



What sort of training programme should a para-rower follow? Who better to ask than 2008 Paralympic champion Tom Aggar and coach Tom Dyson BY MARTIN GOUGH

our-time world champion Tom Aggar, a Paralympic champion in 2008, normally takes part in 12 to 14 training sessions per week, which is several fewer than the level demanded of the Olympic squad.

The GB Rowing Team's para-rowing programme is full-time but in order to gain the greatest benefit from training, they have determined that slightly less is definitely more as they have won three of the eight medals available at the last two Paralympic Games.

"Our training philosophy is all about how we keep people injury free," says Tom Dyson, Lead Coach of the GB Rowing Team's para-rowing programme. "We want to do as much training as possible without tipping people over the edge.

"There is a higher energy cost for a

just getting involved in a Rowability programme at a club but the principles involved in making boats go quickly apply at every level and the amounts of work will scale to the time available.

Aggar, who competes in the Arms and Shoulders (AS) single, estimates he spends 70% of his time rowing at low rate, either on the water or the ergo, focussing on cardiovascular fitness and distance per stroke.

"When I started rowing I found it difficult using my upper body in a demanding way day-in, day-out," he says.

"Training is always hard but you get to a point where it feels natural. Perhaps it [endurance training] takes a bit longer to get used to when you're using your upper body."

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wheelchair user in everyday life; we're using much narrower bands of muscle and you're also loading the same joints over and over again."

That is why Aggar's programme involves lower mileage and more cross-training than his able-bodied counterparts, and he even gets Thursdays off!

That training load may seem huge to anyone

The small squad use regular time trials to keep everyone competitive. The athletes may have varying levels and types of disability, and use different boats, but they compare results relative to predicted gold medal times (GMT) for their respective events. Dyson has even predicted GMTs for events not part of the Paralympic programme, such as the men's and women's Trunk and Arms (TA) singles.

Water outings are set based on time rather than distance. While Aggar might cover 10km in a normal session, faster boat types will go further.

The squad go swimming once or twice a week, working on aerobic fitness but also for what Dyson terms "prehab" - keeping them mobile and injury-free.

Saturday is cycling day and Aggar takes his hand cycle out on the roads near his Maidenhead home.

"I have a GPS and a heart-rate monitor to make sure I don't drift," he says. "I have several regular routes around the area and keep trying to shave bits of time off. I keep an eye on average speed and try to keep it interesting."



Monday - 10km outing, strength and conditioning session.

Tuesday – 10km outing with bursts, 12km ergo. Wednesday - 10km outing, weights session.

Thursday - off.

Friday – outing, weights session.

Saturday – cross-training day.

Sunday - two water outings, including a time trial.





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Aggar's favourite part of the training programme is his three-weekly strength and conditioning sessions, which will be covered in a future article.

Of course, the point of all the training is racing, where there are some key differences compared to racing for able-bodied athletes.

International racing takes place over 1,000m rather than 2,000 and the times involved are shorter - Australian Erik Horrie set a new world best in winning Aggar's ASM1x class in 4 minutes 35 seconds at last year's World Championships, while the TA2x winners at London 2012 took 3:54 - approximately two-thirds of the time it took their able-bodied counterparts to cover 2km.

"It's almost an elongated sprint," says Aggar, who won four successive world titles from 2007-11.

Because of the smaller group of muscles used, it is harder to change speed in a boat. Aggar's single weighs approximately 25kg. GB's Olympic single sculler Alan Campbell races in a boat weighing 14kg. Imagine rowing a boat the weight of a double scull with your arms and shoulders, even if your best ergo score over 2km is just over eight minutes, as Aggar's is.

That smaller focus also makes it vital to pace a race properly. Lactic acid builds up in any muscles during intense exercise but when you are using fewer, the effect is more painful.

"It's rare in an able-bodied race to see people blow up completely – if the lactic is too much in your legs you might take it on with your body and arms more for a few strokes," Dyson explains.

"In the Paralympic double and single, once your arms are full of lactic acid and you're struggling, you have nowhere else to turn. That's where there is the potential for people to fall off a cliff."

In the London 2012 Paralympic final, Aggar

admits he paid the price for going out too hard as he was overtaken by Horrie - who eventually took silver - in the second half of the race.

"The aim is to get a good start then to maintain a pace," says Aggar. "There will be people going out harder but then dying off. You have to be aware of the other competitors but row your own race."



- 2. Make cross-training integral to the programme.
- 3. Innovate within the squad to keep athletes
- 4. Don't fly and die the best racers have a more even pace profile.