

Are you swimming right?

Despite being one of the nation's most popular activities, most of us don't do it well enough to boost our fitness levels. Technique is everything.....



You have to 'think long' with your reach while swimming, a former world champion swimmer says.
Photograph: Bob Thomas/Corbis

Swimming is the second most popular physical activity in the UK (beaten only by walking) - with 14% of adults regularly using the pool. But, shockingly, recent US research shows that 98% of recreational swimmers do not make gains in aerobic fitness.

We simply aren't doing it very well - swimming neither fast enough nor for long enough to make a real difference. In one study, it took untrained swimmers 50 per cent more oxygen to achieve the same speed in front crawl as trained swimmers. This is why many of us spend so much time gasping for breath in the shallow end.

With most sports, regular practice ensures that you improve, but you can swim for years and never really get any better. That is because it is all about technique. By improving your technique you will find swimming more enjoyable, you will swim faster and reap greater fitness benefits.

So where should you start? According to Dan Bullock, director of SwimforTri (an organisation that offers swim coaching, with a focus on triathlon events), in front crawl there are four main factors:

1. Body position

"If you imagine you are looking at a swimmer from the side, the body should be flat from head to toe, and parallel with the water's surface," says Bullock. "If your legs are too low, they will increase your frontal surface area, slowing you down." To a degree, your body composition - the proportion of fat, muscle and bone - determines your body position in the water (fat floats better than muscle), but an error in positioning is more likely to result in poor streamlining. For example, a classic cause of the legs being too low is the head being held too high, says Bullock.

But while the body needs to be flat to minimise "drag", it should rotate lengthways as you swim. "If you watch elite swimmers, they roll from side to side," says Bullock.

Doing this reduces resistance and enables you to extend your reach in the water and engage the strong back muscles, rather than relying on the smaller and weaker shoulder muscles to power your stroke."

If you were watching a swimmer head-on, you would see their body rolling roughly 45 degrees from side to side. A good body-roll also facilitates the turning of the head to breathe, and assists a swimmer in their ability to lift their recovering arm high over the water, leading with the elbow.

2. Correct mechanics

Bullock likens forward motion in swimming to running. "When you run, you plant your foot and the body goes forwards. With swimming, you 'hold' the water and make progress via the body travelling over the hand," he explains. "Good swimmers will hold more water and pull their bodies further."

To gain hold on the water, the hand should move from the front of the stroke to the back in a "slow to fast" motion. Some people liken the motion to rolling the hand over a beach ball and then flinging it behind you.

Karen Pickering, a former world champion who now runs her own national swim school (karenpickeringswim.com), advises "thinking long" while in the water. "Reach out as far as you can with the pulling arm [as it enters the water]," she says. "Make yourself as long and stretched out as possible."

3. Distance per stroke

Good swimmers don't cover distance with faster strokes - they simply travel further with each stroke. "The more distance you travel per stroke, the fewer strokes you'll take per length - conserving energy," says Bullock.

Improving distance per stroke is not a matter of kicking harder - which we will come to in a minute - it is more a case of breaking the stroke down into its key parts and maximising your efficiency in each before "rebuilding" it. Counting your stroke rate (strokes per length of the pool) is a useful way to gauge progress. Obviously, you don't want to be counting strokes on every single lap, but you could pick, say, every fourth lap to count. Try not to let your stroke rate creep up during your swim.

A frequent mistake is to use the legs for propulsion. "About 80% of the work comes from the back, shoulders and arms in front crawl," says Bullock. "The legs help to balance you."

4. Timing

Good timing is everything. It helps you to maintain a streamlined position, maximises your distance per stroke and creates the time to breathe without being rushed. If you are "windmilling" - with your arms working at opposites - you will be going nowhere fast and expending a lot of energy in the process. "You want one hand to enter the water just as the other begins pulling," says Bullock.

Breathe while the arm is recovering, but ensure your head is back in the water before the hand makes entry. It is common for novice swimmers to keep the head out too long. "The reason beginners do this is that they are trying to breathe in and out while their head is out of the water,"

explains Pickering. "This results in you gasping for breath because you haven't got time to get enough oxygen in. Try to exhale the whole time the face is submerged."

And finally ...

Bullock recommends swimming as often as you can if you want to really make improvements. "It's better to hit the pool three or four times a week for 20-30 minutes than to go for one or two longer sessions," he says. Pickering advises investing in some swim tools, such as kickboards, pull buoys and hand paddles to enable you to focus on different aspects of your stroke and to keep your sessions more varied and interesting. "Goggles go without saying," she adds.

Breathing space

The waterline should meet your head somewhere between the top of your goggles and your crown. When you breathe, don't lift your head right out of the pool. If you watch a good swimmer, it can appear as if they barely take their head out of the water at all. This is because they are breathing into the trough that follows behind the "bow wave" that their progress creates.

Don't suck in too much air, and make sure you breathe out (slowly, to boost buoyancy, rather than forcibly exhaling) while your head is in the water. "Practise breathing to both sides," advises Pickering. "This will give you a more balanced stroke." If you breathe on one side all the time, you'll use the arm, shoulder and back muscles on that side more.

Active arm

The arm should stay fully extended for a brief moment before "catching" the water. Catch with the whole of the forearm and hand, keeping the elbow higher than the forearm and hand. The arm accelerates throughout the stroke, right up to the point of exit, when the hand passes the hip. It should be close to the body for streamlining.

Hand

The hand enters the water at a point inside the shoulder line but not crossing your body. The arm should be well extended, but not straight at the time the hand is submerged - it only fully extends under the water. Keep the fingertips down when pulling through the water.

Head

Look slightly ahead, not at the bottom of the pool.

Recovering arm

Once the arm is pushing back (when the hand has passed the elbow), the elbow begins to straighten. When the arm exits the water, the elbow immediately begins to flex again, staying high with the hand close to the body.

Tummy

The core muscles in the trunk should be engaged to prevent the back arching and to enable the body to roll. Focus on the direction your belly button is pointing as the body rotates.

Legs

The kick should start from the hips, not the knees. It sometimes helps to focus only on the downbeat of the kick, not up and down.

Ankles

The ankles should be floppy, not rigid during the leg kick. "Flexed, stiff feet can cause you to move backwards," warns Pickering.