

## The goals you set yourself to help improve your swimming should be:

<b>S</b>	pecific	→	Instead of simply saying “I want to improve my 50m freestyle” , say what you want to improve about it, e.g. “I want to improve my 50m freestyle turn” . This will give you a specific focus to work on in training.
<b>M</b>	asurable	→	Make sure you will know when you have reached your goal. For example, using a time as a target will make this easier. You could also set Stroke Count and Stroke Rate targets.
<b>A</b>	greed	→	Speak to your coach about the goals you set. They will tell you if it is suitable.
<b>R</b>	ealistic	→	Setting a goal that is too challenging will not help your self-confidence because you are not likely to achieve it. Try not to make it overly difficult.
<b>T</b>	ime-measured	→	Give yourself a deadline to reach your goal, e.g.in 6 months time. You can adapt this time range according to what competitions you have coming up.
<b>E</b>	xciting	→	Your goal must not be too easy

R	ecorded	→	Write down your goals – it will make you more determined to achieve them and help you monitor progress.
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Personal Goals

Short Term (This year)	
Mid Term (Next year)	
Long Term (In a few years time)	
Signed by Swimmer	

Date of goal setting exercise	
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**SWIMMING TIMES - FRONT/CRAWL**

My QT'S	50m	100m	200m	400m	800m	1500m
IRISH NATIONALS						
DIV 1						

**YOUR RACES WILL INCLUDE STROKE COUNT AND STROKE RATE**

Date	50m	100m	200m	Venue / Competition

Date	400m	800m	1500m	

**SWIMMING TIMES - BUTTERFLY**

My QT'S	50m	100m	200m
IRISH NATIONALS			
DIV 1			

**YOUR RACES INCLUDE S COUNT AND S RATE**

Date	50m	100m	200m	Venue / Competition


**SWIMMING TIMES - BACK CRAWL**

My QT'S	50m	100m	200m
IRISH NATIONALS			
DIV 1			

**YOUR RACES INCLUDE S COUNT AND S RATE**

Date	50m	100m	200m	Venue / Competition




**SWIMMING TIMES - IM**

My QT'S	100m	200m	400M
IRISH NATIONALS			
DIV 1			

**YOUR RACES INCLUDE S COUNT AND S RATE**

Date	100M	200M	400m	Venue / Competition
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Pre-Meet Preparation	1	2	3	4	5
Pre-Swim Warm-Up	1	2	3	4	5
Pre-Swim Preparation	1	2	3	4	5
Start (include dive and first 15m)	1	2	3	4	5
Stroke:- Leg Action	1	2	3	4	5
Arm Action	1	2	3	4	5
Breathing	1	2	3	4	5
Timing	1	2	3	4	5
Complete Stroke	1	2	3	4	5
Turns	1	2	3	4	5
Finish (15m from touch)	1	2	3	4	5
Overall Swim	1	2	3	4	5

My most pleasing aspect of my swim\_\_\_\_\_

My overall swim performance (including Mental and Physical performance)\_\_\_\_\_

The area I feel I must now work on before my next meet\_\_\_\_\_

\_\_\_\_\_

## NUTRITION

The main source of energy during training is derived from carbohydrate; therefore, it is not surprising that high carbohydrate meals and drinks are essential to provide energy and to facilitate recovery. The timing of meals and snacks however, is important.

**30-Minute Rule:** The muscles are most susceptible to restoration of carbohydrate stores within the first 30 minutes after exercise. The swimmer should eat 50 to 100 grams of carbohydrate, whilst keeping fat ingestion low, as soon as training finishes, and definitely within the first 30 minutes after training. The following are examples of appropriate snack foods:

Fruit, Nutrigrain bars, jam or honey sandwich, malt loaf, fig rolls, smoothie, muller rice, dried fruit, rice cakes.

**Keep hydrated:** It is vitally important to drink plenty of fluids (water, juices, sports drink) prior to training, during training and after training.

**Morning training:** Have a snack item (examples above) with fruit juice 30 minutes before training with breakfast after training.

**Guidelines for event meals:**

**Before a race:** High carbohydrate / low fat meal 2-4 hours before the race. Suitable types of food include: breakfast cereals, porridge, bread, toast, fruit juice, fruit, rice cakes, boiled rice, potatoes, boiled pasta, oatmeal biscuits, muffins and carbohydrate drinks. These foods all help to release energy slowly. A small snack (see snacks above) may be eaten about 30 minutes prior to a race.

