

Guidance to Swim Training duration and frequency

An introduction

As referred to in the Long Term Athlete Development document, there are no short cuts to achieving sporting excellence. Most talented athletes taking at least 10,000 hours of training to achieve their maximum potential. Of the two ways athletes can improve their performance, namely training and growth; we can obviously only impact on the first. And it is important that we do this carefully and with consideration to long-term outcomes. If this approach is not used, there is likely to be a plateau in performance of an athlete when the second factor, growth, stops. At this point the short-term approach to training between 6-16 years of age cannot be fully corrected and athletes will never reach their genetic potential.

Coaches, Swimmers, Parents, Administrators and officials, including those in swimming pool centre management, need to be educated in LTAD principles to allow the best outcomes for all swimmers to be achieved.

Bill Sweetenham, (British performance director, 2000-2007) has said: 'we have far too many clubs in Great Britain offering too little training time'. 'this leaves athletes in a twilight of training less than 14 hours a week. For an athlete training 8 hours a week, the benefits are social, fun, participation, team building and health related. For those wishing to participate in an international career a program with a high performance objective of 18-25 is approximately what it will take to achieve these objectives.'

We are certainly aware that some swimmers and their parents will see this time commitment as simply impossible, due to other factors in family life. But it is important that all swimmers and parents are aware of this information so that they can make this decision for themselves. We are also aware that not all swimmers have the potential to become Olympians. But what the commitment to high level of training will allow is swimmers to maximise the potential they do have.

Training times and frequency for swimmers of different ages

Training duration and frequency refers to the number of hours per day and number of days per week that swimmers spend in training.

Swimming is fundamental an endurance sport. No event happens as quickly as the athletics 100m sprint. Even the shortest event in swimming, 50m, involves 20% aerobic metabolism. This percentage increases with the distance raced.

Hence, the basic building block for swim training has to be endurance based. This means long, low to medium intensity training. This is the reason behind two-hour sessions, at least once per day.

The highest-level competitors in the swimming world (those who wish to compete at national and international level) train twice per day for six days per week. This program is something that swimmers build up to gradually (progressive overload) with age and individual maturation. Most swimmers in their young teens swim for 5 or 6 days per week. Then building up to multiple swimming sessions per day.

The table below show the training progression advice, as given by the ASA¹.

Training time in the water per week (hours)	Training time on land per week (hours)	Male aged	Female aged
4-7	1-2	9-12	8-11
12-24	2-3	12-15	11-14
14-24	3-4	15-18	14-16
20-24	3-6	18+	16+

The optimal number of training sessions per day, agreed by experience swimming coaches, strongly favours training two or more times daily. Several reasons stand behind this recommendation:

1. Increasing training volume is perhaps the best method for applying progressive overload to the endurance training of swimmers. This means it is effective in helping swimmers swim longer at the same speed OR faster for the same length of time – clearly both important aspects of racing.
2. Training in this way results in well-defined and long-lasting improvements in the energy systems a swimmer uses.
3. Training twice per day allows the incorporation of many different aspects of training; speed work; endurance work; drills and technical developments; stretching and land based work such as Pilates and strength.
4. Training twice per day allows the advised time and distance needed for training at particular ages to be achieved.

Therefore, we aim to train twice per day – the number of days this should happen progresses with age, as shown in the table above.

Training session duration

Training for two hours per day is superior to training for lesser periods for improving aerobic capacity.

For this reason all of our training sessions are two hours in length.

Training session timings

Training intensely rapidly depletes muscle glycogen (energy stored in muscles). As a result swimmers require rest intervals between training sessions of between 10-16 hours².

With this in mind our evening sessions aim to finish by 7.30pm at the latest, to allow 10 hours rest before resuming training at 5.30am the next morning.

¹ ASA: A Shorter Guide to Long Term Athlete Development (LTAD): Richard Gorgon; ASA Coaching and Talent development co-ordinator.

² Swimming fastest: E.W.Maglischo 2003: Human Kinetics