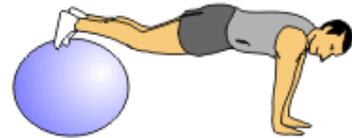




# Sutton & Cheam Swimming Club

## Land Training for Swimming and Water Polo





## **Why do we need to perform land work?**

Many of the basics for swimming and water polo can be gained by experiencing activities out of as well as in the water.

Competency in activities such as agility, balance and co-ordination, throwing and catching are just as easily developed out of the water; and help swimmers to improve their skills which will ultimately impact on:

- better stroke techniques
- speed
- strength
- endurance
- starting and turning

as well as in:

- ball-handling
- awareness
- team play

In addition, land training will help swimmers and water polo players to develop a better-balanced physique that will also help in the avoidance of injuries.

Land training should be seen as complementary to pool sessions.

Sutton & Cheam Swimming Club therefore recognizes the value of additional dry land training carried out by its members in connection with other sports such as rugby, football, basketball, netball, tennis, dance, trampoline, gymnastics, martial arts, biathlon, athletics, Cross country etc.; and actively encourages its members to become involved in other sports, as well as in extra-curricular sporting activities at school.

Similarly, Sutton & Cheam Swimming Club also recognises the benefits of 'Trident Training' (as laid down in the ASA's Long Term Athletic Development (LTAD) framework for Water Polo); i.e. the concept that swimming and dry land training are just as important for the long term development of water polo players, as are technical and tactical water polo skills; and that water polo players should split their training time between these three areas:

- swimming skill and fitness
- dry land training
- water polo technical and tactical

Players involved in the Regional Training Centre (RTC) will have land training immediately before their weekly sessions on Friday evenings and are encouraged to continue this training at home.

Guidance recommends that land training for younger swimmers and water polo players age under 12 should mainly involve participation in another sports activity each week.

Older members (11-13 years for girls and 12-14 years for boy) should focus on core stability and stretching exercises that require no equipment, progressing on to stability balls and latex bands. These exercises can easily be done by the swimmers and water polo players on their own, in their own homes.

Equipment to get started can be very basic and inexpensive. For instance, core strength and general muscular endurance can be developed using body weight exercises; and flexibility requires just a space.

As swimmers progress, a Swiss Ball, latex bands and skipping ropes can enhance the range and quality of exercises.

It isn't until swimmers or players progress to the higher levels of Regional and National competition that they may require a more comprehensive Land Training programme, which could require them joining a local gym.

We have therefore produced the following Land Training Guide, which includes:

- Working with Stretch Bands
- Medicine Ball
- Core Stability and Swiss Ball
- Core Body Strength Bedroom Circuit
- Flexibility & Stretching

We would also encourage you to 'log' all the additional training that you do in connection with your other activities in your club logbooks.

**Parents: if you're stuck for ideas for Christmas and Birthday presents, Swiss and Medicine Balls make excellent, inexpensive presents and can easily be obtained online**



## Dry Land

Before every session, players should complete about half an hour of dry land work consisting of the following:

- **5 minutes** of active movement to warm up the body
- **15 minutes** of band work
- **10 minutes** of med ball work

Then the Core Strength exercises should be undertaken at least 3 times a week.

### Active Movement Warm Up

This could include exercises such as running on the spot, star jumps, skipping or bounding, dependent on the surface you are on – be careful if the surface is wet and slippery.

Ensure that you wear well-cushioned shoes that are stable and can absorb some of the inevitable impact that will occur when carrying out 'jumping type' activities.

You should feel slightly out of breath and your body should feel warm before you go on to the next stage.

## Band Work

Band exercises are important to strengthen joints and to prevent injuries from occurring. It is extremely important that all band exercises are completed with correct posture and in a neutral spine position.

If correct posture is not maintained throughout, you will work the wrong areas of the body, fail to strengthen the joints and risk injury.

### Posture

Prior to starting the following exercises, it is important to find 'Neutral spine' position.

