



Future Dreams

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Have you ever found that adding gym-work, or increasing your swimming miles hasn't improved your swimming speed? Well then you're in the same boat as many others – it all comes down to WHAT and HOW you're training. To improve speed in the water, you have to train smart. The only problem is, what is that and how can we do it? Basically it will always come back to fundamentals – doing the basics well.

Swimming Fundamentals

The foundation of any good swimmer is simple – the possession of 3 attributes ...

1 Efficient technical habits (& a pliable mind ready to make continual improvements)

2 Good levels of flexibility – being able to allow movement through any range of motion. Note the high degree of flexibility in the streamline photo on the left.

3 Specific strength (this results simply from ingraining only good technique)

What is Specific Strength?

Specific swimming strength is that muscular strength that is gained by moving your body through ONLY the movement patterns of an efficient swimmer, i.e. muscular strength that comes about from using the right technique (in the past we have referred to this as correct strength).

So, the focus of what we should be training is the correct neural pathways. This involves teaching your muscles the order in which to fire to achieve an efficient swim stroke. Therefore, it is not so much the pure strength of these muscles we are focussing on but, instead, their coordination.

Now, the biggest hurdle to this is that any change in muscle coordination takes time. Those changes cannot be forced, otherwise effective change will not take place. Therefore, you must learn to relax and let changes happen at their own pace. There is, however, an important upside to this. Specific strength (i.e. implementing good technique to gain specific swimming strength) can be achieved in a physically stress-less way. It merely involves thoughtful, relaxed but repetitious distance. And this involves trust - it does not intuitively compute with all of us so we question it often and rarely follow through completely with the whole process.



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Two Areas of Specific Strength

For simplicity, we can break Specific Strength into 2 headings:

1. Correct propulsion technique

If you can learn how to catch more water, instead of letting it slip off your hand, then your neural system and the correct coordination of muscles begins to strengthen. This will help develop the most appropriate coordination of strength.

2. Power Transference and Glide

As you begin catching more water on the pulling arm, you must ensure that it is transferred into forward momentum otherwise it will be wasted. This involves transferring the pulling energy through the body-roll and into the opposite arm via a stabilising kick and a reach with that leading-arm (this results in a glide). A lot of this is 'feel' based and can sound abstract. This, though, merely highlights that it cannot be forced or you will not achieve anything significantly different. As you can tell, flexibility is an obvious issue here as well – the more you can stretch the leading-arm as you pull the pulling-arm, then the more power is transferred. Easily Understood But Harder To Obtain

It should be easy to understand that if you can move your body through ONLY the movements of an efficient swimmer each and every time you train then you will start to develop the strength of a good swimmer. But in practise how can we do this?

Developing this specific neural strength for swimming can be a long journey. It is primarily due to the problems of ...

- 1 lack of ability to change habits, and
- 2 lack of flexibility (inability to move through a better technique).

For a serious swimmer, however, these 2 factors should be your gospel for success. Often, working on technique or flexibility is discarded in favour of high mileage and speed work at times when it is not necessary. Choosing these options over the fundamentals will generally just seal your relationship with ineffective movements. You may get fitter but, at the end of the day, you will not get significantly faster.

Of course, I am not implying that all distance training should be easy. To get fast you will still have to increase your intensity and miles. However, key weekly sessions (or even entire blocks of weeks) should be earmarked for technical improvement and set aside once every 6 months. At these times your swimming intensity should drop significantly. Then you will be in a position to challenge your neural system to learn exactly how to increase pulling efficiency and also project yourself through the water more cleanly.

Developing Specific Strength?

Over the winter period or at the start of your summer build-up are two prime



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times to introduce programming elements aimed at building specific strength.

Firstly, make a commitment to stretching before every single session you swim and do it for at least 10 minutes in an effortless but a focussed way (Note that talking at the same time isn't ideal when striving for flexibility improvements). A good shoulder, back and sides stretching routine will start to ensure your muscles possess the range of movement required of a good swimmer. You should see the results of this addition within 6 weeks.

Secondly, add regular drill work that is completed with a fast kick but slow arm recovery and pull. In this way you will begin to understand if you are actually pulling or slipping water and also whether or not you are directing that force forwards (are you gliding or merely pushing yourself up and down?)

So, by starting with short easy drill sessions you will begin dissipating incorrect movements in the water and help to change them for the better. Combined with this technical-work should be some easy but short intervals of 25s, 50s or 100s and do them over a long distance, say 3-4000m (depending on your level). Programming lots of short repetitions will give you regular rest periods which means that on average you are less fatigued throughout the entire session (eg 60 x 50m with 15 rest, or 4 x 400 + 80 x 25s). This simple programming recommendation is going to positively assist in instilling better technique as you swim. As you continue with these easy technical sessions and also low-intensity (but long) interval sessions, you'll begin to improve your neural conditioning. And when your neural system starts to become strong, the specific muscular strength you'll require to swim fast begins developing as well. It's all about consistent repetition of better and better swimming movements learned under a non-stress training regime. Every now and then intensity can be nudged up a notch on certain test sets. These are sets that will not completely fatigue you, but will merely add some controlled intensity.

At almost no point is your technique being compromised, which is the key to ensuring efficiency is maintained and only specific strength is being stressed. Take a look at a good swimmer – they always swim with that long fluent and powerful stroke don't they? Well that's what you need to start heading towards – improving upon the technique every week so that the strength you gain from your training becomes more specific.

Remember that the journey to speed-improvements should not have to be a forceful experience. If you understand what this article is explaining, you will understand that the most important aspects to your swim training are the basics – flexibility and only moving / pulling through the correct actions. Then, without undue stress on your mind or body, you will begin to improve naturally.

Strategies for Improving Specific Strength



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» Stretch before every session for at least 10 minutes.

» Practise Drills regularly and swim them slow and easy. Ensure you attempt drills that will challenge you, not just the ones you know already – your body must be constantly adapting to new skills to improve. Otherwise you will plateau skill-wise and your progress will stall.

» Watch your hands every now and then for your own feedback on where and how you are pulling. This can help you make sure you are pulling through the correct pulling-path (after the glide, begin by pressing slightly to the outside of the black line, and then press back to the hips - do not allow the hand to slip water by crossing the black line). Assuming you start to become aware of how to pull more water, even if 80% of your mileage is easy then you will start to become more specifically strong for swimming and that will lead to speed.

» Swim long easy intervals to help change and then instil better technical habits. These will then build slowly (but easily) into that elusive specific strength you are searching for (eg: 40x100s, 30rest, descending pace but none hard)

» Resistance Training – if you find holding correct technique in the pool too difficult because you just cannot find the correct technique, stretch cords are one very specific way of helping develop the correct neural and muscular strength. Because you do these on dry land, you also have more awareness and therefore control of what muscle coordination is being fired. Then as you become stronger out of the water, you begin to take charge of those movements performed in the water.

So, Good luck with all your training and remember...

TECHNIQUE SETS THE UPPER LIMIT TO WHERE YOUR FITNESS WILL TAKE YOU

Cheers,
Haydn



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