



STRENGTH AND CONDITIONING AND SPEED DEVELOPMENT



WHAT SHOULD YOU TAKE AWAY FROM TODAY'S SESSION

LEARN SOME BASIC KNOWLEDGE ON AREAS OF STRENGTH AND CONDITIONING

UNDERSTANDING THE ROLE OF STRENGTH AND CONDITIONING IN OVERALL MANAGEMENT STRUCTURE

LEARN SOME PRACTICAL EXAMPLES OF MOBILITY AND SPEED TRAINING FOR PLAYERS



WHAT IS STRENGTH AND CONDITIONING

Strength and Conditioning is the physical and physiological development of athletes for elite sport performance. The role of the S&C coach is to bridge the gap between the theory of training and applied training, helping athletes to become faster, stronger and more flexible and to build their muscular endurance so they perform better and remain injury free.

Strength and Conditioning is about more than lifting weights - it encompasses the entire development of the athlete and what is needed to improve physical performance. This includes plyometrics, speed and agility, endurance and core stability with strength training being just one piece of the jigsaw.

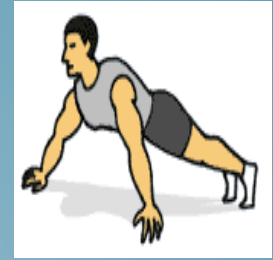


WHAT IS STRENGTH AND CONDITIONING



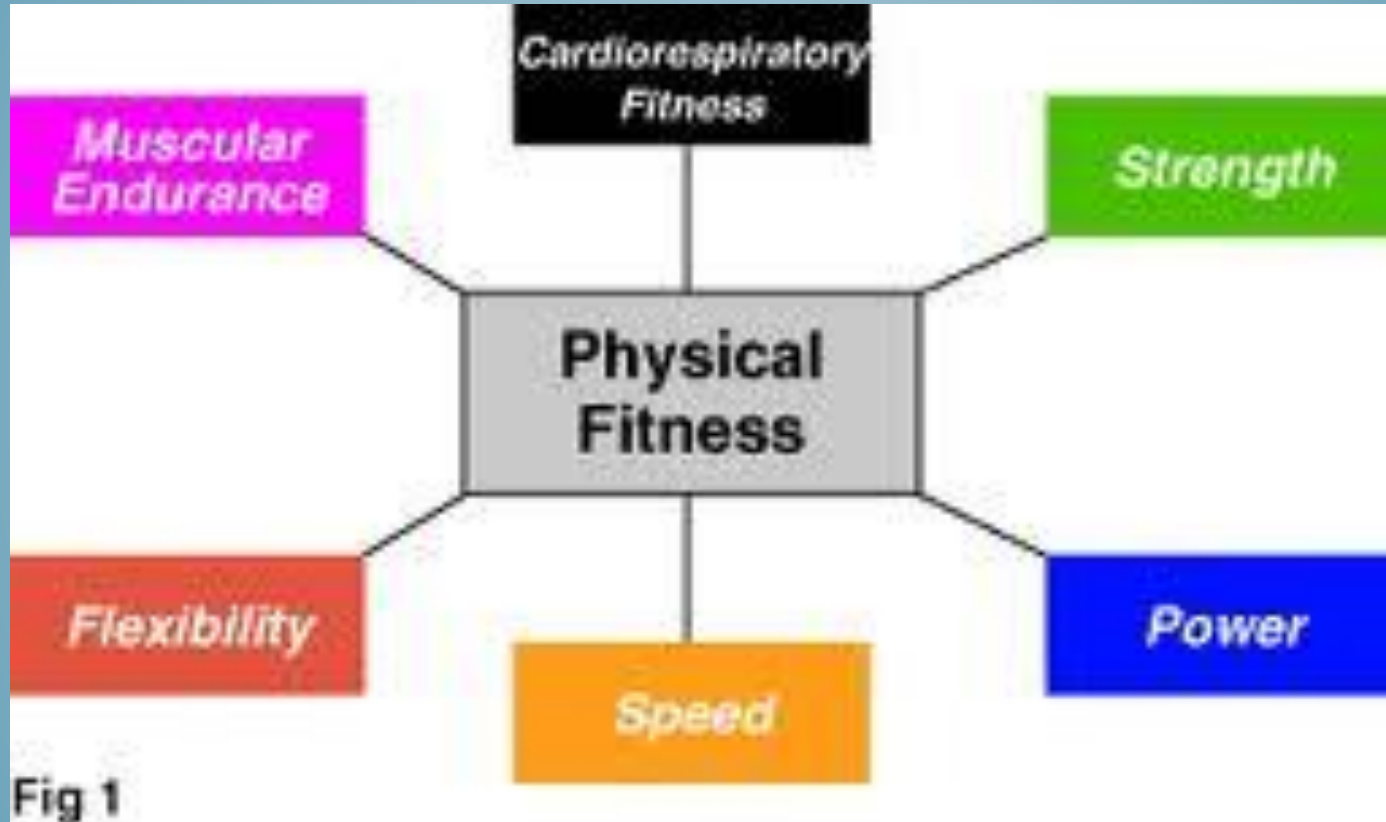
- Strength and Conditioning coaches have two primary goals.
- The first is to improve athletic performance, which usually means improving athletes' speed, strength, and power (although specifics vary according to athlete and sport).
- The second primary goal is to reduce athletic injuries. To that end, conditioning coaches often design regimens to strengthen body parts that are prone to injury in a particular sport

