

Athletic Fitness

Janar Rückenberg

Silvar Rückenberg

TABLE OF CONTENTS

INTRODUCTION	3
STRUCTURES OF STRENGTH TRAINING	5
CHIN UPS	6
DIPS	9
ROWING	12
FOR EXAMPLE:	15
INTERVALS COULD BE ORGANIZED BASED ON DURATION, FOR EXAMPLE:	15
ASPECTS CONSIDERING THE ACHIEVEMENT OF COMPETITION CONDITIONING	16
MAIN ASPECTS CONCERNING NUTRITION	18
SPLITS TO TRAIN BY	20
EXAMPLE I	20
EXAMPLE II	21
EXAMPLE III	21

Introduction

Athletic fitness is a rapidly growing sports discipline that consists of three rounds--the physique round, the strength round (chin ups, dips) and the endurance round (rowing on an indoor rower). There is no doubt that this sports discipline should refute quite a few myths known in the world of bodybuilding and fitness. We have all heard stories about how bodybuilders and fitness competitors with low body fat percentage, visible muscles and as though with perfect looks are actually very poorly conditioned in functional efforts. Athletic fitness is a sports discipline that requires versatility and "spartan" qualities from an athlete. Good results are not determined simply by well developed physique but it is required to be well trained in the functional aspect as well. It is much simpler to focus solely on developing a muscular physique or on physical effort.

Fulfilling both of these qualities is an accomplishment on its own. It is necessary to be strong and with excellent endurance while presenting a well developed physique with good muscle separation at the same time.

There are no specialized training methods that focus on athletic fitness. Instead we have to consider a combination of different

training methods that focus on developing different abilities. It is vital to have knowledge about bodybuilding training methods and to understand the basic principles of endurance training. It is important to know the methods that concern building the muscle and theories that develop endurance and combine them in a way in which they would be as little counter-productive towards each other as possible. In addition, it is necessary to understand the aspects of proper nutrition and weight loss.

Structures of strength training

Generally, the training methods of athletic fitness competitors are not so different from the training methods of bodybuilders. Training is focused on increasing the muscle mass while taking into account the proportions of the body. One small difference could be that athletic fitness competitors should compose their training routines, especially back training, based on the movement. But whether training routines are composed based on the movements or the muscles, the same basic truths still apply that bodybuilders have used for decades in developing an aesthetic physique. All the parameters that allow to adjust the resistance are exactly the same as in a typical bodybuilding type of training.

- Training frequency: 3-5 strength training sessions per week
- Number of exercises in a session: 5-8
- Number of sets in a session: 20-25 sets
- Breaks between sets: 1.5-2.5 minutes
- Training splits: squat/press/pull and upper body/lower body splits
- Optimal training frequency: movement/lift/muscle twice a week at most

- Number of repetitions in a set: with different training cycles is recommended to cover the range of 5-20 repetitions.

Certainly, like in bodybuilding, in athletic fitness the development of muscle mass is very strongly dependent on the optimally organized nutrition. It is extremely important to increase the muscle mass with as little of accumulation of fat as possible. 1-2 kilogram increment on bodyweight can affect the performance of doing chin-ups quite significantly. It is natural that during offseason bodyweight tends to increase, but it is not wise to let it go out of control.

Chin ups

Since of the exercises performed are chin ups as complex biomechanical movements, meaning that back training should focus on pulling movements that work the back as a whole instead of focusing on the training of isolated single muscles. The latter applies only in situations when an athlete has to improve a lacking muscle that is used in performing chin-ups.

Thus, an athletic fitness competitor should focus on movements when training back. When combining a training routine, it is necessary to distinguish vertical and horizontal pulling movements. Both contribute to the development of the mass of

the back muscles and to the development of chin-ups. Certainly the main exercise used in back training should be chin-ups, which should be performed in numerous variations. Sets of different reps and grips should be used. Chin-ups should also be the first exercise on the back training day of an athletic fitness competitor. In terms of maximal progress and better capability in the final set it is necessary to perform chin ups with high repetition sets, low repetition sets; neutral, wide, close, underhand grips; with additional weight and without. All types of specialized and shocking methods such as supersets, pulls with rubber bands, sets with 1.5 reps, forced negatives, etc. are also welcome. The more varied the approach to training chin-ups the better the end result will be. It is recommended to perform 1-2 maximum effort sets in a week that meet the competition requirements. On hand it is developmental, on the other a great indicator on determining the level of this particular exercise. Such sets should be performed on a separate day or at the end of the back training. If you have knowingly planned to perform this type of set as the first set of the first exercise on you back day then it is up to you. But is it necessary to consider that such sets performed in the beginning of training sessions will affect the remaining training session, and it is not recommended to do so in every session.

