

CHILDREN SPORTS TRAINING

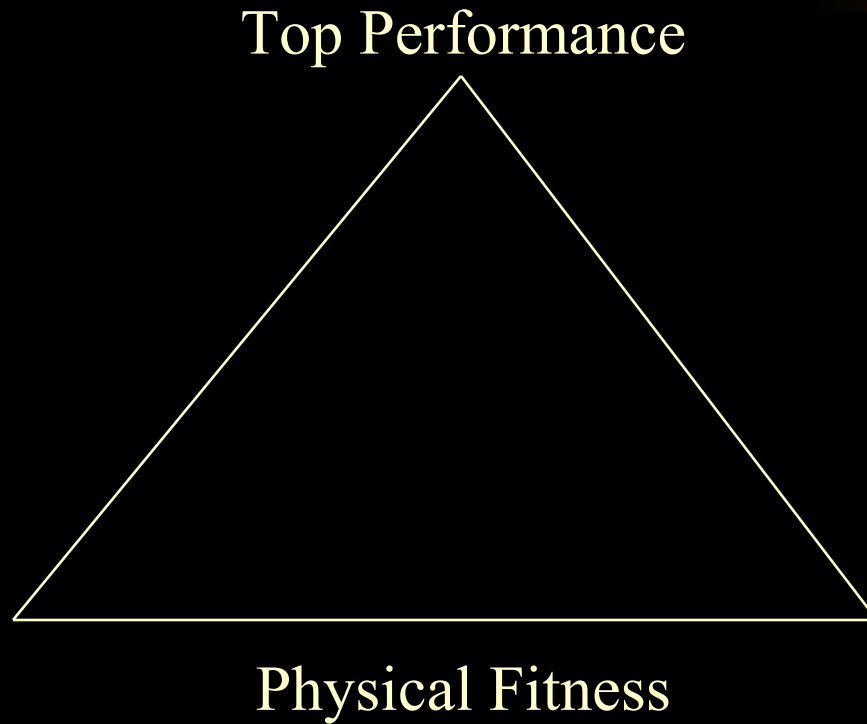


THEORY AND PRACTICE OF COACHING 2

Children & Sports Training

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Foundation of sports performance



Goals of Physical Fitness Training

- To develop a person's functional versatility
- To raise the level of motor abilities
- To prevent the negative result of one-sided, specialised training loads.

Age based training methods



Muscular Fitness

Energy Fitness

Beginning Training

-Sensitive periods.

- Max strength 12-14(f) 14-16(m)
- explosive strength 10-12(f) 12-14(m)
- Strength Endurance 12-14(f) 14-16(m)
- Aerobic Endurance 8-10 (f & m)
- Anaerobic Endurance 12-14(f) 14-16(m)
- Speed of Reaction 8-10 (f & m)
- Maximal Speed 10-12(f) 12-14(m)
- Coordination 5-8 (f & m)

Coordination



- Elements of Coordination
 - Balance
 - Sense of Rhythm
 - Spatial Orientation
 - Kinesthetic Differentiation
 - Reactivity to acoustical and visual signals

Coordination

- Goal is to introduce athletes/children to as many **NEW** and **DIFFERENT** movement patterns as possible.
- Once developed, motor pattern is stored and can be more easily retrieved in the future.

Coordination

- Balance
 - Static balance (eg balance beam)
 - Dynamic balance (eg swerving, tumbling)
- Training Examples
 - Rotate arms and legs - different directions.
 - Squat and arm raise
 - Sit, pedal feet and move arms in frontal plane
 - Rotations into Airplane positions

Coordination

- Sense of Rhythm
 - Ability to determine the extent or range of movements in time appropriate to a given exercise.
- Training Examples
 - A, B, C drills (& variations)
 - Running over obstacles at uniform distances

Coordination

- Spatial Orientation
 - Ability to sense the position of your body in space.
- Training Examples
 - Ball throw, rotate and catch
 - Ball throw overhead and catch behind
 - Bouncing two balls whilst performing activity
 - Trampoline exercises
 - Playing modified games-two balls, smaller field₁₀

Coordination

- Speed of Reaction
 - Ability to quickly respond to stimulus (sight, touch, sound).
- Training Examples
 - Catch ball released from partner
 - Mirror movement of partner
 - Touch partner, move that direction
 - move on command from partner

Coordination

- Synchronisation of movements
 - Ability to have unrelated limb movements occurring simultaneously
- Training Examples
 - One arm large circle, hopping, punching other arm lateral.
 - Rotate hips and wrists (each in different direction)
 - Skip in place, bounce ball, large circle with arm

Coordination

- **Kinesthetic Differentiation**
 - Ability to adjust muscular tension to achieve desired result.
- **Training Examples.**
 - Jump set distance, (open and closed eyes)
 - Throw balls of varying weight set distances
 - Jump over obstacles different heights and distances

Speed

- Speed is reliant upon many factors
 - Strength, Power, flexibility, coordination, reaction time, morphology
 - Adolescent Growth Spurts can have negative effect upon speed capacity.
- Goals should be in developing correct movement patterns and stimulating the nervous system regularly.

Speed Principles

- Practice mastered movements faster than the individuals currently normal speeds.
- Go from simple to complex, from easy to difficult, from known to new.
- Combine speed exercises with techniques of the sport.
- Vary exercises regularly - include coordination.
- Vary conditions in which speed exercises are done.

Speed Principles

- Prefer doing more sets to increasing the duration of one set.
- Schedule long rest breaks.
- Take advantage of the sensitive periods in development of speed
 - Develop reaction time and frequency of movements early in life, and the forms of speed based on strength and anaerobic capability later.

Speed Principles

- Training Exercises
 - Fun is the key to all these training elements
 - Running, races and relays
 - Reaction exercises with signal
 - Uphill, downhill, sand, towing
 - Plyometrics emphasising speed off the ground

Strength

- Boys increase in strength much faster than girls from 12-15 years.
 - Especially shoulders and back muscles
- There is a secondary “growth spurt” with females from 17-20. (small % of population)
 - Can lead to rapid decrease in performance capability.

Principles of Strength Training

- Precede strength training with musculoskeletal evaluation
- Focus on functional strength, particularly postural muscles
- Strength training in stages
 - General strength
 - Functional strength
 - Specific strength

Exercises for Strength Development

- Obstacle courses
- Climbing, hanging
- Medicine balls
- All body weight exercises
- Plyometric activities
- Partner exercises
- Single, alternate leg/arm exercises

Flexibility

- Highest of all physical attributes in children
- Three kinds of flexibility
 - Static
 - Dynamic
 - Static Active
- After 10 years, with the onset of AGS flexibility decreases rapidly

Principles of Flexibility

- Combine flexibility with strength
- Work on specific joints
- Dynamic over static with young children

- Avoid hyperextension exercises where possible.