win' for all the stakeholders," according to Wisk. "Nobody who has been pitching legally under existing rules will have to change their pitching style unless they want to, but pitchers who want to pitch using styles legal in college and high school will also be compliant. Additionally, those who administer our events, such as directors and umpires should have less confusion to deal with due to this rule alignment."



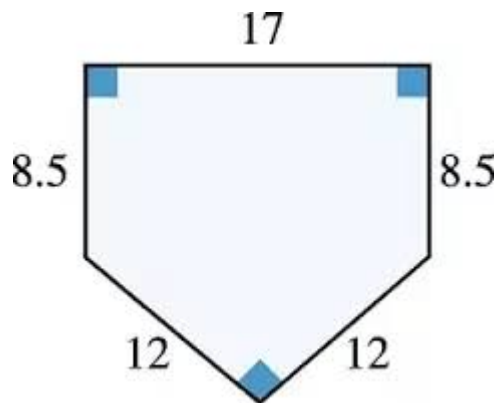
PITCHER'S PLATE



**Pitching Lane:**

The pitcher's step must be forward and stay within the 24" length of the pitcher's plate.

Distance	Age
35'	10u
40'	12u & Mod.
43'	14u-College JV & Var



# ONFORM APP DIRECTIONS

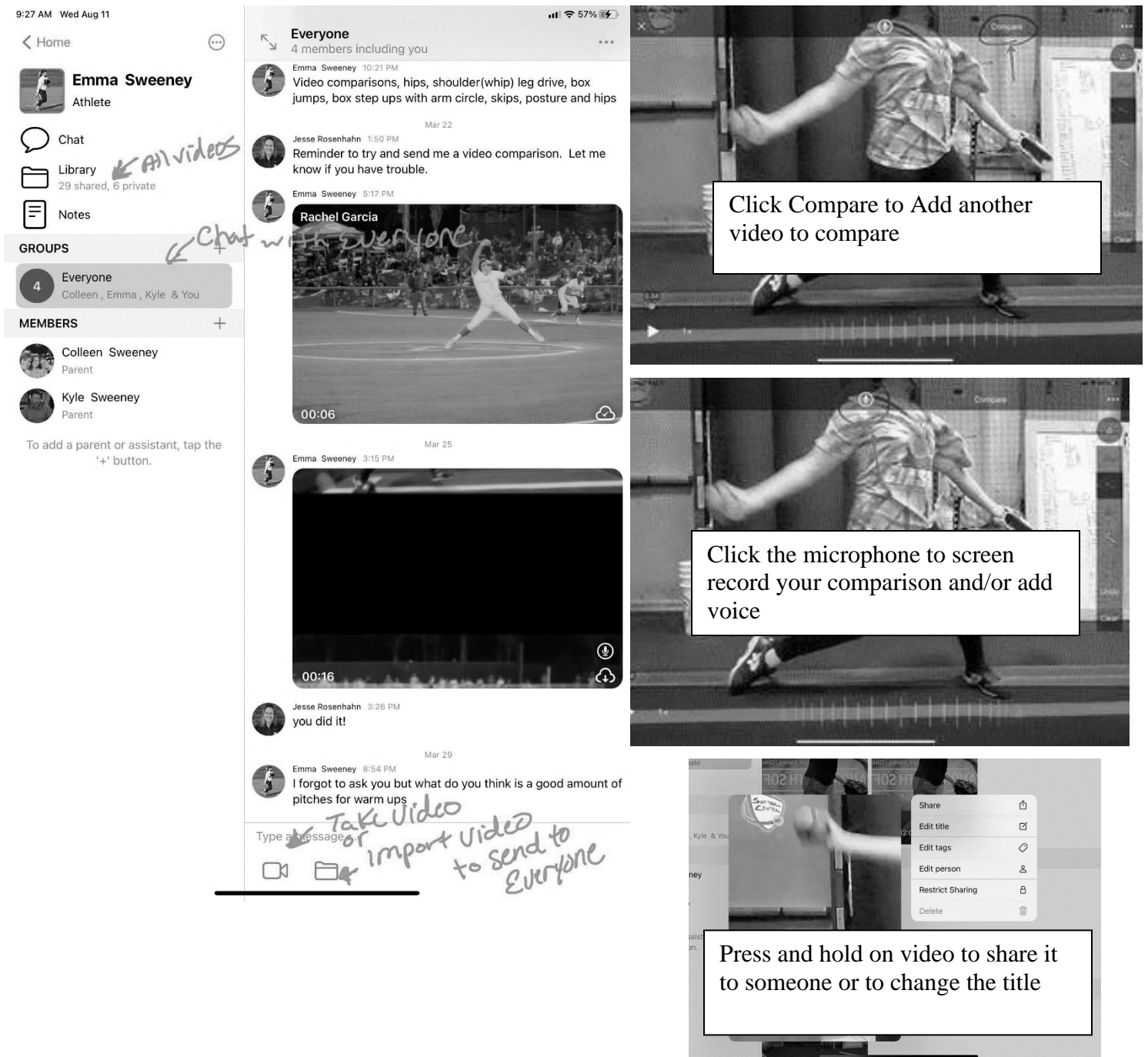
Onform is the app I use to send and receive videos and create video analyses. You can also chat and send pics and docs through the app.

