EST DRYLAND

MOVEMENT · WARM-UPS · BANDS · STRENGTH · PREVENTION

EXERCISE LIBRARY

The complete EST DRYLAND exercise system

Research-informed principles · APA 7 references · Qualified coaching required

PROGRAM CONTENTS

Season plans, workout collections and reference guidance

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THE EST SYSTEM

EXERCISE LIBRARY

08

MOVEMENT TECHNIQUE

Movement instructions, coaching cues and common errors adapted from The Ultimate Age Group Dryland Program — Short Course Edition, exercise library (PDF pages 112–119). Scale by movement skill; these notes do not prescribe additional training volume. (Lloyd et al., 2016; Faigenbaum et al., 2009)

MOVEMENT PREP & MOBILITY

MOVEMENT / COACHING CUE	DOSE
A-March March tall with one knee to hip height and the opposite arm forward; place the foot directly under the body. Cue: Stay tall and strike down under the hips. Avoid: Leaning back or reaching the foot out in front.	Technique
Arm Circles + Reach Use controlled circles through a comfortable shoulder range, then reach long overhead without arching. Cue: Ribs stay down while the shoulder moves. Avoid: Forcing range or shrugging into the neck.	Technique
Squat-To-Stand From a standing fold, hold the toes or shins, lift the hips, then sit back into a controlled squat. Cue: Keep the whole foot connected to the floor. Avoid: Heels lifting or knees collapsing inward. WORLD'S GREATEST STRETCH HOW Step into a long lunge, place the inside hand down, and rotate the other arm toward the ceiling. CUE Long spine; rotate through the upper back. AVOID Front knee collapsing or forcing the rotation.	Technique
Quadruped Thoracic Rotation From hands and knees, place one hand near the head and rotate the elbow toward the ceiling. Cue: Keep the hips square and move through the upper back. Avoid: Shifting the pelvis to create fake range.	Technique
Plank To Downward Dog Move from a strong plank into a hips-high position while keeping the shoulders controlled. Cue: Push the floor away in both positions. Avoid: Sagging through the shoulders or low back.	Technique
Half-Kneeling Hip Flexor Stretch Kneel with one foot forward, tuck the pelvis slightly, squeeze the rear glute, and shift forward gently. Cue: Pelvis tucked before moving forward. Avoid: Arching the low back to create more range. CHILD'S POSE WITH SIDE REACH HOW Sit the hips back and reach both hands slightly to one side to open the lats and side body. CUE Breathe into the side ribs. AVOID Forcing the shoulder or twisting aggressively.	Technique

LOWER-BODY FOUNDATIONS

MOVEMENT / COACHING CUE	DOSE
Bodyweight Squat Sit the hips down and back between the feet while maintaining a tall, stacked trunk. Cue: Tripod foot and knees over middle toes. Avoid: Heel lift, knee collapse, or butt-wink from excessive depth.	Technique
Goblet Squat With Light Medicine Ball Hold a light ball at the chest and squat through a comfortable range while keeping posture tall. Cue: Drive the floor away to stand. Avoid: Using a heavy ball or letting the ribs flare.	Technique
Tempo Squat 3-Sec Lower Lower into the squat over three controlled seconds, pause briefly, then stand smoothly. Cue: Own every inch of the descent. Avoid: Dropping quickly through the bottom or shifting to the toes.	Technique
Calf Raise Rise onto the balls of the feet, pause tall, then lower slowly with ankles staying straight. Cue: Finish through the first two toes. Avoid: Rolling the ankles outward or bouncing.	Technique
Glute Bridge Lie on the back with knees bent, brace lightly, and extend the hips until the body forms a straight line. Cue: Squeeze glutes, not the low back. Avoid: Over-arching or pushing mostly through the toes.	Technique
Glute Bridge March Hold a bridge and alternately lift one foot a few inches while keeping the pelvis level. Cue: Keep both hip bones facing the ceiling. Avoid: Hips dropping or rotating as the foot lifts.	Technique
Lateral Squat Shift Start in a wide stance and shift the hips toward one side while keeping both feet planted. Cue: Move from the hips, not the shoulders. Avoid: Foot rolling or knee collapsing inward.	Technique

