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NSCAA All-American

NCAA National Champion / All-American

USWNT 1996 Olympics

WUSA Champion, Carolina Courage

W-League Champion, Raleigh Wings

US Soccer B-License

NSCA Certified Strength and Conditioning Specialist

ISSN Certified Sports Nutritionist

USA Weightlifting Sports Performance Coach

AFAA Practical Pilates Certification

AFAA Practical Yoga Certification

United Soccer Coaches, DOC Diploma

US Soccer Foundation, National Training Team

US Soccer Federation, Grassroots Instructor

Founder of Fit for Her Football, Inc.













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Youth Soccer

Critical aspects of training

- 1. Central nervous system (CNS) adaptations will underpin majority of gains in speed observed during pre-pubescence, as children refine their motor recruitment and coordination patterns
- 2. Ground reaction forces (GRFs) and derivatives of this (rate of force development, impulse, power, and leg stiffness) are primary determinants of speed
- 3. Neuromuscular risk factors associated with sports-related injuries can be modified through effective integrative neuromuscular training programs to directly reduce incidence of injury in young athletes



Integrative Neuromuscular Training (INT)

Preventing acute injuries that result from complex sport actions

- Improves injury resilience
- Enhances sport and motor skill performance

6 Essential Components of INT Programs

- 1. Dynamic stabilization
- 2. Coordination
- 3. Strength
- 4. Plyometrics
- 5. Speed / agility
- 6. Fatigue resistance

Fort-Vanmeerhaeghe, Azahara PhD1,2,3; Romero-Rodriguez, Daniel PhD1; Lloyd, Rhodri S. PhD, CSCS*D4; Kushner, Adam BS, CSCS5; Myer, Gregory D. PhD, CSCS*D5,6,7,8 Integrative Neuromuscular Training in Youth Athletes. Part II: Strategies to Prevent Injuries and Improve Performance, Strength and Conditioning Journal: August 2016 - Volume 38 - Issue 4 - p 9-27







"Short concentrated warm-up drills that are well designed, coached, and focused on movement quality can improve movement ability alongside improvements in performance and reduce injury risk."

Dr. Ian McKeown

Why Warm-up?



- 1. Enhance subsequent performance
- 2. Optimally prepare players for jumps, sprint, COD, and agility tasks
- 3. Provides a simple, flexible, effective way to integrate:
 - Skill development
 - Speed, agility, and quickness
 - Long-term athlete development

Jeffreys I. Rethinking long term athlete development—A behavioral approach. Strength Cond J 41: 46–51, 2019



Coaching Movement Ability

A well-designed training plan addresses:

- Biomechanical principles
- Elements to stimulate
- Posture
- Communication between the brain and muscle units
- Reaction time



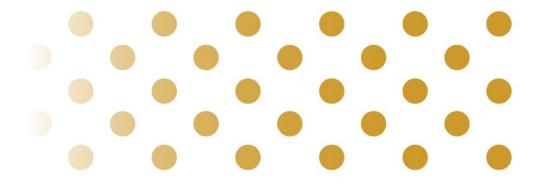
INT programs address



- Altered timing and magnitude of muscle activation
- Strength deficits
- Frontal plane knee control: dynamic valgus
- Neuromuscular imbalance between limbs
- Inadequate muscle stiffness
- Deficits in postural stability
- Proprioception
- Feed-forward

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Functional Warm-ups FIFA 11+, RAMP, MAS



RAMP

- Raise body temperature
- Activate supporting musculature and movement patterns
- Mobilize area to enhance movement capacity
- Potentiate / Prepare neural system to maximize the session ahead

MAS

- Mobilize the area to enhance movement capacity
- Activate the supporting musculature and movement patterns
- Stimulate the neural system to maximize the session ahead



Stability vs Mobility

A ground-up player assessment



Foot: stable

Ankle: mobile

Knee: stable

mobile Hip:

Trunk: stable

T-spine: mobile

Anytime mobility is increased, stability must increase as well.



Warming up

The need to be literally warm

For every 1° change in muscle core temperature:

- significant change in power, spring performance and jump performance 4-6%
- Max isometric strength increases about 2%
- Being warmer increase oxygen delivery to the muscles (get things worker easier and quicker)
- Improves CNS function & nerve transmission (very crucial with movement patterns)
- Improves elasticity connective tissues increases metabolism



