

KAAF

Korea Association of Athletics Federations
Coach Seminar (part 1) - Jincheon
January 2012



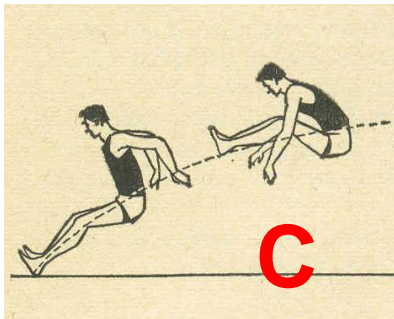
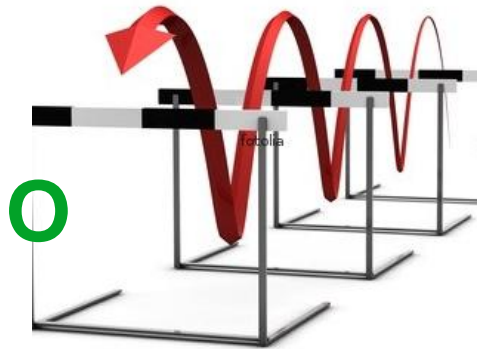
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Training a systematic process „OEC“

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Training in Sport can only be successful



if.....

Organisation

(How to do)

Execution

(What to do)

Controll

(Check, test if....)



**....is followed over a certain
specific time or periode**





Training for a „Year Cycle“

Systematic approach

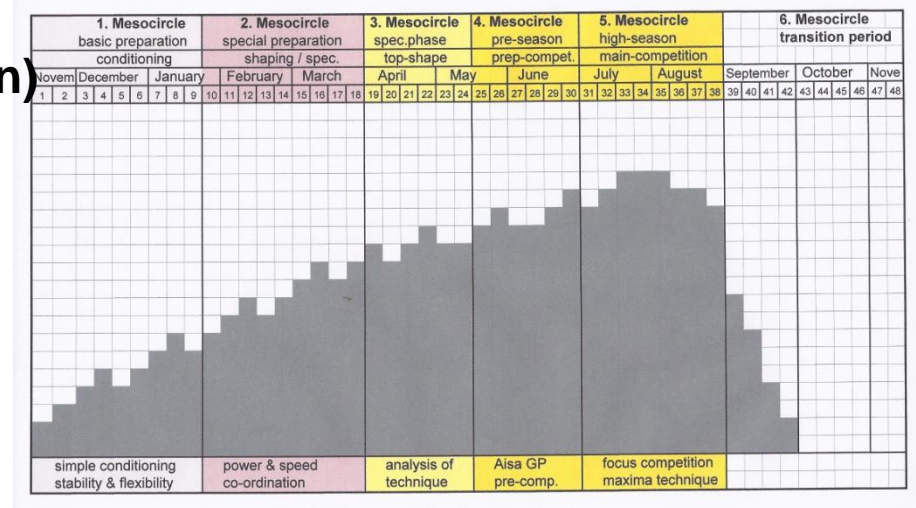
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We know of different periodes of training within a year / season or **„Season-Cycle“**

➔ **MACROCYCLE**
(year or several year plan)

➔ **MESOCYCLE**
(year, periode or month)

➔ **MICROCYCLE**
(periode, week or day)