SINGLE-LEG & LATERAL STRENGTH

MOVEMENT / COACHING CUE	DOSE
Single-Leg Balance Reach Stand on one leg and reach the free foot or hand in a controlled direction while maintaining balance. Cue: Pelvis level and stance foot rooted. Avoid: Reaching farther than the knee and foot can control.	Technique
Single-Leg Rdl Reach Hinge at one hip as the free leg extends back and the torso tips forward as one unit. Cue: Square hips and a soft stance knee. Avoid: Opening the hip or rounding the back.	Technique
Reverse Lunge + Reach Step one foot back into a reverse lunge while reaching the arms long, then return through the front leg. Cue: Front foot stays heavy and stable. Avoid: Pushing off the back foot or twisting the pelvis.	Technique
Lateral Lunge Step or shift laterally, sit into the working hip, and keep the other leg long before returning to center. Cue: Whole foot down on the working side. Avoid: Knee collapsing inward or heel lifting.	Technique
Split Squat Use a stationary split stance and lower the back knee vertically before standing through the front leg. Cue: Drop straight down; drive through the front foot. Avoid: Narrow stance, front heel lift, or wobbling knee.	Technique
Step-Back Split Squat Step back into a split stance, lower under control, then return to standing through the front leg. Cue: Quiet step and stable front knee. Avoid: Rushing the step or pushing off the back foot.	Technique
Step-Up Place the full foot on a stable box or step and stand tall by driving through the working leg. Cue: Control both the ascent and descent. Avoid: Jumping from the trail leg or letting the knee cave inward.	Technique

CORE & TRUNK CONTROL

MOVEMENT / COACHING CUE	DOSE
Front Plank Support the body on forearms or hands with a straight line from shoulders through heels. Cue: Squeeze glutes and stack ribs over pelvis. Avoid: Sagging hips, rib flare, or breath holding.	Technique
Side Plank Support the body on one forearm or hand with shoulders, ribs, hips, and feet stacked. Cue: Push the floor away and keep hips tall. Avoid: Rolling backward or letting the hips drop.	Technique
Side Plank Reach-Through From side plank, reach the top arm under the torso, then rotate back to a stacked position. Cue: Pelvis stays controlled while the upper trunk rotates. Avoid: Collapsing the shoulder or rolling the whole body.	Technique
Bird Dog From hands and knees, reach one arm and the opposite leg long, then return without shifting the trunk. Cue: Reach long, not high. Avoid: Pelvis rotation or low-back arching.	Technique
Dead Bug Lie on the back with hips and knees bent; extend opposite arm and leg while keeping the trunk still. Cue: Exhale and keep the low back quiet. Avoid: Reaching farther than the ribs and pelvis can control.	Technique
Dead Bug With Light Medicine Ball Create light pressure into a medicine ball while alternating the opposite arm/leg extension. Cue: Use the ball to create tension, not strain. Avoid: Rib flare or losing back contact.	Technique
Bear Hover From hands and knees, lift the knees slightly while maintaining a flat back and even pressure through all limbs. Cue: Knees low; spine quiet. Avoid: Hips rising or shoulders collapsing.	Technique
Bear Crawl Crawl forward or backward with opposite hand and foot moving together while the knees stay low. Cue: Small steps and level hips. Avoid: Long steps, trunk rotation, or rushing.	Technique
Plank Shoulder Tap From a plank, lift one hand to tap the opposite shoulder while minimizing movement through the hips. Cue: Move slowly enough to keep the pelvis square. Avoid: Feet too narrow for control or hips rocking side to side.	Technique
Hollow Body Tuck Hold Lie on the back, bring ribs toward pelvis, and hold a tucked position with the low back gently connected to the floor. Cue: Choose the easiest version that stays perfect. Avoid: Neck tension or low-back arching.	Technique
Hollow Rock Hold a small hollow shape and rock gently from shoulders toward hips without changing body shape. Cue: Rock as one unit. Avoid: Creating motion by kicking the legs or arching the back.	Technique
Tall-Kneeling Anti-Rotation Press Kneel tall perpendicular to a band, press the hands away from the chest, pause, then return. Cue: Ribs over pelvis; do not let the band turn you. Avoid: Leaning, twisting, or losing glute tension.	Technique
Half-Kneeling Chop With Band In a half-kneeling stance, guide the band diagonally across the body while keeping the lower body stable. Cue: Rotate through the trunk without shifting the pelvis. Avoid: Pulling only with the arms or twisting the front knee.	Technique