#### Neutral Spine



#### To find neutral spine:

- Lie flat on back
- Knees bent
- Repeatedly tilt pelvis slowly
- Find middle position
- Draw in navel towards spine
- Feel lower abdominal muscle tighten

When carrying out the exercises in standing, try to maintain neutral spine by checking the following points:

- Imagine there is a piece of string attached to your head pulling you upwards
- Imagine there is a straight line running through your ears, shoulders, waist and ankles. You can help this by standing next to a wall (see picture below)
- Roll your shoulders up and back, squeezing your shoulder blades together
- Pull your belly button towards your spine
- Squeeze your lower abdominal muscles. You can feel these by lying on the floor (see picture below) and placing your hands just below your waist.



### Shoulder Shrugs

- Stand on your band with your feet shoulder width apart
- Ensure your posture is set
- Shrug your shoulders and pull the band up
- Return to starting position, allowing the band to pull your shoulders down



## Elbows away from the body

- Ensure that your band is attached to a solid object at the same level as your elbow and hold the band with your thumb upwards
- Make sure that your elbow remains by your side at all times– you may find it helpful to hold a piece of paper to check you are doing this properly (see picture)
- Begin with your fist out in front of your body
- Slowly move your fist away from the body
- Slowly return to starting position and repeat.



## Elbows to the body

- Ensure that your band is attached to a solid object at the same level as your elbow and hold the band with your thumb upwards
- Make sure that your elbow remains by your side at all times– again, you may find it helpful to hold a piece of paper to check you are doing this properly
- Begin with your fist away from your body
- Slowly move your fist towards the body
- Slowly return to starting position and repeat



## Arms away from the body

- Ensure that your band is attached to a solid object at the same level as your Shoulder
- Begin with your arm slightly bent above your head
- Bring your arm slowly down in front of your body
- Return to starting position and repeat



## Arms to the body

- Ensure that your band is attached to a solid object at the same level as your shoulder
- Begin with your arm slightly bent in front of your body, with the band slightly loose
- Bring your arm slowly up until it is just above your head
- Return to starting position and repeat



## Medicine ball

- These exercises should be completed using about a 1kg medicine ball.
- Each exercise should be repeated 12 times.
- 3 sets of each exercise should be performed.
- Allow 60 -90 seconds rest between each set.

### Chest Pass

- Stand facing the wall (about 2-3m away)
- Legs slightly bent with one leg in front of the other
- Hold the ball to your chest and throw the ball firmly towards the wall



### Overhead Pass

- Stand facing the wall (about 2-3m away)
- Legs slightly bent with one leg in front of the other
- Hold the ball above and slightly behind your head and throw the ball firmly towards the wall



## Twists

- Stand with legs slightly bent, feet shoulder width apart and about 1 foot length away from the wall (see picture)
- Hold the ball slightly away from the body in front of your stomach
- Turn right, keeping feet and hips facing forward and touch the ball on the wall
- Hold for 3 seconds (1 foot position away from the wall)



## Slams

- Stand with legs slightly bent, feet shoulder width apart
- Hold the ball above your head
- Throw the ball hard onto the floor



# Core Stability and Swiss Ball Exercises

In order to gain maximum benefit from each exercise, the pelvis should be in the correct position 'Neutral Spine', as described earlier.

When conducting the exercises, ensure that the training environment is as safe as possible; ideally use a floor mat for greater protection.

All exercises should be carried out slowly and accurately.

Core stability exercises should make your muscles feel as if they are working, but not cause any pain. If you experience any pain stop immediately and discuss this with your coach.

## Swiss Ball

Rather than sitting on a chair or sofa at home, sit on a Swiss ball with good posture and you will increase the number of hours dry land training you are doing. Try the following exercises or make up your own:

Forward and Back:



Side to



Side:



You could also try:

- Circles
- Figure of 8's
- Spelling out your name or going through the alphabet

The Swiss Ball exercises below are more advanced. As a guideline, begin with 1 set of each exercise, carrying out 12 repetitions, building to 3 sets over time.