If the interval between races is less than 30 minutes, the swimmer should drink fluids / juices or a sports drink.

If the interval between races is up to 1 hour, the swimmer should have a snack from the above list, with plenty of fluid, up to 30 minutes before the next race.

If the interval is 1 – 2 hours, the swimmer should have a small high carbohydrate / low fat meal. Important: As water is stored with carbohydrate, it is essential that a substantial amount of fluid is drunk with meals and snacks.

### 30% Fat Rule

It is recommended that swimmers should eat high carbohydrate low fat meals. Low fat is defined as food items with less than 30% fat by calories. This is not the value that is presented by the food manufacturers, who display fat content by weight, which makes the foodstuff appear healthier than it usually is.

An easy way to calculate the true fat content of food:

1. Look at the label on the food and see how many grams of fat it contains per serving.
2. Multiply the number of grams by 10 to calculate the number of kcal from fat per serving.
3. Look at the label for the total energy, the number of kcal per serving.
4. Divide the kcal from fat by the total kcal and multiply by 100.

You now have the TRUE fat content of the food stuff.

Examples:

1. McCain oven chips: (packet claims to be less than 5%fat)

The label shows 5.4 grams of fat per serving – therefore 54 kcal per serving (5.4 x 10). The label shows 163 kcal per serving. The % fat content is, therefore, 54 divided by 163 x 100 = 33.1%. This is greater than 30%, so the swimmer should reject these chips.

2. Baked Beans in Tomato Sauce (Tesco):

A 100g portion provides 0.3g fat = 3 kcal.

Total energy = 85 kcal

% fat content = 3 divided by 85 x 100 = 3.5%. Decision: Accept!

## **TAKING THE NEXT STEEPS IN YOUR SWIMMING**

At every stage of their swimming development, swimmers come to hurdles or obstacles. These hurdles and obstacles become goals to overcome and targets for swimmers to achieve.

For example, an obstacle that a swimmer may face early in their career could be the challenge to swim fast enough to qualify to get out of development galas or qualify regional championships. Once that has been achieved the next goal might be to qualify for Division 1. The next target might then be Nationals then finally their ultimate goal might be to swim internationally for Ireland

This ongoing process of setting, achieving and then resetting goals is fundamental to success in most areas of life.

At each step along the way, hurdles and obstacles need to be overcome by training and racing smarter, more frequently, faster, with better skills and with more commitment than ever before.

To make the breakthroughs and achieve the important goals, (and to take the next step at each level), swimmers need to :-

**THINK AND TRAIN LIKE SWIMMERS WHO ARE ALREADY AT THE NEXT LEVEL.**

In other words to be successful at the next level, swimmers must act as if they are already there!

**Look at a practical example:**

**The six factors essential to swimming success are:**

- 1.** Swim with excellent technique
- 2.** Swim with excellent skills
- 3.** Swim with Fast strokes
- 4.** Swim with Long strokes
- 5.** Do all the above when tired
- 6.** Do all the above when under pressure

These six factors can be used to progress in training sets and training routines as swimmers aim for higher and higher goals. A training set like 16 x 25 butterfly might be completed on a one minute cycle by a young swimmer training for his or her local competition. The importance would be placed on the stroke technique and skills elements rather than speed at this early stage. However, we know that as the swimmer develops and aims for higher, more challenging and more difficult goals, three things are crucial to good butterfly at senior levels:

SWIM GREAT TECHNIQUE WITH MAXIMUM SPEED SWIM GREAT TECHNIQUE WITH MINIMUM BREATHS SWIM GREAT  
TECHNIQUE WITH MINIMUM STROKES

When training for THE NEXT STEP, it could be expected that the swimmer would complete the 16 x 25 fly set with less rest and perhaps at a faster speed.

Targeting THE NEXT STEP, the swimmer should aim to maintain good speed with less rest and with a minimum breath count (perhaps breathing every three or four strokes).

At THE NEXT STEP, the swimmer would aim to hold good speed, with limited rest, with the minimum number of breaths and hold a stroke count of 8-10 strokes per 25.

Training sets need to progress in terms of faster speeds, shorter rest (or longer rest), breathing control, skill level and stroke efficiency as the swimmer progresses to the next level of excellence and takes the next step in their competitive career.

A key part of progressing to the next step is **TO THINK LIKE A SWIMMER WHO IS ALREADY THERE!**

This is a difficult concept to understand because it requires you to “know” what you “don’t know”.