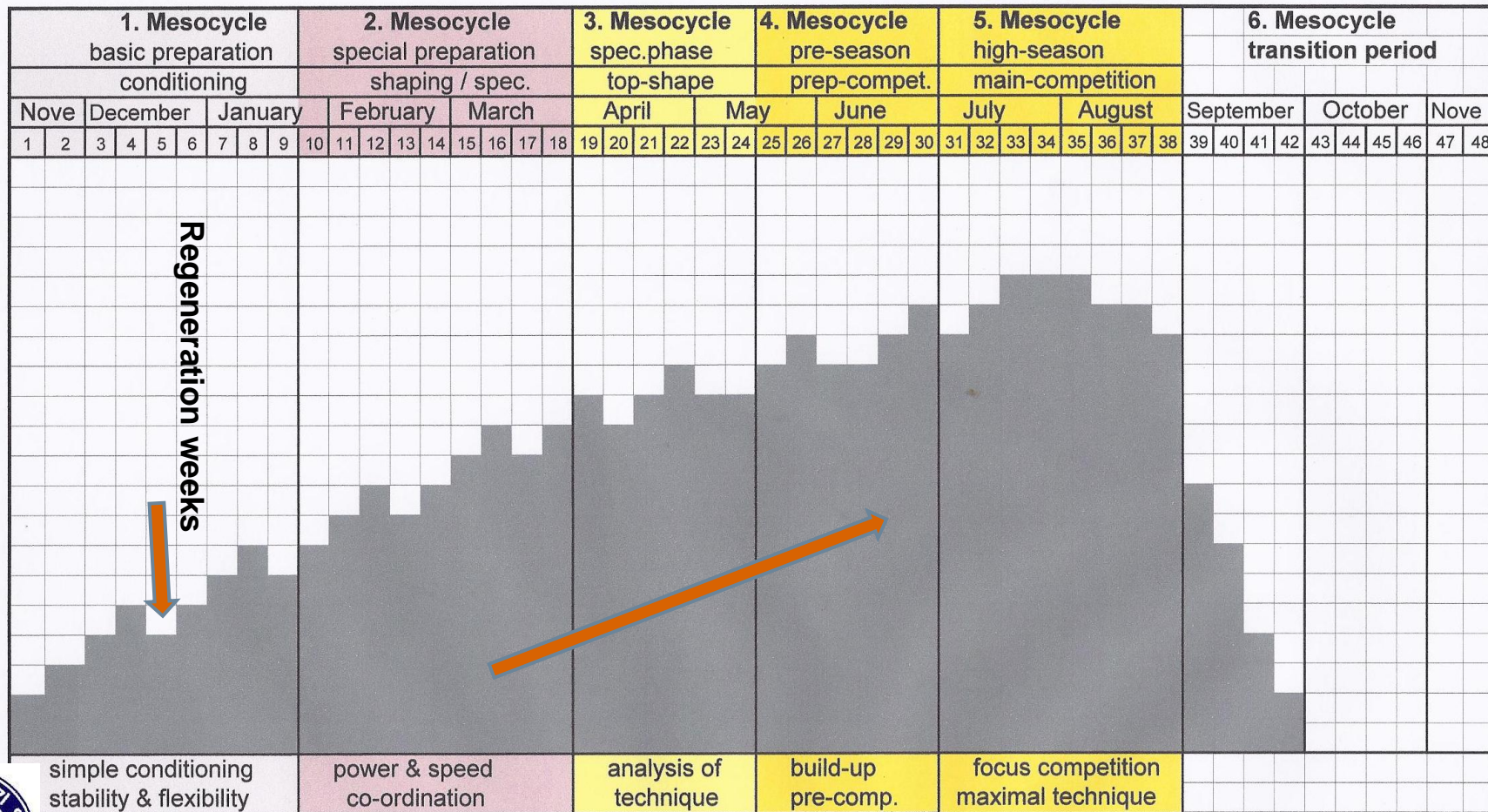
The „Year Cycle“ (1)

