High Jump Inventory

Mike Schober: Kent State University



Dynamic stretching -2x15m

- Hamstring swipes
- Sweeping Quad-pulls
- Knee Pulls
- Shin Pulls
- Supermans
- Inch warms

Ground Dynamic Dills x 10 each exercise

- Iron Crosses
- Scorpians
- Roll-Back Bikes
- Roll-Back Hurdlers or roll-over hurdlers
- Pike Bikes
- Pike Scissors
- Fire Hydrants

Connection Dynamic Drills- Preform 2x15m

- zig zag run
- skipping forward
- skipping backward
- Forward skips with arm circles backwards
- Backward skips with arm circles forwards
- Side shuffle
- karaoke

Sprint Mechanics (option 1) 2x15m

- Ankle Pops
- Short Bounds
- A-walks
- A-Butt Kicks
- A-Skips
- B-Skips
- B-Skips into runs
- Alt-straight Leg
- Straight leg bound into run
- Ankles, shins, knee runs (30m)
- 3x60m Build-up 70%,80%,90%

(option 2 Pogo Series)

- Pogo pops
- Hackie Sacks
- Hackie Sacks out
- Pogo A-skip
- Pogo B-skip
- Pogo C-skip
- Ankleing
- Run through Shins
- Run over knees
- 3x60m build up 70%, 80% 90%

Hurdle Mobility 2x5-10 hurdles

- Walk Overs
- Walk Over every other leg
- Forward two back one
- Straight leg Sides

- Straight Leg Sides Alt
- Over Under
- Single Leg Hops

High Jump Core Strength Drills

Med-ball:

- Approach Walks
- 3 step walking (focus on push pull take off)
- Approach runs
- Circle runs
- Partner Med-ball Circle2x10 each exercise
 - Soccer Pass
 - o 1 arm soccer pass
 - o around the worlds
 - o trunk rotations
 - o chest pass
 - o Over head to between the legs exchanges
 - o Side to side exchanges
 - o Ankle pops
 - Sitting Chest pass
 - Sitting over head pass
 - o Prove OHB
 - o OHB
 - o UHF
 - o Putts

Bar-bell or stick

- A-walks
- A-runs
- Approach Runs
- Curve runs
- 1 step take off
- 3 step take off

General Strength Circuits

General Strength Work outs

<u>G</u>	<u>O</u>	L	<u>):</u>

ushups Prisoner Squats

V-Sits Back Hyper Pushups w/Clap Rocket Jumps

Dips L-Overs Superman's Burpees

Golden Flash: Use Hurdle

Single Leg Squat (L-R) Stationary Lunges (L-R) Lunge Jumps (L-R) Incline Pushups

Dips

Decline Pushups Lateral Squats Prisoner Squats Rocket Jumps

Kneeling Good Mornings Alternate Pelvic Tilt Heel Slides

V-Sits L-Overs Crunches Squat Lunge Walks

BLUE:

Turkish get ups Squat holds Squat jumps ¼ squats feet out

Push-up

Plank get-ups(Left and Right)

L-overs Lunge Drops Lateral Lunges

WHITE: Use Med ball

Standing Overhead Forward

V-sits

Good Mornings Seated hip (Right- Left)

Rotation exchange (clock-counter clock)

Medial Knee toss (left and right) Lateral Knee Toss (left and right)

Toe Toss Prone OHF Medball Chops

BLACK: Use Med Ball

Chest Pass

Standing hip catch and toss

Putts right and left

Seat chest

Seated overhead

Med ball single arm push-ups (left and right arm)

Throw downs

Lateral Knee Toss (Left and right) Rotation exchange (clock-counter clock)

Standing OHF

KENT STATE: Use Med Ball

Standing Over head Between legs

Back toss

Kneeling Good Morning Kneeling overhead forward Seated hip (left and right) Medial Kicks (left and right) Lateral Kicks (left and right) Hurdle reaches (left and right) Kneeling overhead back exchange

Knee squeezers Prone OHB Stationary Jump Circuits Work outs

Stationary Jump Circuit 1:

Ankle hops

Side Straddle line hops Front Straddle Line hops Crossover hops

Diagonal hops Bunny Hops Zig-Zag bunny hops

Stationary Jump Circuit 2:

Line hops Butt kick jumps 180's Rocket Jumps

Speed Skater Wide outs Squat hold jumps

Stationary Jump Circuit 3

Tuck jumps Ski Jumps

Single leg lateral turns

Straddle jumps

Single leg medial turns

Lane hops

Single leg squat jumps

Med Ball Throw Circuits

Med ball Throw Circuit 2 Med ball Throw Circuit 1 Overhead back Lunge Chest pass (L and R) Between the legs forward Shoulder Step (L and R) Hammer-hip (left and right) Overhead Step (L and R) Squat Chest pass **Med ball Throw Circuit 4** Med ball Throw Circuit 3 Нор-Нор- ОНВ Hop- Hop- Between the legs forward Explosive chest Box- OHB UHF Box- Btw the leg forward Over shoulder Toss