When speaking of the technique of chin-ups, rules of the competition should be the first thing to be taken into account.

The narrower the grip on the bar the more work is being done by arms, mostly by biceps and brachialis. The length of the grip is entirely individual. In the end what matters is the result according to the rules. It should just be noted that if arms play dominant part in the movement, it is wise to use wider grip in training sessions in order to bring up the recruitment of the lats as well. In that way all muscles that are involved in this type of complex movement are developed.

With regard to the frequency of chin up training there are many ways. Much is determined by the structure of the training itself. Generally, it is best for a natural athlete use less volume but higher frequency in a week for this type of movement. Optimal approach for training back is to perform 16-24 working sets in a week, which should be divided into two sessions (8-12 working sets per session). Of course this number does not apply on chin-ups only. We are talking about the number of sets as a whole with chin ups being included. For better results and for the sake of variety is wise to apply different methods of periodization and progression. There are many ways to progress and chin ups with different techniques, volume and intensity are vital for taking the set until failure to the next level. The simplest example of variety and progression would be if on Monday we perform 5x5 scheme from week to week with increasing additional weight. On Thursday we could just be performing 3-5 sets until failure with bodyweight. As I said

before, there are many ways for showing progress, all that is required is to be creative and experimenting.

For most part the approach, in which one session consists of heavier weights and not so much to failure and the other of higher sets to failure, should be used. The combination of heavier weight with low rep sets and high rep bodyweight set to failure performed with various grip types is the best way for advancing in the final set.

From time to time, so called "shock periods" should be implemented when chin-ups are being performed 4-7 times a week during a period of 2-3 weeks. Different techniques, grips, set lengths and shock methods are used. These types of periods should be followed by a recovery period with reduced training frequency.

Dips

Dips are the second strength exercise is the strength round in athletic fitness. When talking about the performance, technique and progression in this exercise, first thing that should be analyzed is whether you are chest or triceps dominant. Why? In some way we can draw some parallels with powerlifting, in which the technique and the progression of the lift is determined

by bringing up the weaker phases and muscles. If you are chest dominant, it is wise to focus on performing dips with triceps taking most of the load.

Since the same muscles are involved in dips as in other type of pressing movements, there are no special training routines for improving dips. Pressing movements, chest muscles, deltoids and triceps should be developed as a whole with proper routines. Rhomboid and trapezoid muscles act as important stabilizers when performing dips. Those muscles are worked on back training days.

The development of pressing movements and triceps are determined by proper training frequency, but finding the right training split could be with even more critical importance than in pulling movements and back training. It is of utmost importance to plan where to fit triceps, whether dips will be performed on the same day with deltoids, with chest or whether arms are worked on a separate day. Much is determined by a specific training split. One thing is certain; triceps tends to be composed mainly of fast twitch muscle fibers. This plays important role in recovery. Triceps recovers for quite some time, thus, high rep sets to failure could be counter-productive when some type of routine of pressing progression is followed. This is important to be taken into consideration even with the dips themselves. It is not reasonable to perform dips twice a week with insane

volume. In fact, the development of dips can in some way be compared to developing the lats. An athletic fitness competitor does not have to focus so much on chest, deltoids and triceps but on different pressing movements including dips. If pressing movements are being trained twice a week (recommended) one of the workouts should be with heavier weights and low rep sets. The second workout should include high rep sets until failure. It is recommended to vary and experiment with different pressing exercises. Certainly it would be very productive if an athletic fitness competitor uses dips as a main systematic exercise of progression during different periods of time. Similarly to bench press in powerlifting, an athletic fitness competitor should from time to time show progress especially in dips. This would be the first exercise on pressing days. After a proper warm up, dips would be performed twice a week, for example on Tuesday and Friday, using the 5x5, 6x6 rep schemes with additional weight. In addition, high rep sets can be performed on one of these days after the completion of the particular rep scheme. There are a many different ways for advancing in dips.