I ask that students post a brief note in the app about we did right after the lesson. Although they can also use this notebook for notes the phone I know is always with them.

The app is best if used on an apple product but does work with Android just not all the features work.

Go to your app store on your phone/ipad and search Onform 

It's free for you. I pay for the app to have unlimited cloud storage and users. Once you are in the app you should have been given an invite code from me to enter.



The image shows a composite of screenshots from the Onform app. On the left is a group chat interface for 'Everyone' with 4 members. The chat history includes messages from Emma Sweeney, Jesse Rosenhahn, and Rachel Garcia, with video attachments. Handwritten notes in blue ink include 'All videos' with an arrow pointing to the video list, 'Chat with everyone' with an arrow pointing to the group name, and 'Take Video or Import Video to send to Everyone' with arrows pointing to the video and gallery icons at the bottom. On the right are two video analysis screenshots. The top one shows a 'Compare' button circled in red, with a text box stating 'Click Compare to Add another video to compare'. The bottom one shows a microphone icon circled in red, with a text box stating 'Click the microphone to screen record your comparison and/or add voice'. At the bottom right is a screenshot of a video sharing menu with options like 'Share', 'Edit title', 'Edit tags', 'Edit person', 'Restrict Sharing', and 'Delete', with a text box stating 'Press and hold on video to share it to someone or to change the title'.

# WHO ARE THE BEST?



## Yukiko Ueno

Japanese pitcher who Won a bronze ('04) and a gold medals in 2008 & 2020 Summer Olympics. She became the first pitcher ever to produce a perfect game at the Olympics, against China in Athens. With fastball which tops out at 75.19 mph, she is widely recognized as the fastest pitcher in women's softball. Current wiki page says 80 mph.



## Cat Osterman

Won 1 gold and 2 silvers in the Olympics. 4x Collegiate All-American at Texas. Pro League pitcher and named #3 Greatest College Softball Player and #1 pitcher in NCAA history. Known for her spin especially her drop.



## Monica Abbott

U.S. National Team Pitcher, Tennessee, NPF. In May 2016, the Scrap Yard Dawgs, a National Pro Fastpitch team, signed Abbott to a six-year contract, believed to be worth \$1 million; the contract is believed to be the most lucrative ever paid by an individual American professional franchise to an active female athlete in any team sport. Known to be the most consistently fastest pitchers in women's softball topping out at 77 mph.

# WHO ARE THE BEST?



**Jennie Finch**

Arizona won World Series '01, All American, 2x Olympic Player, 5 yr NPF player.