E-		RAMP		11+	Physical Compone	nt	Allocated time	Inexperienced, young youth athlete	Competent, older youth athlete	
					CARDIOVASCULAR ACTIVITY		5 min	Double legged skipping Structured game (e.g. Tag)	Double and single legged skipping Structured game with restrictions (i.e. catch one handed only)	
						Full Body	5 min	Inchworms Stationary spidermans / ambulatory spidermans	Inchworms into press up Inchworm into Spiderman	
				PART 1	DYNAMIC MOBILITY	Lower Limb		Leg swings: Forward / backwards / lateral Moving over and under a hurdle A-Skips B-Skips Carioca	Incorporate the use of accessory equipment (e.g. foam roller) Trigger point mobility as needed	
	RAISE					Upper Limb		Jogging forwards and backwards whilst swinging arms Four-point kneeling with thoracic rotation (Figure 1)	Skipping whilst swinging arms Four-point kneeling with thread through & thoracic rotation	
					BALANCE			Balancing on a drawn line Balancing on a beam Single leg balance (for time) Single leg balance - eyes closed (for time)	3 point cone touch (Figure 2) Y-Balance Single leg medicine ball slams	
					CO-ORDINATION		5 min	"Simon says" game Obstacle course with various challenges Hop scotch Balloon play Wheelbarrow walking	Throwing and catch a ball/s with a partner Obstacle course with increased complexity of challenges Target practice with a ball: footwork or hand-eye coordination	
		ACTIVATE			ACTIVATIONS	Lower Limb	5 min	Bridges Clams Stationary / ambulatory lunges Duck walks (Figure 3) Stationary lateral lunges Lateral glute band walk Monster Walks	Single leg bridges Cossack squats Weighted stationary / ambulatory lunges Arabesques: with a wooden dowel / kettle bell / bar Curtsey lunge (Figure 4)	
				RT 2		Upper Limb		Elastic band exercise: Standing row Elastic band exercise: Chest press	Increase the resistance of the exercise band used Incorporate catching and throwing exercises with 1 kg medicine ball	
				PA		Full Kinetic Chain		Elastic band exercise: Squat to overhead press Elastic band exercise: Lunge with overhead press Elastic band exercise: Split squat with band rotations (Figure 5)	Overhead squats holding a band/dowel/bar Overhead split squat with a wooden dowel / bar Olympic lifts and/or derivatives	
Myburgh, Gillian K. PhD, CSCS1; Pfeifer, Craig E. PhD2; Hecht, Christopher J. MA, CSCS*D3 Warm-ups for Youth Athletes: Making the First			POTENTIATE	POTENTIATE		FORCE PRODUCTION	SSC-Slow	5 min	Jumping jacks Burpees Tuck Jump Countermovement jump Box jump Broad jump Lateral leap Single leg forward hop & stick Single leg lateral hop & stick Medicine ball slams (1-2kg) Medicine ball chest press (1-2kg) Medicine ball rotational throw (1-2kg)	Squat jump with upward medicine ball throw Countermovement jump with upward medicine ball throw Lateral leap and return Split squat jumps with medicine ball rotations Multiple bounds Forward hops with return Repetitive lateral hops Drop snatch Medicine ball slams / chest press / rotational throw (3-5 kg) Medicine ball drills based on sport specific movements
15-Minutes Count, Strength and Conditioning						SSC-Fast		Pogo hops* Hurdle jumps Linear sprints with and without deceleration	Pogo hops with secondary movement (either a jump/ sprint) Drop jump with secondary jump (either vertical / horizontal / lateral)	
Journal: Dec 2020 - Vol 42 - Issue 6 - p 45-53				PART 3	SAQ		5 min	Linear sprints with and without deceleration Diagonal/lateral speed work Diagonal/lateral speed work with turn	Linear sprints with multiple turns and breaking movements Partner drills of increasing complexity and/or challenge Reactor ball drills	



R - RAISE

Objective: to achieve the temperature-related requirements of the warm-up, along with key other physiological adaptations that result from a period of lowto moderate-intensity exercise

- deliberate practice designed to achieve specific skill-related goals
- a high-density of movement activity in a relatively small area
- Target qualities: useful in developing locomotor and object control skills



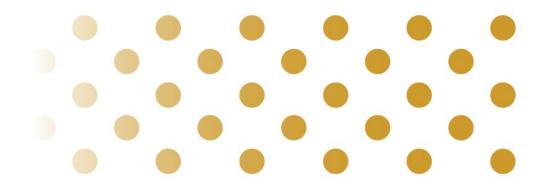
A - ACTIVATE

Objective: activate the key working muscles

- Controlled movement through key fundamental patterns
- Target qualities: stability, strength mobility

"Activation. Not annihilation."





M - MOBILIZE

Objective: mobilize the key working joints

Target qualities: stability, strength mobility

Mobility is global in scope and includes the athlete's ability to function and reach desired positions during activity and is heavily dependent upon stability and proper coordination of multiple joints functioning simultaneously.



P-POTENTIATE/PREPARE

 Objective: progressively move through the ROM required for higher intensity activities

- Simple to complex
- Target qualities: speed, power, agility

Example of a 15-minute warm-up, with appropriate exercise selection for an inexperienced young youth athlete and a competent, older youth athlete

Myburgh, Gillian K. PhD, CSCS1; Pfeifer, Craig E. PhD2; Hecht, Christopher J. MA, CSCS*D3

Warm-ups for Youth

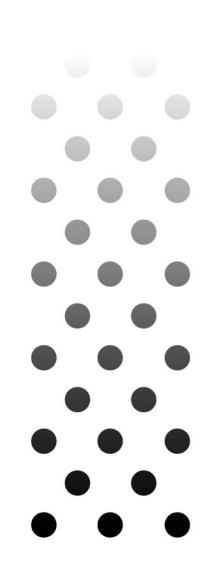
Athletes: Making the First 15-Minutes Count,

Strength and Conditioning Journal: Dec 2020 - Vol 42 - Issue 6 - p 45-53

RAMP Inexperienced	Young Youth	RAMP Competent Older Youth			
Skipping	3 min	Double- (20 s) and single-legged (5 s ea. foot) skipping	3 min		
Inchworms Stationary spidermans A-skips B-skips Carioca Jogging while swinging arms	1 x 5 reps 1 x 4 reps ea. leg 1 x 10 m 1 x 10 m 1 x 10 m 1 x 10 m	Inchworm into press up Inchworm into spidermans Foam roll relevant areas. Trigger point mobility Skipping while swinging arms	1 x 5 reps 1 x 3 reps ea. leg 2 min As needed 1 x 10 m		
Single-leg balance	1 x 30 s ea. leg	Single-leg balance	1 x 3 reps ea. cone		
Wheelbarrow walking	1 x 10 m pp.	Throw and catch ball w/ a partner	1 x 5 catches pp.		
Elastic band exercise: Standing row Elastic band exercise: Chest press Clams Duck walks Elastic band squat to OH press	1 x 10 reps 1 x 10 reps 1 x 10 reps ea. leg 1 x 10 m 1 x 8 reps	Elastic band exercise: Standing row Elastic band exercise: Chest press Curtsey lunge Cossack squats Overhead squats with a band/dowel/bar	1 x 15 reps 1 x 15 reps 1 x 8 reps ea. side 1 x 4 ea. side 1 x 6 reps		
Medicine ball slams (1–2 kg) Broad jump Lateral leap and stick Pogo hops	1 x 6 reps 1 x 3 reps 1 x 3 ea. leg 1 x 10 reps	Medicine ball slams Forward hops with return Lateral leap and return 5 pogo hops with 5-m sprint	1 x 8 reps 1 x 3 ea. leg 1 3 x ea. leg 1 x 3 reps		
15-m sprint with decelerations 5-m sprint and return	1 x 3 reps 1 x 2 reps ea. side	Zig-zag sprint over 15 m 5-m sprint & return - reacting	1 x 2 reps ea. direction 1 x 2 reps ea. side		



