

Pre and Post pool sessions

County Camps

Key themes of the session

- **PREPOOL**

- Health and safety
- Environmental factors
- Swimmers clothing
- Why warm up ?
- RMAP
- Which exercises ?

- **POST POOL**

- Why do it ?
- Good technique
- Which exercises ?

MAKE IT FUN

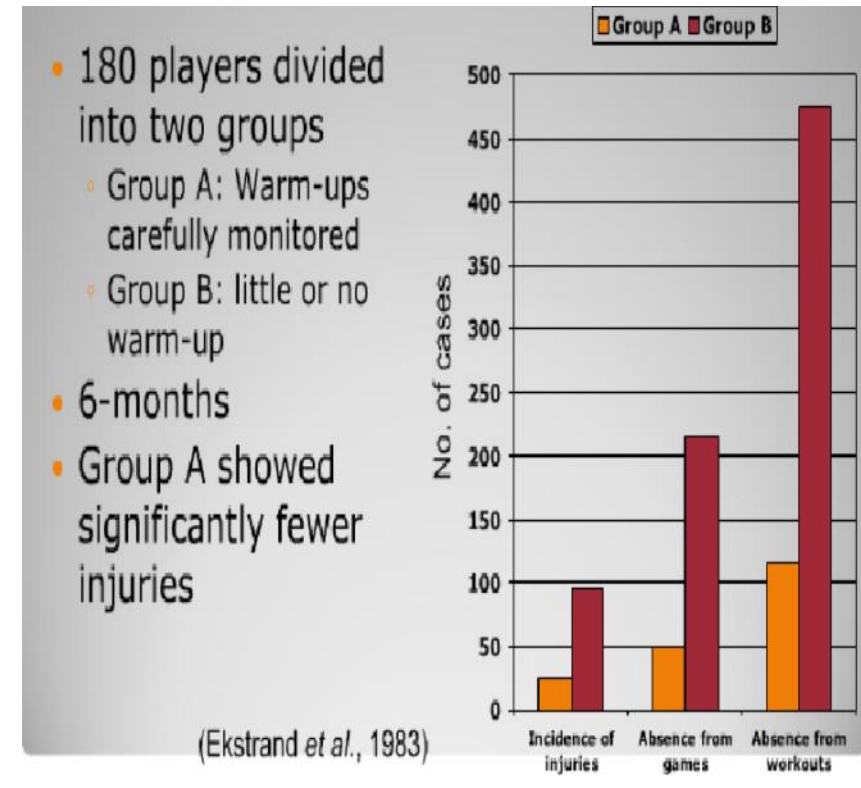
Health and Safety—Risk Assessment

- Floor-most pre pool takes place on pool side
 - Wet
 - Slippery floor
 - Hard surface
 - Lack of space
 - Cold floor
- Ideally a studio or sports hall would be best to perform pre pool
- Perform quick risk assessment of the area and document
- If unsafe change exercises to ensure safety
- Temperature—ideally warm so raising the body temperature is easier
- Clothing-sweatshirt, shorts, trainers
- Do not do arm swinging exercises when cold

Why Warm up ?

- Warm ups are a widely accepted practice preceding nearly all athletic events
- Prepare the athlete mentally and physically for optimum task completion – Conflicting research supporting its performance effectiveness (physiologically and performance related).
- Improved athletic performance has been attributed to increased core temperature, muscle temperature, blood flow and the additional ergogenic benefits they bring.
- Evidence is mixed on injury prevention.
- Many studies investigating warm up used poorly controlled procedures and tested different durations, intensities, modes and recovery periods

- Faster contraction and relaxation times
- Improved RFD and reaction times
- Lower viscous resistance in muscles
- Improved O₂ delivery, where high temp facilitates O₂ release from haemoglobin and myoglobin.
- Increase blood flow to active muscle groups
- Elevation of baseline O₂ consumption – anaerobic sparing
- A COACHING OPPORTUNIT





