

# Better Breathing

The act of breathing during front crawl can be arduous. But it needn't be, says **Dan Bullock**, who outlines how you can go bilateral and more...



**Dan Bullock**

is a former 220 Triathlon Coach of the Year Award winner. He's also ASA-qualified and an expert in open-water swimming

Swimming at a certain stage of development can be cruel. No matter how hard you try, no matter what the effort, it's possible to get no reward from that hour in the pool. Due to wrong assumptions made about swimming – and how to improve – it's easy to add more strokes and more power in a wasted effort to improve both speed and your distance capabilities.

Observing adults improving their front crawl (FC), it's clear just how stressful the act of breathing within FC can be. And until you've really mastered a good FC technique, the stroke will dictate when it allows you to breathe. The aim is to lengthen your FC stroke, which will increase the window for breathing and is made possible from a lack of rotation and a faster stroke turnover.

## Breathing pattern

A key area of concern is the desire to breathe bilaterally too soon. But the jump from breathing to one side (every second stroke) to both (every third) will improve your ability to relax in the water. This change in rhythm will result in, on average, six breaths less per length (at a 25 stroke count over 25m).

The benefits of breathing to both sides are many. Primarily, it can help FC swimming by bringing stroke symmetry, stopping one side from becoming too dominant and improving the usual weak catch on the arm we breathe away from.

But the benefits from a bilateral breathing pattern (BP3, 5 or 7) can be outweighed if you place the body under too much stress due to such a significant decrease in available air. To

make the transition easier, introduce breathing to the left for one length and then to the right for one length to avoid the FC technique deteriorating rapidly due to a lack of air.

Your FC stroke will soon improve with better body positioning and streamlining, improved catch phase, and the utilisation of a stroke that's driven less from the legs and more from the efficient muscles of the upper body to create a better paddle/lever shape to generate your propulsion.

## Relaxation advice

Another key area of improvement is the ability to relax in the water. Good stroke

technique should create more stroke length and more time, thus allowing you to dictate as and when you want to breathe. A faster turnover of armstroke – attempting to create speed from more strokes that are shorter in length – is hard to sustain as you narrow the window of opportunity to take a breath.

If the stroke dictates when you get to breathe, the consequences can be that your BP2 will be invariable (an issue if it stays one side long term), along with a frustration and inability to relax. We try to solve the problem with a faster stroke turnover to speed up the interval between breaths.

Basic body position drills will have the effect of improving streamlining, lengthening



## Jargon Buster

**Bilateral breathing** Breathing to both sides.

**BP3/BP5/BP7** Breathing patterns. The numbers refer to the number of strokes between breaths.

**Inspiratory Muscle Training (IMT)** A technique whereby a specialist device is used to help strengthen the muscles used for breathing.

**Vo<sub>2</sub> max** The volume of oxygen your body can consume while exercising at maximum capacity. Those who are fitter will have a higher Vo<sub>2</sub> max.

PHOTOS: EDDIE JACOBS



There's a limited window for breathing, but you can create more time for a longer breath

the body position, catching the water from further out and then driving water further back. All of these individual areas will create more time in the stroke for a longer breath. This will then allow you to relax further.

Rotation drills will lower your profile in the water and will lower the air/energy needed per stroke to shunt the body through the water. Some tricep work will help you finish the stroke down beyond the hips, again lengthening the 'window' available for breathing. →



Body position drills will help you streamline. Witness the good extension at the back of stroke

## Common complaints

Following a Swim For Tri Q&A session, these were the most frequently asked questions by triathletes. Dan Bullock, as ever, provides the answers...

### Problem 1 "Not enough time to fully exhale"

Many swimmers attempt to breathe out – and then in – above the surface of the water, leading to an incomplete inhalation and limited air for the next stroke cycle. When this happens, often the head turn (becoming a lift of the head) is exaggerated and is kept above the surface of the water for too long.

**Solution** The simple extension drill will add length/time to your stroke through better streamlining. Here, we've introduced the drill with a breathing element to help those struggling with the concept of stopping breathing in and out above the surface of the water...

#### Drill 1 Standing extension

- Your feet should be on the floor at the shallow end, with your upper body in the extension position (hands as far apart as possible).
- Make sure your upper body is horizontal and arms outstretched, with your trailing shoulder above the surface.
- Head down exhaling into the water. Turn to the side above the surface to inhale.
- Try emptying before surfacing. This will create a vacuum effect that will literally suck air into your mouth as you need to breathe.
- Don't move your arms, just practise the head turn. Alternate five breaths on the left, then to the right. Once comfortable, commence arm movements in this position, and turn to breathe once the hand of the pulling arm is moving under the shoulder.



