WaterRower

Training Log

INTRODUCTION

To maximise the enjoyment from using your WaterRower we have produced a training log. The training log is designed to provide suggestions of how to exercise effectively according to your own objectives.

We believe that recording your training sessions will not only improve motivation but also encourage you to keep exercising regulary and to maintain a better lifestyle. We would like you to experience the benefits of using your WaterRower for years to come.

The training log has been written for all WaterRower owners, from those new to exercise, to the more experienced.

If you are new to exercise we suggest that you consult a physician or personal trainer prior to commencing any exercise programme.

WaterRower
America: 30 Cutler St, Warren, RI, +1 401 247 7742, support@waterrower.com, www.waterrower.com
Europe: 5 Goldhawk Estate, Brackenbury Rd, London, +44 020 8749 8400, support@waterrower.co.uk, www.waterrower.co.uk

WaterRower

Contents

CONTENTS

WaterRower

Training

UNDERSTANDING YOUR PERSONAL GOAL

Whilst most of us recognise the general benefit of exercise, few of us actually fully understand the physiology of exercise and the best way to achieve our exercise objectives.

The first stage to enable you to get the most out of any exercise programme is therefore to know what your exercise objectives are. These may include developing muscles, reducing or maintaining weight, improving general strength and sporting competitiveness or simply maintaining a good fitness level relative to your lifestyle.

Many of the commonly held beliefs relating to exercise are poorly substantiated. A classic example is the old adage " no pain, no gain" which unnecessarily associates exercise with discomfort.

Here we explore some of the realities of exercise physiology, and try to highlight the best ways to achieve certain goals. Let us start by separating exercise programmes into two distinct groups, resistance based, and aerobic based.

Resistance training is designed to improve either muscle strength or size. The muscle cells are purposely damaged through a process of overloading (working muscles to exhaustion), the body reacts instinctively to repair the damaged cells so they can cope with any future overload, increasing their size and strength in the process.

Muscular fitness is a combination of strength, endurance and flexibility. Resistance training occurs over a short time frame and does not necessarily improve endurance capacity or for that matter flexibility (this is achieved through aerobic training). Resistance training is best achieved by working isolated areas with some form of resistance such as weights. Resistance training can complement your overall training programme, and for more information we suggest you consult a personal trainer.

Aerobic training relates to the process by which the body generates energy to perform work. The principal fuels used to produce energy are the body's stores of fat, carbohydrate or protein. These fuels can be converted into energy by one of two processes, the aerobic metabolic process or the anaerobic metabolic process.

The aerobic process consumes fuel in the presence of oxygen (supplied by the flow of blood) producing by-products, carbon dioxide and water, which are expelled by respiration and perspiration. Whereas the anaerobic process occurs when there is not enough oxygen in the blood supply to produce energy aerobically. In the absence of oxygen, carbohydrate is consumed as the primary source of fuel, producing a bi-product called lactate. It is this lactate that produces muscle soreness and fatigue associated with vigorous exercise.

Knowledge of the aerobic/anaerobic process is essential to the successful attainment of your exercise objectives. Fat burn/ weight maintenance, general aerobic/ cardiovascular training or anaerobic/ tolerance to fatigue, are all types of training. Being able to put these types of training into effect relies upon your understanding of the way your body produces energy.

WEIGHT MAINTENANCE

At lower intensities our body uses a mixture of fat and carbohydrate as its source of fuel. As work approaches maximum aerobic output, the percentage of fat consumed as fuel reduces to zero. Conversely, the longer you exercise at a low intensity the more fat you will burn. If you increase the aerobic intensity the body will burn carbohydrate as opposed to fat, reducing your fat burning potential.

A low intensity is typically a relaxed and light pace at which you can hold a light conversation. It is by no means strenuous and is about that of a brisk walk, or rowing at a gentle pace. (60-70% of your maximum heart rate - as discussed in the section on heart rate training).

