

# **PERIODISATION OF STRENGTH TRAINING**

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## **PERIODIZATION OF STRENGTH**

- **Periodization refers to a planned progression of resistance exercises that intentionally varies the training stimuli, especially with respect to intensity and volume.**
- **In simple words periodization is dividing the training year into a number of training periods which vary in their purpose, magnitude of load and means and methods of training on proximity to main competition**
- **Terms to describe planned long term training variation is chronic programme manipulation**
- **Periodization is the most popular term for planned training variation.**

## **BENEFITS OF PERIODIZATION**

- **Exploits complementary training effects at optimal times**
- **Manage Fatigue**
- **Peaking at appropriate time**
- **Prevent stagnation or overtraining**

## **PERIODIZATION MODELS**

### **Linear or Classical Model**

**The overall volume of load is steadily decreased while intensity is increased until the time of main competition.**

**Provides a consistent training protocol within each micro cycle and change the training variable after each micro cycle.**

### **Non-linear or Undulating Model**

**The volume and intensity are altered more frequently (micro cycle).**

**Provides different training protocols during the micro cycles in addition to changing the training variables after each micro cycle.**

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## **BOMPA'S MODEL**

- 1. Anatomical Adaptation**
- 2. Hypertrophy/Muscular Endurance**
- 3. Maximum Strength**
- 4. Conversion**
- 5. Maintenance**
- 6. Transition**

## **ANATOMICAL ADAPTATIONS**

- **After the transitional phase, it is appropriate to commence strength training with a non stressful and progressive exercise programme to encourage adaptation.**
- **The main objectives are to prepare muscles, tendons, ligaments and joints for subsequent long, strenuous phases of loading.**
- **The duration of this phase depends on the duration of preparatory period, experience of the athlete and the importance of strength in that particular sport.**

## **HYPERTROPHY/MUSCULAR ENDURANCE**

- **The main goal of this phase of training is to increase muscle mass and muscular endurance.**
- **Beneficial for those who want to move up in a weight class**
- **Too much hypertrophy is not recommended for those who need to remain in a given weight class**
- **The duration is 4-6 weeks with high load volume with moderate intensity.**

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## **MAXIMUM STRENGTH**

- **The main objective is to develop max. strength because it is the main component for both power and muscular endurance.**
- **The duration of this phase depends on the type of Periodization, standard of the athlete and role of strength in the chosen sport.(usually 6 to 8 weeks or more)**
- **The training intensity is high and volume is low**



## **CONVERSION**

- **The main task is to convert the acquired maximum strength in to sport specific strength, depending upon the characteristics of the event. (power or muscular endurance)**
- **Throughout this phase, it is important to maintain a certain level of maximum strength**
- **Appropriate method of conversion to be used**
- **Conversion of max strength in to power takes shorter time compared to muscular endurance.**

## **MAINTENANCE**

- **The acquired strength is to be maintained, without detraining effect**
- **The number of training sessions per week can be 2 to 4 depending upon the athlete's level of performance**
- **It is very important to design very effective programme with specific exercises, composed of limited number.**

## **TRANSITION**

- **The main goal is recovery**
- **General strength programme**
- **More concentration is to build the weaker muscles that are not often trained.**

## **FITNESS TRAINING MODEL**

**Phase I : Stability and mobility training**

**Phase II: Movement training**

**Phase III: Load phase**

**Phase IV: Performance training**

## **PHASE I: STABILITY & MOBILITY TRAINING**

- **The primary goal is the development of stability-mobility relationship within the kinetic chain**
- **Stability/ mobility at the joints**
- **For mobility, use variety of stretching methods**
- **For stability, use low grade isometric contraction of targeted muscles followed by controlled dynamic movements**
- **Enhance core function**

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## **PHASE II: MOVEMENT TRAINING**

**This training focus on development of movement efficiency  
(five primary movements effectively in all three planes**

- **Bend-and –lift movements (squat pattern)**
- **Single leg movements (lunging pattern)**
- **Pushing movements**
- **Pulling movements**
- **Rotational movements**

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## **PHASE III: LOAD PHASE**

**The training objectives include increased muscular endurance, strength, hypertrophy as well as improved body composition.**

**For this , FIRST can be used:-**

- **F =frequency**
- **I= intensity**
- **R= repetitions/ rest interval**
- **S= sets**
- **T= type of exercise**

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## **PHASE IV: PERFORMANCE TRAINING**

- **Specific training related to performance enhancement in sports**
- **Not appropriate for general health and fitness**



## **ADMINISTRATIVE CONCERNS**

- Administrative limitations
  - Availability of Equipment
  - Availability of Space
  - Availability of Time
  - Number of individuals in training

**THANK YOU**