WHAT IS STRENGTH AND CONDITIONING



- *A training program will be designed which will vary the amount and type of training undertaken at different times of the year to meet the specific needs of both the athlete and the sport. The development of this program is done in conjunction with the athlete's technical coach and is tailored to fit with and support their aims.*

COMPONENTS OF PHYSICAL FITNESS



COMPONENTS OF PHYSICAL FITNESS

- *Agility – The ability to stop, start, and change directions quickly*
- *Balance – Controlling body positions while standing still or moving*
- *Body Composition – The ratio of muscle to fat in the body*
- *Cardiovascular Endurance – Engaging in physical activity for long periods of time*
- *Coordination – Making movements work together smoothly*
- *Flexibility – Moving joints through a wide range of motion*
- *Muscular Endurance – Using muscles repetitively without fatiguing*
- *Muscular Strength – Produces force using muscles*
- *Power – The ability to use muscle strength quickly*
- *Reaction Time – How quickly an individual responds to a stimulus*
- *Speed – Performing a movement of covering a distance in a short period of time*

BENEFITS OF STRENGTH AND CONDITIONING

Improved performance

Injury prevention

Stronger athletes

Faster athletes

Powerful athletes

Confident athletes



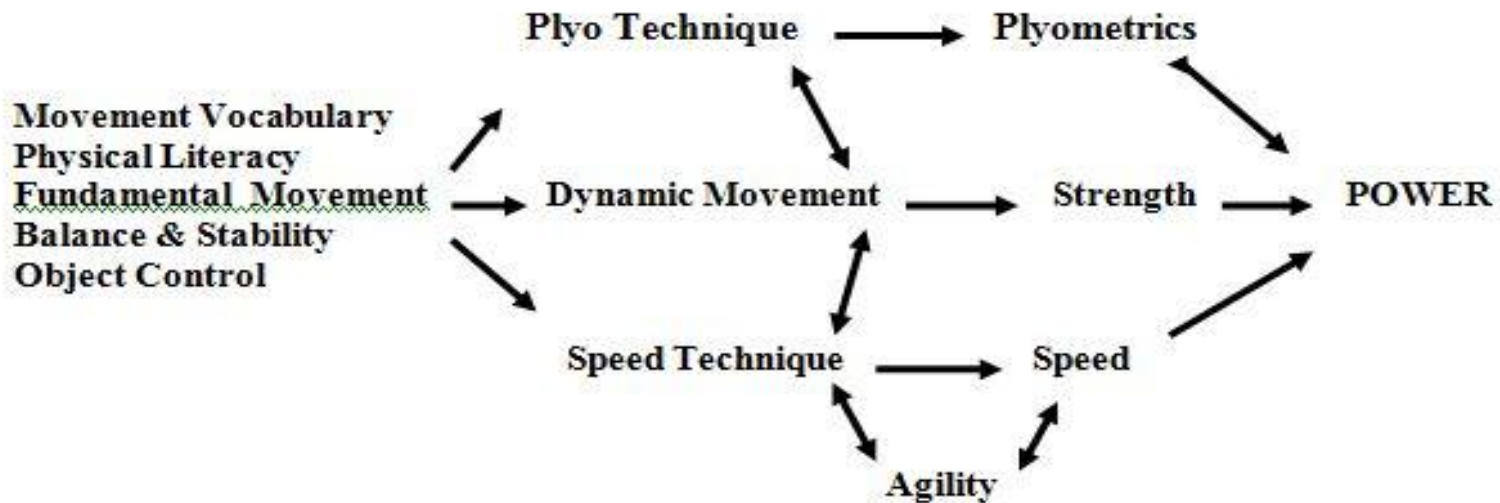
YOUR ROLE



- *It take 10,000 hours training to create an Olympic Champion*
- *‘ I have 3 sessions a week. I have no time for strength training’*
- *Everyone has role to play.*
- *Key is to understand your role*

YOUR ROLE

Sequential Athletic Development



YOUR ROLE

- *Strength and conditioning – Huge area*

- *In truth when they reach senior level*

We want players with good mobility and stability with a reasonable level of strength

- *They should be familiar with various modes of training including resistance training / med ball training / flexibility training*
- *At senior level coaches can then work on developing a really strong and powerful athlete through use of more advanced techniques for example Olympic lifting movements*



PRACTICAL

2 AREAS



- **MOBILITY WORK**
- **SPEED TRAINING**

MOBILITY TRAINING



- *Mobility, or joint mobility, is the ability to move a limb through the full range of motion--with control.*
