



Future Dreams

September 1999
By Haydn Woolley
9/1/1999

The 2 most common swimming faults - and how to avoid them. This article will teach you an important fundamental of swimming technique and change the way you think about swimming forever. Don't be afraid to change what you are currently doing and remember - RELAX!

Every week that passes I see more and more swimmers who come to me for stroke correction and 95% will exhibit the same common faults. This is good news for the majority of us because these are faults that are relatively easy to correct if they can first be properly understood by the swimmer and how they affect the way the swimmer will move through the water. These two faults revolve around two commonly discussed concepts in swimming ...

1. CORRECT BODY POSITION

How the position of your body in relation to the water's surface affects your streamline & the drag produced as you move through the water

2. SHOULDER HYPER-EXTENSION

This focuses on the 'reach' and 'catch' phases of your stroke. It involves hyper-extending the arm that has just entered the water then delaying that lead-arm to minimise drag caused by pulling too early. It also maximises your reach by furthering the start point from which you begin to pull.

In this article we will discuss the first of these two concepts in greater detail. We will discover how it will affect your swimming and what to do about that fault if you discover it is a component of your current swimming style.

BODY POSITION

Terry Laughlin has a concept he calls "downhill swimming" that fits in nicely with much of what we at FutureDreams attempt to correct with technique based-programs and corrective swimming drills.

Downhill Swimming is a metaphor for the feeling that you get when your body position is aligned correctly in the water to minimise drag caused by water moving around it as you travel down the length. It all revolves around the concept of balance in relation to the water's surface.

In the water there are 2 forces acting on your body - buoyancy and gravity. Due to both of these forces we must find a position in the water that minimises the effects of both so that we can minimise our energy requirements. Just like on the land, there are 2 positions that eliminate the effect of these forces and allow you to completely relax. Funnily enough,



swim@futuredreams.co.nz

www.futuredreams.co.nz

021-2888715

these just happen to be the same as on dry land – either perfectly horizontal or straight up and down. Anywhere in-between these 2 will cause tension in some part of our bodies and waste energy that is simply not required in swimming.

Now, whoever is attentive here will note that being straight up and down is no way to travel through the water because of the obvious drag forces involved. It does, however, make good sense to most of us that being perfectly horizontal will allow us to expend the least amount of energy if we 'slide' rather than 'bash' through the water. There is one complication here in that swimming freestyle involves an arm movement requiring 'body roll' - to reach forwards and also to breathe. This is where most problems start for the majority of us. There is nothing more natural to us than wanting to breathe when your head is underwater. Without some oxygen you are not going to go very far.

The problem is this, and is the single biggest CAUSE of all swimmers technical faults in the water –

WHEN YOU ROLL TO THE SIDE, YOUR HEAD WILL BE UNDERWATER IF YOU ARE STILL CORRECTLY BALANCED (ie still perfectly horizontal).

Most of us react to this uncomfortable feeling by lifting our heads. Note that I said "cause" above. What I mean to illustrate by emphasising the word cause, is that the actual grass roots "source" of where most of our problems begin will be our head. Always look at the position of your head first!

The effects of lifting your head as you roll are as follows:

1. Dropping hips – causes drag
2. Tension on the lower side of the body – wasted energy
3. Skewing of the hips – causes drag
4. Scissoring of the legs when breathing – causes drag
5. Dropping your lead arm into the pull phase too early – causes drag but you also lose a greater potential glide from the previous pull-through

All these five points will individually and collectively compromise your streamline and increase energy expenditure– you will have begun to cause drag and use more energy, which not only slows you down but also tires you out faster. As you can see, this seemingly small problem is actually a major source of all our worries in the water.

The best drill to correct this is something we at FutureDreams call Six-Kick. This is really just side kicking where you rotate from side to side with one arm stroke cycle to help pivot you around. Do this drill with FINS, as they will help you relax (which is imperative to effective learning).

DRILL – Six-kick Change Freestyle

METHOD: This is essentially kicking on your side in your "breathing position" for 6 kicks (one arm in front and one arm resting by your hip) and then



swim@futuredreams.co.nz

www.futuredreams.co.nz

[021-2888715](tel:021-2888715)

rolling to the other side using one freestyle arm-cycle to pivot you. Keep your body and head facing the wall while on your side and roll only your head to breathe not your body – maintain the horizontal balance! Make sure you also stay very long and straight while in this side position as it is easy to lose concentration and skew.

IMPORTANT – You must keep your head (ear) down and very relaxed on your shoulder while kicking on each side. This retains balance during the pivoting action initiated by the arm cycle. Your body's natural reaction to this position is to lift the head (for air) but this compromises your streamline maintained by only rotating on your axis. This is why you must learn to feel relaxed with your head down and under the water on your side. AIMS: This drill aims to teach you to roll ONLY on your horizontal axis (the imaginary line that skewers you from head to toe running straight down your spine). You need to be able to roll from side to side WHILE keeping your body straight the entire way around (only achieved with good balance – head relaxed and down in the water, legs high the whole movement around as you pivot from side to side). If your head lifts or legs drop during this rolling movement, you know that you have lost your streamline (causing drag) and are not balanced.

When swimming freestyle you will roll naturally as each arm enters and stretches forward to catch the water. Because of this it is very important you learn the feeling of being balanced through the entire roll from side to side in this exaggerated drill. Most swimmers lose their streamline when rolling even slightly because their heads do lift and this impacts on the rest of their body as discussed.

CUES:

- Ear position: is it touching your shoulder?
- Eyes? – track the path your eyes follow as your head rolls through its long axis: do they go from the side wall, to the bottom, then to the opposite side's wall? If so then your head is rolling and not lifting.
- Head relaxed and low for the whole movement?
- Legs kicking near the surface?

Pullbuoys & Wetsuits Show Up this Weakness

The concept of body position explains to a large extent the reason why a Pullbuoy or a wetsuit will feel much faster. Your body position is automatically higher and more balanced when either of these 2 devices are used. This should imply that we train by planning sets of alternating intervals with & then without the pullbuoy with the aim of maintaining the better body position even after taking the pullbuoy away. We should use pullbuoys in training only to simulate the higher body position it affords and become familiar with that correct feeling. Do not become reliant on swimming aids!

SUMMARY



swim@futuredreams.co.nz

www.futuredreams.co.nz

[021-2888715](tel:021-2888715)

If you know you have problems with your breathing right now then you can almost be certain your head is the cause and the above drill will help to make you more aware of it. You need to become accustomed to this downhill swimming feeling accompanied by the rolling action of rotating only on your long axis when you breathe. When you are successful with this, your swimming will improve dramatically. Until then lay off the pace and gain a feel for the water 1st by doing slow or slightly up tempo drilling instead of repeating the same old wrong movement patterns again and again. Have a friend comment from the side or get yourself a good coach. You should feel the changes taking effect immediately.

KEY POINTS

1. Body Position - feel your legs high and head relaxed down (DS)
2. As you roll to breathe keep your ear down
3. Hold your technique to the death - ingrain only the most efficient neural movement patterns

Cheers, and remember - always relax,
Haydn



swim@futuredreams.co.nz

www.futuredreams.co.nz

021-2888715