SHOULDER & UPPER-BODY SUPPORT

MOVEMENT / COACHING CUE	DOSE
Wall Slide Stand against a wall and slide the forearms upward while keeping the trunk stacked and shoulders relaxed. Cue: Stop before the ribs pop or shoulders shrug. Avoid: Forcing overhead range.	Technique
Prone Y-T Raise Lie face down and lift the arms into Y and T shapes using the shoulder blades with very light or no load. Cue: Thumbs up and neck relaxed. Avoid: Shrugging or using momentum.	Technique
Band Row Pull a resistance band toward the ribs while keeping the torso still and the shoulders away from the ears. Cue: Set the shoulder blades, then row. Avoid: Leaning back or shrugging.	Technique
Standing Band Row Perform a band row from an athletic standing position with the trunk stacked over the pelvis. Cue: Stay still from hips to head. Avoid: Rocking backward to finish the pull.	Technique
Tall-Kneeling Band Row Row from a tall-kneeling position while squeezing the glutes and maintaining a long spine. Cue: No lean - let the back do the work. Avoid: Arching the low back or shrugging.	Technique
Band Face Pull Pull the band toward eye level with elbows slightly high and finish with controlled shoulder-blade movement. Cue: Pull to the face, not behind the head. Avoid: Excessive arching or aggressive pinching.	Technique
Band Pulldown Pull the band down from overhead while keeping the trunk stable and the shoulders moving away from the ears. Cue: Ribs stay down as the arms pull. Avoid: Turning the movement into a backbend.	Technique
Band External Rotation With the elbow supported near the side, rotate the forearm outward against light band tension. Cue: Keep the elbow quiet. Avoid: Twisting the trunk or using too much resistance.	Technique
Half-Kneeling Band Press Press a band forward from a half-kneeling stance while resisting rotation through the trunk. Cue: Own the kneeling position before pressing. Avoid: Pelvis shifting or ribs flaring.	Technique
Push-Up Lower the body as one unit toward the floor and press back up while the shoulder blades move naturally. Cue: Long body line from head to heels. Avoid: Hips sagging or elbows flaring excessively.	Technique
Incline Push-Up Perform a push-up with hands on a stable elevated surface to reduce load while preserving body position. Cue: Use the incline to make every rep clean. Avoid: Bending at the hips or losing shoulder control.	Technique
Scapular Push-Up From a plank or quadruped position, keep elbows straight and move only the shoulder blades in and out. Cue: Push the floor away at the top. Avoid: Bending the elbows or shrugging.	Technique
Scapular Push-Up + Reach After pressing the shoulder blades apart, add a controlled reach without rotating through the trunk. Cue: Reach from the shoulder blade, not the low back. Avoid: Rushing or losing the plank position.	Technique

JUMP & LANDING MECHANICS

MOVEMENT / COACHING CUE	DOSE
Snap-Down To Athletic Stance Rise tall, then drop quickly into an athletic stance and freeze the position. Cue: Fast down, quiet finish. Avoid: Knees collapsing or weight landing only on the toes.	Technique
Snap-Down + Stick Drop quickly into a landing stance and hold the finish for one to two seconds. Cue: Own the landing before the next rep. Avoid: Extra steps, noisy feet, or uncontrolled depth.	Technique
Low Squat Jump + Stick Use a shallow squat to jump vertically, then land softly and freeze the same athletic position. Cue: Jump tall and land quiet. Avoid: Deep fatigue squats or knee collapse.	Technique
Standing Long Jump + Stick Use an arm swing and hip extension to jump forward, then land with both feet under control. Cue: Project forward, then absorb through hips and knees. Avoid: Stiff landing or falling forward.	Technique
Broad Jump + Stick Jump forward for distance while maintaining a long body through takeoff and a controlled two-foot landing. Cue: Push the floor back and finish balanced. Avoid: Reaching the feet forward without controlling the trunk.	Technique
Countermovement Jump + Stick Use a quick dip and explosive extension to jump vertically, then land and hold. Cue: Fast dip, tall extension, quiet landing. Avoid: Long countermovement or repeated bouncing.	Technique
Streamline Jump + Stick Set the arms in streamline before jumping vertically, then maintain the long line through takeoff and landing. Cue: Arms tight to ears before the feet leave the floor. Avoid: Rib flare or losing streamline at landing.	Technique
Skater Bound + Stick Push laterally from one leg to the other and freeze the single-leg landing. Cue: Push from the hip and land on the whole foot. Avoid: Knee collapse or immediate rebound before balance is shown.	Technique
Pogo Hops Use quick ankle-driven hops with minimal knee bend and consistent vertical posture. Cue: Tall body, quick ground contacts. Avoid: Deep knee bend or loud contacts.	Technique
Pogo Prep Practice low, rhythmic ankle bounces to learn elastic stiffness before faster hopping. Cue: Small and quiet. Avoid: Turning it into a squat jump.	Technique
Skip + Stick Perform a powerful skip, then hold the landing before continuing. Cue: Drive knee and opposite arm; freeze the finish. Avoid: Rushing before balance is established.	Technique

