



Long Term Athlete Development

Long Term Athletic Development (LTAD) is about achieving optimal training throughout an athlete's career, particularly in relation to the important growth and development years of young athletes.

Why do we need LTAD?

- Young athletes under train and over compete
- Low training to completion ratios in early years
- Training in early years focuses on winning rather than optimal training
- Chronological age influences coaching rather than biological age
- The critical periods of adaptation are not fully utilised
- Poor training between 6-16 years of age (athletes will never reach genetic potential)
- To educate coaches, swimmers and parents in LTAD principles
- Aims of LTAD
- Establish a clear swimmer development pathway
- To integrate the programmes for developing swimmers
- To provide a planning resource for coaches to achieve swimmers goals and targets
- To guide planning for optimal performance

LTAD Framework

All young people follow the same pattern of growth from infancy through adolescence, but there are significant differences in the timing and magnitude of the changes that take place. There are critical periods in the life of a young person which the effects of training can be maximised. Young people should be exposed to specific types of training during periods of rapid growth and the types of training should change with the patterns of growth. Adopting a 5 stage LTAD framework work based on human growth and development can enhance all of the changes that take place maximising an athlete's genetic potential.

Stage 1. Fundamentals

Age: Female 5-8yrs, Male 6-9yrs

Basic movement literacy and fundamental movement skills, such as agility, balance and co-ordination. Speed, power and endurance should be developed using fun games.

Stage 2. Swim Skills – Building technique

Age: Female 8-11yrs, Male 9-12yrs

Swimmers should learn how to train. This stage coincides with peak motor co-ordination and the emphasis should be on skill development. The focus is on training, competition should be used to test and refine skills. If a young swimmer misses this stage of development then they will never reach their full potential. One of the main reasons swimmers plateau in the later stages of development is because of an over emphasis on competition instead of optimising training during this very important stage.

Stage 3. Training to Train – Build the Engine

Age Female 11-14yrs; Male 12-15yrs

During the Training to Compete stage, There should be an emphasis on aerobic conditioning. This is the stage where there is greater individualisation of fitness and technical training. The focus should still be on training rather than competition and the training should be predominantly of high volume, low intensity workloads. It is important to emphasise that high volume, low intensity training cannot be achieved in a limited time period, and therefore the time commitment to training should increase significantly. As the volume of training increases there is likely to be a reduction in the number of competitions undertaken. However, there should now be specific targets for each competition undertaken with a view to learning basic tactics and mental preparation.



Dereham Otters

Dereham & District Amateur Swimming Club

Stage 4. Training to Compete - Optimising the Engine

Age Female 14-16yrs; Male 15-18yrs

During the training to compete stage there should be a continued emphasis on physical conditioning with the focus on maintaining high volume workloads but with increasing intensity. The number of competitions should be similar to the end of the previous stage but the emphasis should be on developing individual strengths and weaknesses through modelling and nurturing technical and tactical skills based around specific strokes or distances, but not both. As a result, there should be either double or triple periodisation of the training year. In addition, the ancillary capacities should be refined so they are more specific to the individual's needs.

Stage 5. Training to Win – Maximising the Engine

Age Female 16+ years; Male 18+ Years

This is the final stage of athletic preparation. The emphasis should be on specialisation and performance enhancement. All of the athletes' physical, technical, tactical, mental, and ancillary capacities should now be fully established with the focus shifting to the optimisation of performance. Athletes should be trained to peak for specific competitions and major events. Therefore, all aspects of training should be individualised for specific events. There should be either double, triple or multiple periodisation, depending on the events being trained for.

How does this fit into the programme at Dereham Otters?

Foundation Squad - Stage 2: Swim Skills

New swimmers. Developing technique over all 4 strokes. Introducing skills; Underwater, turns and finishes on all 4 strokes. Aiming to compete at mini galas and club championships.

Bronze Squad - Stage 2: Swim Skills

For stronger new swimmers and younger established swimmers. Improving technique and skills on all 4 strokes. Introducing diving. Aiming to compete at mini galas, club championships and level 3 & 4 open meets.

Silver Squad - Stage 3: Training to Train

Established swimmers that have gained good technique and skill habits. In the group they will still focus on technique and skills but half of their workload is based around stamina over all 4 strokes. Aiming to compete at county championships and other level 2 licenced meets.

Gold Squad - Stage 3: Training to Train

Swimmers who have a decent level of stamina and good technique and skill habits. Similar work to Silver squad but includes a 2 hour session on a Thursday to push stamina further. Aiming to compete at county championships and other open meets. Swimmers in this group should aim to make finals at the county championships.

Platinum Squad - Stage 4: Training to Compete

Heavy stamina work with 1 skill focus per week. 2x 2hour sessions per week to further improve fitness levels. Swimmers in this group at focusing on how to train for fitness properly. Aiming for finals at the county championships and qualifying for level 1 open meets & Regional QT's

Elite Squad – Stage 5: Training to Win

Focusing on training for competition. Typically have 1 or 2 skill focuses per week and training is more specific to racing. Swimmers will begin to specialise in either a stroke or a distance. Aiming to qualify for the regional championships in multiple events and looking towards National QT's