Once again, much is determined by a particular routine. Since this type of sports discipline includes actual physical effort, it is recommended for an athletic fitness competitor to consider more seriously squat/press/pull methods. Such routines are composed based on the movements themselves, not on

targeting separate muscles. There is no reason to fear that the development of muscle mass will be left behind if we start focusing more on movements. All compound exercises are complex biomechanical movements. Yet, these exercises have always been of the highest priority in muscle building routines. Squat/press/pull routines would allow an athletic fitness competitor to fulfill three important requirements: aspects such as the development of functional competitive effort, muscle hypertrophy and the balanced development of opposite muscle groups are guaranteed.

Rowing

There are many ways to organize and periodize rowing based training sessions in athletic fitness. There is no one right method. Certainly, rowing training should be composed based on the particular rowing distance/time.

Training and preparation on an indoor rower should be divided into two phases. We can speak of cardiovascular training during offseason and of a specific indoor rowing training during the preparatory period for the competition. In fact, during offseason as well as during the preparatory period, there should be two endurance-based training session per week. During offseason,

cardiovascular training sessions should be of high volume and low intensity. Sessions should consist of 5000-10000 meter distances rowed in a steady manner. Another solution would be to row during a specific period of time such as 25-45 (less frequently 60) minutes. Time and distance based sessions could be very well combined in one week. In such way we make training sessions seem more interesting as well. Although we are speaking of volume and low intensity it is still necessary to show at least some type of progression from one session to another. On time based training sessions there should be additional meters compared to previous session. On distance based sessions there should be less seconds compared to previous training session.

In the long run it is not practical to row twice a week since athletes tend to perform some type of additional cardiovascular activity such as ball games, cycling, running, swimming etc. It is very likely that excessive rowing sessions could become counter-productive in increasing and maintaining the muscle mass, which are one of the priorities of an athletic fitness competitor during the offseason.

The duration of the preparatory period is extremely individual. Much is determined by the condition of the athlete at the starting point. The preparatory period should last about 3

months or 12 weeks considering the fact that an athlete is in a good condition from the start.

The preparatory period should not only contain cardiovascular training sessions of high volume and low intensity. From the beginning of the preparatory period, cardiovascular training should be organized in a way in which on one day consists of rowing the distance of 5000-10000 meters, the other day should be left for shorter distances with high intensity. There are many ways for conducting the short-distance day.

The short-distance day during the preparatory period should be intense and similar to the effort performed during the competition, yet it is without a doubt much more interesting than a monotonous volume day. Since the distance rowed in competitions is 1000 meters, it is important to imitate and develop the intensity, technique and rhythm that is required by this type of distance. The second session of the week usually consists of intervals. The ways of performing these intervals are the following:

For example:

6-10x250m with increasing intensity, reaches maximal effort in last intervals.

5-8x500 m with 3 last intervals performed with maximal intensity.

4-5x1000 meters with 2-3 intervals performed with maximal effort.

3-4x2000 m with last interval performed with maximal intensity.

Intervals could be organized based on duration, for example:

8 – 10 x 60 - 75 seconds.

5 – 8 x 2 minutes.

3 – 5 x 3 - 4 minutes.

Distance based intervals and time based intervals can be combined. There should be a light 5-10 minute warm up with low intensity before intense intervals. The same should be performed after the completion of the intense intervals.

During the preparatory period as well as during the offseason, rowing sessions should be organized apart from strength training days as much as possible. Should this be not possible, rowing should be on one time of the day and strength training on the other time of the day. For example, strength training is

done in the morning and cardiovascular training in the evening. If strength training is of high volume and low intensity, it could very well be done in the evenings and cardiovascular training in the mornings. Sprint type of training should always be performed after strength training. If strength training and rowing are done in the same session then strength training should always be the first to be performed. Much is determined by the opportunities, features, desires and preferences of the athlete.

Aspects considering the achievement of competition conditioning

In addition to physical effort a well developed proportional physique with low body fat plays an important part in athletic fitness. Such criteria are fulfilled only with organized nutrition. But even the fulfillment of the right criteria might still be not enough for maintaining excellent physical effort at the same time.

Bodybuilders as well as fitness competitors are both interested in maintaining the resistance in training sessions during the diet.