Plate Work Outs Work outs

<u>Plate Work Out 1</u>		<u>Plate Work Out 2</u>	
<u>Exercise</u>	<u>Reps</u>	<u>Exercise</u>	<u>Reps</u>
Rotational Lunge	5 reps each way	Rotational Lunge	5 each way
OC Squats	30	1 leg RDL and Press	5 each leg
Standing Twist to Press	6 reps-each leg	Jump Squat and Press 10 Reps	10
Squatting with Plate Press	30	OH Walk Lunge	8 ea leg
OH Backward Walk Lunge	5 reps- each leg	Squat and Rotational Punch	10 Reps Left and Right
Lateral Squat Shuffle	8 reps to left and right	Standing Twist and Punch	20 Each Way
Squat and Punch	10	OH Backward Lunge	6 Reps ea.Leg
Iso Split Squat and Punch	10 each leg	OH Rotational Lunge	10 Reps
OH Rotational Lunge	10		20 Reps
1 Leg RDL with Press	10 each leg	Seated Plate Punches	30 reps
Lunge with Plate Hold	6 each leg	Squatting and plate press	
Seated twist with punch	20 both sides		

Core Work Out w/ Levels

<u>core work out w/ levels</u>				
		Core Level Chart		
Level 1		2x10		
Level 2		2x8,1x10		
Level 3		2x10,1x8		
Level 4		2x12,1x15		
Level 5	3x8,1x10			
Level 6	3x12, 1x8			
Level 7	3x12, 2x8			
Core Work Out	ut 1: Core Work Out 2: Core Work Out 3:			
Pika unc	V-IIP Plank to Cetup each arm			

Pike ups	V-UP
Skydivers	Flash U Abs (count reps each ways)
Oblique's	Superman
Russian Twist	90-6's
Side Bridge Leg Circles	Pike Under Twist
	Supine Bridae Alternatina Lea Lift

Plank to Getup each arm Water Bottles Suitcases ½ turkeish Get up to stand

Climb the rope

Rotational Core Work Outs w/ Levels

Rotational Core Level Chart			
Level 1	8,6,6,8 Each Way		
Level 2	10,8,8,10 Each Way		
Level 3	12,10,10,12, Each Way		
Level 4	15,12,12,15 Each Way		
Level 5	15,20,20,15 Each Way		

Level 5	15,20,20,15 Each Way		
Rotational Core 1:	Rotational Core 2:	Rotational Core 3:	
Flash U abs	Russian twist	Water bottles	
Swiss Ball down twist	Med Ball turn throws	Standing Plate rotations	
Glut Ham Russian Twist	Cable twist	Exercise Ball Russian Twist	
Push-Up Ball Rotation	Band Rotation	Flash U-abs	
	Windshield wiper		

Core Work Outs W/ Equipment

Work Out 1		Work Out 2	
<u>Exercise</u>	<u>Reps</u>	<u>Exercise</u>	<u>Reps</u>
Half Bench Curl up	10	Full Bench Curl up	10
Partner Pull Downs on GH	6	Partner Band Abs	6
Swiss Ball Twist	10 each way	Swiss Ball Twist	10 each way
	12	Incline OH sit ups	12
GH OH DB sit up	Hold 20 sec	Pike Swiss Ball Abs	10
GH iso Sit up	<u>Repeat 2 times</u>		Repeat 2 times
<u>Repeat 2 times</u>		Repeat 2 times	
Work Out 3:			
<u>Exercise</u>	<u>Reps</u>		
Straight leg sit up w/ plate	8 25 each wway		

