

- National Rowing Centre of Excellence -

Flexibility Standards / Benchmarks

Appropriate flexibility is an essential component of being a successful elite rower. Appropriate flexibility in specific areas is needed to be able to perform the rowing stroke according to the NRCE National Technical Model.

At a meeting of physiotherapists involved with elite rowing in Australia in February 2009, benchmark ranges of motion for specific testes were agreed upon. These benchmarks are based on the collective experience of this group of physiotherapists. Collection of more data over the next few years will allow for modification of these benchmarks where required.

The benchmarks are for tests that are performed by physiotherapists during the NRCE Screening Protocol, which every elite rower should have performed at least once per year. A description of these tests for use by physiotherapists can be found on the Rowing Australia website. As such they are not tests that can easily be performed in the every day training environment.

Since then the benchmarks have extrapolated further to produce a “traffic light” style system which rates an athlete’s screening test results green, amber or red when comparing to the benchmarks agreed upon in February 2009.

These benchmarks are listed in the table below:

NRCE Flexibility Benchmarks								
Test								
	Sit & Reach	Ankle DF	Thomas Hip Ext	Hip Flexion	Hip IR	Active Knee Ext	Active Slump	Thoracic Rotn
	(cm)	(degrees)	(degrees)	(degrees)	(degrees)	(degrees)	(degrees)	(degrees)
Green	>10cm	12	5	130	+25	-10	-20	60
Amber	0-10cm	6 to 12	-5 to +5	110 to 130	10 to 25	-30 to -10	-40 to -20	45 to 60
Red	<0cm	<6	<-5	<110	<10	<-30	<-40	<45
Green	Range of motion that will not present any limitation to the rowing movement							
Amber	Range of motion that needs moderate improvement to be acceptable							
Red	Range of motion that needs marked improvement to be acceptable							

This series of benchmarks should give both athletes and coaches a clear indication of what an athlete needs to improve in order to have appropriate flexibility for elite rowing. The specific stretches required in order to achieve these goals can be prescribed by any of the NRCE Preferred Provider Physiotherapists which can be found on the Rowing Australia website.

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