RAMP - DECELER	RATION	RAMP - LATERAL	SPEED	RAMP - DEFENDING further from ball		
Jog (forward, backward) Skip Shuffle Carioca Add stop / 5-yds to FW/BK jog	2 x 15-20 yd / each	Skip Shuffle Carioca Box Runs: 1- FW-lat shuffle-BW-lat shuffle 2- lat start-FW-crossrun-BK-cross	1min 4-min	Box Runs: 1 -lat start-FW-crossrun-BK-cross 2- FW-shuffle-dropstep-sprint	5-min	
Foot-ankle prep Walking hamstring reach Walking knee hugs Cradle walk FW walk closing hip (add reflex) BK walk opening hip (add reflex) Opp-Hand Quad Stretch Swinging arms while power skip	10 yd ea	Foot-ankle prep Inchworms Cradle walk FW walk closing hip BK walk opening hip Swinging arms while jog Swinging arms while power skip	10 yd 5 yd 10 yd 10 yd 10 yd 10 yd 10 yd	Foot-ankle prep Inchworms Cradle walk FW walk closing hip (add reflex) BK walk opening hip (add reflex) Swinging arms while jog Swinging arms while power skip	10 yd 5 yd 10 yd 10 yd 10 yd 10 yd 10 yd	
SL RDL	1 x 6 / leg	SL RDL	1 x 6 / leg	SL balance	1 x 20-30 sec / leg	
Ladder 1-2 Lateral in & out Ladder 1-2-3-4 Lateral in & out	2-3x / dir 2-3x / dir	Ladder 1-2 Lateral Ladder 1-2-3 Crossover Ladder 1-2-3-4 backward	2 min	Ladder 1-2-3 Crossover Ladder 1-2-3-4 basic Ladder 1-2-3-4 backward	2-3 per pattern	
SL Glute bridge Kneeling side knee lift	1 x 20 sec / side 1 x 15 / side	Duck walk Bear crawl Crab walk	10 yd 10 yd 10 yd	Mini-band walks: Linear Lateral Monster	1 x 5 yd / each	
Cut step focus: linear bounding Plant cut focus: lateral bounding Plant jump: 1-step & jump	2 x 5 per leg	Lateral Bound w/2-sec pause on landing	3-5 / leg	180 Rotation Jump (reverse)	3 x / direction	
Line jumps - linear 1-foot Line jumps - lateral 1-foot	2 x 6 seconds	Line jumps - linear 2-foot Line jumps - lateral 2-foot	2 x 6 - 8 sec ea	Lateral line drill - lead leg fw/bk	2 x 5 yd per direction	
5 yd sprint to stop (add jump) 10 yd sprint to stop (add jump) 5-10-5 FW-Bkpedal Box Run: FW-lat shuffle-BW-lat shuffle	1-3 x each	Edgren side shuffle drill Lat shuf to crossover step to sprint (p2. visual reaction on turn) Advanced: L-sprint to shuffle drill (p.2 add a 1v1 at end)	2 x 10-20 sec 2 x / direction (2 x / direction) 2 x 10-20 sec (2 x / direction)	BK to 180 dropstep to sprint BK to 135 dropstep, sprint (p2. reaction) Crossover run to dropstep, sprint BK to cross run to dropstep, sprint	1-2 x / side 1-2 x / side (1-2 x) 2 x / side 2 x / side	



RAMP - DEFENDING cl	ose to the ball	RAMP - SSC VE	RTICAL	RAMP - LINEAR SPEED / SSC HORIZONTAL		
Jog (forward, backward) Skip Backward skip Box Runs: 1- FW-lat shuffle-BW-lat shuffle 2- lat start-FW-crossrun-BK-cross	5-min	Jog (forward, backward) Shuffle Skip Backward skip	2 x 15-20 yd / each	Jog (forward, backward) Lateral shuffle Skip Backward skip	2 x 20-30 yd each	
Foot-ankle prep Inchworm to Inverted Push-up Cradle walk FW walk closing hip (add reflex) BK walk opening hip (add reflex) Swinging arms while jog Swinging arms while power skip	10 yd 5 yd 10 yd 10 yd 10 yd 10 yd 10 yd	Foot-ankle prep Walking hamstring reach Cradle walk FW walk closing hip (add reflex) BK walk opening hip (add reflex) Swinging arms while jog Swinging arms while power skip	10 yd ea	Foot-ankle prep Walking knee hugs Inchworm to strider Cradle walk Glute skip Ankling Buttkicks A-skips Straight leg bounding	1-2 x 10 yd each	
SL squat	1 x 5 reps / leg	Walking quad reach	1 x 10 yd	Walking quad reach Walking lunges	1 x 5 / leg 1 x 10 y d	
Ladder 1-2-3 Crossover Ladder 1-2-3 Dropstep Ladder 1-2-3-4 basic Ladder 1-2-3-4 backward	1-2 x / pattern	SL max velocity jumps	1 x 6-10 / leg	Choice: Ladder exercises Ball skills / Coervers Passing lines / Rondos	3 min	
Mini-band bridge Mini-band squat w/knee int rot Mini-band march (lateral)	1 x 30sec 1x10/ea 1 x 10yd	Glute bridge Clamshells	1 x 30 sec 1 x 15 / side	Glute bridge Kneeling 3-way knee lift	1 x 6-10 reps 1 x 8 / each	
Linear Bound w/Pause	1 x 10yd OR 3-5 / leg	6 " Mini-Hurdle 2-foot jumps linear, singles	2 x 6 (or 3 x 4)	Broad Jump	2 x 10 yd	
Lateral line drill - trail leg fw//bk	2 x 5 yd per direction	Mini-Hurdle 2-foot jumps linear, doubles & no pause	2 x 6 (or 3 x 4)	12 " Mini-Hurdle RR jumps	2 x 5 MHs	
Ladder BK icky to sprint to stop 5-10-5 Linear Ladder BK icky to sprint to shuffle to sprint to backpedal to dropstep sprint	2-3 x / side 1-2 x with full rest 2 x / direction	Obstacle course involving running jump: 3-cone shuffle to ladder to 10-yd sprint to 1MH jump to side step to 1MH to side step to 1MH jump to 10-yd sprint	2-3 x / side	3-hop to 5- or 10-yd sprint 3yd lat slide & back to 10yd sprint	2-3 x / side	

x Runs:

ankle prep

nworms

dle walk

-crossrun-BK-cross

e-dropste<mark>p-sp</mark>rint

ng hip (add reflex)

ng hip (add reflex)

s while power skip

arms while jog

2-3 Crossover

L-2-3-4 basic

and walks:

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-3-4 backward

ropstep to sprint

dropstep, sprint

to dropstep, sprint

to dropstep, sprint

reaction)



FIFA 11+

PART 1 RUNNING EXERCISES · 8 MINUTES



1 RUNNING STRAIGHT AHEAD

The course is made up of 6 to 10 pairs of parallel cones, approx. 5-6 m apart. Two players start at the same time from the first pair of cones. Jog together all the way to the last pair of cones. On the way back, you can increase your speed progressively as you warm up. 2 sets



2 RUNNING HIP OUT

Walk or jog easily stopping at each pair of cones to lift your knee and rotate your hip outwards. Alternate between left and right legs at successive cones. 2 sets



RUNNING HIP IN

Walk or jog easily stopping at each pair of cones to lift your knee and rotate your hip inwards. Allemate between left and right legs at successive cones. 2 sets



4 RUNNING CIRCLING PARTNER

Run forwards as a pair to the first set of cones. Shuffle sideways by 90 degrees to meet in the middle. Shuffle an entire circle around one other and then return back to the cones. Repeat for each pair of cones. Remember to stay on your toes and teep your centre of gravity low by bending your hips and trees. 2 sets



RUNNING SHOULDER CONTACT

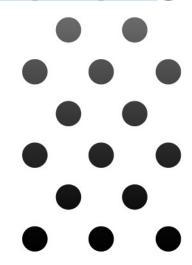
Run forwards in pairs to the first pair of cones. Shuffle sideways by 90 degrees to meet in the middle than jump sideways towards each other to make shoulder-to-shoulder contact.

Note: Make sure you land on both feet with your hips and trees bent. Do not let your knees buckle inwards. Make it a full jump and synchronize your timing with your team-make as you jump and land. 2 sets



RUNNING QUICK FORWARDS & BACKWARDS

As a pair, run quickly to the second set of cones then run backwards quickly to the first pair of cones keeping your hips and knees slightly bent. Keep repeating the drill, running bills cones forwards and one tone backwards. Remember to take small, quick steps. 2 sets



STRENGTH · PLYOMETRICS · BALANCE · 10 MINUTES

LEVEL 1



THE BENCH STATIC

Starting position: Lie-on your front, supporting yourself on your forearms and feet. Your albows should be directly under your shoulders. Exercise: Lift your body up, supported on your forearms, pull your stomach in, and hold the position for 20-30 sec. Your body should be in a straight line. Try not to sway or arch your back. 3 sets



LEVEL 2

THE BENCH ALTERNATE LEGS

Starting position: Lie-on your front, supporting yourself on your forearms and feet. Your albows should be directly under your shoulders. Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Lift each leg in turn, holding for a count of 2 sec. Continue for 40-60 sec. Your body should be in a straight line. Try not to sway or arch



LEVEL 3

THE BENCH ONE LEG LIFT AND HOLD

Starting position: Lie-on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders. Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Lift one leg about 10-15 cm off the ground, and hold the position for 20-30 sec. Your body should be straight. Do not let your opposite hip dip down and do not sway or arch your lower back. Take a short break, change legs and repeat. 3 sets



SIDEWAYS BENCH STATIC

Starting position: Ue on your side with the tiree of your lowermost legibent to 90 degrees. Support your upper body by resting on your forearm and tiree. The abow of your supporting aim should be dilectly under your shoulder. Exercise: Lift your uppermost legiandities until your shoulder, hip and longe are in a straight line. Hold the position for 20-30 sec. Take a short break, change sides and repeat. 3 sets on each



SIDEWAYS BENCH RAISE & LOWER HIP

Starting position: Ue on your side with both legs straight. Lean on your forearm and the side of your fool so that your body it in a straight line from shoulder to fool. The abow of your supporting arm should be directly tiereath your shoulder. Exercise: Lower your hip to the ground and raise it back up again. Repeat for 20-30 sec. Take a short break, change sides and repeat. 3 sets on each side.



SIDEWAYS BENCH WITH LEG LIFT

Starting position: Ue on your side with both legs straight. Lean on your forearm and the side of your foot so that your body is in a straight line from shoulder to foot. The albowl of your supporting arm should be directly beneath your shoulder. Exercise: Lift your uppermost leg up and slowly lower it down again. Repeat for 20-30 sec. Take a short break, change sides and repeat. 3 sets on each side.



FIFA 11+

(cont.)

HAMSTRINGS BEGINNER

Starting position: Kheel on a soft surface. Ask your partner to hold your anides down firmly. Exercise: Your body should be completely straight from the shoulder to the trace throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstrings and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 3 - 5 repetitions and/or 60 sec. 1 set



HAMSTRINGS INTERMEDIATE

Starting position: Kheel on a soft surface. Ask your partner to hold your ankles down filmly. Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as fair as you can, controlling the movement with your hamstrings and your glutzel muscles. When you canno longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 7 - 10 reportions and/or 60 sec. 1 set



HAMSTRINGS ADVANCED

Starting position: Kheel on a self surface. Ask your partner to hold your anides down firmly. Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstrings and your gluteal muscles. When you can no longer hold the position, gently talk your weight on your hands, falling into a push-up position. Complete a minimum of 12 - 15 repetitions and/or 60 sec. 1 set



SINGLE-LEG STANCE HOLD THE BALL

Starting position: Stand on one leg.
Exercise: Balance-on-one leg whilst holding the ball with both hands. Keep your body weight on the ball of your foot. Remember: try not to let your knees but its inwards. Hold for 30 sec. Change legs and repeat. The exercise can be made more difficult by passing the ball around your waist and/or under your other trice. 2 sets



