



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

# SPECIFICS OF CHILDREN SPORTS TRAINING

David Zahradník, PhD.

Projekt: Zvyšování jazykových kompetencí pracovníků FSpS MU a inovace výuky v oblasti kinantropologie, reg.č.: CZ.1.07/2.2.00/15.0199

# Problems of children sport training

- Not every top athlete can be a high-quality coach of children
- Not every active parent can be a good-quality coach of children
- Ambitious coach
- Negative relationship coach-child as an athlete
- Parent as a sponsor not only in team sports
- Child as an instrument to make parents' dreams and desires come true

# Aims of children sports training

## 1. Not to harm children physically or psychically

Physically (scoliosis, fatigue fractures, premature bone ossification etc)

Reason: awkward, unbalanced, excessive training

Psychically (depression or long-term states of frustration may lead to psychic diseases)

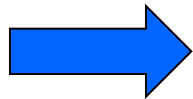
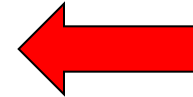
Reason: inappropriate action of coach



# Aims of children sports training

2. To create a relationship of the children to sport as a whole-life activity

It is not possible for all children to reach the top level.



The coach must attempt to make active sporting a whole-life companion for his trainees.

# Aims of children sports training

3. To create stable foundations for the training in the next age category

It is possible that children approached adults in the coordination and the technique



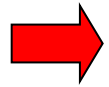
Therefore it is necessary to focus on mastering the basic training requirements of the sports disciplines

It means teaching children technique, basic rules, basic standards of behavior, tactical procedures necessary to carry out the game

...all this in compliance with respective development of motor skills...

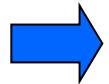
# Two conception of children sports training

## The conception of early specialization



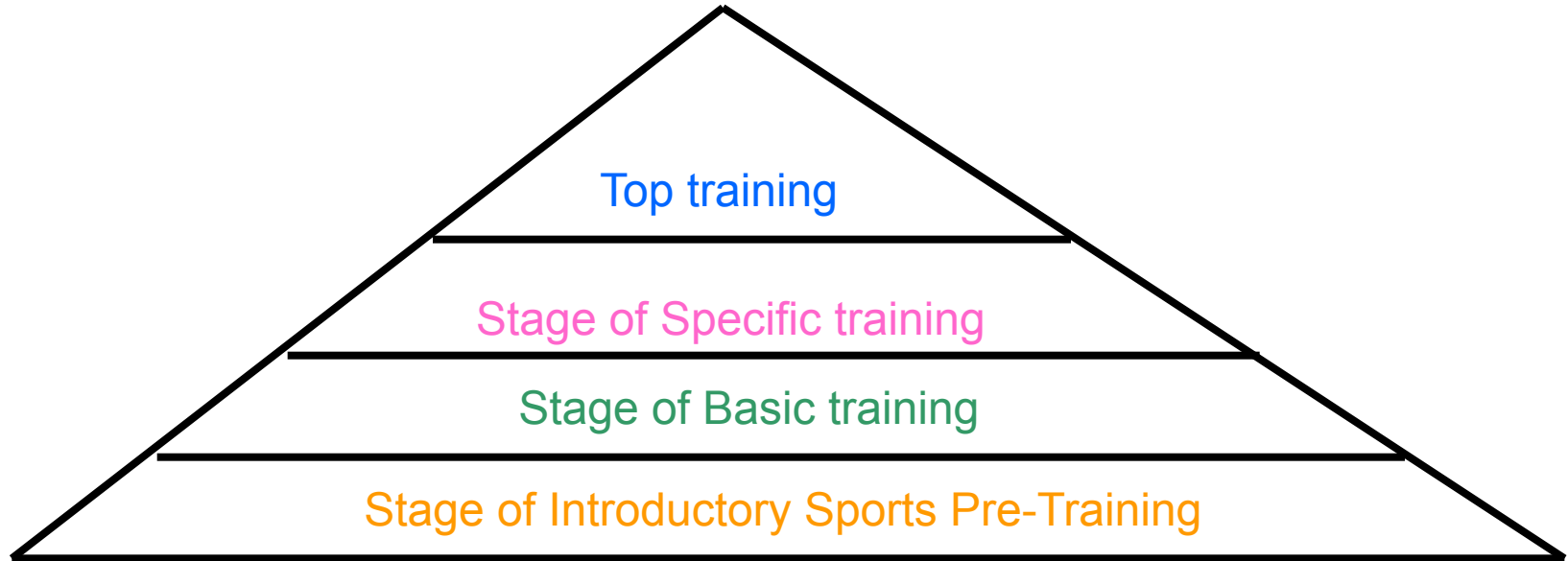
This way, a young athlete can reach relatively **maximal performance sooner**. However, specific load is always a one-sided movement involving the same muscles all the time and there is a **danger** of muscle imbalance as well as various damages and injuries.