Increase level of fitness

4

cycles

weeks

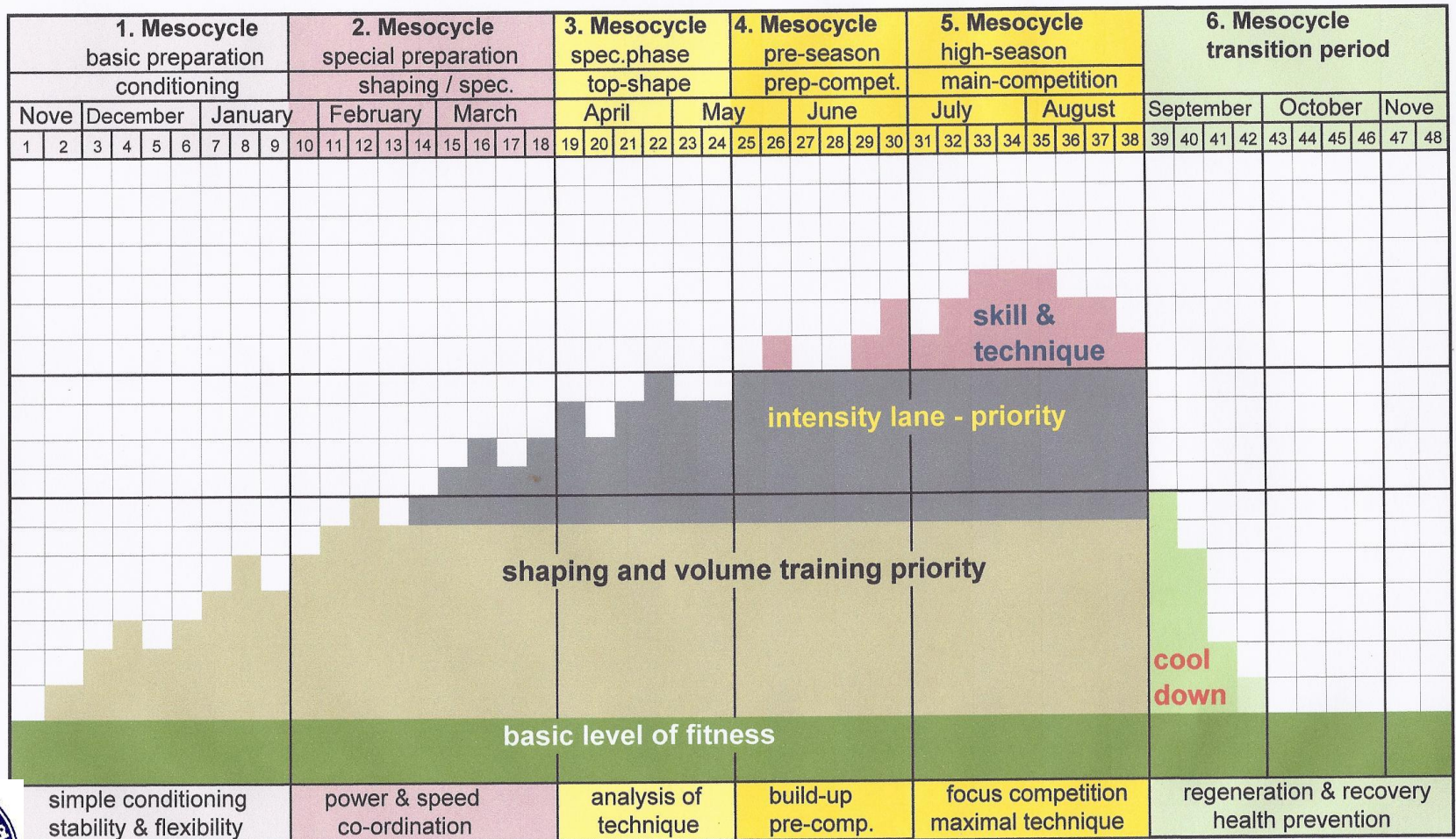




The „Year Cycle“ (1)