#### Drill 2 Snorkel

Swimming with a central snorkel is a great way of reducing head movement so that you can just think about the passageway of air. Use your mouth with the snorkel for inhalation/exhalation and it'll get easier to control the flow as you wish.



### Problem 2 "I find it hard to exhale while my face is in the water"

With water being approximately 1,000 times denser than air, it's understandable that fully exhaling below the surface can be a struggle, especially when we consider the number of respiratory conditions out there.

**Solution** Inspiratory Muscle Training (IMT) with a POWERbreathe device will generate a stronger breathing effect. As Tom Waller highlighted in issue 239, bouts of 30 maximal breaths repeated twice daily is – until the muscle strength increases – the recommended training programme.

Alternatively, Yoga takes you through the clear process of inhalation and exhalation and helps practise breathing pathways. Yoga positions may well be predominantly static, but opening up the ribcage/lungs can only help you take control of your breathing whether you're on dry land or in the water.

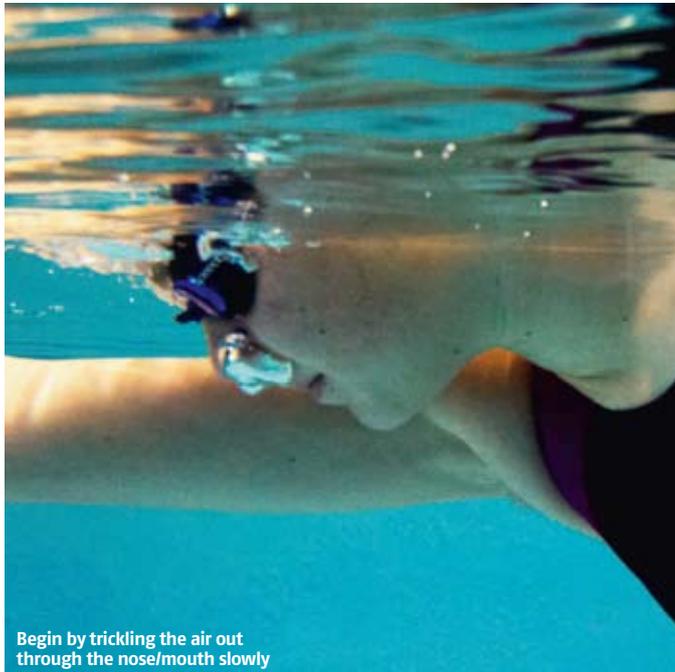
A POWERbreathe device is excellent for Inspiratory Muscle Training (IMT)



### Problem 3 "I run out of air before the next stroke"

On land most people can hold their breath for around 20secs with ease. So, for competitive triathletes – with massive  $VO_2$  max scores – why is it so hard to breathe every third stroke during a length of front crawl (FC) on a continuous basis? If you factor in the stroke rate, this means you need to hold your breath for just 5–10secs at a time, and to achieve this exhalation nirvana you just need to follow this...

**Solution** There's a two-step plan to exhale efficiently – trickle and explosive. Begin by trickling the air out through the nose/mouth slowly for the duration of the two or three strokes between breaths. The remainder is then exploded out through the mouth before turning for the next breath. This will improve buoyancy and release the  $CO_2$  build-up slowly before the main exhalation. This leads to the rushed influx of air from the vacuum effect as you resurface.



Begin by trickling the air out through the nose/mouth slowly



Then explode the rest out through the mouth before turning for the next breath

### Problem 4 "I'll never master bilateral breathing"

A lack of balanced rotation can lead to erratic bilateral breathing. If the trailing shoulder stays low – for example, it isn't rotated – then it stays submerged, meaning that when you turn to the unfamiliar side, you struggle to breathe because your unrotated body position leaves your shoulder in the way.

Setting aside the idea that for the weaker swimmer a breathing pattern of three may be some way beyond them, there's also the physical issue to contend with. Making the transition from breathing every two strokes to bilateral strokes means you'll have to undertake a physical change to your swim technique as well as holding your breath for longer.

**Solution** To develop equal and balanced rotation through the body, keep these tips in mind...

- Rotation needs to originate through the body rather than the head turn.
- Once the shoulder of the pulling arm is clear of the surface, the passage of the neck to turn is smoother.
- When the breathing movement generates most of the rotation (through an aggressive head lift), then a lack of rotation when you're not actually breathing will hamper efforts to breathe to the weaker side.



Balanced rotation needs to originate through the body rather than the head turn