> For weight maintenance work at lower intensities over longer durations. (eg. 30 -60 mins. 3 - 4 sessions per week)

WaterRower

Training

AEROBIC TRAINING

Regular exercise can improve lung function, heart function and general blood circulation, leading to improved well-being and endurance. Increasing your general fitness is best achieved by working at a moderate level of intensity over medium/long durations. A moderate exercise intensity is that achieved by a steady rowing pace which you are able to maintain for the main part of your workout. (70 - 80 % of your maximum heart rate - as discussed in the section on heart rate training).

For general aerobic fitness work at moderate intensities over medium/long durations. (eg.20 - 40 mins. 3 - 4 sessions per week)

ANAEROBIC TRAINING

Energy may be generated rapidly through working at high intensities, but the total amount of work and power that the body can generate is limited. In addition to aerobic training (70 - 80%), training anaerobically (80-100%) can improve performance, by increasing both speed and tolerance for the buildup of lactic acid (lactate). Anaerobic exercise is only sustainable for short periods. To work over the duration necessary to gain benefit from this form of exercise, these intensive bursts should be followed by low intensity periods of recovery. You can achieve this type of exercise with interval training which is discussed later.

Prolonged anaerobic exercise reduces the effect of weight reduction and aerobic training.
Short bursts of anaerobic exercise should be followed by low intensity periods of recovery.

HEART RATE TRAINING

Now that you have considered your goal we are able to suggest ways in which you can achieve this goal. The WaterRower is designed to be self-paced in order to cater for everyone, because training is an individual matter. Everyone will benefit from regular exercise but the results will vary according to the physiology of the individual.

Individual exercise intensity is a measure of how much work your body is doing. The most convenient method of measuring your physiological intensity and your progress is to monitor heart rate. Exercise intensity measured in terms of speed or distance is very subjective as it depends on the individual's physiology, age, weight, sex, physical condition, etc. Also these measurements can often vary according to an individual's tiredness, hydration, stress, and general well-being. There are many heart rate monitors on the market which will allow you to monitor your pulse. Please consult your WaterRower agent for further details.

With reference to heart rate training as recommended by Polar, the most effective method of training is by setting a training intensity as a percentage of your maximum heart rate. (What is a high intensity to one person may be a moderate intensity to another). Your maximum heart rate (M.H.R.) corresponds to your maximum aerobic output, and is based on your physiology and fitness level. Your maximum heart rate can be estimated by using a simple equation based upon your own age.

For Women: 226- Your age
For Men: 220- Your age

Example:

A 40 year woman would calculate her age-adjusted maximum heart rate as follows: 226 - 40 = 186 b.p.m.

You should treat this age adjusted formula as a guideline which is convenient for the purpose of training. However there are bound to be some discrepencies between individuals. There are other methods to targeting exercise objectives, a maximum heart rate test is recommended if you want to train at your most effective levels, we suggest you refer to a personal trainer or contact WaterRower if you require further advice on maximum heart rate tests.

If you do not have a heart rate monitor we suggest you monitor your pulse manually, once before, during and immediately after your workout.

MONITORING HEART RATE TO ACHIEVE YOUR GOAL

WEIGHT MAINTENANCE

Aim to work between 60 - 70 % of your maximum heart rate, according to the age adjusted formula, three or four times a week.

The best results will occur when you stay within this heart rate zone for longer durations.

Build up your workout time gradually. For example begin by doing 20 mins. 3 times a week and over a few months progress to 30 mins. 4 times a week.

To maintain your enthusiasm and motivation, try to vary your exercise programme by watching television, listen ing to music or holding a conversation whilst working out.

In order to ensure that you continue to improve your fitness levels try to vary your exercise programme as much as possible. For example, introduce walking, swimming, or weight-training into your exercise programme. Inter val training can also be a way of improving fitness levels, this is discussed in the following chapter.

Build up your workout time gradually. For example begin by doing 10 mins. 3 times a week and over a few months progress to 30 mins. 4 times a week.

AEROBIC TRAINING

Aim to work between 70 - 80 % of your maximum heart rate, according to the age adjusted formula, three or four times a week.