SINGLE-LEG STANCE

WALKING LUNGES

Starting position: Stand 2-3 m apart from your partner, with each of you

THROWING BALL WITH PARTNER

standing on one leg.
Exercise: Keeping your belance, and with your stomach held in, throw the ball to one another. Keep your weight on the ball of your foot. Farmember, beep your knee just slightly flavad and try not to let it buckle inwards. Keep going for 30 sec. Change legs and repeat. 2 sets



SINGLE-LEG STANCE TEST YOUR PARTNER

Starting position: Stand on one lag opposite your partner and at arm's length.

apart. Exercise: Whilst you both try to keep your belance, each of you in turn bies to push the other off belance in different directions. Try to keep your weight on the ball of your foot and present your tree from buckling inwards. Continue for 30 sec. Change legs and repeat. 2 sets



SQUATS

WITH TOE RAISE

Starting position: Stand with your feet hip-width aparl. Place your hands on your hips if you like. Exercise: imagine that you are about to sit down on a chek. Perform squarts by bending your hips and triess to 90 degrees. Do not let your knees buttle inwards. Descend slowly then straighten up more quickly. When your legs are completely straight, stand up on your toes then slowly lower down again. Repeat the exercise for 30 sec. 2 sets



SQUATS

Starting position: Stand with your fast at hip-width apart. Place your hands on your hips if you like. Exercise: Lunge forward slowly at an even pace. As you lunge, bandyour leading lag until your hip and lones are flexed to 90 degrees. On not let your three-buckle inwards. Try to keep your upper body and hips steady. Lunge your way across the pitch (approx. 10 times on each leg) and then jog back. 2 sets



SQUATS

ONE-LEG SQUATS

Starting position: Stand on one leg, loosely holding onto your pertner. Exercise: Slowly band your tines as fair as you can manage. Concentrate on preventing the knee from budding inwards. Bend your knee slowly then straighten it slightly more quiddly beeping your hips and upper body in line. Repeat the exercise 10 times on each leg. Z sets



12 JUMPING VERTICAL JUMPS

Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you lite.

Exercise: Imagine that you are about to sit down on a chair. Bend your legs slowly until your knees are flexed to approx. 90 degrees, and hold for 2 sec. Do not let your knees budde inwards. From the squat position, jump up as high as you cart. Land softly on the balls of your feet with your hips and knees slightly bent. Repeat the exercise for 30 sec. 2 sets



JUMPING LATERAL JUMPS

Starting position: Stand on one lag with your upper body bent slightly forwards from the weist, with knees and hips slightly bent. Exerds at Jump approx. I m sideways from the Supporting leg on to the free leg. Land gently on the ball of your foot. Bend your hips and knees slightly as you land and do not let your these budde inward. Maintain your belance with each jump. Repeat the exerdse for 30 sec. 2 sets



12 JUMPING **BOX JUMPS**

Starting position: Stand with your feet hip-width apart, imagine that there is a cross marked on the ground and you are standing in the middle of it. Exercise: Alternate between jumping forwards and backwards, from side to side, and diagonally across the cross, lump as quickly and explosively as possible. Your knees and hips should be slightly bent. Land softly on the balls of your feet. Bo notifel your knees buckle inwards. Repeat the exercise for 30 sec. 2 sets

PART 3 RUNNING EXERCISES · 2 MINUTES



13 RUNNING ACROSS THE PITCH

Run across the pitch, from one side to the other, at 75-80% maximum pace.

2 softs



RUNNING BOUNDING

Run with high bounding steps with a high knee lift, landing gently on the ball of your foot. Use an exaggerated arm swing for each step (opposite arm and leg). Try not to let your leading leg cross the midline of your body or let your knees buckle inwards. Repeat the exercise until you reach the other side of the pitch, then jug back to recover. 2 sets



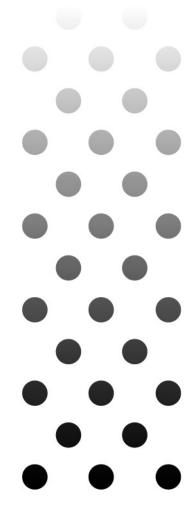
15 RUNNING PLANT & CUT

Jog 4-5 steps, then plant on the outside leg and out to change direction.

Accelerate and sprint 5-7 steps at high speed (88-90% maximum pace) before
you decelerate and do a new plant & out. Do not let your times buckle inwards.

Repeat the exercise until you reach the other side, then jog back. 2 setsy

FIFA 11+ (cont.2)



FIFA 11+ Kids

EXERCISE I

JOG & LOOK AT THE COACH (TO STOP)

- 3x 5 stop commandos
- 3x 5 stop commandos3x 5 stop commandos3x 5 stop commandos









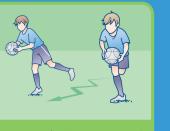


Juggle the ball and listen to the command

EXERCISE 2

- SKATING HOP
- 2x 10 hops (5 on each leg)
 2x 10 hops (5 on each leg)
 2x 10 hops (5 on each leg)
 2x 10 hops (5 on each leg)











forward with the ball

EXERCISE 3

ONE LEG STANCE

- 1x right/left and 5 passes per player1x right/left and 5 passes per player
- 1x right/left and 5 passes per player1x right/left for ca. 20 seconds



Throw the ball







Throw the ball & play it



Challenge your balance

EXERCISE 4 PUSH UP

EXERCISE 5

ONE LEG HOPS

2x, 5 hops on right leg and 5 hops on left leg
2x, 5 hops on right leg and 5 hops on left leg

2x, 5 hops on right leg and 5 hops on left leg
2x, 5 hops on right leg and 5 hops on left leg

- 3x à 15 seconds3x à 15 seconds3x à 15 seconds
- 3x à 10 seconds



Make a tunnel & roll the



In a plank position & roll the lower legs on the ball





between hands and feet





Follow the command & hop



Follow the command & hop while holding the ball in the hands

EXERCISE 6 SPIDERMAN

- 3x à 15 seconds3x à 15 seconds3x over 5-10 meters
- 3x over 5-7 meters

ROLL OVER

5-7x per side5-7x per side





Hop forwards & backwards

Stretch out the position







Slow walk & roll over



Crawling with the hands & move the ball with the feet



Jog & roll over

Crouch and roll over





FIFA 11+ Shoulder

Part I – Warm-up exercises*

1 Run
Relaxed walking or running.
the speed can be
progressively increased.
5 min



Ine
Ask for help from a partner.
With both hands in front
of the body, throw and catch
the ball, first with your elbows
flexed and then with your
arms over your head. 1 min



3 Spinning movements with the hands Interlace the fingers and make spinning movements with the hands. 1 min



Part II – strength and balance of the shoulder, elbow, wrist, and finger muscles**

1A External rotation Initial position: Standing with the elbow flexed at 90° to the side

Exercise: Rotate the arm from neutral to external rotation.

