

What people think s&c is (past)

- either training like a powerlifter, weightlifter, t&f or bodybuilder

What it is now (present)

- now it is a combination of those is what makes sport performance
- Access is the key factor

How short it has been around, grows and changes quickly

LTAD

Maybe a slide that shows college coaches are looking for kids that are the most all around developed/athletic so they can turn them into the specialized athlete their team needs

Why a professional is needed for it be implemented

- What makes it difficult: so many types of programs, times of year, needs analysis, training age,
- Fitting the individual to the program vs fitting the program to the individual

Factors of sport performance (nutrition, training, analyzing/testing)

Specialized vs General Ability (why many facets are needed for success/optimal performance)

- Everything affects everything

Bridging the gap between S&C and Sport (how we will do this)

- Speed

Many tools in the toolbox

Sports Performance

Sports Performance

Thrown around as Buzz Word

- Instagram Gurus
- Personal Trainers (Not All are Bad)
- Has Beens (Not All are Bad)

Reality is, SPORTS PERFORMANCE provides athletes opportunities to apply components of athlete development to improving their level in play in sport

ACSM - Clinical Exercise Physiologist

Certifications

ACSM - CPT

NASM - CPT

NSCA - CSCS

ISSA - Strength and Conditioning Coach

Precision Nutrition Level 1 & 2

Sports Performance: Constantly Growing & Changing Field

Sports Performance is made up of 3 Components

- Strength and Conditioning
- Sports Nutrition
- Sports Psychology

As well as...

- Physicians
- Physical Therapists
- Athletic Trainers

*All 3 are still in their infancy and all 3 play a crucial in LTAD

Strength and Conditioning

What Strength and Conditioning is NOT

Powerlifting/Olympic Lifting/Bodybuilding

Conditioning till you puke

Personal Training/Fitness Influencer

Temporary Fix (gain 20lb muscle on this program)

Applying a general template to the masses

What Strength and Conditioning is

Prevent an Injury

- Athletic Trainers and Physical Therapists help get players back
- Strength and Conditioning Coaches prevent

Improve Athletic Performance

Improved Self-Esteem

Life - Long Skills

What Strength and Conditioning Really is.....

The practical application of sport science to enhance sports performance, built off evidence based research, exercise physiology, and field experience

Ability to assess an athlete and identify poor movement qualities, relate poor movement quality to sports performance and injury risk – and how to adapt programming to suit the needs of individual athletes that demonstrate limited movement.

It is the ability to decipher which training tool will work best for your current situation and applying it in an effective manner

Long Term Athletic Development (LTAD), analyzing your athletes starting point and there goals, then making a long term plan for them to reach it

Regularly testing and evaluating athlete progress, ensuring progress is being made

Building a Program



Speed

Elastic/Reactive
Strength

Explosive Strength

Strength

Work Capacity

Evaluation/Testing

What makes it Difficult

Needs Analysis

Programming Options

Factors of Sport Performance (Nutrition, Psychology, S&C)

Specialized vs General Ability

- Why so many facets are needed for success

Needs Analysis

Injury prevention

- Common injuries
- Predisposition
- Competition environment; surfaces, temperature, etc.

Enhanced sport performance

- Movement patterns
- Planes of motion
- Energy system profile
- Physical qualities

Sport Specific

- Duration & time stoppages/rest
- Position
- Style of play
- Level of competition
- Season

Chronological / Maturational / Training Age

Program Options

Wendler - 5/3/1

Chad Wesley Smith - Juggernaut

Louie Simmons - Conjugate Method

Cal Dietz - Triphasic Training

Bompa - Periodization

Bigger, Faster, Stronger

Anatoly Bondarchuk - Bulgarian System

Al Vermiel - Hierarchy of Athletic Development

Block periodization

Pierce Method

Autoregulatory Progressive Resistance Exercise

Easy Strength

Swede Burns - 5th Set

Linear Periodization

Reverse Linear Periodization

Undulating Periodization

Joe Kenn - Tier System

Charlie Francis - Vertical integration

Fit the Program to the Athlete not the Athlete to the Program

LTAD

Long-term athletic development is either a formal or informal strategy to develop the entire person and allow athletic talent to root and blossom patiently over a career.

Skill

FUNCTION

Foundation

Poor Mobility and Stability but High Performance and Skill. Likely to get injured. Level of Play exceeds joint stability and mobility

SKILL

Function

Foundation

Highly Specialized in at least one aspect of their sport but is lacking in overall Athleticism. Likely never to reach full potential

Skill

Function

FOUNDATION

Good Mobility and Stability but poor function. Possesses the basic skill required for their Sport and is ready for an increase in difficulty and intensity in their training



Sport/Skill

Power, Speed, Agility,
Anaerobic Capacity

Strength, Aerobic Capacity

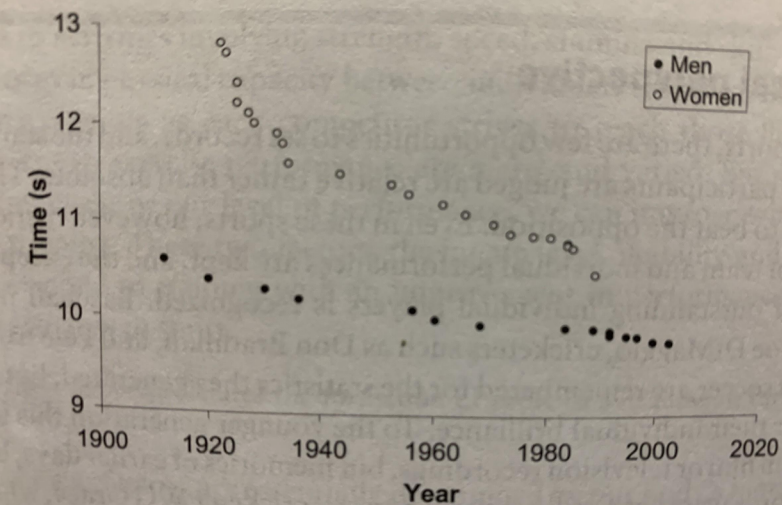
Mobility, Stability, Balance & Coordination

*Plateaus occur
because skill
eventually surpasses
the body's capability*

WITHOUT CONTINUING
TO BUILD A FOUNDATION
OF ATHLETICISM, SKILL
TRAINING CAN ONLY GO
SO FAR

Speed Can be Taught

- Reaction Time
- Flexibility (Suppleness)
- Strength Power
- Increased Efficiency
- Specific Endurance



“BUT YOU CAN’T TEACH SPEED!”

USAIN BOLT

YEAR	100m	200m
2009	9.58	19.19
2008	9.69	19.30
2007	10.03	19.75
2006		19.88
2005		19.99
2004		20.13
2003		
2002		20.58
2001		21.73

TYSON GAY

YEAR	100m	200m
2009	9.69	19.58
2008	9.77	20.00
2007	9.84	19.62
2006	9.84	19.68
2005	10.08	19.93
2004	10.06	20.07
2003		
2002	10.28	20.88
2001	10.27	

Case Study #1 (ankle)

Case Study #2 (hamstring)