


# ALL THINGS LEGS

## How do you best use your legs when swimming freestyle? By **Tracey Baumann** and **Emma Levy**

In order to swim freestyle efficiently, the legs must be involved. However, how we involve the legs will determine if they are helping or hindering us.

If the swimmer does not use their legs at all this will result in the legs, which comprise a large proportion of the body mass, being disconnected and therefore not controlled, causing them to wave in a fishtail manner behind the torso. This causes a huge amount of drag both laterally and vertically. Equally, if we do use the legs but by excessively kicking them as hard and as fast as we can, they will again be disconnected, difficult to control, and often the resistance created by all the bubbles and splash will be greater than that of the propulsive opportunity.

Then how do you best use your legs when swimming? Most people would say they are there for "balance" and you should kick to keep the legs up. However, this way of thinking only serves to create "false" balance and a tired swimmer as they are desperately trying to kick their legs to keep them up when in actual fact we can obtain horizontal balance in the water by connecting body parts and shifting the centre of buoyancy. So what are the legs for then? The most effective way to use the legs in swimming is for maintaining rotation, providing an anchor to rotate from, and a counterbalance to the recovering arm on the other side. And of course, they do provide some forward propulsion if used correctly. The legs need to be in the correct position to provide this counterbalance rather than to work hard and churn up water in an attempt to maintain balance. There is a slight difference. And changing how you think about the legs can instantly change how you use them.

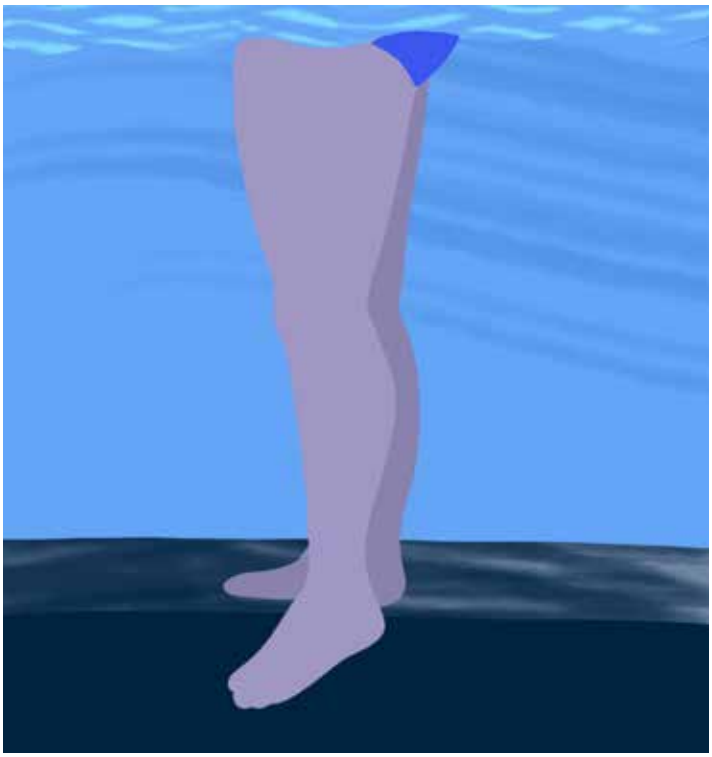
So the question is, how can we move our legs in a kicking/fluttering motion without compromising the non-negotiable frame ie. correct body position? We need to do this by using core muscles: predominantly the abs, glutes, spinal stabilisers, obliques and psoas.

These days many swimmers are striving to learn a two-beat kick. However, whilst it can definitely be more efficient, if executed correctly, it is not a necessity. A well connected, well-timed six-beat kick or flutter can be very effective and efficient too. My advice is that if you get your legs connected and staying behind the torso within the shadow of your body, then they are probably going to be more efficient than they started out being. With each year that goes by, we are seeing more and more two-beat leg mechanics, and variations thereof, in elite swimmers. However, a well-timed, connected two-beat leg movement can be very tricky, and therefore should not be attempted until you are certain that you have integrated correct body connections. Over the years I have seen many swimmers who have attempted to teach themselves two-beat leg mechanics and created an excessive knee bend and a completely disconnected and interrupted stroke, causing over-rotation and dead spots in the momentum that have then taken many months to correct.

