



PÉCSI TUDOMÁNYEGYETEM
ÁLTALÁNOS ORVOSTUDOMÁNYI KAR

Agility, speed, pliometry

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Agility, speed, pliometry

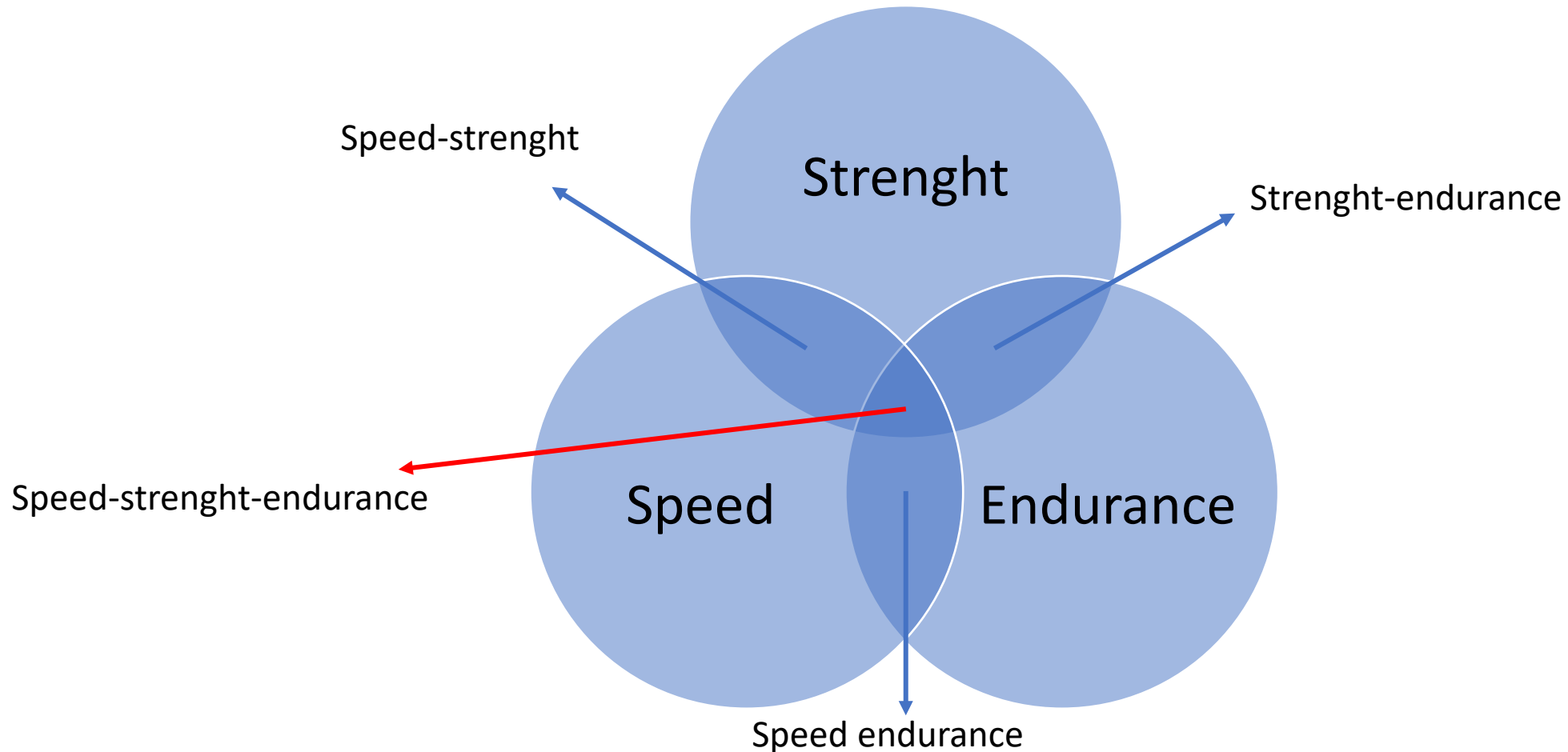
Motoric skills

Conditional skills

Coordinative skills

- Balance
- Spatial orientation
- Rythm
- Reaction skill
- Kynesthesia

Flexibility – joint mobility



Agility, speed, plyometry

Agility

- Complex coordinative and conditional skill
- Effective change of direction (based or non-based on decision)
- Skill of nerve system – available for development with practice
- A key factor of sporting success
- Its development also has an injury prevention role