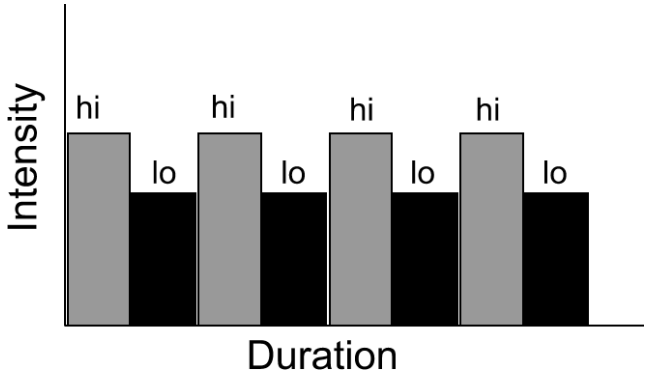
The best results will occur when you stay within this heart rate zone for medium/long durations.

We suggest that in order to maintain and also increase fitness levels that you vary your training methods. Interval training can be a way of achieving this variation.

TRAINING SUGGESTIONS

INTERVAL TRAINING

By interval training we mean working at high intensities for short periods, followed by low intensity recovery periods. In other words, allowing for a rest period in between bursts of anaerobic activity. Interval training makes our body work more efficiently, therefore increasing general fitness levels faster. For example, row for 2-3 mins at a high intensity and follow this with a recovery period of 3-5 mins, rowing at a low intensity. You can repeat these intervals throughout the duration of your workout.
Try interval training whilst exercising within a specific heart rate range (eg.weight maintenance: work for 2-3 mins at 65% M.H.R., then 3-5 mins at 50% M.H.R.

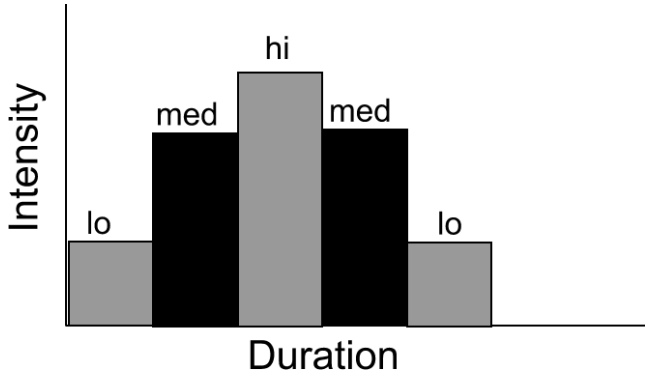


America: 30 Cutler St, Warren, RI, +1 401 247 7742, support@waterrower.com, www.waterrower.com
Europe: 5 Goldhawk Estate, Brackenbury Rd, London, +44 020 8749 8400, support@waterrower.co.uk, www.waterrower.co.uk

WaterRower

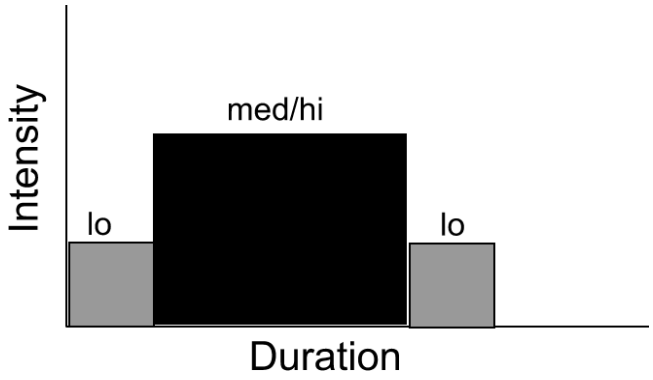
Training

PYRAMID TRAINING



This graph indicates 'Pyramid Training'. This type of training allows you to build up your intensity of exercise gradually. At the start, row at a slow/moderate pace, concentrating on your technique so that you are able to maintain a good technique as the intensity of your workout increases. Set yourself a time goal and aim to work in stages, so that you are at the peak of your training half-way through the workout.

