

Sports Training Methods

The **methods of sports training** represent a **systematic approach** used by coaches to develop **various aspects of preparation**, particularly **physical preparation**, to achieve **training objectives**. These methods are the **structured application of exercises** performed within a training program.

Regardless of the variety of training methods, they all differ based on:

- **The type of training load used** to achieve different training goals.
- **The physiological nature of training**, whether **aerobic** or **anaerobic**.

1. Continuous Training Method

The **continuous training method** involves **performing a training load continuously** for a **moderate to long duration** at a **relatively stable intensity**, without **interruption or rest periods**.

This method aims to:

- ✓ **Develop aerobic capacity (VO₂ max).**
- ✓ **Improve cardiovascular and respiratory endurance.**
- ✓ **Enhance muscular endurance.**

Physiological and Psychological Effects

- **Physiological:**
 - Increases **maximum oxygen uptake (VO₂ max)**.
 - Improves **aerobic metabolic processes**.
- **Psychological:**
 - Develops **mental resilience, determination, and willpower**.

Characteristics of Continuous Training

- The **intensity** ranges between **50% to 75%** of maximum effort.

- The **training volume** is **high**, achieved by increasing **exercise duration** or **repetitions**.
- Exercises are performed **continuously without breaks**.
- The training load should be designed to **avoid excessive oxygen debt**.

Types of Continuous Training

1. Low-Intensity Continuous Training

- Used since **1960** for **general endurance** development.
- Intensity ranges from **60% to 80%** of max heart rate.
- Suitable for **long-duration training (up to 80 km in endurance sports)**.

2. High-Intensity Continuous Training

- Intensity ranges from **80% to 90%** of max heart rate.
- Training is closer to **competition intensity**, improving **muscular endurance and speed**.

3. Steady-Pace Continuous Training

- Training is performed at a **fixed pace**, maintaining **constant speed**.
- Example: Running **10 km at a constant speed**.
- Used to develop **long-term endurance and pacing ability**.

4. Variable-Pace Continuous Training (Fartlek Training)

- A Swedish training method meaning “**speed play**”.
- Involves **alternating speeds and intensities** over varied terrain.
- Helps **prevent injuries and improve aerobic and anaerobic capacity**.

2. Interval Training Method

The **interval training method** involves performing **repeated exercise bouts** separated by **specific rest intervals**.

Key Aspects of Interval Training

- ✓ **Work-Rest Relationship:** Adjusted based on **training objectives**.
- ✓ **Rest Type:** Can be **active recovery** (light jogging) or **passive rest**.
- ✓ **Training Load Progression:** Gradual increase in **intensity and volume**.

Physiological Effects

- Improves **oxygen uptake efficiency**.
- Enhances **lung capacity and cardiovascular function**.
- Helps with **lactic acid clearance**, reducing fatigue.

Types of Interval Training

1. Low-Intensity Interval Training

- Intensity: **60% to 80%** of max effort.
- Focuses on **cardiovascular endurance**.
- Includes exercises like **light jogging and long-distance swimming**.

2. High-Intensity Interval Training

- Intensity: **80% to 95%** of max effort.
- Develops **anaerobic endurance and speed endurance**.
- Often used in **sprint training and explosive sports**.

3. Repetition Training Method

The **repetition training method** involves **performing exercises at maximum or near-maximum intensity**, followed by **complete recovery periods**.

Objectives of Repetition Training

- ✓ Improves **speed, power, and explosive strength**.
- ✓ Enhances **anaerobic capacity**.
- ✓ Increases **muscular efficiency under fatigue**.

Physiological and Psychological Effects

- **Physiological:**
 - Boosts **anaerobic energy production**.
 - Strengthens the **nervous system** to withstand high loads.
- **Psychological:**
 - Develops **mental toughness and competitive resilience**.

Training Load Components

- **Intensity: 85% to 100%** of max effort.
- **Repetitions: 5 to 10 reps per set**.
- **Recovery Time: 3 to 5 minutes** between repetitions.

4. Circuit Training Method

The **circuit training method** involves a **series of exercises** targeting **different muscle groups**, performed in sequence with **minimal rest**.

Advantages of Circuit Training

- ✓ **Combines strength and endurance training**.
- ✓ **Improves overall physical fitness**.
- ✓ **Allows multiple athletes to train simultaneously**.

Types of Circuit Training

1. Continuous Circuit Training

- Exercises are performed **without rest**.
- Focuses on **aerobic endurance and muscular endurance**.

2. Interval Circuit Training

- Involves **short rest periods** between exercises.
- Focuses on **speed and strength endurance**.

3. Strength-Based Circuit Training

- Includes **weightlifting and resistance exercises**.
- Develops **maximal strength and power**.

Example of Circuit Training Exercises

1. **Bodyweight exercises** (push-ups, squats).
2. **Weightlifting** (dumbbells, kettlebells).
3. **Plyometrics** (box jumps, medicine ball throws).

5. Game-Based Training Method

The **game-based training method** integrates **technical, tactical, and physical training** through **sport-specific drills** and **game scenarios**.

Benefits

- ✓ **Develops tactical awareness.**
- ✓ **Improves decision-making in game situations.**
- ✓ **Enhances both physical and mental skills.**

Applications

- Used in **team sports** (soccer, basketball, volleyball).
- Simulates **real match conditions**.
- Adjusts **training intensity based on competition demands**.