**Kelly Barnhill**

U. Florida, 2017 USA Softball Collegiate National Player of the Year



**Amanda Scarborough**

Texas A&M '08, Packaged Deal



**Keilani Ricketts**

Oklahoma, winningest pitcher in WCWS, 5 year NPF player, National Team Member



**Sarah Pauly**

Corpus Christi, All American, 10 yrs in NPF, 7x NPF All Star



**Danielle Lawrie**

U Washington, National Champion '09, Canadian Olympic Team '08, 4 years in NPF



**Jackie Traina**

Alabama national champs & MVP, National Team player



**Rachel Garcia**

UCLA  
U.S. National Team

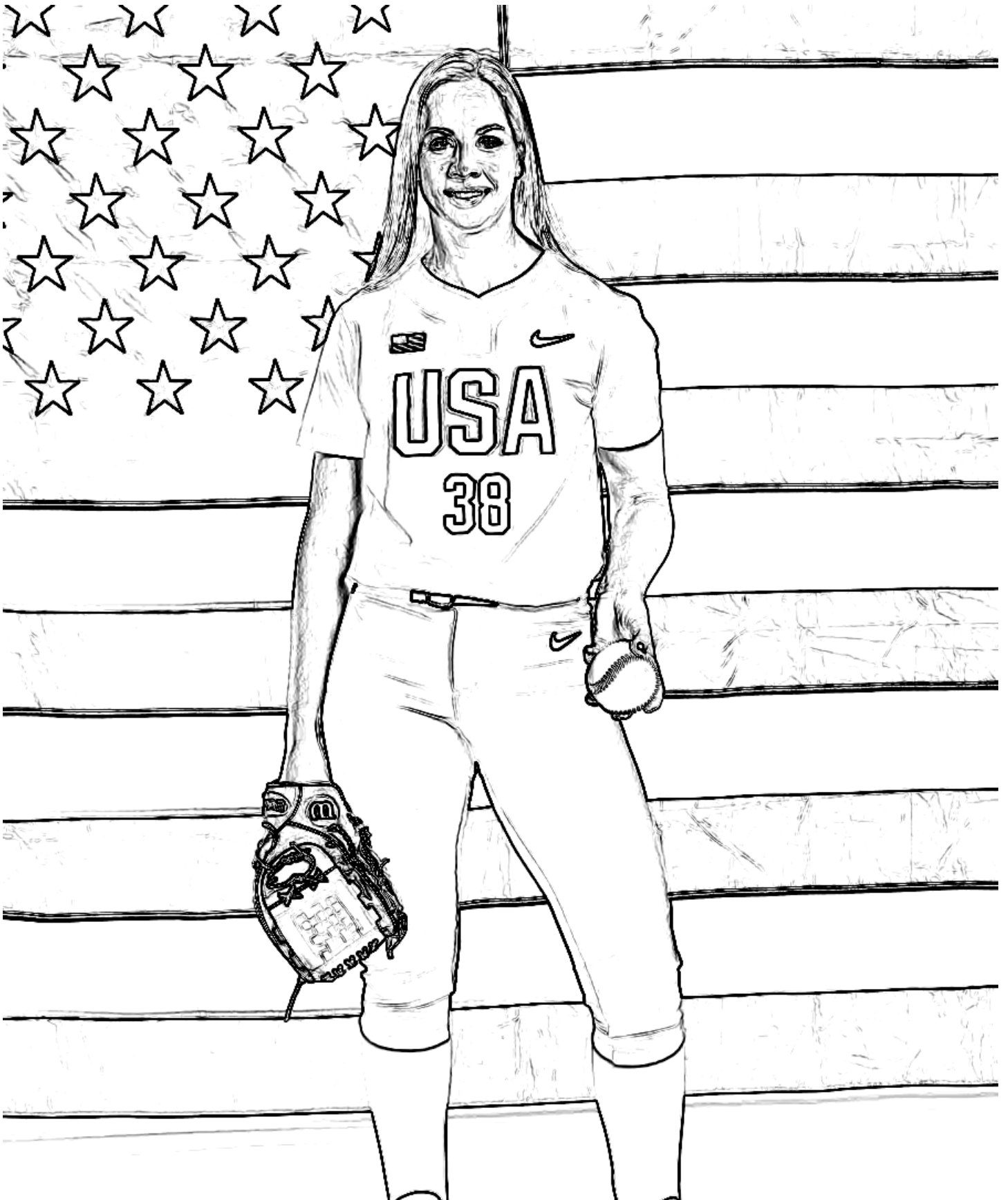
- Blair Luna – U. Texas, NPF
- Danielle O'Toole – Arizona
- Delaney Gourley - Florida
- Paige Lowary – Oklahoma
- Miranda Elish – Oregon/Texas
- G Juarez – Oklahoma
- Montana Fouts – Alabama
- Ally Carda – UCLA, USA
- Odicci Alexander – JMU