PLATFORM TRAINING

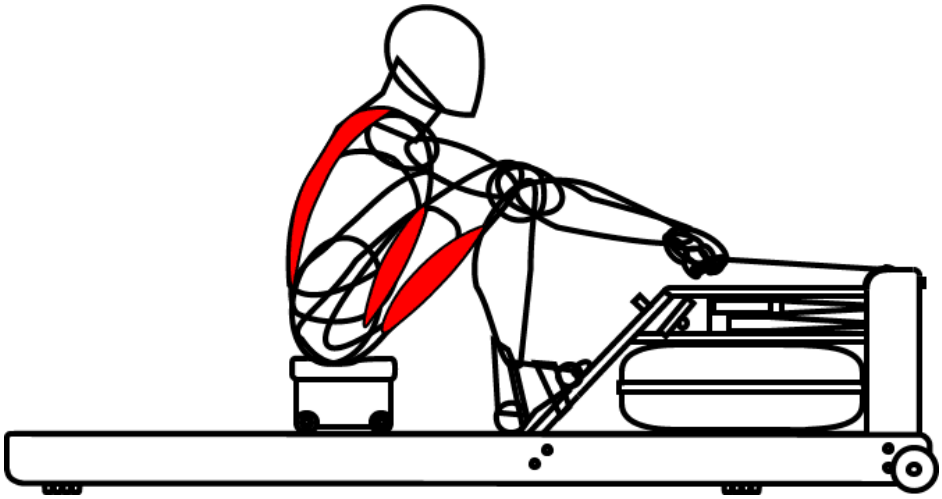


The graph above illustrates ' Platform Training'. This type of training allows you to work at a medium / high intensity over a specific time. Set your self a time goal and allow yourself a warm up and cool down period, during which you concentrate on your technique. As your fitness levels improve try to increase either the distance travelled over a period of time, or simply increase the
durations of your workout.

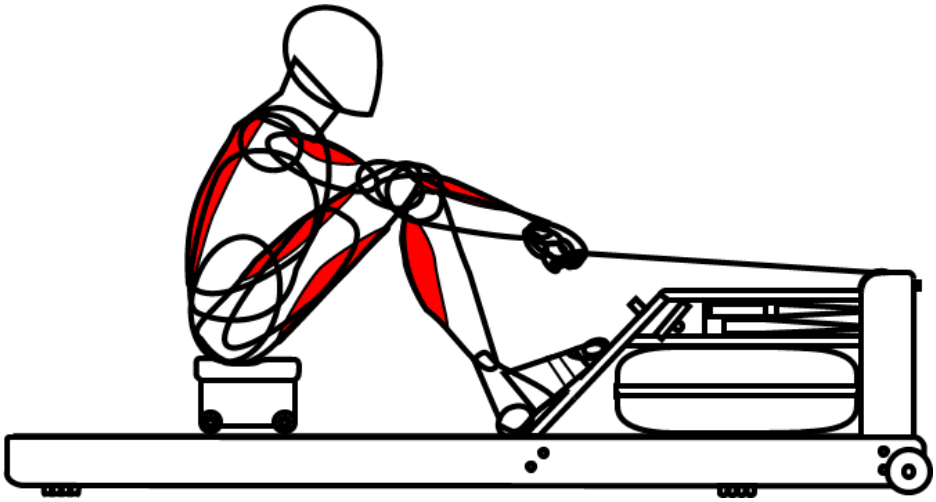
Build on your achievements- As you achieve your initial goals, go for higher levels. This will be enable you to continue to improve your fitness level

