Gomal Univ.J.Res. Vol.17: pp 81-83, 1997 [Printed in Dec. 1999] ISSN 1019-8180

Training loads for the development of upper limbs muscular strength and endurence in Adult.

Noor Muhammad Marwat an . Asif Jamil
Deptt. of Physical Education, Gomal University, DIKhan.

Abstract.

The purpose of the study is to establish guidelines for the selection of 15 repitition maximum (15 RM) loads for the development of muscular strength and endurance of the upper limbs in Adults . The subjects (testees) were twentyfive (25) boys aged 19-21 years. All the boys had to perform a bench press exercise at up to four load setting which corresponded to 40%, 45%. 50% and 55% of body weight. Four trials were given to each subject. Each subject should have to repeat continously as possible. The correlation co-efficient 'r' between the body weight and repititions for individual subjects ranged from 0.95 and 0.99. A least squares regression equation was produced based on present body weight (Y) and number of repititions (X). The average 15 RM load was 50% of body weight with a range of 46% to 56% proper supervision during this process will minimise the risk of injury and develop the strength and endurance upto maximal.

Introduction.

The incidence of injury to children involved in organised sports has increased considerably over the past few years. The main and key figures for this enhancement is excessive practice and inadequate physical conditioning. High levels of muscular strength and endurance are essential requirements in sporting activities in order to improve and increase performance and minimise the risks of injury.

In adults, the resistence training can increase both strength and endurance simultaneously, but usually not to the same extent. Whereas, high resistence low repetition (1-5 RM) exercise are most effective for developing strength, where they have no effect on endurence. But low-resistence high repitition exercises (8-14) are most effective for developing endurance while they have little effect on strength. Training with moderate loads will result in moderate increase in both strength and endurance.

When prescribing loads for strength training careful consideration should be given to the age of the individual. The musculo-skeletal system of an adult may be able to tolerate the mechanical stresses imposed by high resistence strength training, the musculo-skeletal system of a pre-adolescent is extremely vulnerable to very high forces, specially, the muscles, ligaments, and tendons of a pre-adolescent may be upto five times stronger than both the bony insertions of tendons and ligaments and the growth plates which separate the ends of a bone and certain tuberosities from the shaft of the bone.Moderate to low loads should be prescribed in strength training programmes. Repetitions should be performed in a relatively slow steady manner in order to avoid the very large forces which accompany ballistic Jerky movements.

The theme of the study is to provide guide lines for the selection of moderate loads for the development of muscular strength and endurance of the upper limbs in pre-adoloscent children.