

## Warm Ups

### Why?

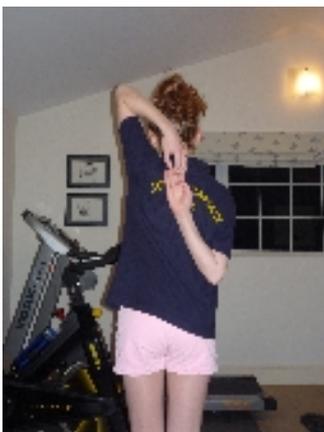
- To increase your heart rate which increases the blood flow (oxygen) to your muscles - this prepares them for more vigorous activity.
- To raise your core body temperature which makes your soft tissue more flexible and allows your joints to move through a larger range of motion.
- To help you avoid injuries such as muscle tears and joint sprains and to enable you to swim **FASTER**.

### How?

- It takes your body 3 minutes to realise it needs to pump more blood to your muscles.
- Warm ups should last approximately 5-10 minutes and they should incorporate dynamic stretching of the large muscle groups in controlled movements.



Kick your leg forwards/up, feel a stretch at the back of the thigh then swing it back and try to kick your bottom, feel a stretch at the front of your thigh. Repeat x10 each leg, 3 reps.



Link hands and PULL, swap sides, link hands and PULL, swap sides x5 each side.



Grab your ankle, keeping knee high and pull it up to the front of the opposite hip. Stretch. Repeat on alternate legs x5.



Swing your arms as high as possible in front and then behind x10 each way.



Lunge forwards, press your back heel down and feel the stretch on the back calf. Repeat x5 on alternate legs.



Make large backward circles with your shoulder blades, leaning forwards and backwards into the movement x 5.

**Pacing up and down the pool side on tip toes and on heels is a good way to spend the last few minutes before swimming.**

## Cool Downs

### **Why?**

To help dissipate lactic acid and other waste products – which can help minimise DOMS (delayed onset muscle soreness).

### **How?**

A safe cool down period is 4-5 minutes of slow swimming at the end of a training session or 4-5 minutes walking at the end of a race. This is followed by slow static stretches to the main muscle groups.



Hold the stretch to the back of each thigh for 10 seconds x3 each leg



Hold the stretch to the front of each thigh for 10 seconds x3 each leg



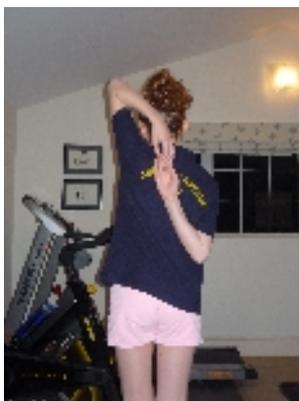
Hold the stretch to the back of each calf for 10 seconds x3 each leg



Hold the stretch to the back of each buttock for 10 seconds x3 each side



Hold the stretch to the back of each shoulder for 10 seconds x3 each side



Hold your hands together behind your back for 10 seconds x3 each way

## Trouble Shooting

To swim faster we need to improve our fitness, strength and endurance through a training programme that will gradually and systematically increase the workload of our bodies over a period of time.

If overload occurs too slowly we will not swim faster

If overload occurs too quickly we will develop injuries

Check list :

1. Are you getting enough sleep and general relaxation between training sessions? Rest is necessary so that the soft tissues can repair, rebuild and strengthen. Getting plenty of sleep is crucial. Get to bed earlier than normal if you have a 6am training session the next day!
2. Are your nutritional and hydration requirements being met?
3. Is stress a factor? – problems at school? exams? disputes with family/friends? frustration with life?.....Signs of emotional stress are moodiness, irritability, depression, appetite changes, compulsive need to train, increased number of coughs/colds, insomnia, washed-out feeling, headaches, decrease in training capacity/intensity. You need to talk to your parents and/or coach in these situations.

If you have developed an injury and have already given due consideration to the check list you should then consider your training schedule. Some people are more prone than others to over-use injuries. Imbalances between strength and flexibility around certain joints predispose individuals to injury. Body alignments such as knock knees, bow legs, unequal leg lengths, flat or high arched feet also impact overuse injuries. Some people have susceptible areas due to old injuries, incompletely rehabilitated injuries or other anatomical factors.

True aches and pains are indicators of over-load and micro-trauma to the soft tissues and joints. You should tell your coach if you think you are developing aches and pains that are not part of the normal discomfort of training hard. A brief reduction in training is likely to stop the symptoms but if they persist when training increases again you should consult your GP or a Chartered Physiotherapist.

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I am considering running free 'drop in' physiotherapy advice sessions for GSC members.

Please email [linkphysio@gmail.com](mailto:linkphysio@gmail.com) if this might interest you.

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