

# Beach Lifeguard Fitness Training Programme

Reproduced from;

## **Fitness and Medical Standards for Beach Lifeguards**

*M. Tipton, T. Reilly, C. Iggleden & A. Rees*

Institute of Biomedical & Biomolecular Sciences

Department of Sport and Exercise Science

University of Portsmouth

Portsmouth

PO1 2DT

UK

A good training programme should be Specific, that is it should be tailored towards improving the anatomical and physiological structures and functions that underpin the event/task that is trying to be improved. Such specificity can be ensured by careful consideration of: the type (mode) of exercise employed during training; the intensity and duration of the exercise undertaken during training; the frequency of training sessions.

A good training programme should provide an Overload, that is it should slightly overload the systems to be trained in order to provide a training stimulus. The maintenance of an overload requires careful reconsideration of the level of demand set during training as fitness improves; for the Beach Lifeguard this particularly relates to the intensity of the exercise performed.

The aim of a training programme for a Beach Lifeguard should be to improve upper body strength and aerobic fitness. This will improve performance and reduce strain in the strength-based activities such as an Inshore Rescue Boat launch and casualty handling, upper body strength is also important in swimming. In Beach Lifeguarding the need for aerobic fitness is particularly apparent when swimming, paddling and towing casualties. It follows that aerobic training should be primarily, although not necessarily exclusively, undertaken in water (specificity principle). Improved water-based aerobic capacity will improve swimming endurance and enable demanding tasks such as casualty towing to be undertaken more aerobically and less anaerobically (delayed lactate threshold and increased tolerance to lactate). This will reduce fatigue and help to ensure that the Beach Lifeguard is able to provide support to a casualty during and following a rescue.

The training programmes presented in Tables 1 and 2 are designed to help Beach Lifeguards obtain and maintain, a required level of fitness in order to discharge their duties effectively. The programmes are indicative and include a range of exercises as the availability of weights, facilities, etc, may vary between areas.

The programmes are designed on the basis that only one training session per week may be possible, however 3 sessions per week are advisable. The swim programme

is based on a distance of 400m. The upper body strength training is designed to ensure that the Beach Lifeguard maintains the minimum strength standard of a 41kg lift and carry.

Table 1 contains a land-based programme that focuses mainly on upper body strength and strength endurance. It is based on a 1 repetition maximum (1RM) lift i.e. the maximum weight that can be lifted once. **Note: incorrect weight lifting can cause injury. Weight lifting should not be attempted without prior instruction, and appropriate supervision.** Repetitions are based around 70% of the 1RM. Every 6 - 8 weeks, the 1 repetition maximum should be recalculated and the training programme adapted accordingly.

Table 2 is a swimming programme designed to enable the Beach Lifeguard to complete 400m freestyle in 7.5 minutes or under. The programme is a mix of technique training, high quality intensity work and basic endurance. Sets are designed around freestyle (F/s), full stroke exercises (Full/s) and any other strokes, either arms or legs. Optimum training times can be calculated from 400m F/s time at race (maximum) pace. For example, if your best time for 400m is 8 minutes this will equate to a 25m time of 30secs and a 100m time of 2 minutes. Intensity of the sessions can also be assessed by measuring maximum heart rate whilst swimming, and swimming at heart rate set at the prescribed number of beats below maximum (as indicated in Table 2).

### **50m Under / Over Swim**

The 50m under/over is slightly more difficult to train for, one method is to do "hypoxic" training during normal training sessions, i.e. swim a set of 10 x 100m breathing every 3 strokes and then gradually decrease the number of strokes between breaths over a period of time. So the next week breathe every 4 strokes, then every 5. There is no scientific evidence that this promotes any physiological changes although psychologically you will get used to swimming whilst breath holding. This method is an indirect way to train for this test.

A direct method of training for this could include the following:

1. Initially, just push off the wall and see how far can be travelled before a breath is required
2. Next, try swimming widths across the pool underwater
3. Then, do the same down the length of the pool, not over-exerting yourself though
4. Eventually, you will be able to swim the full 25m underwater - then turn and swim back gently on you're back breathing normally
5. Once you can comfortably swim the 25m underwater, swim the return 25m freestyle and gradually increase the pace

The best stroke to use underwater is breaststroke, using a wide, long stroke and a hard kick. The key to this test is practice, but not too much and only within your capabilities, and be sure that **a lifeguard is present at all times.**

**Table 1. Strength training.**

Description	Exercises	Repetitions (based on 70% of 1RM)
Warm up - mobility exercise, raise body temperature, increase heart rate, etc	Jogging, skipping, rowing, cycling. Move joints and limbs through range of motion to be used. Apply low resistance.	15 minutes. Mixed exercises
Main set - Arms Shoulders/chest Back Whole body	A mix of exercises from: Bicep curls, Tricep dips, Shoulder press, wrist curls, grip strength, press up, dips Shoulder press, front and reverse, chest press, lateral arm raises, press ups, pull ups (over/under hand grip), high elbow trapezoid raises Rowing, latisimus pull downs, back raisers (hyperflexion), sit ups, standing press ups (against a wall) Dead lifts, clean and jerk (high elbow), sit ups, leg press/leg curl, stair climbing, stepping, rowing	General session would be: A mix of 10 exercises x 10 repetitions x 2 sets with 30-60 seconds rest between exercises and full recovery between sets. 1 exercise x 10 reps, last 3 reps should be difficult, previous reps act as warm up. Choose either a mix from all sections, or 2 sections in same day - arms/back, chest/whole body, or alternate weeks, one section each week. Change regularly, allow muscle to rest
Warm down	Mobility, as warm up plus static stretching at the very end	15 minutes. Mixed aerobic exercise, easy pace

**Table 2: Swimming training.**

<b>Time (mins)</b>	<b>Set (m)</b>	<b>Example Repetitions</b>	<b>Total Distance (m)</b>	<b>Description</b>
10	200-300	12 x 25, 6 x 50 Full /s-arms-legs. Can be same stroke or alternate stokes 3 x 100 Full/s Alternate strokes Rest -15/30 secs between sets	300	<b>Warm up.</b> Raise body temperature, skills work, loosen joints and swim easy. Include legs. Idea is to mix strokes, distance, legs and arms.
10	200-300	6 x 50, 4 x75 F/s drills Rest - 15 secs	600	<b>Skills training.</b> Concentrate on stroke length, style, breathing, etc. Include leg set. Moderate pace.
10	400	16 x 25, 8 x 50, 4 x 100 F/s race pace Rest 10, 20, 30 secs respectively	1000	<b>Quality set.</b> Based on equivalent race pace times over 400m. Idea to train at race pace over the distance required, ie +/- 10beats of maximum heart rate. Alternate weeks, such as: Wk 1 16 x 25, wk 2 8 x 50, wk 3 4 x 100
30	300-400	3 x 400 split into sets, such as: 4 x 100 (x 3), 2 x 200 (3), or 3 x 400 Full/s F/s or alternate strokes, or alternate Full/s - arms - legs Rest - 30 secs between sets	2200	<b>Endurance set.</b> Based around equivalent race pace times plus 20 secs (or 50 beats below maximum heart rate). As above, alternate weeks. Try to mix sets over weeks to include legs and arms.
10	150 -200	As warm up - mix of stokes, short distances, mix Full/s – arms - legs	2400	<b>Warm down.</b> Skills based, easy swimming. Recovery period. Mix stokes and drills. Static stretching.