

ANALYSIS OF A 6.4KM FREESTYLE TRAINING SET

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The following set written by Coach Jim Fowlie of the Australian Institute of Sport is a solid early season aerobic Freestyle-oriented session of 6.4km.

This session combines aerobic conditioning, technique, and breathing control training. The main set involves a series of 6x200m Freestyle efforts in the low to moderate intensity aerobic training zone. These sets are swum in a descending manner, emphasising both technique (with target stroke counts) and pace control (25-sec descend from slowest to fastest effort – i.e. about 5-sec descend). Individual Medley swimming involving all four swimming strokes is used for the warm-up and for recovery during the main set.

There is an emphasis on breathing control, starting in the warm-up and continuing in the main set. Breathing control training is an important skill to practice and refine in regular training. The session is completed with a 1200m kick set, again with a descend to focus the swimmer's attention on pace control.

The session is...

1. 200m IM drill/swim minimum breathing first 50
2. 800m pull alt 50m Freestyle breathing x 7 (SC (30) with 50 Backstroke)
3. 6x200m Freestyle on 2:45 with paddles HR 120-150 D1-6 (SC (30))
4. 200m IM drill/swim on 3:20
5. 6x200m Freestyle on 2:55 with paddles HR 120-150 D1-6 (SC (30))
6. 200m IM drill/swim on 3:20
7. 12x100m alternating 100 Freestyle on 1:40 breathing x 5 (SC (30) with 100m Butterfly on 1:40 breathing x 3 (SC (20))
8. 200m IM drill/swim on 3:20
9. 2x(5x100m kick on 2:00 D1-5, 100 Backstroke on 2:00)

Total 6.4km

DESCRIPTION OF TRAINING ACTIVITIES

Warm-Up (lines 1-2)

1. 200m IM drill/swim minimum breathing first 50
2. 800m pull alt 50 Freestyle breathing x 7 (SC (30) with 50 Backstroke)

This is a 1000m warm-up. The first part of this is a simple 200m Individual Medley done as 50m drill, 50m swim, 50m drill, 50m swim. The 50m drill efforts are with minimum breathing which prepares the swimmers for the main set that also focuses on breathing control. The 800m effort involves alternating 50m swims of Freestyle and Backstroke. The Freestyle efforts are completed breathing x 7, which refers to breathing control training where the swimmers only breathe on every seventh stroke.

Breathing control is typically specified as an odd number that requires the swimmer to employ bilateral breathing (alternately breathing to the left and then the right and so on). These efforts also require the swimmers to hold good stroke length by using less than 30 strokes for each 50. Senior male swimmers would aim for less than 30 strokes. The number of strokes will vary with older swimmers and males usually taking less strokes than younger swimmers and/or females (this depends partly on the size or height of the swimmer).

Main Set (lines 3-8)

3. 6x200m Freestyle on 2:45 with paddles HR 120-150 D1-6 (SC (30))
4. 200m IM drill/swim on 3:20
5. 6x200m Freestyle on 2:55 with paddles HR 120-150 D1-6 (SC (30))
6. 200m IM drill/swim on 3:20
7. 12x100m on 1:35 as 50m Freestyle breathing x 5 (SC (30))/50m Butterfly breathing x 3 (SC (20))
8. 200m IM drill/swim on 3:20

The main set consists of 3x1200m Freestyle sets with 200m IM recoveries after each giving a total set distance of 4.2km. The first two 1200m sets are swam as 6x200m Freestyle. The third 1200m set is swum as 12x100m Freestyle.

In each of the first two sets, the 200m Freestyle efforts are swum using hand paddles on a 2:45 cycle. This is for senior swimmers ... younger swimmers could do these on a 3:00 or 3:15 cycle. These are descending sets (hence the D1-6 terminology for descend one to six). A typical descending sequence for the 6x200m for a senior male swimmer would be ... 2:40, 2:35, 2:30, 2:25, 2:20, and 2:15. This correlates with the heart rates, which follow the same sequence. As each effort gets a little faster, the heart rate increases in a corresponding manner. An initial effort of 2:40 could elicit a heart rate, for

example, of 120bpm, followed by the descending swims, finishing with a 2:15 eliciting a heart rate of 160bpm.

Throughout the set, the swimmer should hold the same stroke count established in the warm-up. This is an excellent way to teach a swimmer to hold stroke while increasing the speed of each subsequent effort. How does a swimmer manage this? Quite simply, by increasing the stroke rate or stroke frequency of each effort. Of course, swim velocity stroke rate x stroke length (or distance per stroke), so increasing the stroke rate while holding the same stroke length (stroke count) is the goal.

The third 1200m set is done as 12x100m Freestyle/Butterfly instead of 6x200m Freestyle. The first 50m in each 100m effort is swum Freestyle, breathing every fifth stroke, and holding the stroke count under the required number (in our example, the target stroke count for Freestyle = 30). The second 50m in each 100m is swum Butterfly, breathing every third Butterfly stroke. Again the aim is to hold good technique in the Butterfly by holding the stroke count under a specified number (in our example, the target stroke count for Butterfly = 20). Unlike the first two parts of this set, there is no descending of times in this part.

After completion of each of the 1200m Freestyle sets the swimmers should start the recovery 200m IM effort. This is swum alternating each 50m segment drill/swim on 3:20. Younger swimmers would do this on a 4:00 cycle.

Finishing Set (line 9)

9. 2x(5x100m kick on 2:00 D1-5, 100m Backstroke on 2:00)

The final part of the session is a kick set of 1200m. The set involves two series of 5x100m kick efforts on 2:00, followed by a 100m Backstroke also on 2:00. The 100m kick swims are descending with a typical descend of about two seconds per effort. For example, a senior swimmer would start with about 1:40 and finish with a 1:30. Younger swimmers would need to adjust their goal times accordingly.