2A Internal rotation
Initial position: standing with
the elbow flexed at 90° to the
side
Exercise: Rotate the arm
from neutral to external
rotation.



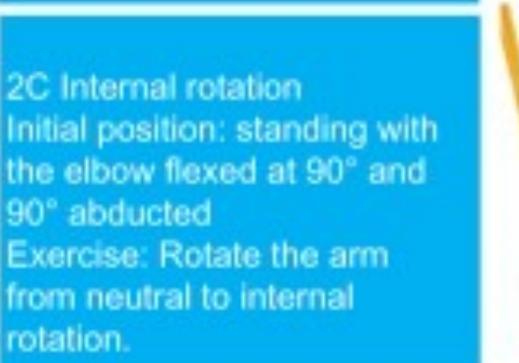
1B External rotation
Initial position: standing with
the elbow flexed at 90° and
45° abducted
Exercise: Rotate the arm
from the neutral to external
rotation.



2B Internal rotation
Initial position: standing with
the elbow flexed at 90° and
45° abducted
Exercise: Rotate the arm
from neutral to internal
rotation.



1C External rotation
Initial position: standing with
the elbow flexed at 90° and
90° abducted
Exercise: Rotate the arm
from the neutral to external
rotation.







3A Scaption
Rise the arm with external rotation in the scapular plane (30° in the frontal plane) to shoulder height. Hold a weight.



3B Scaption
Rise the arm with external rotation in the scapular plane (30° in the frontal plane) to shoulder height. Hold heavier weight than the previous level.



3C Scaption
Rise the arm with external rotation in the scapular plane (30° in the frontal plane) to shoulder height. Hold heavier weight than the previous level.



AA Push-up-plus
In the prone position. The
hands should be placed at a
distance corresponding to the
width of the shoulders.
Exercise: Rise the body and
then lower the body



4B Push-up-plus
In the same position. Place an
anklet of 5 kg on your back.
Exercise: Rise the body and
then lower the body



4C Push-up-plus
In the same position but on
one foot. Place an anklet of
more than 5 kg on your back.
Exercise: Rise the body and
then lower the body



FIFA 11+S (cont.)

5A Inferior and mid trapezius. In the prone position, arms in 90° abduction. After changing the arms to 120° of abduction. Exercise: Hold a weight and bring the arm back slightly.



5B Inferior and mid trapezius In the prone position, arms In 90° abduction. After changing the arms to 120° of abduction. Exercise: Hold heavier weight than the previous level and bring the arm back slightly.



5C Inferior and mid trapezius In the prone position, arms in 90° abduction. After changing the arms to 120° of abduction. Exercise: Hold heavier weight than the previous level and bring the arm back slightly.



6A Biceps

Position: Arms at your sides, palms facing inwards. Hold a weight.

Exercise: Bend your elbows, turning the palms upward.



6B Biceps

Position: Arms at your sides, palms facing inwards. Hold heavier weight than the previous level.

Exercise: Bend your elbows, turning the palms upward.



6C Biceps
Position: Arms at your sides,
palms facing inwards. Hold

heavier weight than the previous level.

Exercise: Bend your elbows, turning the palms upward.