Focus lane of training

5



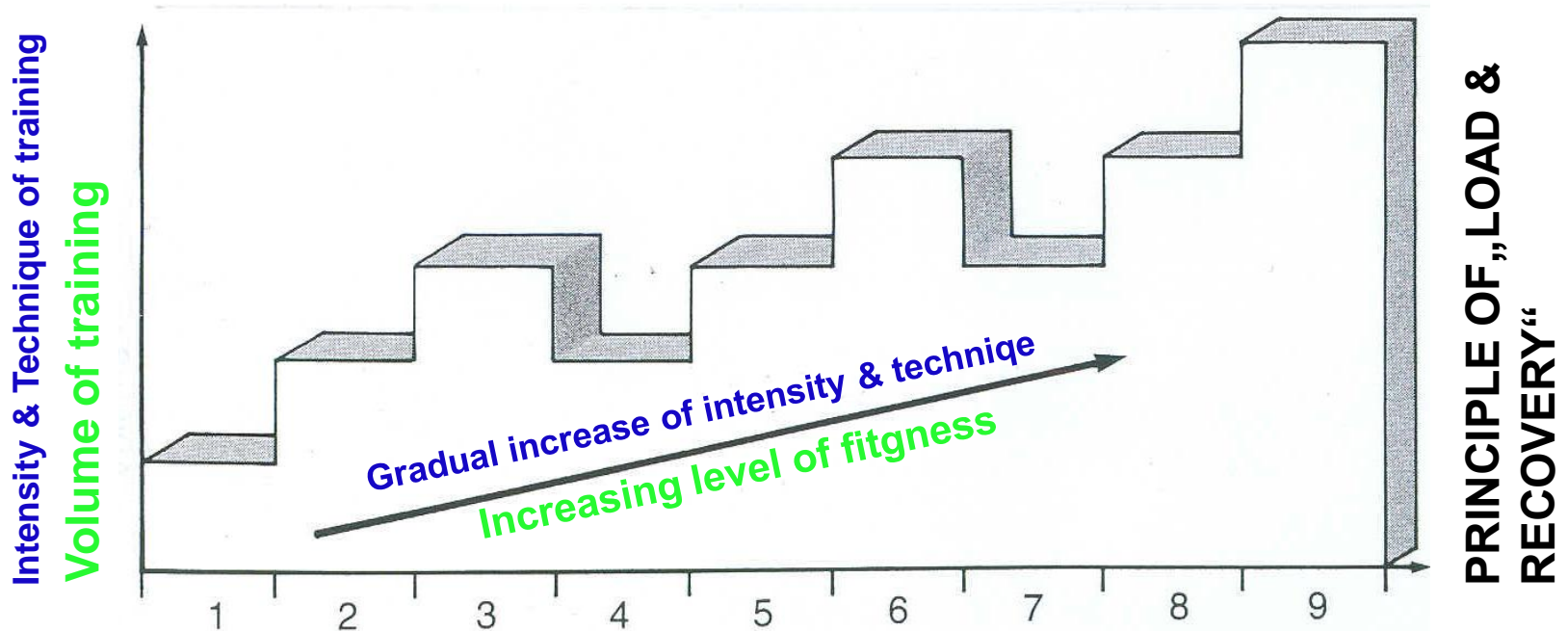


The „Year Cycle“ (1)

Principle of „Load & Recovery“

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AIM: Improvement of training by highering fitness, resp. the intensity & technique within a **MESOCYCLE**



Process of training over some weeks by increase & recovery



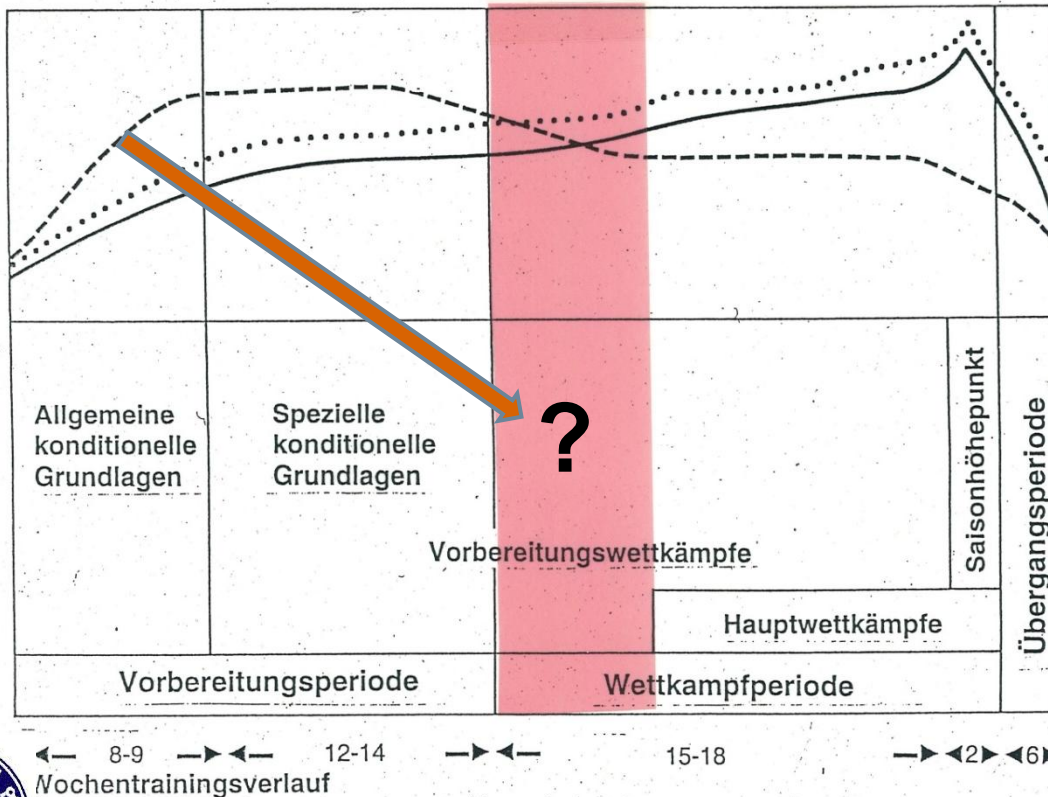


The „Year Circle“ (2)

Systematic approach of volume & intensity

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- Umfang des Trainings
- Intensität des Trainings
- Entwicklung der sportlichen Form



The aim of athletes training is:

Athlete should reach in the process of a year training cycle his individual highest level of shape, speed, maximum movement skill (technique)

