

## The Importance of Resistance Training for Masters Athletes ...

A few years ago I saw a great No Fear T-shirt which stated: The older I get the better I was. Scientifically, this is true. Research consistently tells us that from age 35 to around 65-70 years in swim and run events, the age-related decline in world class performances is linear but that after 65-70 years the rate of decline drops off dramatically in a curvilinear manner.

Despite this age-related decline in performance, inspirational older athletes can always 'buck the trend'. United States 2008 Olympic swimmer Dara Torres won the first of her nine Olympic medals in 1984, a year before fellow swimmer Michael Phelps was even born. Torres is now 41 and the mother of a 2-year-old daughter. She broke her first of three world records in 1982 at age 14 years. She has retired from swimming and come back three times, her latest effort built on an obsessive attention to her ageing body. Torres's coaching staff includes a head coach, a sprint coach, a strength coach, two stretchers, two masseuses, a chiropractor and a nanny, at the cost of at least \$100,000 per year. She knows the value of resistance training.

In Australia, there are also ageing elite athletes including rower James Tomkins who turns 43 at the Beijing Olympics where he is representing Australia in the rowing eights at his sixth Olympic Games. Both these athletes have one thing in common apart from genetic gifts, meticulous physical preparation and strong mind sets. They both undertake conditioning training that focuses on strength and power.

### Why we slow with age

As a Personal Trainer and competitive rowing athlete, I have long been fascinated to understand why we get slower as we age. Research tells us there are a number of reasons including: an age-related reduction in blood and oxygen pumping capacity as a result of an inevitable age-related decline in maximum heart rate, a decrease in flexibility, an age-related increase in body and muscle fat content, slowing nerve conduction velocities, reduced muscle fibre contraction velocities, especially the fast twitch muscle fibres, an age-related decrease in muscle mass, again mainly in the size of the fast twitch muscle fibres.

### Muscle Mass and Masters Athletes

This last factor of an age-related drop in muscle mass appears to be a major factor that explains the loss of strength, power, speed and even endurance as we get older. Thus, the older we become the more important it is to try and maintain this muscle mass if we want to compete at the highest level or do Personal Bests.

Muscle mass contributes greatly to both strength and power. Both these factors are vital requirements for Rowing Sports Performance. Strength is how much force our muscles can impart and power is how fast that force can be imparted. Thus, for athletes of any age, the strength and power of muscles are both very important in most sports, especially those where speed is important.

Resistance training that increases muscle mass is vital for a competitive master's athlete wanting to prevent the age-related decline in their performance. Moreover, the older a competitive master's athlete becomes, the more important it becomes. Sport scientists call this type of muscle mass building resistance training hypertrophy training and it involves: loaded weights of greater than 75-85% of your maximum lift for an exercise, 8-12 repetitions (one set) to fatigue at the end of that exercise.

Such training will help develop or maintain muscle mass and strength that can then be turned into powerful muscle mass by lowering the loads to 40-50% of the maximum lift but increasing the speed of the repetitions.

A competitive master's athlete wanting to undertake such training must get professional advice from a strength and conditioning expert.

## Health Benefits of Resistance Training

Apart from the performance benefits of hypertrophy resistance training, masters athletes also have the added health benefits of resistance training that include:

Increasing metabolic rate and thus burning up calories that can help reduce fat weight

Increasing bone mineral density

Preventing injuries to joints

Reducing lower back pain

Reducing blood pressure

Improving glucose metabolism

Improving blood lipid levels.

These health benefits are added bonuses to improving both our performance and physique. Female master's athletes may think that they will become too big. That is not the case as they do not have enough of the male hormone testosterone that contributes to greater increases in muscle mass in men than women.

## Conclusion

The older a competitive masters athlete becomes, the more important resistance training should become. Apart from the numerous health benefits, resistance training helps maintain or develop muscle mass that is crucial for strength, power and speed development.

A master's athlete considering resistance training for the first time should consult an expert in the area and get advice particular to their event requirements and goals.

P.S. The only way you get any realistic strength training in a boat is by using a bungy cord or bucket (10 litres). This helps to maintain the appropriate application of force in the correct sequence in a boat.



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