

## Appendix Three – Stretching

Stretching of musculature and joints is beneficial for optimal range of motion and performance, as well as prevention of injury. It is recommended that the core body temperature be elevated prior to performing these exercises, preferably by light conditioning for a period of minutes.

When performing a stretch, recommended time elapsed 15 seconds, with **no** bouncing movements to risk injury to tendons. Ease carefully through the motion and try to increase range of stretch over time. Regularity of stretching is a key. These should be done prior to and after conditioning.

It is particularly imperative to stretch around multiple matches so as to enhance muscular receptivity. Remember that water polo utilizes over **thirty-five** muscle groups in the body.

### *References:*

Fosdick, Dennis. *FINA Water Polo Manual*. Lousanne, Sw: FINA,1990.

Stockdale, John C. *Water Polo Canada Coaching Certification Program Level 1 – Basic Coach*. Ottawa, Can.: Coaching Association of Canada, 1977.

### **Calf Stretch** (For Explosive Moves, Figure 12).

Lean against a wall with the right leg forward and bent and the trailing leg straight. Keep the toes pointing forward and the left heel on the ground. From this position, keep the lower back straight and move the hips forward to stretch the calves. Hold 15-20 seconds. Repeat 2-3 times for each leg.



See also figure 9, last page

**Groin Stretch** (For "Eggbeater" Kick, Goalies, and Two-Meter ~~players~~, Figure 9).

From a sitting position with the legs bent and the soles of the feet pressed together, grasp the ankles and press the elbows downward against the inner thigh to stretch the groin. Hold for 20-seconds and repeat 3-5 times.



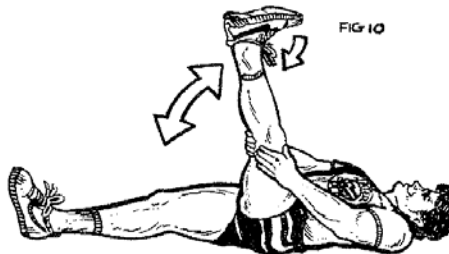
FIG. 9

**Hamstring Stretch** (For Explosive Kicks and Start, Figure 10).

From a supine position with the legs straight, bend the right leg at the hip (keeping the knee bent) and hold with the hands on the back of the thigh. Keep the toes pointing toward the shin and straighten the leg to stretch the hamstrings. Hold for ten seconds. Repeat 3-5 times for each leg.

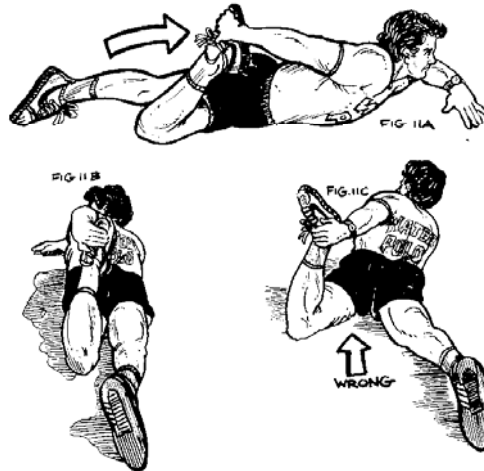


FIG 10



**Quadriceps Stretch** (For Explosive Starts and "Eggbeater" Kick, Figure 11A).

From a prone position with the legs straight and together, grab the right foot or ankle and pull the heel towards the buttocks to stretch the upper thigh. Remember to keep the knees together (Figure 11B and 11C), and the hips contacting the floor. Hold for ten seconds. Repeat 3-5 times for each leg. CAUTION: Do not stretch the knee to the point of pain. Avoid this stretch if you experience knee problems.



**Trunk and Hip Stretch** ("Pretzel Stretch" For Trunk Mobility and Changing Directions In The Water, Figure 8A).

From a straight leg sitting position, cross the right leg over the left so that the foot is resting flat on the floor above the knee. Put the left elbow on the outside of the bent-knee and push against the knee to rotate the shoulders away from the push. Hold 10-seconds. Repeat 3-5 times for each side. Variation (Figure 8B); bend both legs to increase the stretch to the hip.



**Lower Trunk Stretch** (For "Head-High" Swimming, Figure 7).

From a prone position with the hands beneath the shoulders, straighten the arms (as in a push-up with the legs and hips left on the floor), and arch the trunk upward while exhaling. Keep the head up as though "dribbling" and hold for five seconds. Return the starting position and repeat 3-5 times.

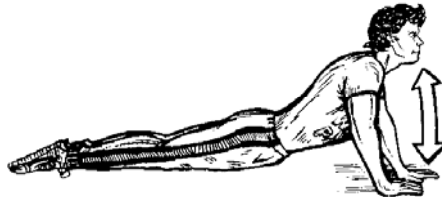


FIG. 7



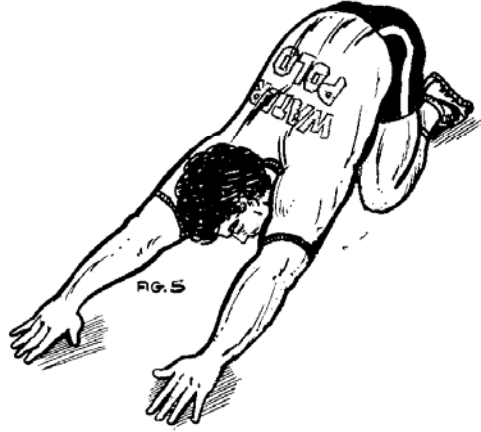
**Shoulder Stretch** (For Swimming and Throwing, Figure 2).

Place the right palm on the left shoulder with the elbow up and pointing forward. Reach over the arm with the left hand and grasp the back of the right arm slightly above the elbow. Turn the head to the right and pull the right arm across the body. Hold for 10 seconds. Repeat 2-4 times for each arm in a standing or sitting position.



**Shoulder and Lat Stretch** (For Swimming, Figure 5).

From all fours with the arms extended forward, sit back so that a stretch is felt along the arms, shoulders, sides and upper back. Hold 15 seconds and repeat 3-5 times.



**Forearm and Wrist Stretch** (For Swimming and Wrist-Shots, Figure 6).

From all fours with the palms flat and the fingers pointing toward the knees, sit back to stretch the front part of the forearms. Hold for 20 seconds and repeat 3-5 times. CAUTION: Remember to stretch only to a point of "slight" discomfort.



**Arm and Shoulder Wall Stretch** (For Swimming and Throwing, Figure 3).

Stand with the right side to a wall and the right palm against the wall with the arm held straight at shoulder level. While maintaining contact with the wall, rotate the trunk and reach behind so that the left hand moves toward the right. Hold 15 seconds. Repeat 3-5 times for each side.



See also Figure 5 below