Core Work Outs With Out Equipment

20 sec hold

8 each way 12 **Repeat 2 times**

GH russin Twist

GH Iso Sit up Cross Swing Abs Incline DB OH sit up

Repeat 2 times

core work outs with out Equipment			
	Work Out 2		
<u>Reps</u>	<u>Exercise</u>	<u>Reps</u>	
10	Straight leg up Crunch	25	
15 each way	Russing twist	20 each way	
10 2/3 sec hold	V-ups	12	
10	Oblique double leg crunch	15 each way	
12 w/ 3 sec hold	Planks	45 second hold	
Repeat 2 times	Repeat 2 times	Repeat 2 times	
	Work Out 4:		
<u>Reps</u>	<u>Exercise</u>	<u>Reps</u>	
20 each way	Sit ups	20	
8 each way	Oblique Lift crunch	8 each side	
8 each way	Supine Bridge	30 second hold	
8 each way w/ 3 sec hold	Push up reach	12	
12 reps w/ 3 second hold	Side bridge	30 second hold each way	
D	D + 2 +	Domagt 2 times	
<u>Repeat 2 times</u>	<u>Repeat 2 times</u>	<u>Repeat 2 times</u>	
	Reps 10 15 each way 10 2/3 sec hold 10 12 w/3 sec hold Repeat 2 times Reps 20 each way 8 each way 8 each way 8 each way 8 each way 7 sec hold 12 reps w/3 second hold	Reps Reps Straight leg up Crunch Russing twist V-ups Oblique double leg crunch Planks Repeat 2 times Reps Work Out 4: Reps Exercise Straight leg up Crunch Russing twist V-ups Oblique double leg crunch Planks Repeat 2 times Straight leg up Crunch Russing twist V-ups Oblique double leg crunch Planks Repeat 2 times Straight leg up Crunch Planks Stiups Oblique Lift crunch Supine Bridge Push up reach Side bridge	

High Jump Take off drills

- Stationary Hurdle take off drill
- Moving Hurdle take off drill
- 3 step drill
- hurdle take off drill (1 step)
- Hurdle take off drill (3 step)
- Hurdle Take off Drill (5 step)
- Resisted take off Hurdle drill (3 step)
- Weight rest take off hurdle drill (1,3,5 step)
- Hurdle take off drills on curve
- Approach take offs straight line into Long Jump pit
- Penultimate Long Jump box take offs(2 to 4 inch box)
- High Jump Skips (low intensity)

High Jump Curve development Drills

- Curve runs
- Figure 8's
- Circle drills
 - o Walks, Low Skips, High Skips, 3 step take off, High Knee run
- Bar curve runs
- Forward summersaults
- Circle drills to take off
- Half circle drills to take off
- Approach circle drills to take off
- 5 step circle drills to take off (with box, scissor kick or lay out)
- 3 step circle drills to take off (with box, scissor kick or lay out)
- 1-2 Rhythm takeoff on curve
- Full approach Continuous runs

Rotational (over the Bar) Development

- Back overs
- Side way Back overs
- 5 step two foot take offs
- Wrestling Bridges
- Back Flip lay outs
- Back Handspring

Full High Jump Drills

- 3 step take offs
- 5 step take offs
- approaches off box
- Minnesota 5 step drill

Notes

Approach Development

Distance from Standard-

- Wider curve
 - Allows for a smoother and gentler curve
 - o Allows for greatest speeds on the curve
 - o Creates more of a natural lean
 - o Promotes proper posture at take off
 - Creates better rotation over the bar
- Women:
 - o 10-13 feet wide
- Men:
 - o 12-16 feet wide
 - In some cases event wider

Length

- Distance away from width tape depends on number of steps and athlete takes in his or her approach
- General Guideline
 - Women 8 step
 - 40-46 ft
 - Women 10 step
 - **•** 50-56
 - Men 8 step
 - **48-52**
 - Men 10 Step
 - 58-63ft
 - Distance depends on strength length and strength of an athlete.

Coaching tip

- When determining approach place markers down at each foot increments have athletes start at the shortest increment and run approach. Adjust to determine full approach.

This allows a more accurate approach, which will create faster rotation over the bar. (The Jumper who rotates the fastest will jump the highest)

Creating a bend marker

Once you have determined a start point the next thing to do is create a bend marker. Do this by having the athlete push out in a straight line all the way to the standard. If your Jumper is a left foot take off count their left foot and for the right foot jumper count their right foot. For an athlete using a 8 step approach mark there 2nd step for a 10 step approach mark their 3rd step. This is the point of intercept where your athlete should turn up on the curve. This will allow for a more consistent approach and allow the coach to make proper adjustments.

Location of take off:

- Athlete should be taking off at about an arms length away from the Standard. This will allow the athlete to keep the proper leaned position at take off and allow them to have time to fully rise.
 - o Athletes who take off inside of standard generally float there last step at take off. This leads to improper take off mechanics which causes the foot to turn parallel to the standard which then exposes the back to the bar. This causes the athlete to "Blow through the bar" and also limits rotation over the bar. Along with the lack of rotation, being to close to the bar at take off leads to the athlete not being able to reach their max apex over the middle of the Bar. Along with that it decreases the ability to allow the athletes center of gravity to travel under the bar.
 - This also depends on the height of the athlete. If the athlete is shorter they need more time to rise so they should take off farther away compared to a shorter athlete