- *Some authorities refer to mobility as 'active flexibility'.*
- *What is the difference between **Flexibility and Mobility**?*
- *Mobility – Range of motion under specific circumstances (specific)*
- *Flexibility – Range of motion about a joint (non-specific)*

MOBILITY TRAINING



So mobility is specific to a certain movement – i.e. you need a certain amount of hip mobility to squat, lunge, etc.

In contrast, flexibility is non-specific – i.e. you lay someone on their back and stretch their hamstrings. This gives you an idea of their flexibility, but it's not specific. Just because they have great hamstring length doesn't mean they'll be able to perform functional movements properly or without compensation.

Use mobility exercises as a warm up, an active recovery during other activities, or as a stand-alone workout

SPEED TRAINING



- SO IMPORTANT FOR MOST TEAM SPORTS
- RUNNING / MOVING / REACTING OR CHANGING DIRECTION QUICKLY

- SPEED INCLUDES

Reaction Time

Movement Time

Speed of running



- *Early age (up to 10/12 year of age) – exposure to games / play and relays will make children faster*
- AS CHILDREN DEVELOP THEIR LIMB CO-ORDINATION THEY CAN PARTICIPATE IN SIMPLE SPEED DRILLS

METHODS OF DEVELOPING SPEED AND AGILITY

Primary method –

1) Execution of sound movement technique

2) Sprint Resistance - Overloading

- harness / parachute / Sled / Weighed vest

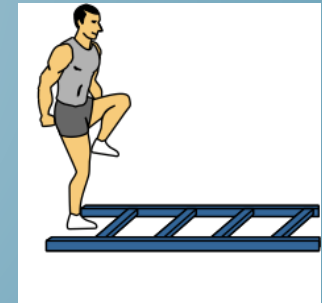
No greater than 10% resistance – detrimental to speed

3) Sprint Assistance

Downhill running (shallow slope)

High speed towing / Bungee / Harness

Objective is to provide assistance without altering mechanics



METHODS OF DEVELOPING SPEED AND AGILITY



4) Mobility

During running the hips and knee joints move through large range of movements – Lack of flexibility can impair speed. Regular flexibility training can improve athletic performance

5) Strength / power training

Explosive strength & High force strength. Resistance training / Plyometrics / Med ball

6) Speed endurance

– Ability to repeat high speed bouts. Intervals /



SPEED AND AGILITY SESSIONS

Intense brief activities



Early in the training session before other fatiguing activities

Brief work bouts / frequent rest periods

Your goal in this type of training is not to fatigue the player

Quality over Quantity



