



National Player & Coach Development Pathway

DEVELOPING SOX

Under 18, 6 x Week Pitching Programme

Emphasis for all young pitchers should focus on balance, rhythm and good mechanics.



Pitching Checklist

Physical Warm-Up

<ul style="list-style-type: none"> - Jog, skip and jump for 5 minutes (Build Up Sweat) - Routines over 20 metres. Incorporate Dynamic Stretches x 8; please refer to the back of the document. - Have a set of stretches available for players to choose from each work-out 		
Attitude	Key Coaching Points	<ul style="list-style-type: none"> - Athletes with a Go For It attitude that have natural rhythm with arm swing and leg/stride coordination are best suited to pitch.
Overhand Throwing Ground Balls	20 Throws 16 Ground Balls	<ul style="list-style-type: none"> - Start throws from close range, slowly work back as body as warms up. - Ground balls, 4 to 1st, 4 to 2nd, 4 to 3rd, 4 to home

Pitching Warm-Up

Pitching Warm-Up Phase 1 @ 60% WR 15 Minutes but it is individual	Slow, Gradual and Technically Correct. Use 2 Steps	<ul style="list-style-type: none"> - Put home plate in place, measure relative pitching distance. - Start pitching from midway of total distance slowly. Slowly work your way back as the pitching motion warms and feels free and loose. - Use and imaginary vertical power line up through the middle of your catcher. Have your catcher straddle home plate but back in catcher's depth and position. (Catcher to centre themselves at centre point of plate.) - Good habits breed good habits, so make sure the pitcher pitches every pitch on the ground and vertical power line. - Slowly increase your distance and location/s as you feel the limbs loosen and warm. Pitch high and low zone and incorporate inside and outside pitches also. Use all your pitches (stuff) in your warm-up.
Pitching Warm-Up Phase 2 @ 100%	Work Systematically Up to F19Max Velocity LEGAL	<ul style="list-style-type: none"> - Pitch legally. - Do sets of 3 on all corners of home plate using all pitches. - Have catcher call pitches (simulating hitters and live situations) during last 5 minutes of preparation.

		<ul style="list-style-type: none"> - Complete warm-up 5 minutes prior to game time. Take in fluids, re-cap with catcher game / training plan, and relax.
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Pitching Mechanics

Stance	Balanced	<ul style="list-style-type: none"> - Have both feet in contact of the pitching rubber, with feet heel to toe and feet slightly inside shoulder width. - Drop shoulders back so above back heel on stride foot. (vertical line from heel through to centre of glove side shoulder) Do not arch back, bend glove side leg slightly and assume a part sitting position on the stride leg.
Set Up	Relaxed	<ul style="list-style-type: none"> - Hands apart. Bring pitching hand and glove together with being set in-front centre of the body in a relaxed firm position approximately waist level. Let arms hang loose and relaxed from the shoulders. - Keep ball hidden in glove, pause 2 seconds before pitching. NB: Cannot pause longer than 5 seconds
Grip	Firm but not white knuckle grip	<ul style="list-style-type: none"> - All high velocity pitches to be held/gripped on either the side of the seam/s or over the top of the seam/s. To grip the ball with the fingers on top of the seam for any high velocity pitch does not allow for maximum power to be snapped through the ball on release. Hand or fat fingers over the top of the seam/s are fine for change-up/s and off speed pitches.
Breath	Relaxed	<ul style="list-style-type: none"> - Slowly inhale, exhale to 80% and begin your pitch. Exhale totally upon pitch delivery. Control of your breathing pattern enhances the pitching performance.
Pre Pitch Arm Swing/Circle	Long, Loose and Relaxed	<ul style="list-style-type: none"> - Relaxed arm swing in form of a reversed letter C out in front of body, arms back to body in ready position to begin pitch.
Weight Shift	Balanced	<ul style="list-style-type: none"> - At the bottom of arm circle move your shoulders forward and over your pivot leg/knee. (vertical line from centre of pivot leg/knee through to pitching shoulder) Do NOT have weight further forward than

