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.
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.
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 into 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 into 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
PHASE II: MOVEMENT TRAINING

This training focuses 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
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
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