

Athletic Training

Athletic training involves a multi-dimensional approach—targeting the traditional goals of fitness (aerobic endurance, muscular strength and joint flexibility) with an equal focus on the functional aspects of human performance (balance, coordination, speed and agility).

Learning Objectives

Review the scientific principles of deep water training and understand the differences between gravity assisted/resisted exercise and gravity-neutral exercise.

Learn creative and effective methods to blend human performance training (balance, coordination and agility) with aerobic endurance and muscle conditioning.

Learn how to create, set-up and teach sport-specific conditioning drills to challenge all the systems in the body.

Research & Benefits

Research supports that deep water exercise, when performed at the proper intensity and duration, will produce favourable health benefits and is a viable training option for maintaining health and improving physical fitness.

- AEA Aquatic Fitness Professional Manual

Research Review

- Interval Training - Fluctuating cycles of work and rest allow for greater volume of work in a shorter time.
- Circuit Training - Alternating muscle conditioning emphasis based on biomechanical balance achieves higher work load.
- Resistance Training - Builds & maintains muscle mass, boosts metabolism, improves bone and joint health.

Intensity Variables 1

- Overload
 - Use equipment - buoyant and drag
 - Manipulate surface area
 - Increase force (muscular effort)
- Inertia
 - Stop and start travel
 - Engage core to resist tipping (streamlining)

Intensity Variables 2

- Acceleration
 - Use explosive moves
 - Elevation - power pops & sculling
- Action / Reaction
 - Cue direction of force (muscular effort)
 - Use core to stabilize, responding to force and load of limbs moving against H₂O resistance

Muscular Effort

- Teaching INTENSITY in Class:
 - LOW - Cue “soft & easy” (30-50%)
 - MODERATE - Cue “move more water” - “push harder” - (50-70%)
 - HIGH - Cue “use more power and force” - “make white water” (70-90%)
- Use surface area
- Include What, How & Why in your cueing

Measuring Intensity

- Heart rate monitors
 - Palpating heart rate
 - Rate of Perceived Exertion (Borg Scale)
 - Talk Test
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- Teach and use it every day
 - Engage students in feeling and understanding both effort & intensity

Deep Water Skills

Sculling

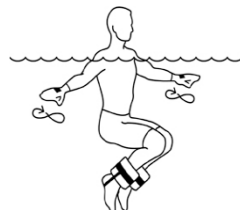
- essential skill for balance and control

Postural Awareness and Core Strength

- ability to engage the core muscles (stabilize) to maintain proper alignment, posture and balance—responding to force and load of limbs moving against water’s resistance

Sculling

Tuck & Hold

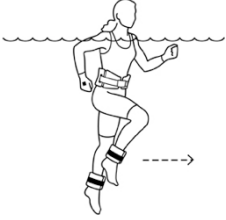


Advanced Exercises

- RUN / Rotator Cuff Sweep
- RUN / Steep Climb
- RUN / Power Shoulder Press
- X-C Ski Overstride
- Straddle Run / Paddle Sweep
- Straddle Run / Incline Climb
- Tuck & Boogie
- Shuffle

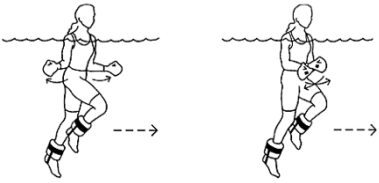
Deep Sport Conditioning

RUN
Travel FORWARD - 5% body lean



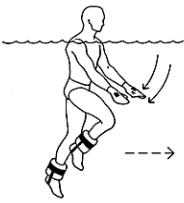
A line drawing of a person in athletic wear running forward. The person's torso is tilted slightly backward from the vertical, representing a 5% body lean. A dashed arrow points to the right, indicating the direction of travel.

RUN
Travel FORWARD / Rotator Cuff Sweep



Two line drawings of a person running forward. The first drawing shows the person in a standard running stride. The second drawing shows the person's arms and hands moving in a circular, sweeping motion, indicating a rotator cuff sweep. Dashed arrows point to the right for both figures.


RUN
Travel FORWARD / Shoulder Press



A line drawing of a person running forward. The person's arms are bent at the elbows, and their hands are positioned near their shoulders, indicating a shoulder press motion. A dashed arrow points to the right.