MUSCLES USED DURING ROWING

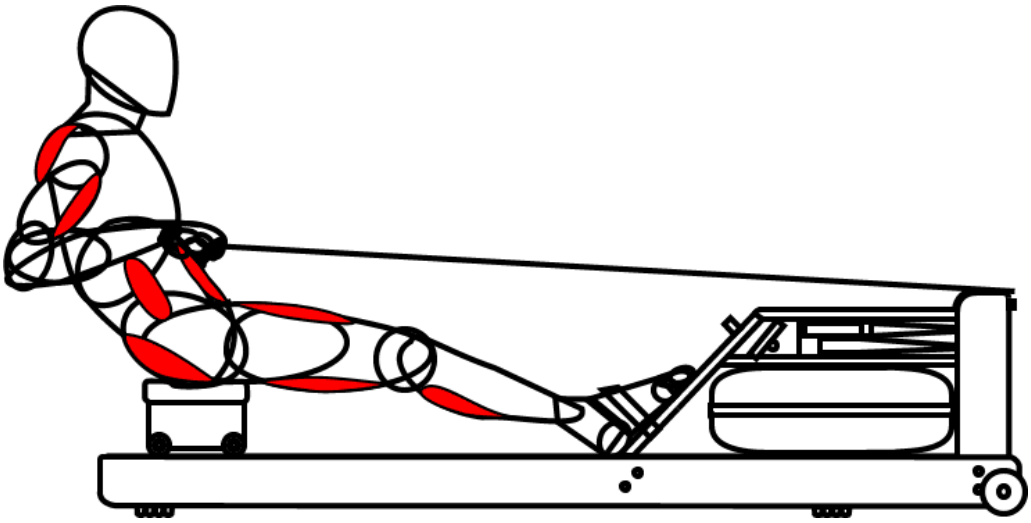
The Catch Position



The Drive Position



The Finish Position



STRETCHING AND MOBILISATION

As with all training, the importance of stretching and mobilisation cannot be over emphasised. Stretching before and after an aerobic workout is essential to minimise injury risk and to work your body to its full potential

Warm-up stretches should follow 5-6 minutes aerobic warm-up (eg. rowing at a gentle pace). These stretches should be standing, held for 8-10 seconds with steady stretching throughout (hold the stretch - do not bounce).

Cool-down stretches may be done on the floor and held for 15-20 seconds. Remember only stretch as far as it feels comfortable. If the limb you are stretching begins to shake or tremble, then you are over stretching, and should release the stretch slightly. As your flexibilty improves you should be able to extend the stretches further.

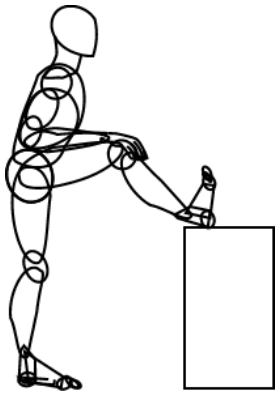
Particularly relevant to rowing are hamstring stretches and back and shoulder mobilisation, which should become part of your warm-up and warm-down, with the aim of preparing and maintaining muscle fibres and joints used during rowing.

The diagrams which follow illustrate some important stretches which should be used before and after exercising.

Hamstring Stretch

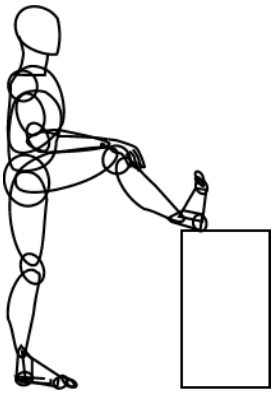
Stretch A

Pivot your bottom up towards the ceiling to increase the stretch



Stretch B

Pivot your back at the hips and reach forwards to increase the stretch



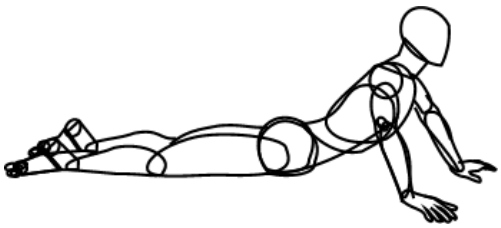
Keep your hips parallel to the ground, and both hips and shoulders square and facing forwards. Your supporting leg should be slightly bent.

Back Mobilisation Stretch

Lay down facing the floor.

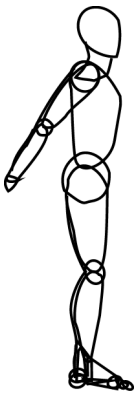
Raise your shoulders off the floor using the arms as shown

Ensure that the hips remain on the ground. Keep the head up. Reoeat 7-10 times



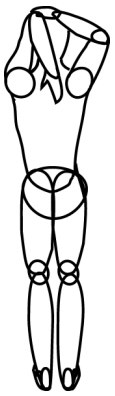
Chest Stretch

With the knees bent and back straight, clasp the hands behind the back and sqeeze shoulder blades together.