So if we now know that the legs are not there purely for balance but as a counterbalance, do we need to be kicking all the time? The answer is, it's optional and very dependent on whether you are swimming a sprint, long-distance or a cross-channel event. Most importantly it is dependent on the technique of the swimmer. Executing a flutter or a six-beat kick that is well-timed is definitely faster, there's no disputing this. However, it is not efficient over longer distances because the swimmer fatigues more quickly. Therefore, striving to learn a well-timed and connected two-beat leg movement will definitely be a benefit for those wanting to attempt the longer challenges.

EXPERT ADVICE

**Tracey Baumann and Emma Levy are SwimMastery coaches. swimmastery.online**





## TRY THIS

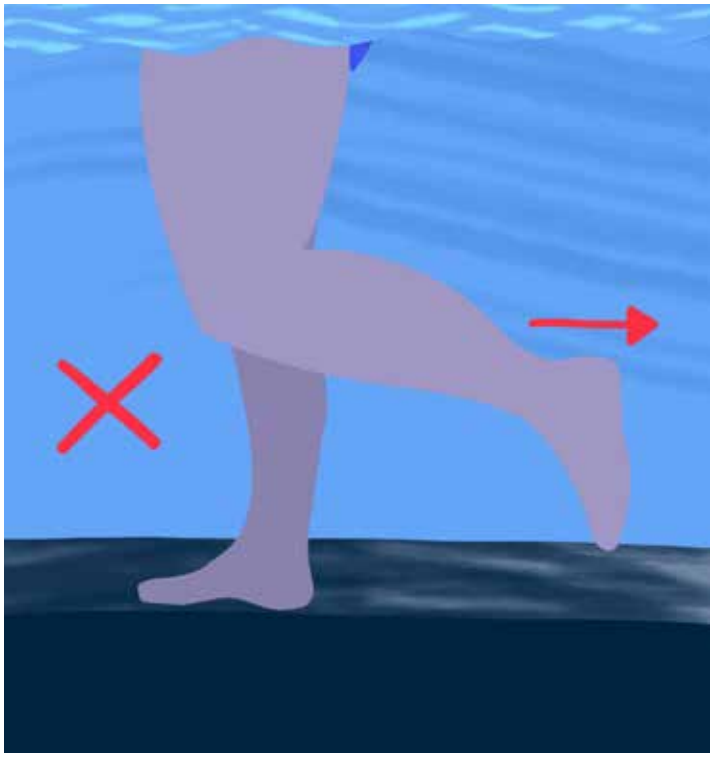
**1.** Stand sideways on a step or small ledge with your right foot as close to the edge as you can get it, and your left leg hanging down beside it. Stand tall, imagining that the top of your head is trying to touch the ceiling.

**2.** Draw the back of the left thigh backwards. (See diagram) Once you have drawn the left thigh back, just hold it there for a moment and notice what you feel. Can you notice which muscles have engaged during this movement? If you're not sure, return the left leg to its neutral position simply hanging, and once again draw your left thigh backwards, keeping your leg straight.

Note at this point, you are not pulling the back of your heel back, but the back of your thigh. As you perform this action you are looking to feel your glutes engaging and your psoas on that same side lengthening. I want you to think of this as if you are moving the thigh bone rather than engaging muscles to achieve this.

Be very mindful that you are not instructing the glutes to pull the leg back per se, but drawing the leg back and noticing which muscles engage.

Now turn around and do the same thing on the other side; does it feel the same? This is the beginning step of learning to move the legs correctly regardless of whether you have chosen to learn a flutter/six-beat kick or a two-beat kick.



CHANGING HOW YOU THINK ABOUT THE LEGS CAN INSTANTLY CHANGE HOW YOU USE THEM