### Planks



- Kneel on floor
- Elbows on ball
- Find neutral spine
- Roll ball away from body
- Maintain neutral spine throughout
- Hold position
- Relax & return to start position

### Press Ups



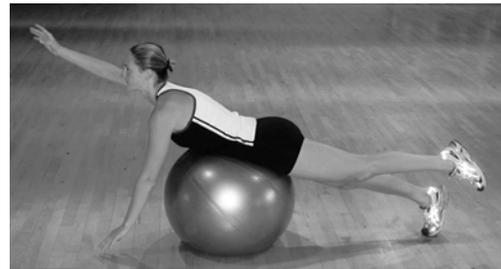
- Kneel on floor
- Find neutral spine
- Ensure neutral spine is maintained throughout exercise
- Bend elbows until chest lowers to ball
- Slowly return to start & repeat

### Ball Sit-Ups



- Start in sitting position
- Roll forwards so ball is under lower back
- Hands on temples
- Slowly lift shoulders towards hip
- Return to start and repeat.

### Superman



- Lying prone over ball
- Ball under abdomen
- Slowly raise extended arm and opposite leg off ball
- Return to start position
- Repeat with opposite arm/leg

### Titanic



- Lying prone
- Chest and abdomen on ball
- Legs extended, feet on floor
- Maintain neutral spine
- Raise trunk & externally rotate shoulders
- Hold for 3 seconds
- Return to start & repeat

### Bridging



- Lying supine
- Legs extended
- Feet on ball
- Slowly raise hips off floor
- Find neutral spine & hold
- Slowly release
- Return to start & repeat

## **Core Body Strength Bedroom Circuit**

As well as the Swiss ball exercises mentioned above, you can also do exercises utilising little equipment, at home to help to increase your strength.

Try to do the following exercises at home, at least 3 times a week. Each exercise should be repeated 12 times, with 3 sets of each exercise being performed. Allow 60 – 90 seconds rest between each set.

When performing the following exercises, your muscles should feel as if they are working, but not cause any pain. If you experience any pain stop immediately and discuss this with your coach.

### Press Ups

- Stand about 3 foot lengths away from the wall
- Place your hands on the wall just outside shoulder width
- Lower your body slowly towards the wall
- Push back to starting position and repeat



## Crunches

- Lie flat on the floor with your knees bent and your hands resting on the top of your legs
- Lift up your body until your hands are almost to your knees
- Slowly return to starting position and repeat



## Dips

- Sit on the floor with your knees bent and your hands behind you, fingers facing forwards
- Lower yourself slowly a short distance backwards
- Return to starting position and repeat



## Squats

- Lean on your Swiss ball as shown in the picture
- Lower yourself, using the ball for support, until your legs are in a seating position (but no further)
- Return to starting position and repeat.



## Knee Press Ups

- Kneel on the floor on all fours.
- Bend your arms and drop your chest forward and down towards the floor and inhale.
- Keeping your legs in the kneeling position, exhale as you push yourself up using your arms. Control the move by counting to three on the way up.
- As you push up, tighten your stomach muscles to take pressure off your back. Hold for a second. And slowly repeat.



## Prone Opposite Arm and Leg Raise

- Lie on the floor on your front, with arms and legs stretched out.
- Keep the head in line with the spine
- Slowly lift opposite arm and leg together
- Keeping the movements slow and smooth, lower the leg and arm to floor.
- Repeat with other arm and leg.



## Lunges

- Step forward with one leg and lower your upper body down, bending your leg (don't step out too far). You should have about two to two and a half feet between your feet.
- Do not allow your knee to go forward beyond your toes as you come down, keeping your front shin perpendicular to the ground.
- Push up and back and repeat completing all the reps with one leg.
- Throughout the lunge ensure that you keep your body upright and positioned directly above your hips.
- Go down until your bottom knee almost touches the ground.
- Think about sitting back when doing these. This will prevent you from leaning too far forward.



# Flexibility & Stretching

Flexibility exercises should not only be performed as part of a warm up or cool down, but they should also form a core part of any land-based training programme.