MEDICINE-BALL POWER

MOVEMENT / COACHING CUE	DOSE
Medicine-Ball Chest Pass From an athletic stance, throw a light medicine ball straight forward from the chest with speed. Cue: Drive through the floor and release fast. Avoid: Using a ball too heavy to move quickly.	Technique
Split-Stance Medicine-Ball Chest Pass Throw from a stable split stance while transferring force forward without losing front-leg alignment. Cue: Stable feet, fast hands. Avoid: Front knee collapse or torso falling forward.	Technique
Medicine-Ball Scoop Toss Load through the hips with the ball low, then extend the legs and hips to launch the ball forward or upward. Cue: Use the hips to create speed. Avoid: Curling or muscling the ball with the arms.	Technique
Medicine-Ball Rotational Throw Load into the rear hip, rotate from the floor up, and release a light ball toward a wall or partner area. Cue: Hips lead; trunk and arms follow. Avoid: Spinning on an unstable front knee or throwing with only the arms.	Technique
Medicine-Ball Slam Reach a light ball overhead without arching, then drive it toward the floor and fully reset. Cue: Fast down, controlled reset. Avoid: Backbend at the top or rapid fatigue reps.	Technique

ATHLETIC MOVEMENT & RECOVERY

MOVEMENT / COACHING CUE	DOSE
Lateral Shuffle Move laterally in an athletic stance without crossing the feet, pushing from the outside leg. Cue: Push the floor away and stay square. Avoid: Feet crossing or posture rising as speed increases.	Technique
Backpedal To Athletic Stance Backpedal with short steps, then stop under control in a balanced athletic stance. Cue: Short steps into a strong stop. Avoid: Leaning back or needing extra steps to stop.	Technique
Carioca Walk-Through Use a controlled crossover pattern to move laterally while rotating smoothly through the hips. Cue: Smooth rhythm before speed. Avoid: Forcing the twist or tripping over the feet.	Technique
Quick-Feet Line Taps Tap both feet quickly across a line with small contacts while the trunk remains quiet. Cue: Fast feet, calm upper body. Avoid: Large jumps, noisy feet, or loss of rhythm.	Technique
Easy Walk + Nasal Breathing Walk slowly and breathe comfortably through the nose to reduce arousal after training. Cue: Relax shoulders and lengthen the exhale. Avoid: Treating the cooldown as extra conditioning.	Technique

01

STRETCHING & ACTIVATION

Static stretching after training; short activation before. Long static holds (>60 s) right before power work can reduce output. (Behm & Chaouachi, 2011)

PRE-SWIM ACTIVATION

MOVEMENT / COACHING CUE	DOSE
Glute bridge march	2 × 10
Side-lying clam	2 × 12/side
Scap push-up	2 × 10
Thoracic open books	8/side
Ankle rocks (plantarflexion focus)	10/side

POST-SESSION STATIC

MOVEMENT / COACHING CUE	DOSE
Lat / child's pose reach	2 × 30 s
Sleeper stretch (gentle)	2 × 30 s/side
Hamstring strap stretch	2 × 30 s
Quad / hip flexor couch stretch	2 × 30 s/side
Ankle plantarflexion kneel	2 × 30 s

02

DYNAMIC WARM-UPS

Raise, activate, mobilize, potentiate — 8–12 minutes before every session. (McGowan et al., 2015)

WARM-UP A · GENERAL

MOVEMENT / COACHING CUE	DOSE
Jumping jacks	30 s
Arm circles	10 each way
World's greatest stretch	3/side
Leg swings	10/side
Inchworm	5
Pogo hops	2 × 10

WARM-UP B · SWIM PREP

MOVEMENT / COACHING CUE	DOSE
Band pull-apart	15
Band ER	12/side
Streamline squat	10
Reverse lunge + overhead reach	6/side
Bear crawl	2 × 10 m
Squat jump	2 × 3