This change in mind set and change to approach applies particularly to training. It comes with a change in the swimmer’s level of commitment to the program. It comes with a change in attitude to workouts. It comes with a change to the effort put into doing the little things right in training. It comes with a change in attention to detail with starts, turns, dives and finishes. It comes with a change in time management and a better approach to time prioritising – school, swimming and life.

To get to the next level, **you must think like you are already there**. swimmers need to train like an international swimmer, warm up and cool down like an international swimmer, eat and rest like a State Level Swimmer and so on.

This is one of the things Bill Sweetenham said.

A coach's main job is- **TO CONVINCING THE UNWILLING TO DO THE UNWANTED TO ACHIEVE THE UNKNOWN.**

The "I CAN – I WILL – I DID" philosophy is an important part of taking any step forward. Believing you can, leads to the confidence to say "I will" which is only a short step away from "I did". NOT I CANT DO. Confidence is the key element in all successful sporting achievements. Achieving success at each step along the way gives you the confidence and self belief to take the next step. This is evident in many sports not only swimming

If you do all the small things correct in training a meet is only the opportunity to prove it to yourself and others The swim meet just confirms what you and your coach already know – that you have, by your thoughts and actions, taken the next step.

Another Quote

**"The significant problems we face cannot be solved by the same level of thinking that created them", (Einstein).**

## **Six Steps to Greatness**

Successful swimming is a combination of several factors. Fitness, speed, strength, technique, motivation, skills, a sensible balanced diet and good nutrition, a positive attitude, self confidence and flexibility are all important to swim fast.

**However, there specific factors that will influence greatly your swimming time**

- Start time – the first 15 metres, (from the starting signal to the time the swimmer's head crosses the 15-metre mark from the starting wall).

- Turn time – a distance of 10 metres in and out of the wall, (taken from the point where the swimmer’s head passes through a point 10 metres from the wall into a turn and continues until the swimmer’s head passes through the same point 10 metres from the wall on the way out of the turn).
- Finish time – the final 10 and 5 metres, (from the time the swimmer’s head passes the 10 metre mark from the finish wall to the actual hand touch on the wall).
- Stroke Length-the distance the swimmer’s head moves during a complete arm cycle, (ie from right hand entry to the next right hand entry).
- Stroke rate (or stroke frequency)- the number of stroke cycles per minute
- Swimming speed (or velocity)
- Split times (each 25 / 50 metre segment of the race)  
Looking closely at the Competition Analysis it appears that six factors are crucial to swimming successfully.
- These Six Steps To Greatness are:

**1.** Long strokes

5. Maintain all of the above when fatigued

**2.** Fast strokes

6. Maintain all of the above when under pressure .

3. Great skills

4. Excellent technique

## STEP 1

- LONG STROKES

At maximum speed, world class male and female freestyle swimmers are able to cover a distance of approximately 2 metres per stroke cycle. In other words, they can cover two metres per stroke cycle at a speed of 2 metres per second. The tables below show the stroke length of place getters in the 1998 FINA World Swimming Championships male and female 100 metres freestyle.

Table 1 showing stroke lengths for the first three swimmers in the final of the men's 100 metres freestyle at the 1998 World Swimming Championships.

	<b>Alex Popov</b>	<b>Michael Klim</b>	<b>Lars Frolander</b>
Stroke Length 1st 25 metres	2.49 metres	2.31 metres	2.34 metres
Stroke Length 2nd 25 metres	2.57 metres	2.37 metres	2.14 metres
Stroke Length 3rd 25 metres	2.6 metres	2.29 metres	2.14 metres

Stroke Length 4th 25 metres	2.29 metres	2.26 metres	2.0 metres
Average stroke length over the entire race	2.49 metres	2.31 metres	2.16 metres

Table 2 showing stroke lengths for the first three swimmers in the final of the women's 100 metres freestyle at the 1998 World Swimming Championships

	<b>Jenny Thompson</b>	<b>Martina Moravcova</b>	<b>Ying Shan</b>
Stroke Length 1st 25 metres	2.09 metres	1.73 metres	1.87 metres
Stroke Length 2nd 25 metres	1.97 metres	1.94 metres	1.96 metres
Stroke Length 3rd 25 metres	1.89 metres	1.98 metres	2.0 metres
Stroke Length 4th 25 metres	1.9 metres	1.89 metres	2.0 metres
Average stroke length over the entire race	1.96 metres	1.89 metres	1.96 metres

## Step 2:

Long strokes and FAST STROKES

Great swimmers are possessed with great speed. The ability to move fast through water is what the sport is all about. The top freestyle swimmers in the world are able to complete around 50 stroke cycles per minute at top speed, WHILST maintaining approximately 2 metres per stroke cycle.