		mentioned as this restricts balance, power and rotation of arm/hand at the top of the circle.
Push Off/ Leg Drive	Strong and Balanced	<ul style="list-style-type: none"> - Push strong and explosively towards home plate. Feel the power in your legs and the free flowing strong relaxed upper body.
Stride Power Line	Straight, Strong and Balanced	<ul style="list-style-type: none"> - Stride foot to land at 1 to 2 o'clock (RHP) or 11 to 12 o'clock (LHP) on foot strike with landing surface and power line. Stride leg to be firm and braced. - Keep head centred above navel and between feet on pitch delivery. Slowly and steadily increase leg push, stride length and maintain balance at all times.
Stride/Pivot Foot Follow-Through	Knee to Knee	<ul style="list-style-type: none"> - Your pivot leg/knee is to follow up in behind your stride leg knee in a bent position.
Hip/Shoulder Rotation	Close @ 45 Deg	<ul style="list-style-type: none"> - During each pitch your hips and shoulders should open to face 6 to 12 o'clock and close on delivery to 45 deg or at 2 o'clock. This closure position allows the pitching shoulder to rotate freely and strongly. Additionally, it allows the arms to work in conjunction with the power line.
Complete Pitch Arm Circle K Position	Long, Loose, Relaxed and Extended	<ul style="list-style-type: none"> - Pitching arm circle to rotate in straight line with bicep brushing near the ear and palm/ball to rotate outwards at the top of arm circle. K position in same motion with pivot foot shoelaces facing outwards.
Ball Release	Close to Body	<ul style="list-style-type: none"> - Snap and spin the ball off the fingertips for maximum power and rotations for all high velocity pitches. Variation of speed can be altered by depth of ball in hand and with increased or decreased grip/pressure on the ball. - The closer the limbs are to the body, the more power generated. Hence, stronger and more explosive wrist-snap which creates faster and tighter ball spin/rotation and velocity.
Pitching Arm Follow Through	Inline and Strong	<ul style="list-style-type: none"> - Arm/hand to finish approximately waist height for the drop pitch. For either the peel or snap-over drop. Arm/hand to finish approximately

		chest high for the rise pitch. Palm facing back to pitcher after release. Arm/hand to finish approximately waist height for change-up with palm facing up and away to 2 o'clock on release.
Balance	Essential	- A balanced body = strength = power = increased velocity = tighter ball rotation = increased angular velocity

U18 Pitching 6 Week Programme

The pitcher will need to ensure that they have a competent catcher to receive their pitches. It is preferable to have the person who usually catches them in a game. The catcher will need all their catchers gear on. A person who does not usually catch in games is not suitable to receive.

Each weekly session is 90 minutes for the U18 age group, and the coach will need to be very conscious of time on all the sessions. There is a lot to cover.

- For each session allow for a 5 minute jog and choose from 8 dynamic stretches for a total of 10 minute warm up.
- Allow the player 5 minutes to do the throwing for 3 minutes and the 10 x ground balls.
- Don't hurry the pitching warm up; allow a good 15 minutes to get them building up to top speed and the time to get confident with their spins.
- Once the pitcher is pitching at top speed then they can put down the homeplate and measure the correct distance. If they put the homeplate down too soon this immediately puts pressure on the pitcher, and it is so important to stay loose and relaxed in their warm up.

U18 Pitching Distances

U18 Boys	U18 Girls
14.02 metres (same as senior men)	12.19 metres

Make sure the pitcher is aware that the distance is measured from the back point of the home plate to the front of the pitching plate. We expect all U18 representative pitchers to have their own home plate and length of string with the pitching measurement.

Pitchers also need to arrange their own catcher for all the 6 week coaching sessions and have a suitable ball, glove and cleats.

Week #1

Total time with coach is 90 minutes.

1.	10 minutes:	5 minute jog and choose from 8 dynamic stretches. Dynamic stretches require movement, such as running, jumping or kicking. 5 minutes throwing overhand for 3 minutes and take 10 x ground balls
2.	15 minutes:	Start pitching and build up to top speed (Coach start looking at the Velocity & Mechanics critiquing sheet, so you are prepared for the next step).
3.	5 minutes:	Ask the player to pitch with pace and pitch fat strikes with either their drop or rise and follow the rules that apply to the pitcher in a game e.g.: take signal etc. Tick off their basic mechanics according to the Velocity and Mechanics critiquing sheet
4.	10 minutes:	Show them the critiquing sheet and chat about some of the things they do well and some of the things they could improve on.
5.	5 minutes:	Check that the player has 3 pitches i.e.; drop, rise and change up.
6.	15 minutes:	Player takes Test #1 & Test #2
7.	5 minutes:	Discuss which pitch is their dominant pitch. It is usually the pitch which has the best spin.
8.	10 minutes	Discuss change up and try out some different grips and releases.



U18 Pitch Week #1 Homework:

- Pitch 4 days out of 7 days & this includes games
- Pitch for 45-60 minutes each practice
- Work on some key points from the V & M critiquing sheet
- Give some thought & practice to deception
- Put tape on the ball so that you can see the spin
- Do Test #1 & Test #2 twice during the week & bring them back with a score

Week #2

Total time with coach is 90 minutes.