# Monica Abbott





# Cat Osterman



# **10 THINGS THAT REQUIRE ZERO TALENT**

- 1. BEING ON TIME**
- 2. WORK ETHIC**
- 3. EFFORT**
- 4. BODY LANGUAGE**
- 5. ENERGY**
- 6. ATTITUDE**
- 7. PASSION**
- 8. BEING COACHABLE**
- 9. DOING EXTRA**
- 10. BEING PREPARED**

"Failure is an opportunity to grow"

## GROWTH MINDSET

"I can learn to do anything I want"

"Challenges help me to grow"

"My effort and attitude determine my abilities"

"Feedback is constructive"

"I am inspired by the success of others"

"I like to try new things"

"Failure is the limit of my abilities"

## FIXED MINDSET

"I'm either good at it or I'm not"

"My abilities are unchanging"

"I don't like to be challenged" or "I can't"

"My potential is predetermined"

"When I'm frustrated, I give up"

"Feedback and criticism are personal"

"I stick to what I know"

KEEP YOUR THOUGHTS POSITIVE  
BECAUSE YOUR THOUGHTS BECOME  
**YOUR WORDS.**

KEEP YOUR WORDS POSITIVE  
BECAUSE YOUR WORDS BECOME  
**YOUR BEHAVIOR.**

KEEP YOUR BEHAVIOR POSITIVE  
BECAUSE YOUR BEHAVIOR BECOMES  
**YOUR HABITS.**

KEEP YOUR HABITS POSITIVE  
BECAUSE YOUR HABITS BECOME  
**YOUR VALUES.**

KEEP YOUR VALUES POSITIVE  
BECAUSE YOUR VALUES BECOME  
**YOUR DESTINY.**

~ MAHATMA GANDHI

A photograph of a baseball base on a dirt field. The base is a light-colored, pentagonal plate set into the reddish-brown dirt. The text is overlaid on the upper portion of the image.

*"You must be prepared if you want to own it"*

Confidence is  
what happens  
when you've  
done the hard  
work that entitles  
you to succeed.

Pat Summitt

# Recruiting Checklist

- Gather your pitching speeds & spin assessments
- Create a profile of your accolades and references
- Pick a starting list of schools
- Email coaches to introduce yourself
- Create a twitter page to post updates & videos of playing/practicing (Fresh./Soph.)
- Create a skills video (Junior Year)
- Take game clips here and there
- Start attending camps of Schools you're interested in
- Stay in contact (emailing) with coaches by sending them new videos or tournament schedules ect.
- Make sure you are playing on a travel team that compliments your college goals

***\*\*Not an absolute but helpful to have these qualities.\*\****

What softball measurables do college coaches look for in a pitcher?

### **Division 1**

- Height: 5'9" or taller
- Pitch velocity: 63+ MPH
- Command of at least 4 pitches: fastball, changeup, multiple movement pitches
- ERA: below 2.50
- Strikeouts: 1 or more per inning pitched
- Walks: 1-2 per game or fewer

### **Division 2**

- Height: 5'7" or taller
- Pitch velocity: 58+ MPH
- Command of at least 3 pitches: fastball, changeup, curveball or slider
- ERA: below 3.00
- Strikeouts: 1 per inning pitched
- Walks: 1 per 2 innings pitched or fewer

### **Division 3 and NAIA**

- Height: 5'6" or taller
- Pitch velocity: 55+ MPH
- Command of at least 3 pitches: fastball, changeup, curveball or slider
- ERA: Below 3.50
- Strikeout to walk ratio of 1:1