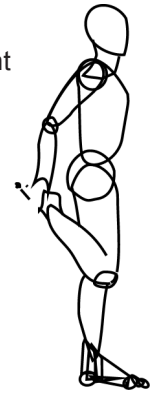
Tricep Stretch

With knees slightly bent back straight, bend left arm behind back of neck, Reaching down the spine of your back. Support the stretch with your other hand. Repeat with right arm.



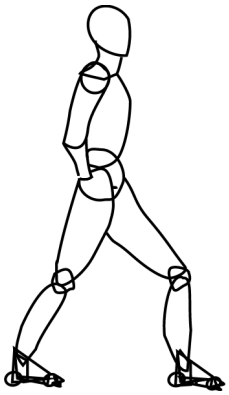
Quadricep Stretch

Guidelines: With supporting knee slighty bent, back straight bend right knee and bring towards your bottom. Repeat with left leg. To increase the stretch make sure knees are together and push hips forward



Calf Stretch

With back straight, feet parallel and toes facing forwards. Place your weight forwards onto your left leg which is bent at the knee, and straighten out the right leg behind you, keeping heel on the ground.
Repeat with right leg.



Mobilisation and short (i.e. 8-10 seconds each) stretches should be used before your work out, and longer (i.e. 15-20 seconds) stretches should be used during cool down period after exercising.

If you do sessions of longer than 45 minutes it is a good idea to stop and stretch halfway (just back and hamstrings should suffice). You will not reduce the training benefit significantly but will protect against chronic forms of injury.

ROWING TECHNIQUE

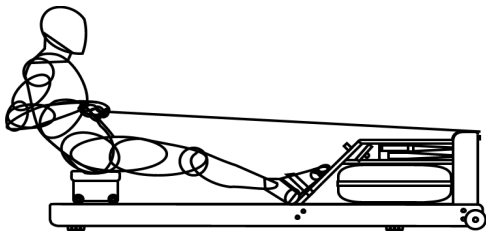
Correct rowing technique is essential to realising the full benefits of the WaterRower, reproducing the excellent physiological and aesthetic benefits of rowing.

The fundamental elements of the rowing stroke involve co-ordinating the motion of your legs, back and arms. The rowing stroke uses all of these muscle groups, and because these muscle groups vary greatly in strength it is important to use them in the correct sequence.

The following seven steps may be followed to assist you in adopting the correct sequence and most importantly, posture. The arrows in the diagram show the correct angle of the back.

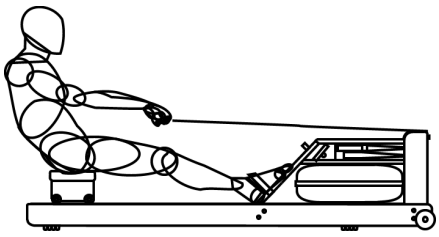
It is important that the sequence is smooth, even and flowing, producing a uniform transition of power to the water, free from any jerkiness.

The Finish Position - legs flat, abdominal muscles support the torso, pressure still on footplate.

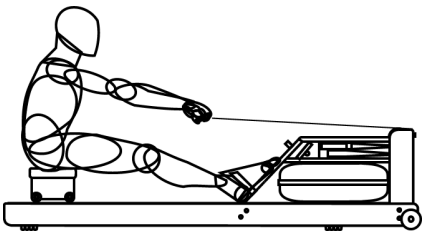


The Recovery Phase

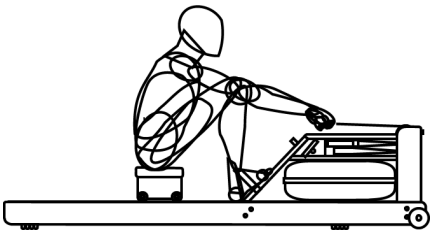
Stage 1 - arms straighten first, the body starts to rock over the pelvis.