1.	10 minutes:	5 minute jog and choose from 8 dynamic stretches
2.	5 minutes	Throw overhand for 3 minutes and take 10 x ground balls
3.	15 minutes:	Start pitching and build up to top speed with both drop and rise. (Coach check that the player has put tape around their ball).
4.	15 minutes:	Discuss V & M critiquing sheet. Player to advise what they worked on and coach to critique on these points. Check their results from Test #1 & Test #2 which they did for homework.
5.	10 minutes:	Discuss Dominant pitch & do the Cone Zone Test #3
6.	10 minutes:	Work more on the change up
7.	5 minutes:	Talk about the importance of being loose & relaxed – be conscious of breathing
8.	15 minutes:	Do the Cone Zone Test #4



U18 Pitch Week #2 Homework:

- Pitch 4 days out of 7 days & this includes games
- Pitch for 45-60 minutes each practice
- Work on some key points from the V & M critiquing sheet
- Make sure you are aware of which is your dominant pitch and ensure that this pitch has perfect spin
- Do Test #3 & Test #4 twice during the week & bring them back with a score

Week #3

Total time with coach is 90 minutes.

1.	10 minutes:	5 minute jog and choose from 8 dynamic stretches
2.	5 minutes	Throw overhand for 3 minutes and take 10 x ground balls
3.	15 minutes:	Start pitching and build up to top speed with both drop and rise.
4.	15 minutes:	Discuss V & M critiquing sheet. Player to advise what they worked on and coach to critique on these points.
5.	5 minutes:	Look at their homework test results from Test #3 & Test #4.
6.	10 minutes:	Do Test #3
7.	10 minutes:	Work on other pitch and getting the spin correct – tight spin, right spin
8.	5 minutes:	Work on change up – make sure it is deceptive.
9.	10 minutes:	<p>Talk about not tipping pitches. Pitch a mix of pitches to make sure not tipping.</p> <p>Tipping Tipping a pitch means the pitcher is doing something to show the batter what the pitcher is about to throw. A subtle change in delivery such as arm angle or speed of delivery. It could be in the way the pitcher grips or re-grips the ball in their glove. A pitcher wants to prepare for each pitch exactly the same way, so he/she does not give away what pitch is coming.</p>
10.	5 minutes:	Give the Game Evaluation sheet to the player and ask them to fill it in from this coming weeks game. If they don't pitch in that game, then ask them to use their last game.

U18 Pitch Week #3 Homework:



- Pitch 4 days out of 7 days & this includes games
- Pitch for 45-60 minutes each practice
- Decide on which of the points on the V&M critiquing sheet you will work on
- Give some thought & practice to ensure you are not tipping pitching
- Give some time to the spin of your other pitch
- Use the Game Evaluation Sheet to see how you did in this week's game

Week #4

Coach is to watch the pitcher in a game.

Assess the pitcher on the following points:

- Check that their set up is in accordance with the rules
- Do they appear relaxed when taking the signal from the catcher?
- Demeanour – confident, composed, rattled, anxious, moody, angry?
- Loose & relaxed - Conscious breathing
- Body language – posture
- Poker face – emotional?
- Begs for pitches?
- Tipping pitches
- Illegal pitches
- Ability to stay ahead of the count

Include any other points that you want to discuss with the pitcher about the game.

Week #5

Total time with coach is 90 minutes.

1.	15 minutes:	Discuss the game you watched. Use the Game Evaluation sheet the player did to discuss their performance. Advise the player on the points you assessed them on.
2.	10 minutes	5 minute jog and choose from 8 dynamic stretches
3.	5 minutes:	Throw overhand for 3 minutes and take 10 x ground balls
4.	15 minutes:	Start pitching and build up to top speed with both drop and rise.
5.	10 minutes:	Assess the pitchers spin on drop & rise. Right spin, tight spin?
6.	5 minutes:	Assess the pitchers change up. Do they sell it?
7.	10 minutes:	Discuss the V & M critiquing sheet.
8.	10 minutes:	Talk about the benefits of having more overall strength as a pitcher. Discuss the possibility of joining a gym and having a personal trainer to help produce explosive strength.



U18 Pitch Week #5 Homework:

- Pitch 4 days out of 7 days & this includes games
- Pitch for 45-60 minutes each practice
- Decide on which of the points on the V&M critiquing sheet you will work on
- Work on your weakest pitch
- Do Test #3 to work on your dominant pitch
- Use the Game Evaluation Sheet again to see how you do in your next game

Week # 6

Coaching session approx. 90 minutes

Tell the pitcher that you are going to do a final check on their skills, so they need to be well warmed up and ready to pitch well.

1.	30 minutes:	Allow the player the time as in other sessions to warm up by jogging, dynamic stretching, overhand throwing, ground balls and then building up to top speed.
2.	20 -30 minutes:	Do the U18 Final Checklist and record info on this list and use the back of the list if necessary.
3.	10 minutes:	Discuss the pitchers last Game Evaluation sheet
4.	20-30 minutes:	Spend the final 20-30 minutes working on key skills which you believe the player really needs coaching on.