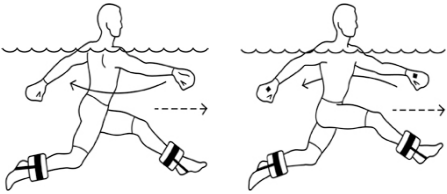
STEEP CLIMB

- Travel FORWARD
- Power Shoulder Pump



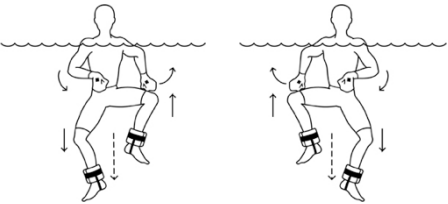
A line drawing of a person standing on one leg, with the other leg raised and bent at the knee. The person's arms are extended forward and slightly upward, indicating a power shoulder pump motion.

X-COUNTRY SKI
Travel FORWARD / Overstride

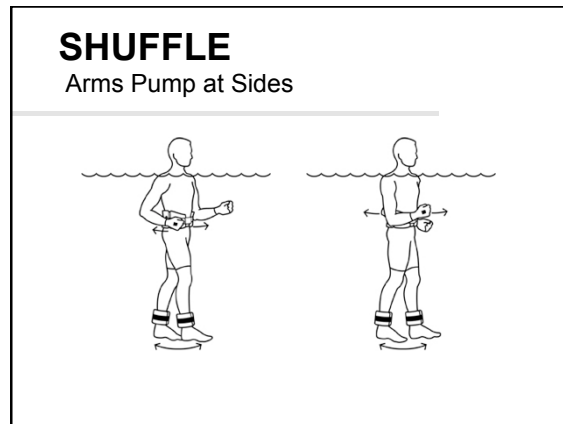
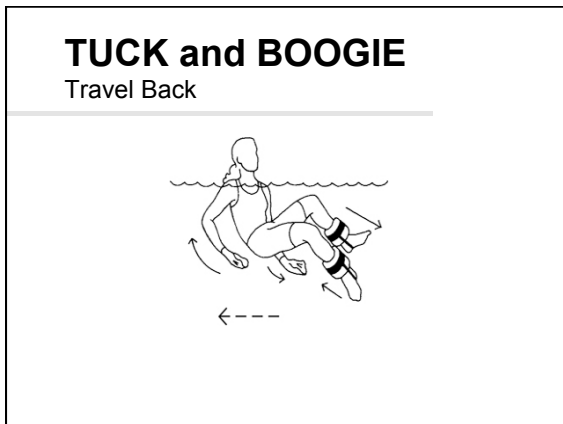


Two line drawings of a person in athletic wear performing an overstride. The person's legs are extended far forward, and their arms are bent at the elbows. Dashed arrows point to the right for both figures.

STRADDLE JOG
Travel FORWARD / Paddle Sweep



Two line drawings of a person in athletic wear performing a straddle jog. The person's legs are spread wide apart, and their arms are bent at the elbows, moving in a circular, sweeping motion. Dashed arrows point to the right for both figures.



Workout Segments

- #1 WARM-UP SET 8-10 min
 - On the Track / Off the Track
 - Aerobic Endurance - Running on the Track
 - Muscular Strength - Strength Sets Off the Track
- #2 CHANGE UP SET 8-10 min
 - All On the Track
 - Aerobic Endurance - Running on the Track
 - Active Recovery - Easy Laps on the Track

Workout Segments

- #3 SPRINT INTERVAL SET 8-10 min
 - On the Track / Off the Track
 - High Intensity Training - Sprints On the Track
 - Active Recovery - Stationary Off the Track
- #4 SPORT-CROSS SET 8-10 min
 - All On the Track
 - Conditioning and Balance - Navigate Obstacles
 - Speed & Agility - Cadence Training

Workout Segments

- #5 WARM DOWN SET 8-10 min
 - All On the Track
 - Active Recovery Ease Down
 - Dynamic Lower Body Stretching

Rules of Engagement

- Train within limits
- Use progression
- Time precisely
- Rehearse for success
- Repeat to enhance results

Your Role as Coach

- Give your students the power
- Involve them in fun ways
- Keep their eye on the prize
- Motivate, coach & correct
- Praise their successes
- Notice the individual

Equipment Options

- WAVE BELT Buoyancy Belt
- WAVE BELT with Mini Cuffs
- Mini Cuffs - only ?
- HYDRO-FIT Cuffs
- Webbed Gloves
- Hand Buoys

To the Pool

- 1st - Choose buoyancy equipment
 - Belt only
 - Belt + Mini Cuffs
 - Mini Cuffs only - ?
 - HYDRO-FIT Cuffs - MAXIMUM Workout
- 2nd - Put on webbed gloves
 - Regular WAVE WEBS
 - WAVE MITTS