### **Junior College**

- Height: 5'5" or taller
- Pitch velocity: 54+ MPH
- Command of at least 2 pitches and developing another
- ERA: below 4.00
- Strikeout to walk ratio of 1:1

# NCAA Division 1 softball recruiting rules

The D1 NCAA softball recruiting rules are the most restrictive recruiting rules, breaking down when athletes can receive specific forms of communication from coaches based on their year in high school:

## September 1 of junior year

- Coaches can send athletes all forms of private electronic correspondence, including text messages, instant messages, direct messages and emails, as well as all recruiting materials. Coaches can also call athletes at this point. No contact is permitted before this date between a college coach and the recruit, their parents, their current coaches or any other third party.
- Athletes may begin taking unofficial visits and planning them with the school's athletic department.
- Athletes may begin taking official visits.
- Coaches can conduct off-campus contact with athletes at their home or school.

## Senior year

- College softball coaches can conduct off-campus communications with athletes and/or their parents no more than three times.

# NCAA Division 2 softball recruiting rules

The NCAA softball recruiting rules for Division 2 schools are slightly more relaxed than those for Division 1, with most contact starting summer of the athlete's junior year:

- Any time: Athletes can receive brochures for camps, questionnaires, NCAA materials and non-athletic recruiting publications.
- June 15 after sophomore year: Coaches may begin calling athletes. They can also conduct off-campus communications with athletes and/or their parents. Athletes may also start taking official visits.

# NCAA Division 3 softball recruiting rules

D3 softball colleges have the most relaxed NCAA recruiting rules of all the division levels:

- Recruiting materials: Athletes can receive recruiting materials at any time.
- Telephone calls: There is no limit on when college coaches can call athletes.
- Off-campus contact: After the athlete's sophomore year, college coaches may begin to conduct off-campus communications.
- Official visits: Athletes can begin taking official visits after January 1 of their junior year.

# NAIA softball recruiting rules

The NAIA has fewer recruiting rules than the NCAA. NAIA coaches can contact student athletes anytime during high school. NAIA recruiting tends to start a little later than NCAA DI or DII recruiting, as NAIA coaches see which athletes just missed the cut to compete at a DI school. They also spend more time making sure that their school is the right fit for athletes socially, academically and athletically.



# 2020–2021 Division 1 softball recruiting calendar

The NCAA restricts which camps and clinics college softball coaches and their staff members are allowed to work at. The rules state that coaches and their staff members can only work at events off their campus if they take place during periods where evaluations are permitted at non-scholastic practices or competitions. This is something that coaches know to comply with, so families generally don't have to worry about it. However, when looking at attending events for exposure, keep the evaluation periods in the back of your mind, and avoid attending off-campus camps or clinics during evaluation periods where coaches can only attend scholastic practices and competitions.

**Contact period:** During this time, coaches can email, text, call, direct message and generally contact athletes and their parents through any NCAA-approved method.

- Aug. 1–9, 2020
- June 10–July 31, 2021: These dates are subject to change based on the 2021 NCAA Division 1 Women's Softball Championship. The dead period remains in effect until the day after the Women's College World Series concludes.

**Evaluation period:** Throughout the evaluation period, coaches are allowed to watch an athlete compete in person or visit them at their school or home. However, there are some specific rules about where coaches can evaluate athletes, so pay close attention to whether coaches can evaluate athletes at school events, non-school events or both.

- Aug. 10–Oct. 16, 2020: Coaches can evaluate athletes only at school-based practices and games.
- Oct. 17–18, 2020: Coaches can evaluate athletes at school-based and non-scholastic practices and activities.
- Oct. 19–23, 2020: Coaches can evaluate athletes only at school-based practices and games.
- Oct. 24–25, 2020: Coaches can evaluate athletes at school-based and non-scholastic practices and activities.
- Oct. 26–30, 2020: Coaches can evaluate athletes only at school-based practices and games.
- Oct. 31–Nov. 1, 2020: Coaches can only evaluate athletes at school-based and non-scholastic practices and activities.
- Nov. 2–6, 2020: Coaches can evaluate athletes only at school-based practices and games.
- Nov. 7–8, 2020: Coaches can only evaluate athletes at school-based and non-scholastic practices and activities.
- Nov. 13, 2020: Coaches can evaluate athletes only at school-based practices and games.
- Nov. 14–15, 2020. Coaches can evaluate athletes at school-based and non-scholastic practices and activities.
- Nov. 16–20, 2020. Coaches can evaluate athletes only at school-based practices and games.
- Nov. 21–22, 2020. Coaches can evaluate athletes at school-based and non-scholastic practices and activities.