**The key areas for flexibility in Water Polo are:**

- Shoulders
- Hips
- Groin
- Back
- Legs

**Stretching exercises should be performed on a daily basis, using the following guidelines:**

1. Only stretch when muscles are warm
2. Hold all stretches for a minimum of 20 seconds
3. Relax and concentrate on breathing when stretching
4. Stretch to a point just where you feel the muscles lengthening, but not to the point of pain.

## **Chest Stretch**

- Stand tall, feet slightly wider than shoulder-width apart, knees slightly bent
- Place hand, loosely clasped on small of back, keep spine long and away from your ears.
- Without arching spine, ease elbows towards each other as far as possible.
- You should feel the stretch across your chest



## Upper Back Stretch

- Stand tall, feet slightly wider than shoulder-width apart, knees slightly bent
- Interlock your fingers and push your hands as far away from your chest as possible, allowing your upper back to relax
- You should feel the stretch between your shoulder blades



## Shoulder Stretch

- Stand tall, feet slightly wider than shoulder-width apart, knees slightly bent
- Place your right arm, parallel with the ground across the front of your chest
- Bend the left arm up and use the left forearm to ease the right arm closer to you chest
- You will feel the stretch in the shoulder
- Repeat with the other arm



## Shoulder & Tricep Stretch

- Stand tall, feet slightly wider than shoulder-width apart, knees slightly bent
- Place both hands above your head then place right hand behind left elbow, easing left arm towards your head.
- Take elbow behind head and down middle of spine as far as possible.
- You will feel the stretch in the shoulders and the triceps



## Quadriceps

- Clasp your foot behind your body with opposite hand
- Pull your foot upwards, and push the knee backward
- Contract your abdominals to stabilize the pelvis (do not arch your back)
- Press the front hip bone forward and slightly extend the hip
- Hold the stretch
- Repeat with other leg



## Standing Groin Stretch (adductors)

- Lunge slowly to right whilst keeping left leg straight, left foot facing straight ahead and entirely on floor.
- Lean over right leg while stretching left groin muscles.
- Hold stretch for 20 seconds
- Repeat with the left leg.



## Hamstring Stretch

- Sit on the floor with the leg to be stretched extended, and the other leg bent with the foot towards your body.
- Reach out with your hands, lean your upper body forward, and bring your chest towards your thigh.
- Make sure you don't round the upper back, your lower back should be slightly curved.
- Get to the point of a mild stretch and hold.
- Repeat with other leg.

## Standing Psoas Stretch

- Begin in a standing position, one leg bent and slightly forward.
- Position the back leg in internal rotation (foot facing inwards slightly).
- Keep your abdominals tight, and slowly move your body forwards until a mild stretch is achieved in the front of the hip being stretched.
- Next raise your stretch side arm up and over to the opposite side.
- Hold side bend position and stretch for 20 seconds.
- Repeat to other side.



## Gluteal Stretch

- Lie on your back with both legs straight out in front of you.
- Bring up your right leg bent at the knee, with your foot flat on the floor.
- Bend your left knee and hip to place the side of your left foot on top of the lower part of the right thigh (half cross legged).
- Bring your right leg up further with the left foot still resting on the thigh, and thread your arms through the gap, so that your hands are clasped in front of your right knee.
- Use your arms to bring the right leg up further until you reach a barrier point in the right buttock.
- Rock your leg in and out of the barrier for a few minutes, feeling that the buttock muscles are progressively stretching.



## Back & Buttock Stretch

- Lie on your back,
- Keeping one leg to the ground and straight, the opposite leg is bent, brought over and pushed down gently with the hand.
- The stretch is felt in the middle of the back and in the buttock.
- The stretch is then repeated on the other side.



## Calf Stretch

- Stand and face, about 1 metre away from a wall.
- Keep toes pointing forwards.
- Bring your right leg forward half way between the wall and your left foot, and place it flat on the floor, toes pointing towards the wall.
- Shift your weight on to your left leg, making sure that your left foot is not turned outwards, and that your knee is straight.
- Move your trunk towards the wall by bending your elbows until you feel the stretch in your left calf.
- Hold the stretch then repeat with the other leg.

