

RESISTANCE



Robin Williams explains how resistance work can improve your technique

PHOTOS: **ROBIN WILLIAMS**

Have you ever seen people trailing a rope off the stern while out rowing, or perhaps with a hosepipe, boat tie or bungee strapped around the hull? Or even a boat rowing at full pressure with half of the crew sitting still doing nothing? They haven't gone mad, they're just doing resistance training!

Runners do hill runs, run with weighted jackets, or sometimes do sprint efforts with a car tyre dragging behind them; cyclists ride hills and use hard or fixed gears; swimmers use webbed gloves, attach water drogues behind them – in fact many sports find devious ways to make things harder.

There are plenty of reasons why this type of work is good, the main one of course being for the physical training. The extra loading makes you strong and powerful, so when you remove the resistance 'normal' rowing can feel really dynamic.

As well as resisted work you can also do *assisted* training to produce faster, lighter muscle contractions which puts a greater emphasis on the *skills* of movement rather than the power of it. Runners can run downhill, cyclists can spin a light gear with a high cadence, swimmers can use flippers or swim in pumped tanks. For rowers it's a bit harder



Hard work uphill!

because although you can use lighter gearing or clams to ease the load, it can cause ripping in the water. However, tail-wind rowing is certainly one way to produce over-speed.

Let's return to resistance work: as well as the training effect, resistance can help with technique too.

In the November / December issue we discussed how postural conditioning and trunk strength are the first steps to underpinning good

still rate 20, 30, or even do racing starts!

So how does it help technique? Well, firstly it can help your **timing** quite significantly: a roll-up to the catch is a fine timing exercise in theory but it's a cognitive, first stage coordination drill. With a bungee around the hull you can take the catch with the boat moving under you, but since it's at a lower speed than normal it gives a bit more time to get that coordination right between the slide forwards and the blade entry. This is a more

Robin Williams

Robin coaches the GB women's pair who won silver at the 2011 World Rowing Championships. He coached the lightweight men's four to gold at the 2007 Worlds and to fifth at the 2008 Olympic Games. From 1995 to 2005, Robin was Chief Coach at CUBC, achieving seven wins out of 10 in the Boat Race against Oxford. After learning to row at Monmouth School and then representing the University of London Boat Club, he gained his first GB vest in 1981 when he was selected for the Worlds.

“The people who did best were not always the most powerful”

technique. A full-on resistance session will further increase this strength, working on the whole power chain to develop power and endurance so that you are really robust under racing conditions. You could tackle this by just rowing low rate firm pressure, but rhythmically it probably isn't as good. Bungee work, for instance, means you can

realistic situation than executing a roll-up in a stationary boat. As well as making this vital timing point easier to feel it can also help with the **connection** because the boat doesn't get away from you. It's easier to get suspended between stretcher and handle at the beginning of the stroke and that way you can use your bodyweight

ROWING...

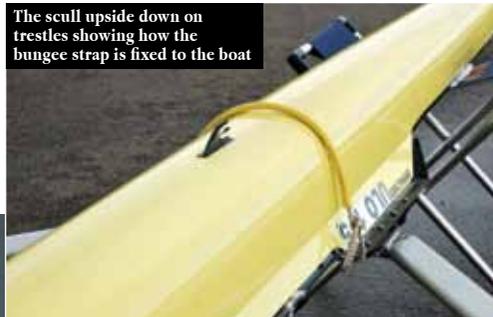
to move the hull. With a slower, heavier feel at the front you are less inclined to 'hit' the catch or slip it ('bum shove').

Your main **drive** sequence benefits too because from your well-connected beginning, it is easier to feel the sequence of legs-back-shoulders-arms. It simply feels too loaded to pull early so you will tend to let your legs prise the hull forwards, building speed, then adding in the body and finally the arms.

What kind of sessions can you do with power work like this? Stroke segments work well – i.e. arms only, arms and trunk, or quarter slide: this helps strengthen up your finish significantly. Legs only off the front is great for emphasising pushing while holding a braced upper body.

Whole strokes can be done at low rates for maximum resistance, developing high power like in the weights room.

The scull upside down on trestles showing how the bungee strap is fixed to the boat



Higher numbers of strokes – 40 strokes to several minutes – are good for power endurance. At Cambridge we used to do this work a lot. In eights we would have the stern four row between 40-100 strokes, then the bow four. Sometimes we would compare the hull speed between the two halves of the boat, at other times we would have

“It can help your timing quite significantly”

another eight alongside and pit them against each other. This was hard training but very rewarding. Interestingly, the people who did best were not always the most powerful people but rather the ones with timing and rhythm who could channel their power better and waste less.

If you do this type of work, make sure you sit tall and brace through the stomach really well – especially when doing full length rowing. Spend your first few sessions getting the technique and posture right before you go to full power.

It can be quite good to do alternate blocks of resisted and unresisted strokes, if you can attach

and remove the bungee or load fairly easily. That way you benefit from the contrast and will feel the extra speed of movement come in to your rowing at 'normal' load. It's not unlike varying the damper on the ergo. Some people have found that towing a canister behind the boat is better than a bungee because you can just pull the rope and container in to the boat when you've had enough!

Resistance work can fit well into your training – and, whilst hard, it is also fun. You don't need to do it more than once or twice a week,

and as the year progresses you can increase the stroke rate and shorten the blocks of strokes. Doing some five or ten-stroke starts with a bungee can often be the icing on the cake when racing season comes along, but always make sure you do it technically well.

Remember you are adding load to your body so technical errors like over-reaching, slumping or hitting the catch will carry the risk of pulled muscles or worse. Done well it will encourage sitting tall, good timing, proper use of legs / backs, a clean finish, good posture and it will make your muscle chain robust.

GB rower Jess Eddie sculls her single with the spray visible from the bungee



Resistance drills – at a glance

1 – For better timing

Do legs only catch work with a bungee to improve coordination between the slide / entry / catch.

2 – For the finish

Try stroke segments – arms only, arms and trunk, or quarter slide.

3 – For power endurance

In eights, have the stern four row between 40-100 strokes, then the bow four. Remember to sit tall and brace well through the stomach.

4 – For racing starts

Do some five or ten stroke starts with a bungee, but always make sure you do it technically well.