Table 3 shows the average stroke frequency for the first three swimmers in the finals of the men's and women's 100 metres freestyle at the 1998 World Swimming Championships

	<b>Average Stroke Frequency (number of stroke cycles per minute)</b>
Alex Popov	48.8
Michael Klim	51.2
Lars Frolander	54.3
Jenny Thompson	52.2
Martina Moravcova	53.4
Ying Chan	53.0

### Step 3:

Long strokes and fast strokes and GREAT SKILLS

In top level swimming, events are won or lost on competitive skills like dives, starts, turns and finishes. Explosive starts, tight turns and powerful finishes are often the difference between finishing first and third in international sprint swimming.

Table 4 shows start times, turn times and finish times for the first three swimmers in the finals of the men's and women's 100 metres freestyle at the 1998 World Swimming Championships

### Step 4:

Long strokes and fast strokes, great skills and EXCELLENT TECHNIQUE

Technique is a difficult thing to measure. Coaches can identify what constitutes a good technique and what needs improving through years of coaching education and experience. It is generally agreed however, that excellence in technique is a prerequisite for fast swimming and much of what we know about technical excellence we have learned from studying the movements of champion swimmers.

	<b>Start time (first 15 metres)in seconds</b>	<b>Turn time (7.5 metres in and out of the turn) in seconds</b>	<b>Finish Time(final 5 metres)in seconds</b>
Alex Popov	5.86	7.12	2.49
Michael Klim	6.08	7.08	2.48
Lars Frolander	6.26	7.12	2.29

	<b>Last 25 metres (time in seconds)</b>	<b>Finish Time Final 5 metres (time in seconds)</b>
Alex Popov	13.31	2.49
Michael Klim	13.22	2.48
Lars Frolander	13.23	2.29
Jenny Thompson	14.45	2.62
Martina Moravcova	13.55	2.96
Ying Chan	13.82	2.59

**Step 5:**

Swim with long strokes and fast strokes, great skills and excellent technique WHEN FATIGUED

Swimming fast is not the problem. Swimming fast when it really starts to hurt, that's the problem!! Swimmers competing in major competitions are able to keep swimming fast when it gets tough in those last 25 metres and their bodies are screaming at them to slow down or stop.

## **SIX STEPS TO GREATNESS?**

1. Work on keeping strokes long and strong at training. In every effort ask yourself "Could I do this with fewer strokes?"  
When doing skills work like drills aim for technical perfection, then technical perfection with the minimum number of strokes.
2. Develop real speed by working hard duringy our speed work training and getting the best out of every effort. Train fast to Race fast. Be constant ,don't be good 1 day and poor for a week!
3. Every turn in training is a race turn, every dive is a race dive. Every finish should be completed on the wall with power and controlled aggression. Train with the skills you would like to race with.

4. Drills should be completed with precision and with 100% concentration. Think technique first at all times.
5. Challenge yourself to swim fast when tired. In training challenge yourself to jump up at the end of the session and swim fast DON'T MAKE EXCUSES. When racing, challenge yourself to swim fast when tired, to swim fast heats in the morning then faster finals at night, to swim as fast on the last day of the meet as you did on the first day etc. **YOU WILL ONLY BE ABLE TO ACHIEVE THIS IF YOU TRAIN AS ABOVE**
6. Learn to enjoy pressure situations. Being nervous is a sign that something great is about to happen. Your body is getting ready to do something brilliant. Learn to enjoy the pressure of competition.

We can't all be world or Irish class swimmer sbut we can learn a lot about them by studying the way the race. Great swimmers are great for many reasons. The six steps to greatness are ones every swimmer, of any level and any age can take to help them achieve their swimming goals.

**As the proverb says, “the longest journey begins with the first step”.  
Take your next step towards being the best you can be right now.**

KEEP YOUR STROKES LONG AND STRONG.

MOVE THEM FAST, KEEP THEM LONG.

MAKE SURE THAT YOUR SKILLS ARE BEST THEY CAN BE.

WORK ON YOUR STROKE AND SWIMMING TECHNIQUE.

EVERY DAY, EVERY MONTH, EVERY YEAR.

WHEN THINGS GET TOUGH AND YOU GET WEARY, KEEP FIGHTING ON AND NEVER GIVE UP

DO ALL THE SMALL THINGS WELL

TRAIN AS YOU WOULD LIKE TO RACE