Stage 2 - the pelvis rocks over, body weight shifts from the back of the seat to the front of the seat.



Stage 3- the body moves smoothly up the slide in the rocked over position. Pressure comes gradually onto the feet as the shins become vertical. Shoulders and arms are completely relaxed, head up. This is the ‘CATCH’ position.

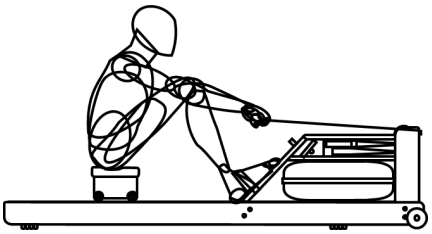


WaterRower

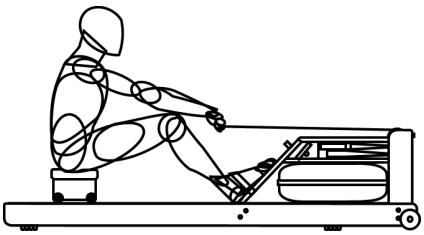
Technique

The Drive Phase

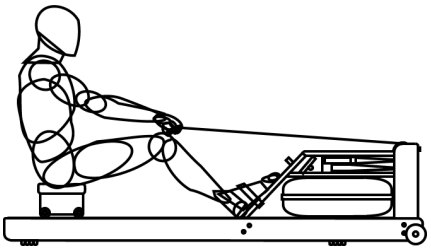
Stage 1- the leg drive: push back with your legs, keeping your back tilted slightly forward, your arms straight and relaxed and shoulders loose.



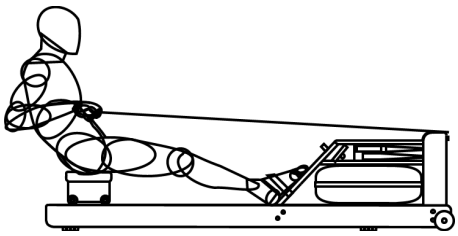
Stage 2- as the leg drive continues at a constant speed, your body begins to open out, and shoulders move back, adding to the acceleration created in stage 1.



Stage 3- maintaining a constant speed, the body opens out and the arms begin to bend as the legs approach the flat position.



The Finish Position - arms draw the handle to the base of the rib cage as the back is held firm. Toes press against the foot plate.



THE BASICS

These diagrams show the positions that you should pass through during the stroke cycle. If you can, position a mirror side-on as you row to check your technique. For beginners it is important to check the co-ordination of arms, back and legs. Note that during the drive phase your body opens out legs first, then back and arms later, and that during the recovery phase in-between strokes the arms straighten and the back rocks over before the legs bend. As a result the handle should move back and forth in a straight line and you can use this to check your technique - if you have to lift your hands over your knees at any point then you're doing it wrong!

TIPS FOR GOOD TECHNIQUE

Rowing is a leg-driven exercise to which arms and back merely 'add on' to the acceleration generated by the legs. Accelerate the handle evenly throughout the whole stroke, and keep an even pressure on your feet throughout the entire work phase.

During the recovery, move your body by rocking your pelvis rather than by curling your spine. This keeps your lower back in a strong position and, if you do it correctly, you should feel your weight shift from the back to the front of your seat as you rock over. If you have difficulty doing this while your legs are flat it is important to work at your hamstring flexibilty, as tight hamstrings pull your pelvis into a weak-back position.

WaterRower
America: 30 Cutler St, Warren, RI, +1 401 247 7742, support@waterrower.com, www.waterrower.com
Europe: 5 Goldhawk Estate, Brackenbury Rd, London, +44 020 8749 8400, support@waterrower.co.uk, www.waterrower.co.uk

Stay relaxed in the upper body - particularly the shoulders. During the drive phase imagine that you are 'hang ing' off the handle as you move back. This cuts out unnecessary tension and also ensures that you are not working your back against your legs at the catch.

