



**SHANGHAI UNIVERSITY SPORTS RESEARCH CENTER  
COLLEGE OF PHYSICAL EDUCATION**

**“ HOW TO DESIGN THE STRENGTH-CONDITIONING PROGRAM “  
“FOR ZURKHANEH ATHLETES (PAHLEVAN) AND PAHLEVANI WRESTLING”**

The pahlevani ( which translates literally as hero ) practice the more traditional persian disciplines in the zurkhaneh (house of power or strength). a covered structure lit by a single opening in the ceiling , having interior walls filled with images and photographs showing it's history , the zurkhaneh has a small pit (gaud) in the floor where the pahlevani follow the movements of the most senior athlete. almost all pahlevani exercises are accompanied by the rhythmic drum beats of the murshed while he chants traditional battle poetry's.

**ZURKHANEH SPECIFIC STRENGTH CONDITIONING :**

the pahlevani historically developed their skills and strength as preparation for invaders and the tools used all have their roots in ancient warfare instruments :

Meel ( the club ) : a pair of heavy wooden clubs weighing 5 to 40 kilograms that evolved from ancient maces.

Kabadeh ( the Bow ) : a bow shaped iron shaped iron rod with a chain attached between both ends, generally with sixteen links each containing six discs. the bows weighing between 10 to 50 kilograms are swung overhead and around the body.

Sang ( the shield ) : made of solid wood in the shape of shields which weigh 60 to 120 kilograms, are 120 centimeters long and 70 centimeters wide. they are used in a rolling floor press manner, alternating the press of each one while combined with a twisting motion of the legs.

Takhteh Sheno ( the Bar ) : performed on a push up board that is approximately 50-75 cm length and 10 centimeters thick with two little legs, they included joint specific mobility exercises.

Spinning : for preparing to fight multiple attackers.

Stomping : a dance of practicing kicks.

Squatting : a specific style inter wind with the ritual dance as part of strengthening the legs for kicking...

House of power...

How to design the strength and conditioning for zurkhaneh pahlavanan :

#### Step 1: Evaluation and Assessment

the first step and perhaps the most important is to evaluate the characteristics of the zurkhaneh sports and to assess the athletes physical profile (pahlavanan).

Evaluating the zurkhaneh sports :

Ultimately, a resistance training program should mirror the movement patterns of the sport as closely as is feasible while early stages of the program may focus on developing a general strength approaches, conditioning exercises should become more specifically tailored to the sport. the same applies to the physiological demands of the sport. A pahlevani wrestler would benefit from basic strength, explosive power and strength endurance.

Assessing the zurkhaneh athlete ,

a conditioning plan is only as successful as the individuals ability to commit to it. for most , training time is limited so, the key is to prioritize. Although in an ideal scenario.

A zurkhaneh athlete would benefit from addressing explosive power and strength endurance needs, their lack of physical size and strength may be their greatest hindrance. a program to bulk the zurkhaneh player up may have the greatest impact on their performance.

the only way to ascertain the most appropriate program design is through a battery of fitness tests. Again, selection of appropriate tests comes from an evaluation of the sport ( zurkhaneh/house of power).

As a rule of thumb, one repetition maximum testing for the upper and lower body is appropriate for most sports. the SQUATS and OLYMPIC LIFTING are an obvious power test for a pahlevani wrestler (koshti pahlevani).the 60 second sit-up or push-up test would be suitable for many of the endurance sports.

for zurkhaneh athletes new to resistance training an extended period of time may be required for functional or anatomical training-preparing the body for more strenuous lifting program.

#### Step 2 : Exercise selection,

once a movement analysis of the sport has been considered and the strength objective for the program set the most appropriate exercises can be selected. core exercises for the pahlavanan should form the basis of a maximal strength or hypertrophy resistance training program.

Examples include back squats, bench presses, dead lifts and should presses. core exercises suitable power development include power cleans ,push jerks and snatches when explosive power and strength endurance are more a priority more assistance exercises can be incorporated into routine.

a resistance training program for zurkhaneh athletes should aim to develop balance throughout the body even if the sport has an upper or lower body emphasis. this is an important step in

injury prevention.

### Step 3: Frequency

many athletes (zurkhaneh /house of power athletes) weights in three workouts a week. this often works well allowing sufficient recovery time and fits nicely into the 7 day week.

more advanced lifters may benefit from a four , five, or even six day a week program.

beginners ( new zurkhaneh athletes) are recommended to start with two , total body sessions a week. Guidelines from the NSCA (NATIONAL STRENGTH AND CONDITIONING ASSOCIATION) suggest that there should be at least one rest day but not more than three between working each muscle group.

at minimum a resistance training session that works the entire body could be completed Monday and Thursday or Tuesday and Saturday.

of course frequency design can not be complete without taking other elements of training into account.

### Step 4: Exercise Order

the order in which exercises are performed in a session should not be overlooked .zurkhaneh sports conditioning is more demanding than general fitness training and with various forms of training often taking place in the week it's important to maximize overload to recovery ratio.

one method for structuring exercise order is ,POWER, CORE, ASSISTANCE EXERCISES.

A zurkhaneh resistance training session that follows this structure might look as follows :

Hang cleans (core).

back squats ( core).

bench presses ( core).

bent over rows ( assistance).

triceps push downs ( assistance).

A second approach is to alternate upper and lower body exercises :

Lunges, seated rows, leg curls, reverse flies, calf presses , barbell curls....

finally, the push-pull format is an effective resistance training session structure. for the upper body :

Incline bench presses , lat pull downs, military presses, hammer curls...

for the lower body :

front squats , stiff leg, dead lifts, hip sleds, leg curls.....

## Step 5: LOADING AND REPETITION

Assigning the right intensity or load to the exercises depends on two main factors....the training objective and athletes current level of strength . load are usually assigned as a percentage of the athletes one repetition maximum.....

the chart below shows the relationship between loading patterns and the conditioning response :

training objective	load	target repetitions
strength	>85	<6
power	>5-85	3-5
hyper trophy	67-85	6-12
strength endurance	<67	>12

## Step 6: VOLUME

Volume can be classed as the total amount of weight lifted in a resistance training session.

this is calculated by multiplying the weight used for each set for all exercises by the number of repetitions completed.

So, if 3 sets of bench presses are completed, each for 10 repetitions, using 175lbs (80kg) the total volume load equates as :

$$3 \text{ sets} \times 10 \text{ reps} \times 175 \text{ lbs} = 5250 \text{ IBS}$$

## Step 7: PROGRESSION

from phase to phase over the course of a season , resistance training usually progresses from general strength to sport-specific power ( pahlevani/zurkhaneh sports) and strength endurance .

the in season sees a reduction in training volume where the goal is to maintain the gains made in the off and pre-season phase.

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