RAISE

- Endurance exercises: light activities (50-70% HRmax)
- Light speed/plyo/agility activities: plantar flexors and glute activation
- Light resistant training: bands/dowels
- Drills utilising specific patterns related to the sport
- Gradual increase in intensity



Mobilise

- To mobilise key joints and ranges of motion used in swimming
- Approach focuses around movement (maintains elevation effects)
- Sport specific in nature
- Time efficient
- Mobilisation approach involves actively working muscle groups through full ROM while activating all key muscles involved as well as key stabilisers
- You must consider task specificity

Activate



- Activate key muscle groups involved in swimming
- Related to the needs of the athlete and the demands of the sport
- Often involve exercises associated with pre-hab, such as mini band work, glute activation, SL control, scapula stabilisers, rotator cuff etc.
- Individualised routines if required, Joint S&C and physio input

Prime/ Potentiate



- Shift towards actual sporting performance, involving high force velocity activities
- Increase exercises to a point where athletes are able to perform their activities at their maximal levels
- Or select activities that may result in in supra-maximal effect, contributing to enhance performance
- Sport, movement specific
- Often involve exercises such as MB throws/slams, squat jumps, plyo's etc.

Raise

Raise temperature exercises 3-5 minutes

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BRITISH
SWIMMING



Skipping



Jogging



High knee jog



Heel flicks jog



Lateral jump jog



Mountain climber



Spiderman switches

Main menu

Raise

Mountain climbers

Assume a full press up position, head in line with the spine and maintain a long extended spinal position.



Raise

Spiderman switches

1. Assume a full press up position with one foot to the outside of the hand.
2. Switch feet over in a dynamic movement.
3. Maintain a long extended spinal position.



Mobilise

Thoracic rotation in 4-point kneeling

1. Maintain a square hip position.
2. Drop elbow down and through underneath the body.
3. Take the elbow out and up rotating up towards the ceiling.
4. Let the head follow the elbow.



Mobilise

Mobilise exercises 3-5 reps each



Upper trapezius



Sitting neck rotation



Standing streamline reach ups



Wall or floor slides



Shoulder internal or external rotation



Sitting thoracic rotation hands on head



Thoracic rotation 4-point kneeling



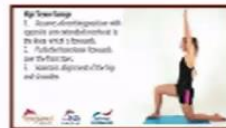
Side lying open ups



Hip internal rotation Ws lying prone



Hip lateral lunges



Hip flexor lunge



Standing calf lunge



Heel drops on step



Knee extension ankle dorsiflexion combination

[Main menu](#)

Mobilise

Advanced mobility 3-5 reps each



Upper traps stretches



Assisted neck rotation



Posterior Shoulder Mobility



Supine Internal to external rotation



W floor slides



Band assist thoracic rotation



Dynamic figure 4 stretch



Suicide stretch with side flexion



Knee extension with SLR



Downward dog



Spiderman alternating open ups



Streamline squat

[Main menu](#)

Mobilise

Mobilise exercises 3-5 reps each



Upper trapezius



Sitting neck rotation



Standing streamline reach ups



Wall or floor slides



Shoulder internal or external rotation



Sitting thoracic rotation hands on head



Thoracic rotation 4-point kneeling



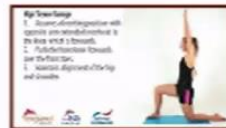
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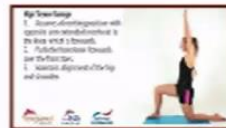
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Main menu

Mobilise

Standing calf lunge

1. Feet hip width apart.
2. Knee to push forwards directly over the front toe towards the wall.
3. Heel remains down on the front foot.



Activate

Zombie squat

1. Maintain an erect upright torso position.
2. Drop the hips downwards.
3. Controlled descent phase, activate glutes and perform a strong upward drive.



Activate

Neutral grip standing row

1. Maintain upright posture with shoulder blades pulled downwards and backwards.
2. Palms facing inwards and parallel to each other at shoulder width.