Mesocycle Pre-competition

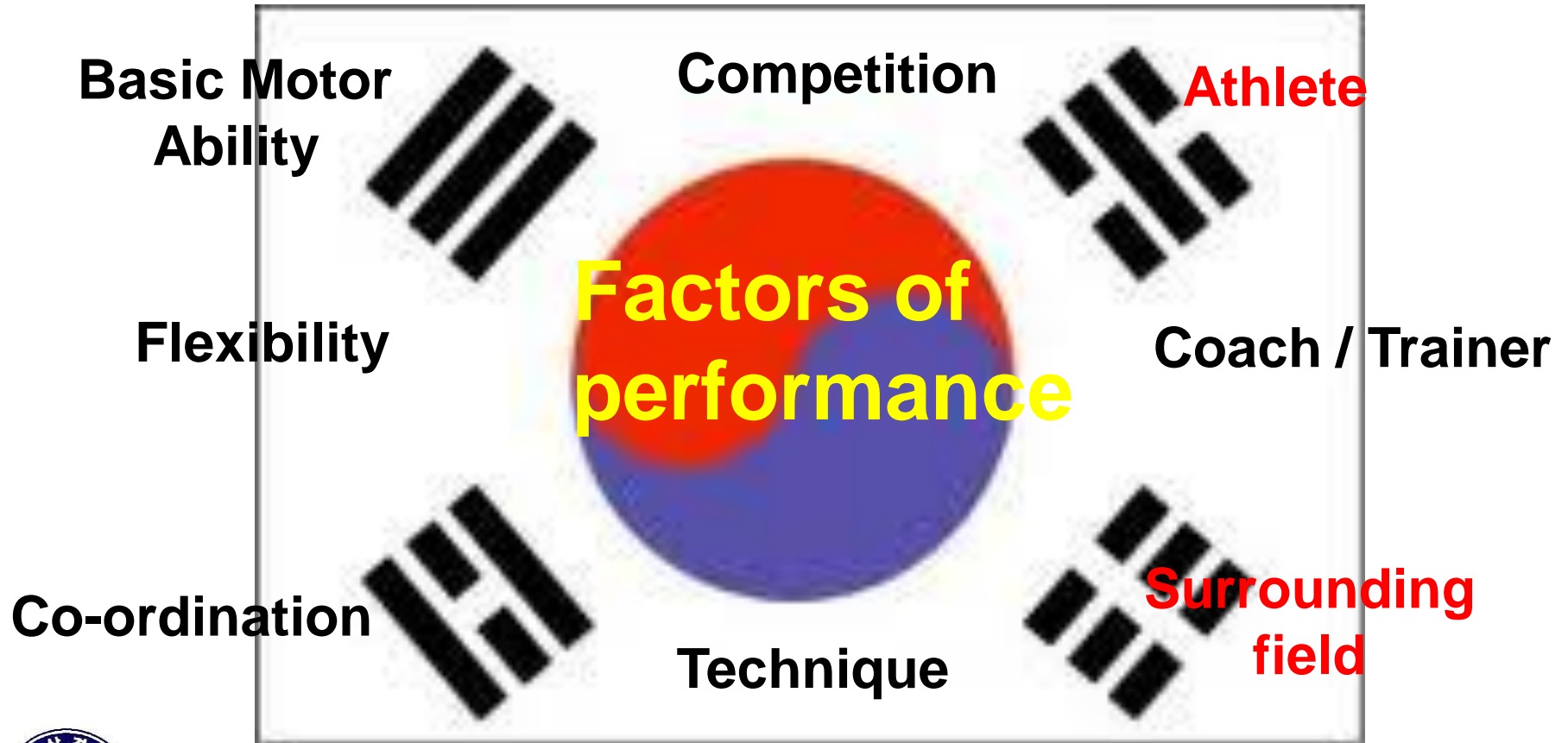




Factors of Performance

Athlete development

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„Basic Motor Ability“

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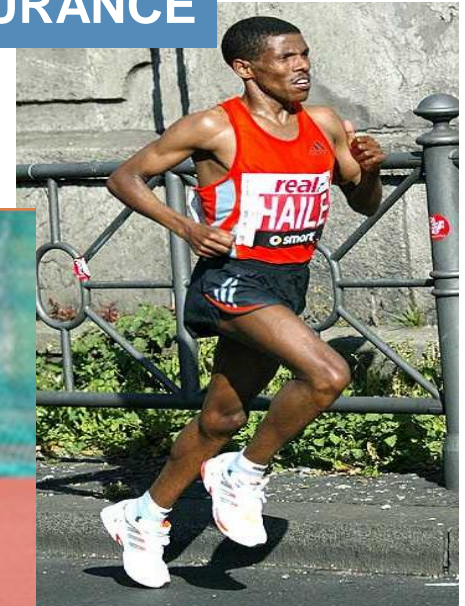
SPEED



STRENGTH



ENDURANCE



FLEXIBILITY



CO-ORDINATION





Interlink of basic Motor Ability

What does the athlete need?

