

WHY TRAIN?

When you train you are aiming for a measurable improvement in:

- a) your skill
- b) your speed
- c) your stamina

In planning the year you need to mark an event that you regard as the most important of all your competitions and you "peak" for that. The type of training you do through the year all leads up to that date. I shall describe a Two Peak year.

For instance, starting from the beginning of September we have three distinct periods, each of which is filled with different types of work which aim to train different systems of your body. These three periods are called:

1. The preparatory period where bulk work and technique correction are stressed.
2. The Pre-competitive and Competitive period when you do shorter distances with longer rests and swim very much faster.
3. The Taper or Peak when you cut down very much on the distance and polish up all the details such as the dive and turn and concentrate on very high speeds.

So you can see each period uses different distances, different speeds and different rest periods, you work from long to short, from slow to high speeds.

The yardage in each differs like this:

In the Preparatory period you work on over distance swims to the extent of 50 minutes in the hour, 10 minutes under distance, no rest for the unfit! In the Competitive period you do about 30 minutes over distance and 30 minutes under distance, much greater effort is repaid by longer rests. Finally, during the peak you do no over distance at all.

Period 1 runs from September through December

Period 2 runs through January and February, and

Period 3 runs through March.

For the second peak 1 is April and May, 2 is June and July and 3 is August

In setting schedules the coach obviously needs to know the present standard of fitness of the swimmer, and the best method of assessing this is by measuring the pulse rate after swims of varying lengths and intensity. Your pulse rate is best taken by holding your hand over your heart as the pulse at the wrist or the carotid artery can be too vigorously depressed and the blood flow held back, especially if you have just had a hard swim~ You should count the beats for 6 seconds, any longer than that and the pulse soon begins to slow. Also you should take it as soon as you finish your swim or you will get a false impression, as it so quickly begins to slow down.

To get a background for your training plan you need to measure your pulse im-

mediately after a swim, 30 seconds after you took the first reading, and 60 seconds after, so you check the speed of your recovery - obviously the sooner you recover the fitter you are getting. So this process must be repeated every month or so to enable you to adjust your work so as to make it continuously a challenge.

Swimmers should measure the pulse rate (p.r.):

1) Before you rise in the morning so you know your resting p.r. everybody is different, but this should be around 4 or 5 beats per 6 seconds.

2) After starting the day the "normal" p.r. is usually around 9 beats.

3) After the warm up for your training session the "working" p. r. which is usually around 13 beats per 6 seconds.

4) Your maximum p.r. which is supposed to be 220 minus your age, though again we do not all conform to a norm.

It is essential that you know these p. r's because we are all different and you must know your own state. It is so much a measurement of the relevance of your effort that unless you check your times against the p. r. the effect of your training is meaningless. It is also important to keep an eye on the state of your health; any unusual reading can be a warning of an incipient health problem. Anyway it is very satisfying to "read" your improvement in fitness over increasing distances or decreasing times.

Yardage some coaches have been known to ask their swimmers to swim for an hour so that they give some indication of their capability, and that yardage can be used as the basis of the schedules. A half hour swim, or half of a lesson period might be more suitable.

When you know the total of which you are capable in an hour you can split that yardage up into smaller chunks with periods of rest, expecting faster swims where the rest periods are longer and vice versa. Obviously, when you swim it all on front crawl your yardage will be the greatest, but few of us want to stick to one stroke, apart from it being boring, it can lead to overuse injuries. So, where you may complete between 3,000 and 3,500m in the hour, you will probably cut that down to three quarters of that distance if you work on medley and/ or skill drills, but the useful amount of yardage will differ according to the time of the year.

It is difficult to set schedules without knowing how often you train, or how long your swimming time is, but one thing you must bear in mind is that to improve your cardio vascular system and your local muscular endurance you will need to exercise some way or another every day, and you will need to reach 80% of your maximum heart rate for at least 20 minutes. Many other sports are compatible with swimming, in fact, you can improve your strength and flexibility more quickly and efficiently with weight training and yoga and circuit training or running/cycling (for some) will very soon improve your stamina. So you are not condemned to having your nose under the water every day if you choose to live a more varied existence.

To give you some idea of the relative yardages expected during the three periods of the year, I can tell you what I hope for from my best age group swimmers and you can cut it down according to your own capabilities. These

yardages are for people who can swim 100 metres freestyle in 1 minute. So if you take 1m 30 secs. you can calculate accordingly, add half as much time again to do the distance, and then some, because we cannot work as intensively as the youngsters do.