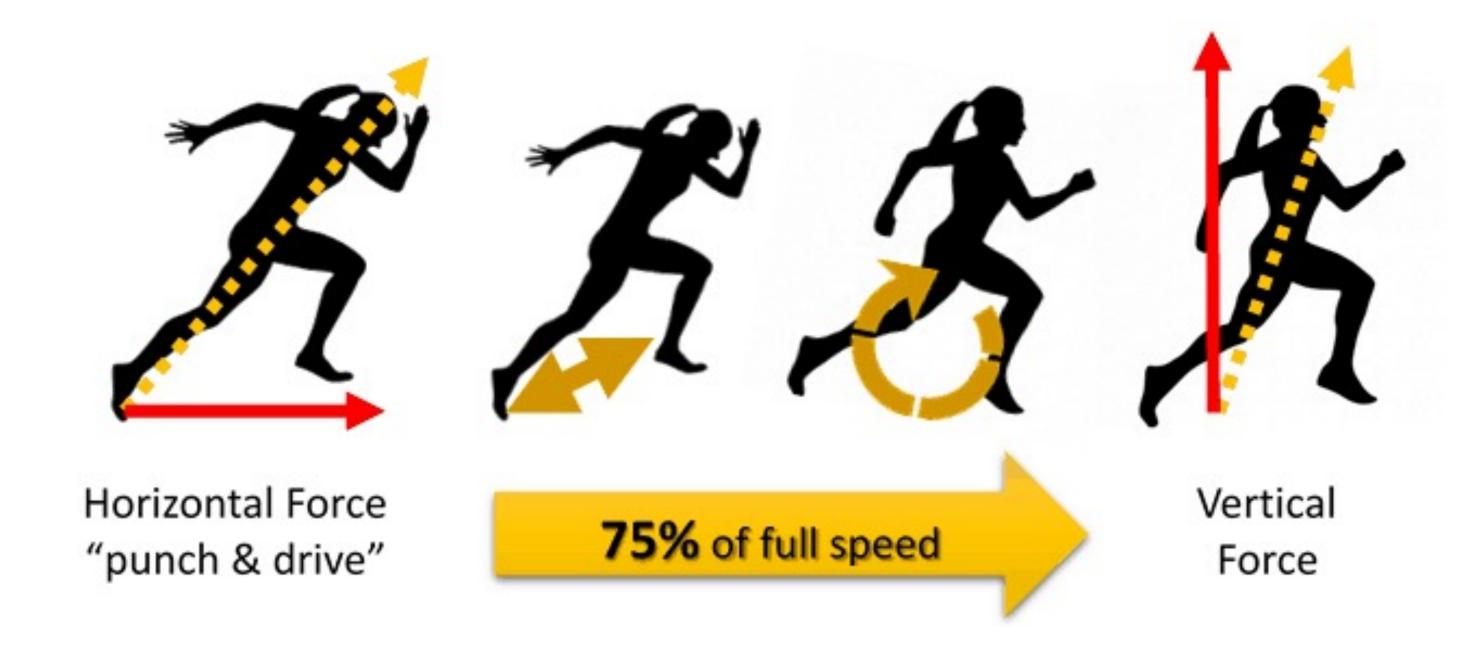
Effective Sprint Techniques

Acceleration

- piston action
- knee punch

Max velocity

- cyclical action
- butt-kick
- stepover the knee





Multidirectional Speed

What are we training?

- 1. Linear speed
- 2. Change of direction speed
- 3. Curvilinear speed
- 4. Contextual speed
- 5. Agility

COD Proficiency

Pay attention to player:

- 1. Center of mass
- 2. Ground contact (time & force)
- 3. Stride length
- 4. Stride frequency
- 5. Joint angles

Placement of legs and arms in relation to body center of mass is the primary difference between acceleration and deceleration.



Lower Limb Stability

Static Balance

• ability to maintain COM over a static base of support and stationary supporting surface volley soccer ball back to partner with one eye closed

Dynamic Balance

 capacity to maintain COM over a fixed base of support under a challenge volley soccer ball standing on unstable surface to a moving target

Dynamic Stabilization

 ability to maintain equilibrium while the body is under some kind of displacement volley a soccer ball on the run into goal while being nudged



Balance training program example

Exercise	Workout 1	Workout 2	Workout 3	Workout 4	Workout 5	Workout 6	Workout 7	Workout 8
Kneeling on Swiss Ball progressing to closed eyes execution	1 × 30	2 × 30	2 × 40	2 × 45	1 × 30	3 × 40	3 × 45	1 × 30
Single- and 2-leg standing on inflated disk progressing to squat exercise	1 × 8/leg	2 × 10/leg	2 × 12/leg	2 × 15/leg	1 × 10/leg	3 × 12/leg	3 × 15/leg	1 × 10/leg
Supine straight leg bridge on Swiss Ball	1 × 8/leg	2 × 10/leg	2 × 12/leg	2 × 15/leg	1 × 10/leg	3 × 12/leg	3 × 15/leg	1 × 10/leg
Lunge on foam surface progressing to BOSU ball or inflated disk with holding dumbbells	1 × 8/leg	2 × 10/leg	2 × 12/leg	2 × 15/leg	1 × 10/leg	3 × 12/leg	3 × 15/leg	1 × 10/leg
Bilateral squat with elastic straps attached to bar placed on the shoulders on a foam surface progressing to BOSU ball or inflated disk	1 × 8	2 × 10	2 × 12	2 × 15	1 × 10	3 × 12	3 × 15	1 × 10



Hammami, Raouf1; Granacher, Urs2; Makhlouf, Issam1; Behm, David G.3; Chaouachi, Anis1 Sequencing Effects of Balance and Plyometric Training on Physical Performance in Youth Soccer Athletes, Journal of Strength and Conditioning Research: December 2016 - Volume 30 - Issue 12 - p 3278-3289

Elements of Coordination

- Balance
- Sense of rhythm
- Movement adequacy
- Spatial orientation
- Kinesthetic differentiation
- Reactivity to visual & acoustical signals





Core Stability Progression

1. Basic consciousness activation

- Transversus abdominis isolation activation
- Bird dog progressions
- Hip extension

2. Stability and muscle endurance

- Front plank + progressions
- Lateral planks on stable and unstable surfaces
- Hip extension

3. Reactivity

Stability ball, partner

4. Functional

- Strength/power exercises emphasizing rotations, accelerations & decelerations
- Cables, medicine balls, suspension training

Paying attention to detail and form is the best corrective exercise.



Strength Training

Soccer in the weight room

- Keep it basic with beginners. Constantly reinforce proper technique.
- "Back-chain" / pulling motions, i.e., DEADLIFT
- Eccentric hamstring, i.e., GLUTE-HAM RAISE (technique!)
- Olympic lifts, i.e., DB SNATCHES, CLEANS, JERKS
- Integrate CORE & CORRECTIVE STRETCHES into the program
- BAREFOOT EXERCISES preparation at beginning or plyometrics at end
- Progress by increasing exercise challenge, i.e., unilateral, anti-rotation exercises



Training guidelines: ADOLESCENT PLAYERS

Training modes Intensity Volume, frequency									
Strength training	Increasing sport-specific emphasis: unilateral exercises, resistance training and multi-joint strength training exercises	4–12 repetition maximum	3–5 sets; 3–5* sessions per week						
Metabolic conditioning	Anaerobic interval-based conditioning, including more demanding conditioning games and skill-based conditioning activities	Higher intensity; shorter recovery durations to develop anaerobic capacity	2–4 sessions per week (nonconsecutive days)						
Neuromuscular training	Progression of speed and decision-making components of movement skills; progression of single-leg balance and dynamic stabilization, featuring unstable support training devices	Increased intensity, progressive introduction of speed–endurance development	2 or 3 sessions per week (nonconsecutive days)						

*The number of sessions depends on how the strength training program is structured, specifically whether it is a split routine. Whatever scheme is used, each body part should only be trained a maximum of 3 times per week.