Praise the player on their effort over the last 6 weeks.

U18 Pitching Mechanics & Velocity Critiquing Sheet

Set up	- Takes signal with hands apart & both feet touching pitchers' plate (comfortably shoulder width apart)	Yes /No
	- Hands together set in-front of the body in a relaxed firm position (2 seconds & no longer than 5 seconds)	Yes/No
Relax	- Inhale, relax, exhale to 80%– loose & relaxed	Yes /No
Leg push/Drive	- Body on lean driving off mound (shoulder over knee, knee over foot)	Yes /No
Use both arms	- Relaxed arm swing	Yes /No
	- Both glove & pitching arm out in form of a reversed C	Yes/No
	- Arms back to body in ready position to begin pitch	Yes/No
Use legs	- Power off mound with legs	Yes/No
	- Increase leg push and stride length	Yes/No
Up & close	- Pitching arm circle to rotate in straight line, bicep brushing ear	Yes /No
	- Palm/ball to rotate outwards at the top of the circle	Yes /No
Letter K	- Body is upright	Yes /No
	- Body has opened at top of upswing	Yes /No
	- Pivot foot laces are facing foul line	Yes/No

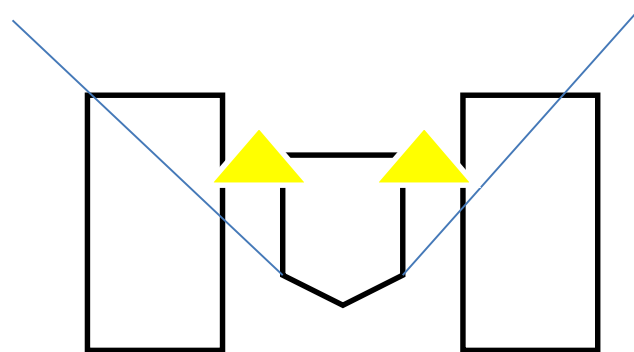
Stay tall	<ul style="list-style-type: none"> - Body is upright when strike foot contacts ground 	Yes /No
Power-line	<ul style="list-style-type: none"> - Stride foot contacts on power line - Foot angle lands across at 1-2 (RHP) and 10-11 (LHP) o'clock. - Body is upright, stride leg is firm, not bent 	Yes /No Yes /No Yes /No
Balance	<ul style="list-style-type: none"> - Remain tall with head centred above navel and between feet on stride foot-strike with ground surface 	Yes /No
Arm speed	<ul style="list-style-type: none"> - Arm speed is strong during the downswing. Not so fast as to dilute wrist snap/power 	Yes /No
Spin development	<ul style="list-style-type: none"> - Use firm grip strong wrist flexion on ball release - Pitching Arm Resists against the stride leg - Pitching arm is long and loose on downswing 	Yes /No Yes /No Yes /No
Stride & follow through	<ul style="list-style-type: none"> - Pivot leg/knee to follow-through up and behind the leg/knee - Pitching arm extends forward and level with drop and extends up to shoulder height with rise. Fingers curl in towards palm 	Yes /No Yes /No

Test #1 HEIGHT Test	Pitch #1	Pitch #2	Pitch #3	Pitch #4	Pitch #5	Pitch #6	Score
Drop Low in zone Called strike							
Drop Below zone Ball							
Rise In zone Called strike							
Rise Above zone Ball							
Change up Low Called strike							/30
<p>It is easier to pitch up & down rather than in & out so check that they can pitch to the correct height first, before going in & out on Test #2. Tick or X each pitch. Coach to check correctness of spin on drop & rise while player is pitching so as to ascertain which pitch is their dominant. Usually the pitch with the most accurate spin is the dominant pitch Coach to check also that player really 'sells' the change up.</p>							

Test #2 HEIGHT/W I D T H Test	Pitch #1	Pitch #2	Pitch #3	Pitch #4	Score
Drop Low outside Called strike					
Drop Low inside Called strike					
Drop Low outside Ball					
Drop Low inside Ball					
Rise Inside Called strike					
Rise High inside Ball					
Rise Outside Called strike					
Rise High outside Ball					
Change up Low outside Called strike					/36

Cone Zone

Place a small flat cone between both sides of the plate & batter's box. Pitch over this cone area as a target for all % pitches.



Accuracy Test #3	Pitch #1	Pitch #2	Pitch #3	Pitch #4	Pitch #5	Pitch #6	Pitch #7	Pitch #8	Score
Cone Zone % pitches									
Dominant Inside %									
Dominant Outside %									
									/16

NB: If the pitchers dominant pitch is a drop, then their other pitch is a rise.
 A percentage % pitch is on the corners so use the small cones as a guide for Test #3 & Test #4.