-

Metres per hour

Period 1 (Sept. to Dec) 3,000-3,500 m. Also May, June.

Period 2 (Jan. & Feb) 3,500-2,700 m. Also July

Period 3 (March) 2,500-1,000 m. Also August

Individual Medley people - 300-500 m less

Intensity of effort or pace

100%.	X.	X.
95%.		X
90%.	X.	X
85%.	X	X.
80%, . ,x. . .	x. . . .	x.

Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May. June. July. Aug.

When *you* set a schedule *you* state: The distance of the swim; the period of rest; the pace expected (target time) and each schedule should have 4 sections:

1. Crawl or Number 1 stroke - about 50% of the total
2. Individual Medley -about 25%
3. Sectional work (kicking and pulling drills for technique improvement OR diving or turning practice - 12% of the time
4. Sprints- about 12% of the time.

ESSENTIALS

Variety

a) Of distance, e.g. 1500ul one day, 2x800m another, 4x400m yet another. Now and again *you* can repeat a set so as to monitor your ability to cope with the work, either faster or with shorter rests, or at the same pace but looking for a lower pulse rate at the end. One way or another you are looking for an improvement in *your* performance.

b) Of strokes. *You* need to practice even those strokes *you* do not intend to race, even if *you* swim them slowly, you need to try for improvement in technique. Everyone needs all round ability.

c) Of the sectional work, i.e. e. kicking and pulling of separate strokes or combinations of strokes such as 'fly kick with breast stroke arms. A little bit of fun does wonder to lighten the load!

d) Of speed. *You* always start slowly with *your* warm up, and *you* usually get faster as the session progresses. Usually *you* swim *your* repeats of the longer

distances and gradually get into the shorter distances, finishing with sprints. Sometimes it pays to turn things around. Try the sprints in the middle.

EXAMPLES OF SCHEDULE COMPONENTS

PERIOD 1

Bulk work - interval work, slow and medium paced with little rest.

e.g. 4-400m crawl, full stroke, pulling, IM. partly sectional, finish with another 400m crawl. Rest a minute or less between each 400. Check your p.r. - it shouldn't rise much above 16. and should easily drop within 30 seconds of rest

OR, Hungarian repetitions, i.e. 8 x 50 (with 10 sees. rest)
4 x 100 (with 15 sees. rest)
2x 200 (with 30 sees. rest)
400
2 x 200 etc.

OR, decreasing distances, e.g. 800 (Rest 1 minute)
700 (Rest 1 minute)
600 etc.

In the Competitive period you do repeats for example

5 x 100 with 15 seconds rest. As the weeks go by you increase the rest and look for faster target times. Be advised by your pulse rate (p.r).

10 x 50m resting + or - 15 to 30 seconds depending on the sort of speeds you are trying to achieve.

If YOU' can finish your swim with a p.r. of about 14 you will probably find 30 seconds rest will refresh you quite sufficiently to keep a regular speed. If you find you cannot keep the same speed, add another 5 seconds to the rest and see what happens.

As you reach the end of the Competitive period you take longer and longer rests, and you begin to break the 100's into parts of the whole, like this:

4 x 100 on 2 minutes 30 seconds.

1 straight.

2 broken at 50 metres for 10 secs.

3 broken at 50 for 10 and 75 for 5 secs. 4 4 x 25 on 45 seconds.

This is a good way to learn to pace a race, you find out how fast you dare go at the beginning if you don't want to die before the end-

Negative splits are also useful, try to swim the second half faster than the first half. There are hundreds of ways you can play around with broken distances, they can be great fun.

Your rest periods increase as your pace increases something like this:

JAN 100m rest 45s; 200m rest 60s; 400m rest 60s

FEB 100m rest 1m.15s; 200m rest 1.15s; 400m rest 1.15s

MARCH 100m rest 2mins up 5mins for all these distances
::
::

So the longer the rests the higher the quality of the repeat swim, i.e. the greater the speed. A swimmer can tolerate large volumes of low or moderate quality work such as over-distance or interval training, but large quantities of high quality work or all out sprints can cause over stress. I think Masters need longer warm up swims than youngsters, and should be more careful to stretch both before and after every session; furthermore, they should always do a slow swim down after sprinting. If there are no facilities at the pool where you are racing, make sure you find a quiet corner to do some arm circling and walk about rather than sitting down between races.

I apologise if all this is only too well known and obvious to you. I've had questions from various quarters so I thought I might answer some of them and it seemed a good idea to put my thoughts on paper.

Jane Asher