

Practical Implementation Guide

Introduction

Most of the gym training programs you see online focus solely on building muscle mass and completely ignore the maturity status of an athlete. These programs would build muscle but you would not develop the essential athletic capabilities like explosiveness/power required to be a better athlete. Therefore, we have created this guide to help you with your gym training. This would help you to not stay slow and stiff like a bodybuilder but move faster and become more explosive onto the field.

Growth and Maturation

Teenagers mature at different rates. So, two people at same age can have different maturity status. Therefore, a single training routine is not suitable for all athletes. Physical capabilities should be taken into consideration while training a teenage athlete.

Understanding PHV

PHV refers to Peak-Height-Velocity. It is the phase of growth during which growth rate is fastest. PHV is a reliable and affordable way to estimate maturity of an athlete. It can be easily calculated through standing and sitting heights and bodyweight. You can use our free PHV Calculator to get your maturity offset i.e. how many years are you from experiencing peak growth.

Training before PHV

Training before PHV should focus on learning movements rather than maximal effort because of limited potential to build muscle mass and rapid adaptations for different movements. Therefore, intensity and volume should be kept low to moderate with emphasis on learning foundational movements and then progressing towards intermediate ones.

Training during PHV

Rapid growth disrupts coordination between muscles and nervous system resulting in a temporary decline in movement quality. So, main focus should be to re-establish movement quality. Therefore, intensity and volume should be moderate and basic to intermediate movements should be trained to improve quality of movement.

Training after PHV

After PHV, muscle growth potential improves significantly. So, training should focus on maximum force production. Therefore, training volume and intensity should be kept moderate to high and intermediate to advanced movements should be incorporated into training.

Plyometrics

Focus of plyometric exercises is to reduce ground contact time and develop Achilles tendon stiffness i.e. the ability of the tendon to quickly absorb and release the force. Therefore, these exercises should not be performed with the intention of jumping high or farther but getting off the ground as quick as possible. Exercises like pogos and bounding are great for developing tendon stiffness. Perform 8 to 10 reps per sets for low intensity plyometrics like static hops and 3 to 5 reps per set for higher intensity ones like bounding.

Strength Exercises

Primary purpose of strength exercises is to increase the maximum force production capacity of the body. Strength is the base of everything. You need to get strong first in order to become more explosive. For strength development, standing and free-weight exercises should be your first priority because these movements require you to stabilize yourself on the ground which transfers better onto the field as compared to stable machine exercises. Perform 3-5 reps per sets for strength exercises.

Power Exercises

Power exercises teach you to produce and absorb force fast and become more explosive. Exercises like jumps and Olympic lifts are great for learning to produce and absorb force fast. You should first start by learning to absorb forces in order to reduce injuries in the future. Perform 2 to 4 reps per set for power exercises. Power is dependent on CNS response. So, perform these before your strength work.

Injury Prevention

To prevent injuries, you need to identify your weak areas around shoulders, hips, ankles, scapula and core. After that, train those areas once or twice a week to make those areas stronger and stable. 2 to 3 sets of 8 to 10 reps per exercise are recommended for these injury prevention exercises.

Common Mistakes

Some of the mistakes commonly done by athletes are:

- 1- Poor technique
- 2-No structure
- 3-Poor diet
- 4-Ignoring sleep and recovery
- 5-Too much volume
- 6-Ego lifting