Called means a called strike where the entire ball is in the strike zone so that the umpire would call it a strike.

A ball is entire ball is outside the strike zone.

Percentage pitch (%) is when the ball is on the corners; use the small cones as a guide.

Test #4 Mix	Pitch #1	Pitch #2	Pitch #3	Pitch #4	Pitch #5	Pitch #6	Score
Dominant Outside	Called	Ball	%	Called	Ball	%	
Mix pitches Inside	Dominant % Inside	Other Ball Inside	Dominant % Inside	Other Ball Inside	Dominant % Inside	Other Ball Inside	

Mix In & Out	Dominant Called Inside	Change Called	Other Ball Outside	Dominant Called Inside	Change Called	Other Ball Outside	
Mix Out & In	Dominant Called Outside	Other Ball Inside	Change Called	Dominant Called Outside	Other Ball Inside	Change Called	
Mix Dom /Change	Dominant % Inside	Dominant % Outside	Change Ball	Dominant % Inside	Dominant % Outside	Change Ball	
							/30

U18 Pitcher Game Evaluation

Pitcher:	Catcher:	Opponent:	Venue:	Date:	Score:	
					W	L

Innings pitched:	# BF:	# pitches thrown:	Pitches per hitter (avg):	1 st or 2 nd pitch strikes:	Lead off batters out:	BB:	BB scored:	IBB:
Runs:	2 out runs:	K's:	Total # of strikes (& %):	Total # of balls (& %):	4+ pitch at bats:	Total hits:	HP:	WP:
Earned Runs:								

Total Base hits				Hits when behind count					Hits when ahead			Hits when even		
1B	2B	3B	HR	1-0	2-0	2-1	3-1	3-2	0-1	0-2	1-2	0-0	1-1	2-2
							3-0							

Final checklist				
Pitcher to pitch x6 of each so coach can note if the skill has been achieved				
3 Pitches	Drop	Rise	Change up	Results
Right spin	Yes/No	Yes/No	Yes/No	
Tight spin	Yes/No	Yes/No	Yes/No	
Deception	Yes/No	Yes/No	Yes/No	



Dominant pitch	Called strike 6/6	Ball 6/6	% 4/6	
Other pitch	Called strike 3/6	Ball 6/6	% 2/6	
Change up	Called strike 6/6	Ball 4/6	% 2/6	
Velocity 3 speeds Radar if you have access to a radar gun	Drop is quickest	Rise next speed	Change up is 3 rd speed	
M & V critiquing sheet: List points in motion that still need work.				

Dynamic Stretches

Dynamic stretching is good for waking up muscles, to get them ready to work hard. This involves moving your limbs through the full range of motion that they will be used in during activity.

Effective Dynamic Stretching

- Always do 5-10 minutes of aerobic exercise before starting dynamic stretching
- Maintain tension in the lower abdominals to protect your lower back and to control movement of your trunk
- Keep your knees in line with your toes to protect your knees
- Do not force the movement or lose control of the movement

Gradually increase the range of the movement over a series of repetitions as you loosen up.

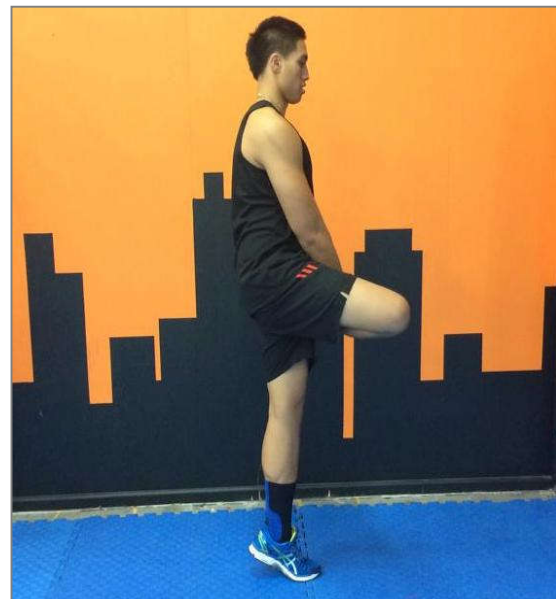
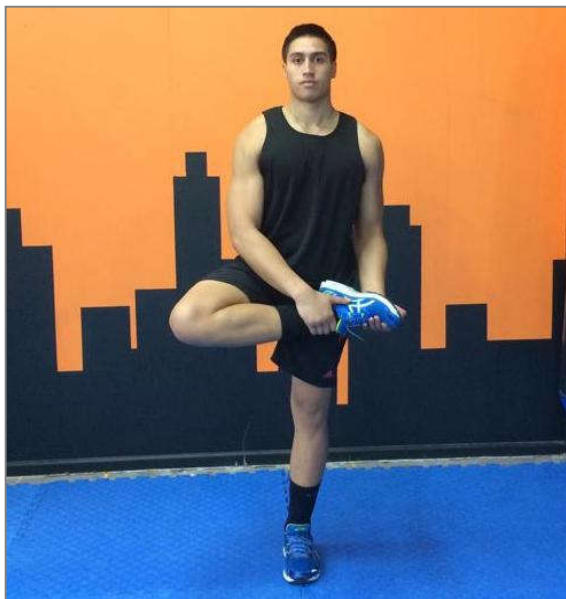
You can add these exercises in your warmup too if you choose – Jog, high knees, butt kicks, side steps stretching arms out, backward jog, straight leg kick, high skips, etc