This is understandable since the decrease of training resistance is the main indicator of decreasing muscle mass. Even the

bodybuilders, who achieve their conditioning for the competition by strength training and proper nutrition, are not immune to the effects of caloric deficit, not to mention those athletes who have to incorporate cardiovascular training along with their dieting. The less cardiovascular training is used to achieve contest conditioning the better since cardiovascular training and muscle building strength training work entirely on opposite directions. There are many ways for maintaining muscle mass while dieting. Athletic fitness competitors should pay special attention to this since they are not able to ignore cardiovascular training. Athletic fitness competitors are faced with a difficult task. It is required to maintain as much as muscle mass as possible while achieving a low body fat percentage and have an excellent cardiovascular capacity and strength endurance at the same time. If a bodybuilder can achieve the required conditioning without any cardiovascular training, an athletic fitness competitor cannot ignore the necessity of cardiovascular training.

It is important to maintain the resistance used on compound movements during the diet and why not to progress as well. Rep range 4-8 ensures the excellent combination of strength and muscle mass. Personal bests done during offseason should be maintained. If a movement/lift is being trained twice a week, it means that one day should consist of low and moderate reps with the use of heavier resistance.

Main aspects concerning nutrition

Daily protein intake must be in order. This applies to offseason as well as to the preparatory period. The recommended protein intake during dieting should be 2.5-3g/kg of bodyweight.

Protein intake could be slightly lower during offseason, but 2 grams of protein per one kilogram of bodyweight should definitely be consumed.

The amount of fats consumed could very well be constantly 1.5g/kg. The amount of carbohydrates consumed is determined by the prescribed daily caloric intake. However the total caloric intake depends on the daily physical activity, lifestyle and the features of the metabolism of the athlete.

Prior to training sessions, especially on sessions consisting of high rep sets, carbohydrates should be consumed even while dieting.

Daily carbohydrates should be consumed around the time of training sessions. With regard to the consumption of carbohydrates in long term during the diet, athletic fitness competitors should be the first ones to consider the carbohydrate cycling method. Caloric deficit accompanied with

inevitable cardiovascular training sessions done on different levels of intensity determine the need of higher amount of carbohydrates on certain days. Otherwise muscle mass and performance will suffer. On low carbohydrate days the daily amount of carbohydrates should be 1.5-2g/kg. On high carbohydrate days this could very well exceed over 4g/kg. It is self-evident that the consumption of fats must decrease when carbohydrate consumption is heightened. If on high carbohydrate days the amount of fats consumed should be around 1g/kg then on low carbohydrate days this could reach up to 1.5g/kg.

Higher carbohydrate intake should be timed on intense cardiovascular rowing days and strenuous strength training days.

Splits to train by

There are many ways to compose training splits. Some examples:

Example I

Monday - Pulls
Tuesday - Presses
Wednesday - Rest
Thursday - Lower body
Friday - Pulls
Saturday - Cardiovascular work and abdominals
Sunday – Rest

Monday - Presses
Tuesday - Lower body
Wednesday - Rest
Thursday - Pulls
Friday - Presses
Saturday - Cardiovascular work and abdominals
Sunday – Rest

Monday - Lower body
Tuesday - Pulls
Wednesday - Rest
Thursday - Presses
Friday - Rest
Saturday - Cardiovascular work and abdominals
Sunday - Rest

Cycle is repeated.

Example II

Monday - Vertical pulls, horizontal presses

Tuesday - Rest

Wednesday - Lower body, abdominals

Thursday - Rest

Friday - Horizontal Pulls, vertical presses

Saturday - Cardiovascular work and abdominals

Sunday - Rest

Example III

Monday - Vertical pulls, horizontal presses

Tuesday - Lower body, abdominals

Wednesday - Rest

Thursday - Horizontal Pulls, vertical presses

Friday - Lower body, abdominals

Saturday - Cardiovascular work and abdominals

Sunday - Rest

With all examples it is up to the trainee to choose when to fit in rowing sessions. It should be taken into consideration that the two cardiovascular training sessions should be as apart as possible.

As we are speaking about the fact that an athletic fitness competitor should focus on the movements it does not necessarily mean that only pressing and pulling exercises should be performed. An athletic fitness competitor should aim for progress in compound movements with different nature and not be worried about the measurements of, for example, calf size or arm measurements. But at the same time it is necessary

to realize that different muscles might develop with different paces when being worked with compound movements. This could cause the over-development of some muscles and the lacking of other muscles. Whether we are speaking of upper body pulls or presses, then of course there will be included different auxiliary exercises that help to improve the performance of compound movements, proportions of some body part, lacking muscles or the increase of overall muscle mass.