Avoiding muscular imbalance and pattern overload

Some biomechanical experts now think that today's high-tech resistance machines may not be as beneficial as first thought.

In fact, by isolating muscle groups, they may even increase the long-term risk of injuries and movement dysfunction. Humans have evolved specifically designed and adapted to very complex movement patterns—our bodies are designed for these movements, and there is abundant evidence that of positive psychological responses to such activities.

Compare the very restricted movement possible on most exercise machines, which pre-determine both the plane and the axis of movement, with a rowing stroke on the Rowperfect (or in a boat) where balance is also demanded. The brain must send exactly the right pattern of signals to the various muscle groups at precisely the right moment to ensure the stroke is carried out efficiently. The load is shared by the whole body, rather than restricted to one joint or muscle group. The control of the muscle movements, called motor recruitment patterns, is obviously a much more complex job for the brain - which was after all developed to control complex patterns.

Rowing is one of the most satisfying exercises—and in terms of the number of large muscle groups used, probably the most complete exercise of all. During every stroke cycle, we use all or most of the full range of movement of the legs, buttock muscles, lower and upper back and of course the arms. While these muscles are working, the core stabilisers including the abdominals are working to allow the transfer of all that work to the oar handle. And in the boat or on the Rowperfect Limited Tilt seat, we must simultaneously centre the body mass, ensuring an equal load on the spine and introducing the crucial element of balance.

The end result is a true total body exercise which can train strength, plus muscular and cardiovascular endurance, while spreading the load over the greatest possible number of joints