Single-Leg Strength

Injury prevention exercises

- 1. Glute Bridge x30sec
- 2. SL Balance (on ½ round foam) x30sec / leg
- 3. SLRDL x5/leg
- 4. Lateral Lunge x5 / leg
- 5. SL Squat & Reach x5/leg
- do 1-2 rounds allowing full recovery between each set

Lower Body Strength Circuits						
<u>Linear</u>	Reps					
Squat	6 - 10					
Front Lunge	5 - 10 / leg					
Split Squat Jump	5 - 10 / leg					
Tuck Jump	6 - 10					
<u>Lateral</u>	Reps					
Side-to-Side Squat	6 - 10					
Lateral Lunge	5 - 10 / leg					
Skater Jump	5 - 10 / leg					
Burpee	6 - 10					
<u>Rotational</u>	Reps					
Squat with 180° Turn	6 - 10					
Cross-Over Lunge	5 - 10 / leg					
Squat Jump with 180° Turn	6 - 10					
SL Tuck Jump	5 - 10					

Reps depend on training age, level, and game schedule.

Pick 1 circuit to do for 1-3 sets. Give 1-2 minutes rest between circuits. Give up to 15-sec rest between exercises and reduce rest as players become more proficient and conditioned.



Fatigue Resistance

1.Reaction-agility training with changes of direction

6 sets of a "5-10-5" agility run with 30sec between

2.HIIT with coordinative drills

2 x 5min coordinative drills (max speed with adequate work to rest ratios)

3.Small-sided games

4 x 4min of 4v4

- game-based training has been related to a higher traumatic risk of injuries
- lower-skilled players may profit less from SSG compared to classic HIIT training

Youth Speed Development

Program focus by age

Fundamental Movement Skills

Sprint Technique

Prepubertal

7-11 years (female)

Sprint Technique and Maximal Sprints

Maximal Sprints

Ci

Circumpubertal

11-15 years (female)

12-15 years (males)

Late Adolescence

15+ years (female)

16+ years (male)

Early Childhood

0-7 years

7-12 years (male)

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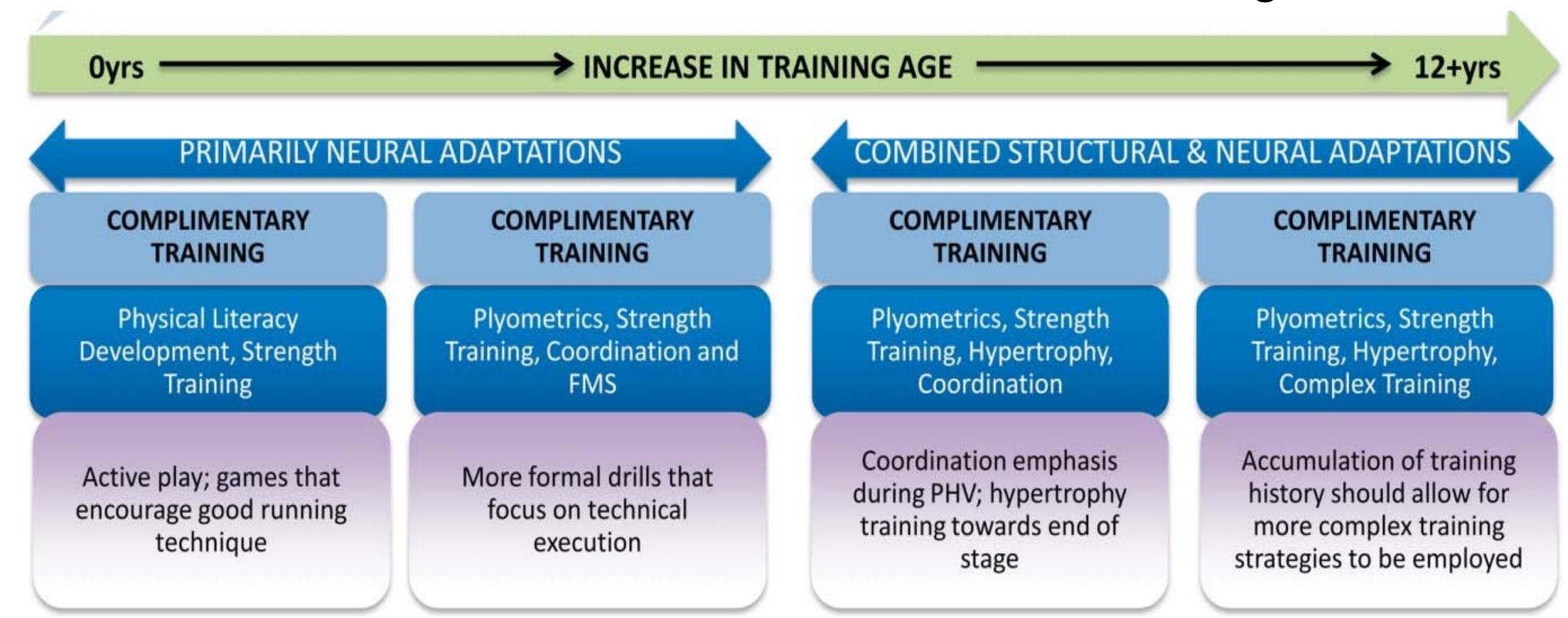
0yrs

INCREASE IN TRAINING AGE

12+yrs

Complimentary Training by Age

The interaction between maturation and mode of training





Lloyd RS, Meyers RW, and Oliver JL. The natural development and trainability of plyometric ability during childhood. Strength Cond J 33: 23–32, 2011.

Conclusion



Youth Physical Preparation

- Regular exposure to targeted physical activity that allows for individuals of different abilities, maturity, and training history is essential to ensure progressive improvement
- Warm-up can be tailored toward individual needs within a group environment by manipulating volume, intensity, and complexity of the exercises...
- exercises are age appropriate and contain components of fun

United Soccer Coaches Sports Performance Diploma

Module 1

- Topic 1 Physiological Demands of the Game
- Topic 2 Long Term Athlete Development
- Topic 3 Soccer Periodization

Module 2

- Topic 4 Energy System Development in Soccer
- Topic 5 Speed Development in Soccer
- Topic 6 Speed Endurance Development in Soccer

Module 3

- Topic 7 Technology in Soccer
- Topic 8 Field and Laboratory Testing
- Topic 9 Monitoring Tools in Soccer

Module 4

- Topic 10 Strength Training On and Off the Field
- Topic 11 Power Training for Soccer Players
- Topic 12 Nutrition



THANK YOU!















CONVENTION

JANUARY 11-15, 2023

SEEYOU IN PHILIPA



