

Tips on Strength Training by Terry Schroeder, Head Coach, Men's National Team

Strength training is a critical component for any serious water polo athlete. Obviously, water polo is a unique sport that requires special consideration for any strength training program. In my opinion, three of the most critical areas to focus on are the shoulders, legs, and the core.

Because water polo is a combination of swimming and throwing the shoulder region is vulnerable to injuries. A water polo player may experience overuse type injuries such as impingement or tendonitis from the daily grind of a combination of swimming and throwing. This athlete may also experience throwing type injuries to the rotator cuff muscles. Therefore, when developing a strength training program for this unique athlete you need to carefully consider what is being done for the shoulder region. It is important that water polo athletes stress balance in their approach to strength training. **My suggestion would be to reduce the amount of chest exercises and increase the back exercises.** Less pushing and more pulling. My personal routine is to use a 2:1 ratio. I do two pulling exercises for every one pushing exercise. For example, if I do two sets of bench press (pushing) then I will do 4 sets of rows (pulling). The normal water polo athlete will get plenty of chest work in the pool. This is the reason why you should have them do more back exercises in the weight room.

As far as the legs go, my suggestion is to do medium weights in the weight room. I always gained the most benefit in strength training for my legs with resistance type exercises in the pool. Doing eggbeater drills while pushing on a team mate or holding a team mate up. Doing water jugs or heavy balls is also a great leg workout. Outside of the water, my suggestion would be to run stairs or ride a bike. Of course, on the stairs run up and walk down. For a little extra benefit for your eggbeater kick try running up the stairs with your knees in and your feet out a little (this will mimic your eggbeater kick a little bit) Leg strength is critical. **In my experience as a player and as a coach the best players have the best legs!**

The other big area to stress is the core. Throwing a ball in baseball or other land based sports uses a closed chain principle. This means that when you throw a baseball you are using muscles from your feet all the way to you shoulder. The power to throw a baseball is generated in this chain reaction from the ground up. In water polo when we throw a ball we do not have this closed chain. Therefore, a great deal of pressure is placed on your core and lower back region. This is where we develop the torque and power to throw a water polo ball. My suggestion would be to develop a very strong core to protect yourself from injuries. A strong core will mean less injuries (even to your shoulders). **My personal routine was to do between 1,000 and 2,000 crunches or ab exercises everyday.** It takes some time but it will pay off in becoming a better, healthier water polo athlete.

Here are some suggestions for a well balanced exercise routine for your water polo athletes.

Daily stretch bands or elastic tubing exercises. (stabilization exercises for the rotator cuff)

1. Shooting motion - overhead, left and right arm
2. Swimming motion freestyle, left and right arm
3. internal rotation – elbow at side 90 degrees
4. external rotation – elbow at side 90 degrees
5. supraspinatus – empty can exercise
6. reverse shooting motion – to strengthen the deceleration muscles

On all of these exercises do: 10 - 15 reps full range of motion and then find a weak spot in the ROM and do 15 - 20 seconds of fast paced/short arc work

FOR the BACK and ABS

1. Half sit ups - crunches - daily (500 – 2,000)
2. Back extension – daily (50 – 100)

WEIGHT TRAINING - make sure that you are working the back of the body (rhomboids and middle traps) as well as the front of the body (pectoralis muscles) Do 2 sets back to every one set chest!

1. Bench Press - shoulder width grip (narrow grip helps to protect the shoulders)
2. Pec Flies - narrow grip
3. Leg extension - one set with toes straight, one set with toes pointed in
4. Leg Flexion - one set toes straight, one set with toes pointed out
5. Pull Downs - in front of the body only *****
6. Seated Rowing - do not over extend *****
7. Triceps extension *****
8. Wrist curls - work entire forearm *****
9. Back Extension - 20 - 30 light weight - do not over extend ****
10. Water Pumps *****
11. Bicep Curls - protect the back
12. Calf raises

**** - very good exercises for balancing the body

- Stretch before and after weight training (flexibility is extremely important)
- Do this routine every other day - or 3 days per week
- On all exercises think about doing the exercise in good posture
- Never lock out the joint (always keep a slight bend in the working joint)
- On shoulder exercises - use a fairly narrow grip to protect your shoulders.

Be aware, that strength training will cause some muscle soreness. It is important for each athlete to become in tune with his/her body and to be able to differentiate between muscle soreness and fatigue (as a result of a good workout) and pain that may be a precursor to injury. Listen to your body and you will be healthier. It is also important to try to vary your routine. In the early part of the year (pre-season) you may want to do heavier weights and fewer reps. As the season progresses I would recommend less weights and more reps. **Try to always train with a team mate. You will not only have more fun but you can watch out for each other and make sure that your training partner is doing the exercises properly.**