Activate

2 up 1 down glute bridge

1. Feet hip width apart.
2. Neutral hip alignment.
3. Keep the pelvis level.



Activate

Activate level 2 exercises 3-5 reps each



2 up 1 down glute bridge



Clams heels lifted



Single arm serratus punch



Standing external rotation with band at 45deg



Legs only superman

Main menu

Activate

Activate level 1 exercises 3-5 reps each



Double leg
glute bridge



Clams heels down



Double arm
serratus punch



Standing rotation
with band elbows in



Arms only superman

Main menu

Prime 1

Prime level 2 exercises 3-5 reps each



Knees down push up



Neutral grip standing row



Prisoner squat



Hands on hips reverse lunge

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Prime 2



- Reaction game
- Start by getting into a low squat position in pairs with water bottle in between the 2
- On the whistle
- jump and streamline then return to pick up the bottle
- one without the bottle eliminated

NOW ITS YOUR TURN TO PRACTICE

Post- Pool Recovery Mobility

Why do we need it ?

- Relieves post exercise aches (if done with a good swim down)—
better recovery= better training the next day
- Reduce risk of injury—less time out of the pool
 - 3 months out of pool injured = 6 months to get back to same fitness levels
- Increase range of movement--improved performance by reducing stroke count
- Reduce muscle stiffness

Why do we need it cont.?

- Improves posture—better muscle contraction gives more power= faster swimming
 - Better posture gives better streamline
- Reduce stress(yoga) -psychological effect
- Gives muscle relaxation—especially after hard set-allows muscles to recover effectively
- Promotes circulation—this makes the muscle healthier
- Reduce energy demands (flexible joint requires less energy than stiff joint— more energy for propulsion through water)

Different types of stretching

- Ballistic
 - Bouncing in and out of a stretched position
 - Not a good way to stretch—thoughts that it causes injury
- Dynamic
 - Controlled leg and arm swings gradually increasing the range as the body temperature increases—good for warm ups and pre exercise/training
- Active
 - Hold a stretched position without any external assistance
- Passive
 - Hold a stretched position using an external force—either another part of your body, towel, partner
 - Best type of post exercise stretch
- PNF
 - Contracting the muscle will cause it to relax after.
 - Contracting one muscle cause the opposite muscle to relax
 - Good for after hard exercises but not on rest days
- Isometric
 - Holding the muscle in a stretched position and then working the muscle without any change in muscle length
 - Eg push the wall calf stretch
 - No change in length of the muscle because the wall stops any movement.
 - Not advisable in teenagers or children

What are the rules for stretching in swimming?

- **When should we stretch?**
 - After the cool down is done stretching should be done for 10-15 minutes. Never stretch when cold.
- **What position should we stretch in?**
 - Good posture should be adopted to ensure the joints are in a good position. Contract the lower core to make sure the back and core are strong during stretching
- **How long should we hold each stretch for?**
 - To return a muscle back to its normal length a stretch should be held for 15 -20 seconds. If you feel more tightness than usual hold for up to 30 seconds. Try to breathe out as you stretch
- **How many times should we repeat the stretch?**
 - Approximately 2-5 times per muscle group will be ok
- **What type of stretch should be done ?**
 - pre exercise—dynamic stretch
 - Post exercise—static or PNF stretches
 - Make sure you stretch equally the front and back of your body and also right and left sides
- **Should we stretch into pain?**
 - No you should feel a mild stretch but no pain

Neck and shoulder blade



Stand with good posture.
Tilt your head toward one shoulder until you feel the stretch on the opposite side. Hold approx. 20 secs. Repeat to other side.

Repeat 3-5 times.
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Stand or sit. Hold your hands behind your back
Move your shoulder blades up and back.
Hold 20 seconds.
Repeat 3-5 times.
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Spine-Thoracic and Lumbar



Crawling position.
Lift your arm up to the side while rotating the body. Let your eyes follow the arm.
Lower your arm (repeat with other arm).
Repeat 10 times.
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Lying on your back with one leg bent.
Bring your bent knee over the other leg and push your knee against the floor with the opposite hand. Then reach with the other arm to the opposite side looking in the same direction. You will feel the stretching in your lower back and bottom.
Hold approx. 20 secs. - relax.
Repeat 3-5 times
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Gluts and ITB



Sit on the floor with your legs bent. Cross one leg over the other. Put your arm around the leg to be stretched.