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Analysis of Training Methods

What is best for ,my' athlete?

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Find out the correct method of training & the right training means (exercise) for the respective event (discipline) you are coaching the athlete

Differentiate!

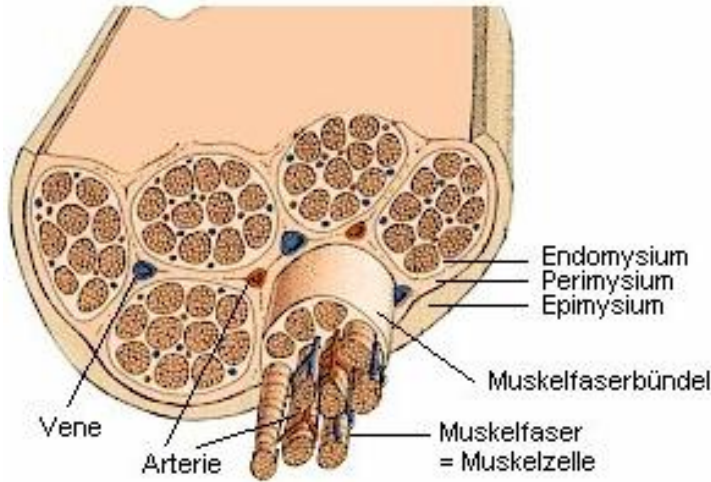




Muscle & their function

The nature of muscles

12

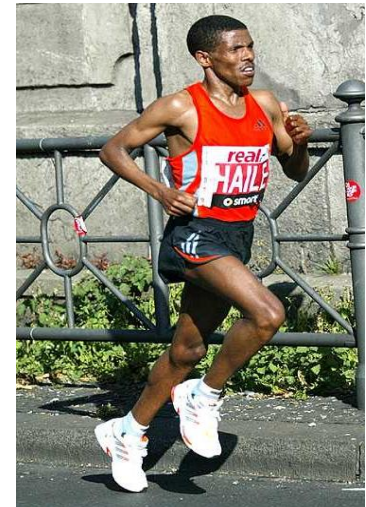


- muscles consists of **fibres**
- more fibres form a **bundle** = muscle
- muscles are **attached** by tendons to the bones
- movements is caused by **muscles pulling** on a bone



- **FAST** twitch
inherited minor trainable

- **SLOW** twitch
VERY WELL TRAINABLE





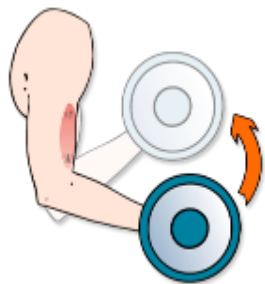
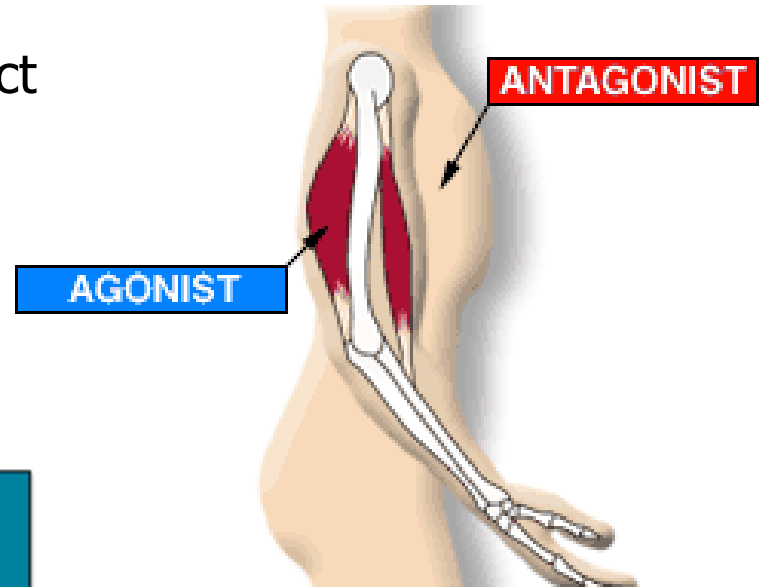
Muscle & their function