Make sure you don't over stretch, listen to your body and know your limits.

1. Figure four

Lift one foot towards the other thigh. Grasp ankle and heel and pull up at the same time as tippee toe. A few steps in between. Back straight, head and chest up.

Target: Glutes and legs.



2. Tin soldiers

Stand on the balls of feet, kick one foot forward and touch toes with opposite hand. Alternate as you move forward.

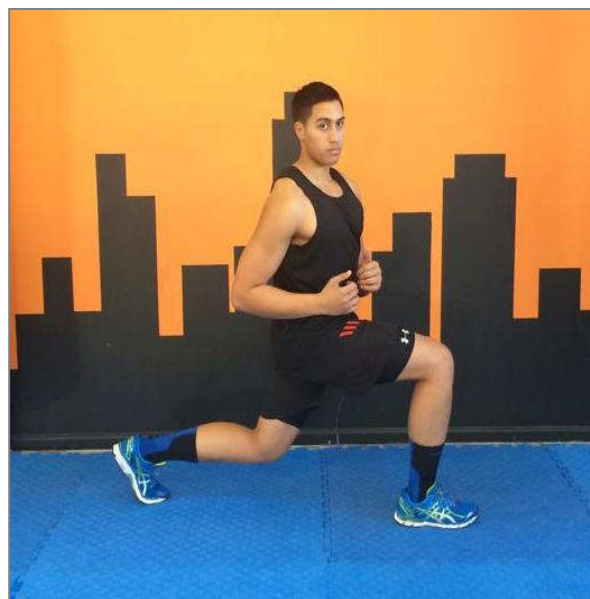
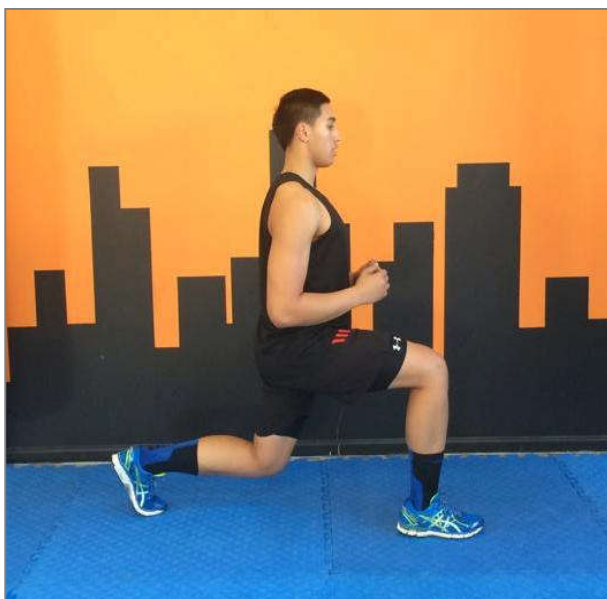
Target – Glutes and hamstrings.



3. Lunge twist

Walking forward lunge, knee behind toes, then twist torso away from extended leg then the other way. Make sure we have control of balance and core.

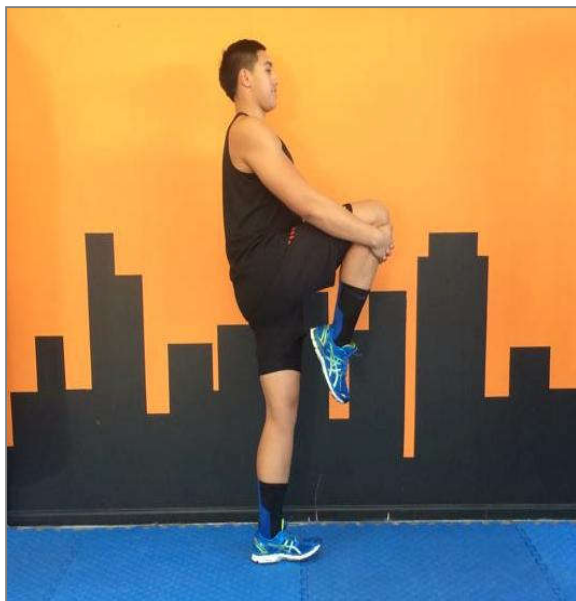
Target – hip flexors, core and back.



