A Training program to Prevent Knee Injuries and Enhance Athletic Performance

#1 DYNAMIC WARM UP

- ❖ 5 minutes of low intensity aerobic activity (jogging, bicycle, stepper, etc.)
- ❖ Arm swings (5 reps each direction)
- * Knee and ankle rotations (5 reps each direction)
- ❖ Hip swings (forward and backward and side to side)
- ❖ Heel walks and toe walks (20 each)
- Lunge walking with wide arm rotation, lunge walking with tight arm rotation, lunge walking with side to side bending, lunge walking with figure 8's. (each performed for 20 feet)

#2 PLYOMETRIC WORK-OUT

See Training Program

#3 STRENGTH TRAINING PROGRAM

- ❖ Upper Body....All performed 3 x 10 reps. 20 to 30 seconds rest between sets. Use 3-5-lb. dumbbells.
 -standing shoulder external rotation
 -standing dumbbell shoulder flexion/extension
 -standing dumbbell shoulder lateral raises
 -standing dumbbell bicep curl to overhead press
- ❖ Iso Core Exercises....all holds for 20-60 seconds, depending on your strength. Start with 20 seconds and add about 5 seconds per week.
 -on your stomach and elbows
 -on your back and elbows
 -on your right side and elbows
 -on your left side and elbows
- **❖** Legs....follow indicated repetitions for each exercise.
 -double leg squat (20reps in 20 seconds) rest 45 seconds
 -single leg squats (10 reps on each leg, progress to 3 x 10 reps on each leg).....rest 25 seconds
 -STAR reaches with arms (3 times at each position, progress to 5 times)...use 3-5 lb. dumbbell, rest 45 sec.
 -forward step single leg squat (5 per leg alternating, progress to 10 per leg)
 -side step single leg squat (5 reps per leg alternating, progress to 10 per leg)
 -90 degree rotation single leg squat (5 reps per leg alternating, progress to 10 per leg)
 -balance walking lunge forward (50 feet)....hold 2 seconds each step
 -balance walking sideways (50 feet).....hold 2 seconds each step

#4 POST EXERCISE STRETCHING

- ❖ Gastrocnemius......30 seconds each leg
- ❖ Soleus......30 seconds each leg
- ❖ Quads.....30 seconds each leg
- ❖ Hamstrings......30 seconds each leg (no hurdlers position)
- ❖ Hip......30 seconds each leg
- ❖ Posterior Shoulder.....30 seconds each shoulder
- ❖ Posterior arm.....30 seconds each arm
- ❖ Overheard reach......30 seconds each arm

PLYOMETRIC / JUMP TRAINING PROGRAM

Stage 1 Technique Learning										
Toomingue Learning	Time	Week 1	M # Jumps	W #	F#	Time	Week 2	M #	W #	F#
2 leg vertical jumps	20 sec.	110011	······································	1	1	25 Sec.	TIOUN 2	1	1	1
2 Leg broad jumps	8 jumps					16 jumps				
90 deg. Squat jumps	10 sec.					15 sec.				
Cone jumps – side to side	20 sec.					25 sec.				
Forward-backwards	20 sec.					25 sec.				
2 leg 180 deg. jumps	20 sec.					25 sec.				
Bounding in place	20 sec.					25 sec.				
Ice skater with hold	20 sec.					25 sec.				
Stage 2		Week 3					Week 4			
Neuro Learning	05					00		-		
2 leg vertical jumps	25 sec.					30 sec.				
2 leg, 3 jump, vertical	5 reps					8 reps				
90 deg. Squat jumps	15 sec.					15 sec.				
Bounding run	1 run					2 runs				
Cone jumps, side to side	25 sec.					30 sec.				
Forwards-backwards	25 sec.					30 sec.				
Single leg hop, STAR, 2 leg landing	8 reps					8 reps				
2 leg 270 deg. jumps	25 sec.					30 sec.				
Ice Skater, 1 sec. hold	25 sec.					30 sec.				
Stage 3 Power Building		Week 5					Week 6			
Single leg vertical hops	15 sec.					20 sec.				
Box 2 leg jump up, down, up	5 reps					10 reps				
Single leg cone hops Side to side	15 sec.					15 sec.				
Forward-backwards	15 sec.					15 sec.				
90 deg. Squat jumps	20 sec.					25 sec.		1		
Single leg hops (STAR) 1 leg landing	8 reps					8 reps				
Ice skater – forward and	1 run					2 runs				
Backward run	1 run					2 runs				
ReStart jumps- forward	1 run					2 runs				
backward	1 run					2 runs				
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Stage 4		Week 7					Week 8			
Performance Building Single leg vertical jumps	20 sec.			1	1	20 sec.		1		
					1			1		
Box 2 leg jump up, down, up	10 reps					10 reps				
Single leg cone hops Side to side	20 sec.					20 sec.				
Forward-backward	20 sec.		1			20 sec.				
Single leg hops (STAR)	8 reps		1			8 reps		1		
Single leg hops 90 deg.	15 sec.					15 sec.		1		
Ice skater – forward and	2 runs					2 runs	1	1		
backward run	2 runs		<u> </u>			2 runs				
ReStart hops – Forward each leg	1 run					2 runs				
Restart Hops – Backward	1 run					2 runs				
each leg										
each leg										