- Jan. 2–May 31, 2021: Coaches can evaluate athletes only at school-based practices and games.
- Coaches can also evaluate athletes during the high school regional and state championship games, as long as they don't fall within the dead period.

**Quiet period:** The quiet period is a time when coaches may not have face-to-face contact with recruits off the college campus, such as at the athletes' school, or at the athlete's games and tournaments. In other words, the coach can only talk to recruits on the coach's campus or through any other approved electronic means of communication.

- Nov. 23–Dec 8, 2020
- Dec. 13, 2020–Jan. 1, 2021

**Dead period:** During the dead period, coaches may not have any in-person contact with recruits or their families. Coaches can still keep in touch with recruits via phone, email, social media and other approved electronic means of communication.

- Nov. 9–12, 2020
- Dec. 9–12, 2020
- June 1–June 9, 2021: These dates are based on the 2021 NCAA Division 1 Women's Softball Championship. The dead period remains in effect until the day following the final day of competition.

## **2020–2021 Division 2 softball recruiting calendar**

The dates below indicate the recruiting dead periods for softball in the 2020–2021 school year. For any dates not listed, treat them like a contact period.

- November 9 (7 am) – 11 (7 am), 2020 (during the 48 hours prior to 7 am on the initial date for the signing period of the National Letter of Intent).



# Elite Sports Training Video Analysis Checklist

Name:

Video Date:



Ideal Timing	Mechanic	Rate	Notes
PRE	Step on mound with hands seperated		
PRE	Take signal/grip with weight on front foot		
PRE	Shift weight to back leg/foot		
PRE	Feet are legally in contact with rubber (step back, start back?)		
PRE	Drive foot centers under shoulder/hip		
PRE	As arm swings back look for potential problems		
PRE	Sprinter Position - Stride leg in line with Butt & Head		
PRE	Sprinter Position Drive Angle (Around 55 degrees), matching shin angles		
PRE	Sprinter Postion -drive knee in front of ball of foot, nose over toe		
PRE	Drive foot doesn't turn more than 45		
PRE	Shoulders hips stay square or come back to square		
PRE	Drive foot has locked ankle - heel up, strikes front foot pad		
6:00-on	Check for Leap or Crow Hop		
3:00	Hips open from drive by 3:00 but not TRYING to open		
3:00	Glove arm ahead of ball pointed at the catcher		
3:00	Stride Knee Extension (150-175 degrees, 180+ Lunging)		
3:00	Arm fairly straightm (Palm down, up, side)		
3:00	Posture Check		
3:05	Detachment		
3:10	Foot decends as arm goes up		
2-12	Shoulders open up naturally from arm circle		
12:00	Palm stays in same position - palm to catcher		
12:00	Posture Check		
12:00	Slight flex in Throwing Elbow		
12:00	Glove still at Catcher		
10:00	Front Foot Timing of Plant		
10:00	Foot Plants (Mid, Toe, Heel)		
10:00	Toe Angle Check (45-0 at Catcher)		
10:00	Posture Check		
10:00	Bicep & Palm is up		
10:00	Elbow Bend (135 ish)		
10:00	Back knee pointed to catcher		
10:00	Drive toe laces side/down		
9:00	Palm/Ball is up or side definitely not down		
9:00-on	Check Frame - Posture		
9:00-on	Check Stability		
9:00-on	Front Side Resistance		
9:00-on	Sequence - Hip, Shoulder, Arm		
7:00	Check laces down		
6:20	Bicep facing back		
6:15	Brush - side of Bicep into ribs		
6:00	Release Timing		
5:50	Palm, fingers turns inward		
6:00-on	Loose follow through		

Page 1