4. Knee hug

Pulling your knee into your chest at the same time as tippee toe. A few steps in between.

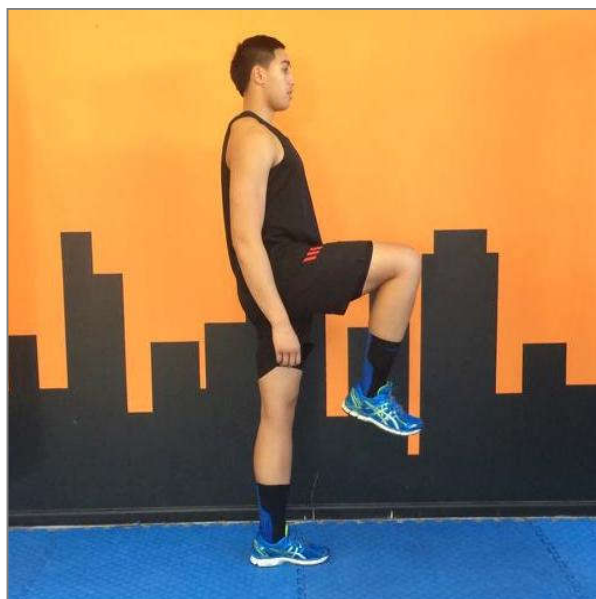
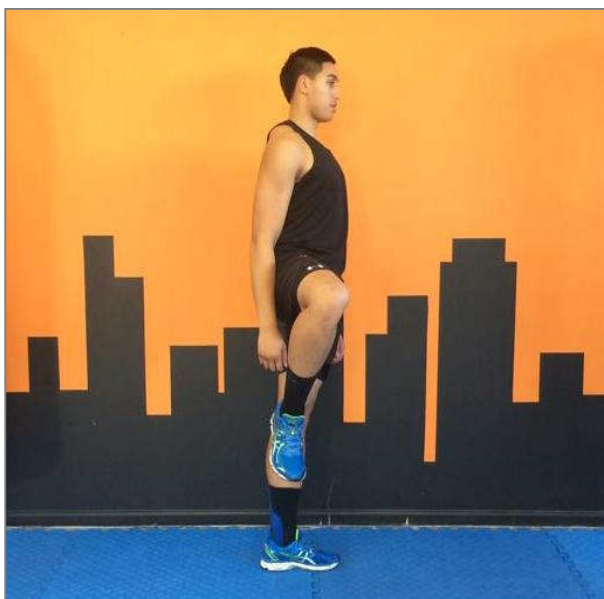
Target - Glutes.



5. Hip flexor

Walking forwards rotate you hips from outer to in, with a few steps in between. Also do it backwards, in to out.

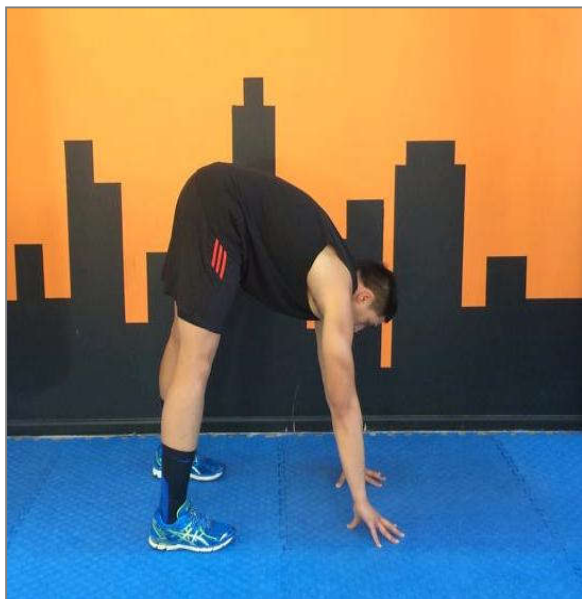
Target – Hip flexors.



6. Hand walk

Fold forwards and walk your hands out. Then bring your feet up to follow.

