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#### Univerza *v Ljubljani* Fakulteta *za šport*









# 3

# SPORTS EDUCATIONAL CHART



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- Slovenia is the only country with that kind of programe,
- Collecting data from 1981,
- 230.000 measured children and adolescents each year in April (age from 6 to 19),





#### Osebni športnovzgojni karton

Datum rojstva	Ime in prilmek
Spol moški ženski	
lme in sedež šole	

Merjenja								
Zap. št.	Oznaka	Vrsta merjenja	Razred / oddelek					
1	ATV	Telesna višina						
2	ATT	Telesna teža						
3	AKG	Kožna guba nadlahti						
4	DPR	Dotikanje plošče z roko						
5	SDM	Skok v daljino z mesta						
6	PON	Premagovanje ovir nazaj						
7	DT	Dviganje trupa						
8	PRE	Predidon na idopci						
9	VZG	Vesa v zgibi						
10	60 m	Tek na 60 m						
11	600 m	Tek na 600 m						
Dα	tum mer	jonja						
Uč	teljica/u	čitelj športne vzgoje						

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#### dr. Gregor Starc, Faculty of Sport









## What does it measure?

- Measures 8 motor tests and 3 anthropometric measurements:
- Body height
- Body weight
- Triceps skinfold
- 20-s hand tapping
- Standing long jump
- Polygon course backwards
- 60-s sit-ups
- Stand and reach
- Bent arm hang
- 60 m sprint
- 600 m run







#### <u>ŠPORTNOVZGOJNI KARTON</u>



1 mio people included

half of the intire SLO population



1,3% taller children

between 1995 and 2015



6% heavier children

between 1995 and 2015



7 mio sets of measurements

in the past 30 years







# Why is it important?

- For monitoring physical and motor development of children and youth,
- Help them achieve better physical fitness and well-being,
- We can compare an individual with other peers in Slovenia.





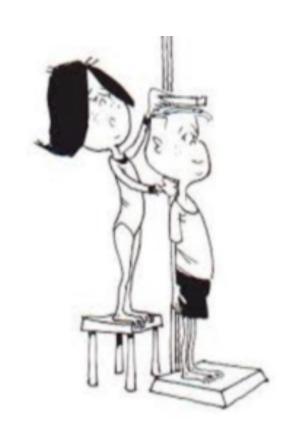






### **Body height**

- gives us information about the length of a human body,
- an individual is highest in the morning and lowest in the evening,
- in adulthod height is an indicator of degenerative changes in the spine,
- together with other body dimensions we get a nutritional status of an individual.











### **Body weight**

- gives us information on the total body mass,
- changes from birth to age,
- a rough measuer of healthy body weight is obtained if we deduct 100 from body height (example: 176 cm-100= 76 kilo),
- together with other body dimensions gives us a nutritional status of an individual.











## Triceps skinfold

- subcutaneous fat gives us information about the amount of fat and varies from birth to onwards,
- the high values of skin wrinkles are a sign of an over-nutrition of an individual,
- high body fat increases health risk for cardiovascular disease, type 2 diabetes and some types of cancer.









# 20-sec hand tapping

- gives us information on the speed of alternating movements with hands,
- it also indicates the ability to rapidly transmit the pulses of our nervous system and its fatigue,
- lower values of this measurement task may indicate a worse conductivity of the nervous system.



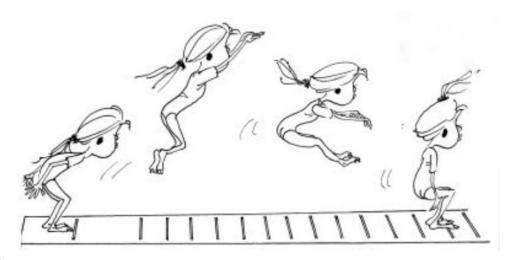






# Standing long jump

- gives us information about the explosive strengthof the legs, which points to our ability to produce the maximum force,
- lower values of this measurement task may indicate low muscular strength of the thigh muscles or poor coordination between arms and legs.



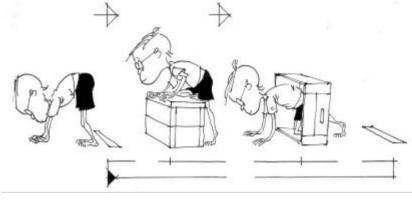






# Polygon course backwards

- is a coordination task, which gives us information about the motion in a space that indicates the ability to regulate movement in unusual situations,
- the high values of this measurement task indicate a lower ability to co-ordinate the movement of different parts of the body,
- With high values the risk of injury in solving unexpected movable situations increases.





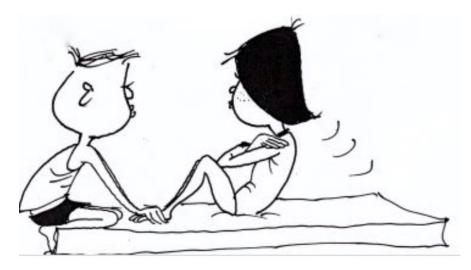






#### 60 - sec sit up

- gives us information of endurance in the strength of the body, especially hip and abdominal muscles,
- the low values of this measurement task indicate a reduced muscular strength, which is important for the stabilization and perservation of a health body posture.











#### Stand and reach

- gives us information about the flexibility of the legs and the lower part of the spine,
- the low values of this measurement are showing that our thigh muscles are too short, which is increasing the risk of injuries in the legs and the inability of movements with the entire amplitude,
- low score of this measurement task can be an indicator of stress in daily life.











#### Bent arm hang

- gives us information of the strength and durability of the hands and shoulders,
- It is showing our ability to control the mass of our own body,
- lower values of this measurement task indicate the underlying strength of the hands and shoulders and consequently the risk of inadequate stabilization of the chest and the spine.



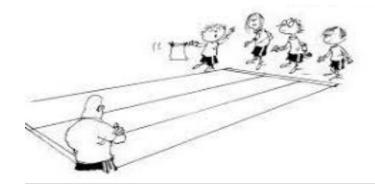






#### 60 m sprint

- indicates the ability to quickly transmit the pulses of our nervous system and its fatigue,
- this capability is largely innate, but the result of the run depends on several factors:
- effective starting and starting acceleration,
- developing the highest speed of running,
- minimizing deceleration in the rear and correct running technique through the target,
- higher values of this measurement task may indicate a worse conductivity of the nervous system, underestimation of muscle tone of the lower part of the body or a worse intermolecular coordination.











#### 600 m run

- gives us information of general aerobic endurance of an individual,
- its basis are aerobic energy processes, which mainly depend on the action of the respiratory, cardiovascular and blood system,
- higher values of this measurement task indicate an aggravated aerobic endurance of an individual and an increased risk of cardiovascular disease.