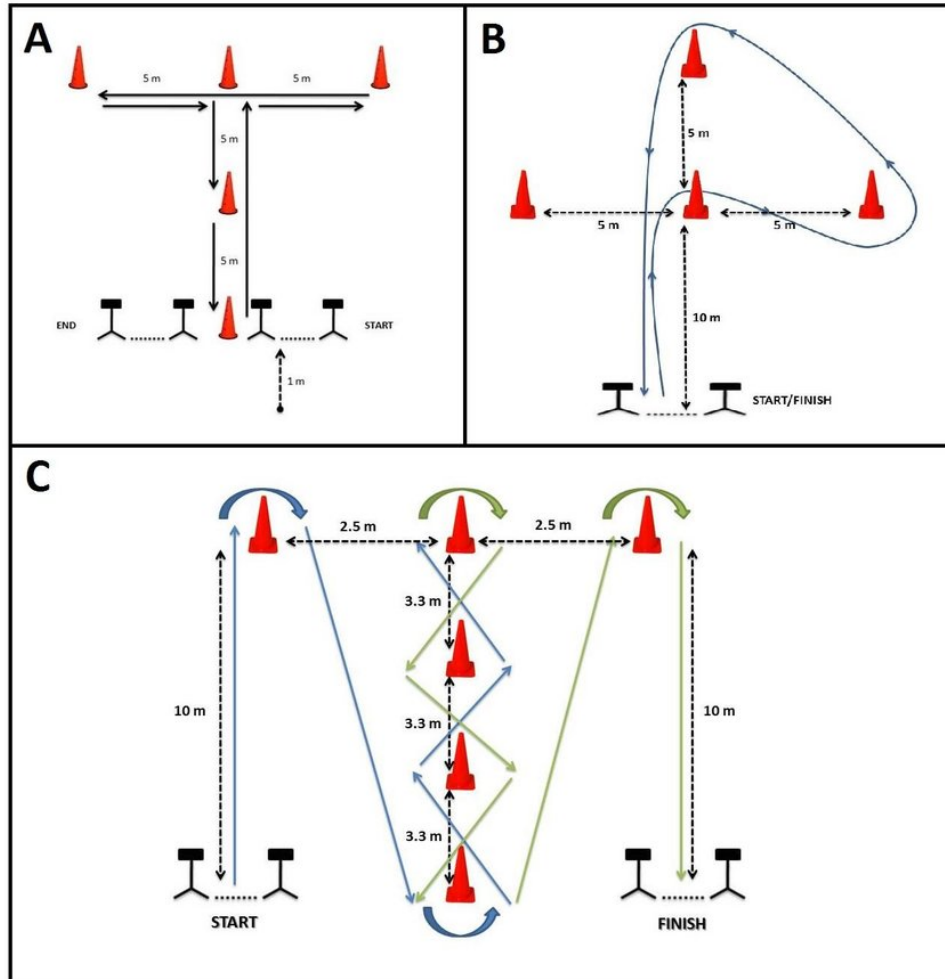
- <https://www.youtube.com/watch?v=sjMofjmzQKU>



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Agility tests

https://www.youtube.com/watch?v=ws0MsAy8t_4



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Development of agility

<https://www.youtube.com/watch?v=MrvDZu7XYSg>



Speed

- Speed is the ability to perform reactions, movements and motions in the shortest possible time under given conditions
- The elementary forms of speed /duration of reaction, speed of movement, frequency of movement/ are relatively independent of each other, but in practice we encounter a complex representation of speed
- Its exercises are largely sport-specific, because speed is closely linked to sporting technique in terms of effectiveness
- Developing speed means developing neuro-muscular coordination. As this trait is largely hereditary, its development is limited



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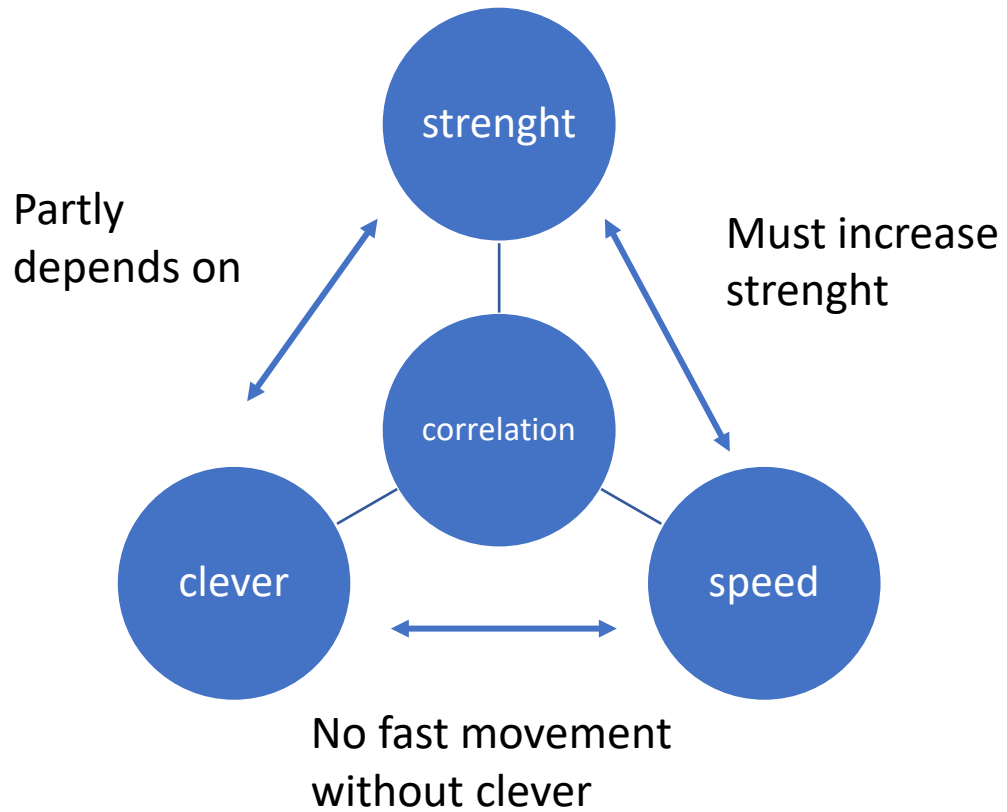
Speed tests

<https://www.youtube.com/watch?v=7yNmoJcuLvE>



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Development of speed



Professional

AKTIV[®]
sport



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Pliometry – reactive force

- Self-conditioning ability based on effect-counteraction and the cooperative laws of the nervous-muscular apparatus
- *for plyometric force: the body then switches from releasing-braking (eccentric) work to immediately overcoming force (concentric), and produces explosive power greater than the combined force of the muscles*

Measurement of pliometry

- Explosiveness tests
- Jumping forward
- CMJ or SJ test
- Force platform



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Development of plyometry

- rapid, powerful contraction from an active preloaded position
- developing strength and speed, BUT
- runners's VO2max development and improved running performance

<https://www.youtube.com/watch?v=kcK-l8mgzjU>





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Thank you for attention!

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