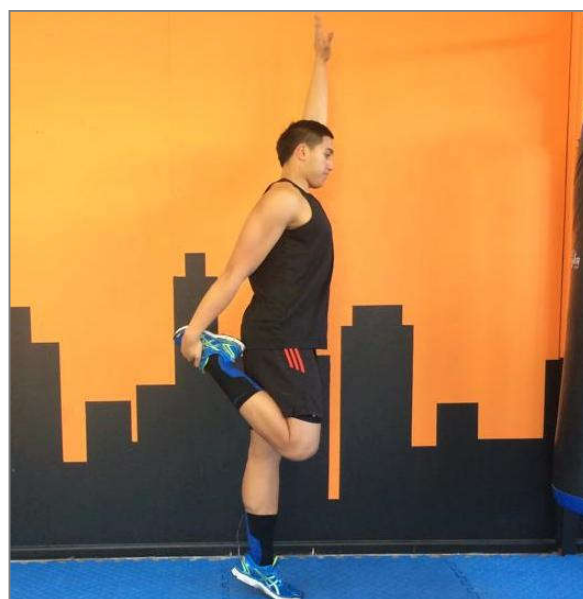
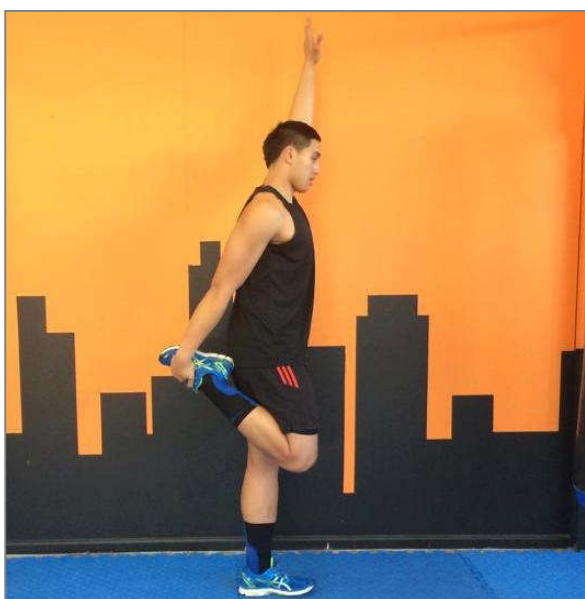
Target - Hamstrings and back.



7. Quad Stretch

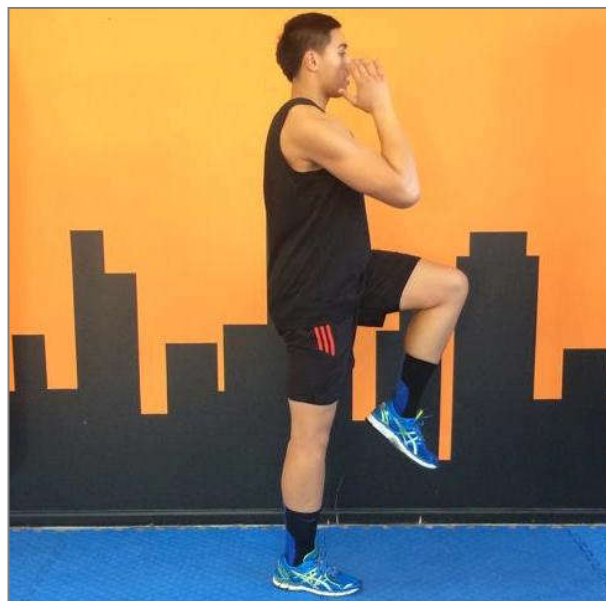
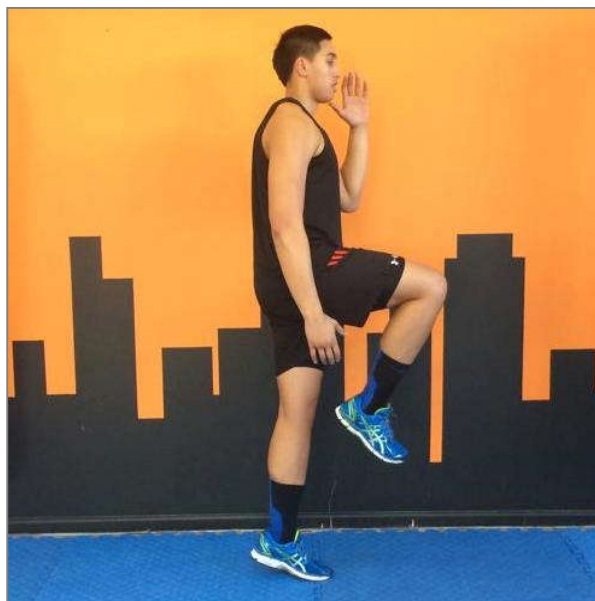
Hold foot up behind butt and reach to the sky with the other hand and tippee toe. Few steps between.

Target – Quads and calves.



8. Hip Skips

Drive arms with high knees with skip.



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