SOME USEFUL EXERCISES

A useful training aid used by oarsmen at all levels is to break the stroke down into stages, seperating out each movement. In order to improve technique, spend 2-3 minutes practicing the following exercises before commencing your exercise session:

Fixed-seat rowing - practice rocking from your pelvis and keeping some pressure to your feet by moving back and forth between positions 1 and 3 effectively rowing without driving with your legs..

Catch drill - practice shoulder relaxation and leg-back co-ordination by moving back and forth between positions 4 and 5. In this phase of the stroke the legs do everything so your body angle should stay the same and your arms should be straight throughout the exercise.

Practice each drill for a minute or so and then return to full-range rowing. This will enable you to feel the effect of each drill on your co-ordination.

WHAT EXERCISE IS BEST?

Because the right exercise programme is highly dependent upon your health, age, general fitness, and overall exercise objectives, it is not appropriate for us to recommend specific exercise routines, but rather to offer guidelines.

We strongly recommend consulting a Physician or Personal Trainer prior to commencing any exercise programme, as this will result in a programme specifically tailored to your needs. This may also result in a programme which will broaden the range of exercise goals and help you gain greater satisfaction from an overall exercise programme.

WORKOUT GUIDELINES

Objective - as previously discussed, we strongly recommend that you start by having a clear idea of your workout objective and how best to optimise this objective, in terms of intensity and duration.

Stretching - as outlined earlier, stretching is very important, it will not only improve your flexibility, but will help prevent injury, and will leave you in a good, relaxed frame of mind for your workout.

Warm up - never start your exercise routine at full intensity. Even if you are short of time it is far better to shorten your workout than commence it without a warm up. A slow progressive increase in intensity will allow your muscles to stretch and warm to their optimal condition. Failure to do so may lead to muscle tears or strain.

The Workout - whatever your objective, don't set goals which are sky high, as this may place undue strain on your body and may remove the pleasure which should be associated with exercise. Work comfortably within your limits; as it is far better to finish an exercise routine feeling relaxed and refreshed than thoroughly exhausted: the adage 'no pain no gain' is simply false, and can depress motivation.

Always listen to your body. If you feel slightly under the weather, don't work out for your usual 30 minutes, but do 15 minutes at a low intensity instead. If you have a busy week, don't be deterred! Design your week's exercise programme realistically, so that you can fit it into your time schedule. Squeeze in a 12 minute interval training session, rather than feeling that you have to do 30 minutes every time you exercise. Let the WaterRower enhance your lifestyle and approach to exercise. Exercise should compliment your lifestyle, not rule it.
As your fitness improves, so too will your achievements. The pleasure and benefit achieved by exercise is not realised by a single work out, but by a series of workouts over a period of weeks, months and years. Realising this will enable you to maintain motivation and fitness for life.

Training

If at any stage during exercise you feel dizzy or uncomfortable stop immediately, if the symptoms continue consult a physician.

Warming down - in much the same way as warming up prepared your muscles for a work out, warming down prepares your muscles for rest. Warming down correctly will prevent lactic acid accumulation during your work out and will reduce the onset of stiffness and soreness.

Keeping a record - It is always useful to keep a record of your workouts, including such details as how you felt during and after a workout. In this way you can monitor improvement. We have enclosed a book of weekly training logs for this purpose. When you have used up this book, simply contact WaterRower for another one.

Hydration - Hydration is important, especially if conditions are warm. Drink water during your short stretching breaks in long sessions and ensure you dehydrate after training.

PERSONAL PROFILE

By filling in these details you will be provided with the necessary framework for training as discussed throughout this training guide.

Date ..... Age ..... Weight .....Kilos

Target heart rates: for woman: (226 - Age) x desired exercise intensity.
for men: (220 - Age) x desired exercise intensity.

50% x (..... - .....) = ... b.p.m.

55% x (..... - .....) = ... b.p.m.

60% x (..... - .....) = ... b.p.m.

65% x (..... - .....) = ... b.p.m.

70% x (..... - .....) = ... b.p.m.

80% x (..... - .....) = ... b.p.m.