Bring your knee towards your opposite shoulder. Feel the stretch in your buttock. Hold 20 secs.

Repeat 3-5 times.

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Sit on the floor. Bring one leg in front of you and bend your knee 45 degrees.

Straighten your other leg behind you.

Turn your body towards the bent leg and lean your body gently forward. Feel the stretch in your buttock.

Hold 20 seconds.

Repeat 3-5 times

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Gluts and Hip Flexor



Lying on your back with knees bent. Cross the ankle of the leg to be stretched over the other knee. Put your arms around the thigh as shown.

Bring your thigh towards your stomach.

Feel the stretch in you buttock.

Hold 20 seconds

Repeat 3-5 times.

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Half kneeling.

Tighten your stomach muscles to keep your back straight. Rotate the heel behind you outwards while pushing your hip forwards.

Hold approx. 20 secs. - relax.

Repeat 3-5 times.

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Hamstring



Lying on your back. Lift your leg towards your chest. Place your hands behind the knee.

Gently pull your leg towards your chest. Feel the stretch behind your thigh. Hold 20 secs.

Repeat 3-5 times
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Half kneeling. Keep the leg in front of you straight with toes pointing towards the ceiling.

Rotate the hip (on the bent knee side) inwards keeping your back straight. Feel the stretch at the back of the straight leg. Hold approx. 20 secs.

Repeat 3-5 times.
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Groin



Stand with legs astride and straight. Bend one leg and put your hands on the knee. Bend your leg even more and put more weight on the leg. You will feel stretching on the inside of the thigh on the straight leg. Hold approx. 20 secs.

Repeat 3-5 times
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Sit on the floor with the soles of your feet together and as close to your Groin as you can. Push your knees down towards the floor. You will feel the stretching on the inside of your thighs. Hold approx. 20 secs. - relax.

Repeat 3-5 times
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Calf



Stand with the leg to be stretched behind the other leg.
Push your heel down while bending the knee to stretch the Achilles tendon
Hold 20 seconds
Repeat 3-5 times
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Stand with your feet hip width apart and take a step forward.
Take most of your weight on the leading foot. Gradually take your weight to the back foot stretching your heel to the floor. Keep your upper body in line with your back leg.
Hold 20 secs.

Repeat 3-5 times.
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Quads and posterior shoulder



Stand holding on to a support. Bend one knee and take hold of the ankle. Do not lock the knee of the leg you are standing on.

Draw your heel towards your buttock. Tilt your hip forwards so that your knee points towards the floor.

Feel the stretch in the front of your thigh. Hold 20 secs.

Repeat 3-5 times.

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Lie on your side with your upper arm on a towel. Your shoulder and elbow are bent 90 degrees.

Push your hand towards the floor with your other hand, keeping your elbow still.

Hold 20 seconds.

Repeat 3-5 times.

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Shoulder



Stand next to a door holding on to the upper edge of the door.

Stretch the shoulder muscles by slowly bending your knees. Hold the stretching approx. 20 secs.

Repeat 3-5 times.
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Stand in a walking position. Bend your elbow and support the forearm against a door frame or corner.

Gently rotate your upper trunk away from the arm until the stretching can be felt in the chest muscles. Stretch approx. 20 secs.

Repeat 3-5 times.
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Triceps and wrist



Stand or sit.

Bend and lift the arm
to be stretched.

Grasp your elbow with the other
hand and push back and down
until you can feel the stretching at the back of
your upper arm.

Hold the stretch for approx
20 secs.

Repeat 3-5 times.

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Hold the fingers of the hand to be
stretched.

Gently extend the wrist until you
feel the stretching at the inside of
the forearm.

Keep your elbow straight. Stretch
approx. 20 secs. - relax.

Repeat 3-5 times.

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