## The conception of training following the age



**Training respective of the age** of a child or youth is interpreted as **process respecting their physical and psychical maturity**; this process is appropriate for most sports. This concept allows keeping top performance for many years during adulthood.

# Pyramid of long-term training



## Stage of Introductory Sports Pre-Training (6-10)

- Creating a general foundation for the sport
- The components are not proportionally represented
- The prevailing training means and exercises are general, which can help to develop mainly **coordinative abilities** since the most important task is to teach children as many movement skills as possible.
- The most effective training means is game

The aim is to prepare children to be able to:

- Satisfy all the conditions of training
- Regularly train
- Know and follow the rules of the sporting disciplines and sports generally
- Conform to collective way of training
- Act independently, actively and disciplined in training and matches



# Stage of Basic training (10-13)

## Main aims:

- **harmonic development** of children and youth, **strengthening health**, supporting **natural physical and psychic development** Pokračovat v osvojování co největšího množství pohybových dovedností
  - To master the basics, children's techniques, fundamentals tactics of the sport disciplines
  - Develop permanent relationship with the training system
  - Acquisition of basic knowledge of the discipline
- 
- The technique improves naturally influence the development of appropriate motor abilities
  - Growing volume load (due to the length training units)

# Stage of Specific training (13-17)

High performance is still a prospective aim

Main aims:

- Development of fundamental and special motor abilities
- Development others motor skills
- The technical skills are continuously fixed with the help of specific exercises and means
- Development of tactic skills
- Motor abilities start to develop with respect to the need of specific intensity

# Sensitive periods

## Coordination

- 7-11years girls
- Till 12 years boys

## Speed

- 7-14 years both categories

## Strength

- 10-13 years girls
- 13-15 years boys

## Aerobic endurance

- whenever

# Specifics of the development of motor abilities in children

## Speed

- It is recommended to develop them together with agility.
- Load interval of 10 seconds.
- Rest interval 1:6.
- In the form of hurdle tracks, fan runs etc.

# Specifics of the development of motor abilities in children

## Endurance

- Primarily long-term endurance
- In younger school age, hard endurance training does not lead to increase in aerobic performance.
- 
- Until the age of 10, there is no need for special endurance training.
- Endurance training only in adolescence makes sense.
- There is enough time to train anaerobic endurance later.

# Specifics of the development of motor abilities in children

## Strength period till 10 years of age

- The skeleton and muscles are not yet ready for strength development.
- Speed-agility exercise supports strength development themselves.
- The principle of natural muscle strengthening
  - climbing
  - wall bar climbing
  - parallel bars dips
  - different hangs
  - resistance exercises, rope pulling, pushing
  - exercises with heavy ball (1kg) rolling, carrying etc..
- All exercise in the form of a game
- High variability of exercise

# Specifics of the development of motor abilities in children

## Strength period between 10 and 12 years of age

- The body is still not prepared yet.
- Focus training on the area of short-time strength exercise.
- Focus on centricity of muscle development, not only on the muscle areas crucial for the specific sports discipline.
- The means now include other exercises, mainly those which make use of the weight of one's own body: push-ups, squats, sit-ups, exercise with tools (parallel bars push-ups, pull-ups).
- Appropriate method – strength input

# Specifics of the development of motor abilities in children

## Strength period between 13 and 15 years of age

- The effectivity of individual muscles **increases** due to the influence of sex and growth hormones.

### Focusing on three basic areas:

1. **Training strengthening technique**
2. **General strength training**
3. **Using special methods**



# Specifics of the development of motor abilities in children

## 1. Training strengthening technique

- In exercises which focus on handling the axis of a free weight

## 2. General strength training

- It is based on methods and means used in previous periods of strength training
- Usually in the form of circle training
- The means mentioned above are made use of together with expanders, light weights etc.

## 3. Using special methods

- Speed methods etc.



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Thank you for your attention