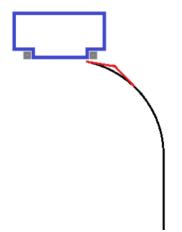
Common High Jump Problems: (Boo Schexnyder)

Athlete Knocks bar off with ankles:

- This is the result of two things.
 - First being the athlete is taking off to close to the bar and is reaching his or hers apex past the bar.
 - Second The athlete is not running a tight curve, the lack of a tight curve leads to a "post pattern effect" or what we call a "fake curve or lean." This cancels the summersault rotation at take off and the only way the athlete is able to "arch" is by manipulating his body over the bar which then causes the hips to drops, which then lowers the center or gravity. The end result of this is; the hips drop and the feet are unable to be "kicked" over the bar.

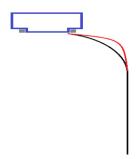
Takeoff and Flight Errors. Most high jump complaints I receive are characterized by problems in takeoff and flight. In any jumping event, the flight path of the jumper and rotations experienced by the jumper in flight are established while still on the ground. For this reason, in spite of their appearances, these flight and takeoff problems are rooted in the effectiveness of the approach, particularly the integrity of the curve. In fact, most high jump complaints can be linked directly to one of the problem approaches we have just discussed. Following is a list of typical, highly visible high jump errors, and their potential causes and solutions.

- Falling on the Bar. When the jumper falls on the bar, and the peak of flight is in front of the bar, the natural coaching tendency is to assume the jumper is taking off too far from the bar. This is never the case. Jumpers inherently refuse to take off too far away from the bar... its unnatural and unsafe. The forces that push the peak of flight in toward the pit are generated in the curve, so falling on the bar is always a curve related problem. In most cases, the curve has flattened out or ceases to exist. (Figures 4 and 6 show typical approaches associated with this problem). In the rare case that the curve looks good and this happens, it's time to adjust the approach checkmarks to tighten the curve's radius.
- <u>Sitting on the Bar</u> Failing to Arch. When the jumper fails to layout or arch well, the natural coaching tendency is to work harder on the arch or layout. Anyone who has battled this problem in this way can attest to the futility of this plan of attack. Flight rotation is a prerequisite to a proper flight layout, so... no rotation, no arch. The rotation is produced due to the forces of the curve acting at takeoff, so in these cases, the final steps of the approach are on a straight (not curved), and are too parallel to the bar. (Nearly all bar-sitters use the approach seen in Figure below).
- <u>Jumping Into the Bar</u>. In this situation, the natural coaching tendency is to cue
 the jumper to take off vertically... which might work if the problem is a simple
 matter of undisciplined jumping or premature flight movements. However in
 most cases, this isn't the case. To jump effectively, the jumper's hips must pass
 directly over the takeoff foot during takeoff. Jumpers who jump into the bar
 usually show the hips passing to the right of the takeoff foot (for a left footed
 jumper). This nearly always results from misalignment, resulting from the jumper
 stepping out of the curve.



Example of Curve:

- Assuming Long Positions Over the Bar. In flight, high jumpers should bring the hands to the hips and bend the knees. This shortens the body to accelerate rotations over the bar. Poor body positions result when the jumper straightens the drive knee after takeoff, creating a long, extended body position over the bar. This extended position slows the necessary rotation about the bar. In fact, error might result in an exaggerated arch, leading the coach to mistakenly believe it's good technique. In this situation, the natural coaching tendency is to cue the jumper to keep the knee up. Jumpers who straighten the knee do so inherently to slow their rotation into the bar, so these jumpers should be treated like those who jump into the bar, and the causes of this problem are the same as well, usually stepping out of the curve (seen in figure above)
 - Traveling Along the Bar. Some high jumpers travel down or along the bar excessively at takeoff, increasing dramatically their chances of contacting the bar. The problem is one of simple geometry... the final angle of approach is too small. The final angle between the approach and the crossbar, rather than being close to 35 degrees, is considerably less. These jumpers flatten the curve \and should be corrected accordingly.



Example:

• Hammock Jumping. In this problem, the jumper initiates the layout by throwing the shoulders back at takeoff prematurely. The high jump resembles someone falling back into a bed or hammock. You can always identify the hammock jumper by their position when they hit the mat... the legs are directed toward the far side of the pit and the body is parallel to the crossbar (rather than the legs being directed toward the crossbar with the body at a right angle to it). These jumpers usually show final steps of the approach flattened and too parallel to the bar (as in figure above). Hammock jumpers throw the shoulders back toward the near standard during takeoff, so a good cue is to have the jumper direct the right shoulder (left footed jumper) over the bar and toward the back opposite corner of the pit during the jump.