Muscle contracts & muscle at work

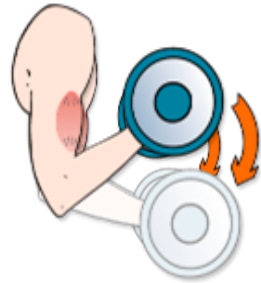
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Muscle contractions are initiated by *a nerve impulse!*

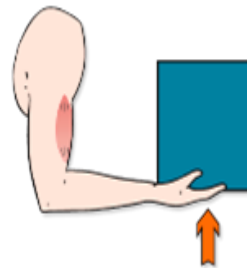
- A **closed system** witch act like this:
- Agonist „bends“
- Antagonist „stretches“



Concentric
„overbear“



Excentric
„expandable“



Static
„hold“

→ **and the other way round**





Muscle & their function

How does muscle work at training

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- **concentric**
muscles shortens and
tickens to raise
the load *(jumping up)*

- **excentric**
muscles lengthens
and controls at
lowering the load
(landing)



- **Training the functional ,muscle sling`**





Training Strength & Power

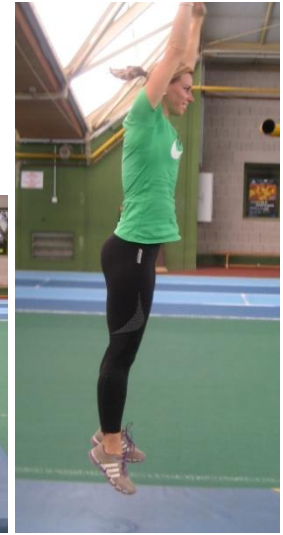
Basic Conditioning?

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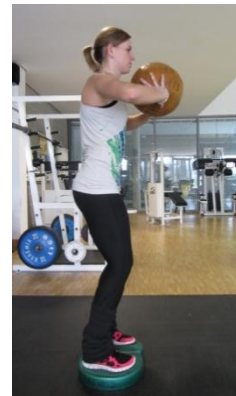
- Develop individual fitness by simple exercise



„stretch-hock-jump“



„Medicine-Ball“
Exercise.
Intensify by
standing on a
soft-platform

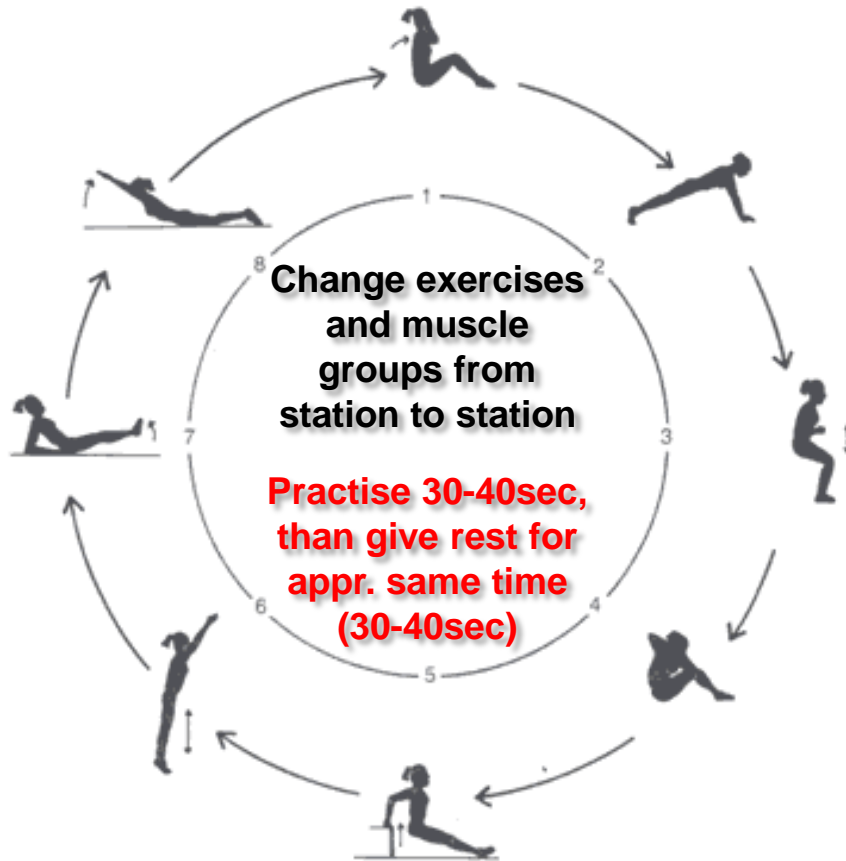




„Circuittraining“

Easy way to develop strength-endurance

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Aim:

Strength endurance is the basis of fitness for sports people.