POOL-DECK PRE-RACE

MOVEMENT / COACHING CUE	DOSE
Arm swings & crossovers	20
Band pulls (catch)	10
Squat jumps	3
Streamline reach & hold	3 × 5 s

03

EST BAND SERIES

Rotator cuff and scapular endurance to protect the most-loaded joint in swimming. (Wanivenhaus et al., 2012; Lauersen et al., 2014)

JUNIOR (10&U – 12)

MOVEMENT / COACHING CUE	DOSE
Pull-apart	15
ER at side	12/side
IR at side	12/side
Y-raise	10

FULL (13–18)

MOVEMENT / COACHING CUE	DOSE
ER at 90°	12/side
Y-T-W	8 each
Diagonal D2 flexion	10/side
Straight-arm pulldown	15
Face pull	12

ELITE (18+)

MOVEMENT / COACHING CUE	DOSE
90/90 ER iso	3 × 20 s
Band catch → finish pull	3 × 15
Single-arm high-elbow catch	3 × 10/side
Serratus wall slide	3 × 10

04

FITNESS ASSESSMENTS

Test at the start of each season and before each taper. Same time of day, same warm-up. (West et al., 2011; Lloyd et al., 2016)

POWER

MOVEMENT / COACHING CUE	DOSE
Countermovement jump Predicts start performance	Best of 3
Standing broad jump	Best of 3
Seated med ball chest throw (2–3 kg)	Best of 3

STRENGTH & ENDURANCE

MOVEMENT / COACHING CUE	DOSE
Max pull-ups (strict)	1 set
Push-ups in 60 s	1 set
Plank / streamline hollow hold	Max time
3RM trap bar deadlift (HS/College)	Technique-approved

MOBILITY & SCREEN

MOVEMENT / COACHING CUE	DOSE
Shoulder flexion (back to wall)	Pass / fail
Overhead squat	Scored 0–3
Ankle plantarflexion	Degrees
Shoulder ER/IR ratio (dynamometer if available)	Ratio

05

SWIM TRANSFER

Dryland that moves the clock: starts, turns, streamline, and pulling power. (Crowley et al., 2017; Amaro et al., 2019; West et al., 2011)

STARTS

MOVEMENT / COACHING CUE	DOSE
Block-start simulation to mat	5 × 1
Broad jump → sprint 5 m	4
Trap bar jump	4 × 3

TURNS & UNDERWATERS

MOVEMENT / COACHING CUE	DOSE
Horizontal push-off squat jump	4 × 3
Streamline dolphin kick on back (dry)	3 × 20 s
Tuck-to-extension V-ups	3 × 10

PULL

MOVEMENT / COACHING CUE	DOSE
Band freestyle pull	3 × 30 s
Band butterfly pull	3 × 15
Med ball rotational throw	3 × 6/side

06

STRENGTH & CONDITIONING

Dryland strength improves start, turn and sprint performance; prioritise maximal strength and power. (Crowley et al., 2017; Faigenbaum et al., 2009; Issurin, 2010)

CORE LIFTS

MOVEMENT / COACHING CUE	DOSE
Trap bar deadlift	3–5 × 3–6
Front / goblet squat	3–5 × 3–8
Pull-up	3–5 × 3–8
DB bench / push-up	3–4 × 6–10
Row variations	3–4 × 8–10

CONDITIONING

MOVEMENT / COACHING CUE	DOSE
Assault bike 10 × 15 s / 45 s	Sprint
Med ball complex: slam, chest, rotational	4 rounds
Burpee-to-streamline	EMOM 8 × 6

07

INJURY PREVENTION

Strength training reduces sports injuries to under one-third; stretching alone does not. Manage load spikes. (Lauersen et al., 2014; Gabbett, 2016; Wanivenhaus et al., 2012)

SHOULDER

MOVEMENT / COACHING CUE	DOSE
EST Band Series (level-appropriate)	3–4×/week
Prone Y/T/W	2 × 8
Serratus punch	2 × 12

KNEE (BREASTSTROKERS)

MOVEMENT / COACHING CUE	DOSE
Copenhagen plank	3 × 15–20 s
Lateral band walk	2 × 10 m
Single-leg glute bridge	2 × 10/side

LOW BACK

MOVEMENT / COACHING CUE	DOSE
McGill curl-up	3 × 8 s holds
Bird dog	2 × 8/side
Side plank	2 × 30 s

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