

BREAKING POINT IN SPEED DETERIORATION FOR MEN AND WOMEN MASTER SWIMMING EVENTS

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Introduction: People understand that with getting older the physical capabilities deteriorate; Training reduces the risk of losing speed in races. How long we can maintain that capabilities before deterioration significantly start? The purpose of this study was to identify the starting breaking point in speed deterioration, as a result of age, in the world master swimming championship for both men and women in sprint and distance swim events. Methods: Men master swimming (n=120) & women master swimming (n=120) divided into 12 swimming groups according to there age, G1 (25-29y), G2 (30-34y), G3 (35-39y), G4 (40-44y), G5 (45-49y), G6 (50-54y), G7 (55-59y), G8 (60-64y), G9 (65-69y), G10 (70-74y), G11 (75-79), G12 (80-84). Top 10 speed records were collected for 16 events during the XI Fina world master swimming championship 2006 for both men and women, the events were divided into 8 sprint events (50m & 100m races) and 8 distance events (200m & 400m & 800m races) for men and women. One way analysis of variance with post hoc tests Tukey HSD was used. Results: In men and women sprint events there were no significant difference in speed between age groups G1, G2, G3, G4, G5 and G6. But were significantly different at age group G7, $F(11-108) = 161.8$, $p < 0.001$ for men and $F(11-108) = 93.2$, $p < 0.001$ for women. In addition, In men and women distance events there were no significant difference in speed between age groups G1, G2, G3, G4, G5, G6, and G7 But were significantly different at age group G8 $F(11-108) = 130.2$, $p < 0.001$ for men and $F(11-108) = 77.1$, $p < 0.001$ for women. Conclusions: The breaking point in speed deterioration for both men & women in sprint events were age group G7 (55-59y). Moreover, the breaking point in speed deterioration for both men & women in distance events were age group G8 (60-64y). What are the major physical capabilities that deteriorate at these breaking point age groups is need to be known.

Keywords: Ageing, Swimming