Plan time or repetition **dosage**, but select carefully of what you are aiming at –
Rest period & duration or amount of work-out

Check! Would all those exercises suit tyour athlete?

Circiut Training from IAAF „Basic Manual“ Level 1, 1991





Training Strength & Power

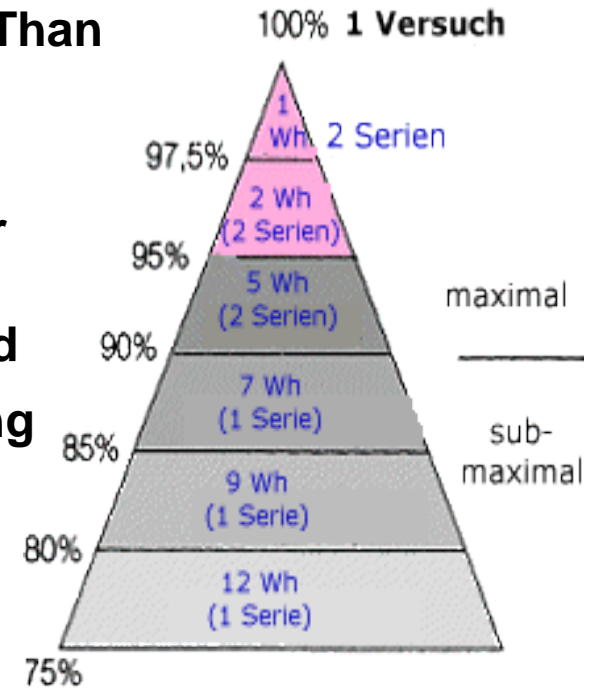
What can we do?

17

- A systematic **STRENGTH - ENDURANCE** training is followed by **'ISOKINETIC'** muscle training. Then go to build up of **'MAXIMUM STRENGTH'**



- **Pyramid- and/or Block-Training** system are used
- forms of building at **MAXIMUM STRENGTH**



- However, relevant & effective exercises for the individual event must be carefully selected





Training Strength & Power

What can we do?

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- **QUICK- and EXPLOSIVE STRENGTH**“ is a performance dominant factor for most of athletic events, specially sprints, jumps & throws
- **The AIM IS:** ACCLERATING body mass or implements





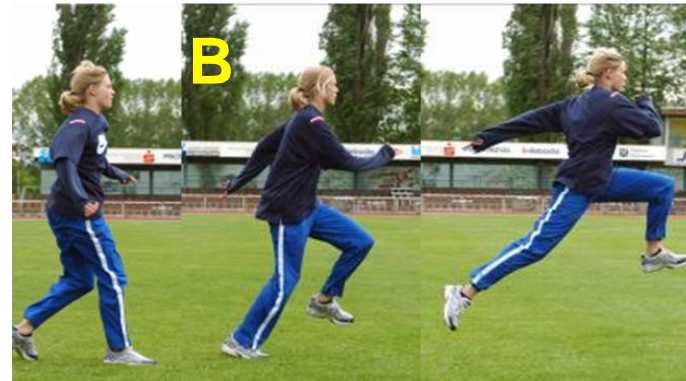
Training Strength & Power

Drop- & deep-jumps are most effective!

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Multisided jump-combination (A) of excentric & concentric muscle activity enhance not only the „Reactive-Strength“ but also develop geatly the ‚inter- & intra muscular co-ordination‘.



Multi-Jumps (B)

Hurdle-Jumps (C) most used training mean for reactive strength



NOTE: Train equally flexor and extensor muscles





Training Strength & Power

What should we do?

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NOTE that specific exercise mean quality first. **AIM** at correct & fast activity at take-off from ground.

Jump-specific exercise for flexor & extensor muscles



Fewer repetition!





Training Strength & Power

What can we do?

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„Hurdle-jumps“ can be practised over low, high hurdle – short, medium & long space in between each hurdle

Aim at fastest & most active take-off from the ground

