

## Strength Training

### **Safety**

Couple of facts to focus the mind:

- i) land training carries 10 times greater risk of injury than water training.
- ii) If you get injured you lose on average 24 days of training time.

So bear injury-avoidance in mind AT ALL TIMES in the gym: don't compete with others in what you attempt to lift; if you are tired, back off the load; always use good lifting technique, and don't lift heavy loads until you have it; use spotters when necessary; treat equipment with care; warm up beforehand; take pain seriously.

### **Types of training**

Whatever type of session you do, you should only be training for at most one hour in a session.

Anatomical Adaption: preparing the body for strength work, which is essential if you have not done weight training before. You shouldn't feel discomfort at this stage. Most usually a circuit, with a wide variety of exercises to challenge all movements and areas of the body. The load should be low (around 50% 1RM), with a higher number of reps. Exercise should continue for 30-60 minutes. In the example circuit attached each station was done for a minute, counting how many reps were performed, and 2 increasing to 3 circuits were done twice a week.

Hypertrophy: DO NOT TRY THIS UNLESS YOU HAVE GOOD TECHNIQUE AND TRAINING EXPERIENCE. To gain muscle mass you need to break what you have down. For this you need to get to the point where you can no longer lift the load with good technique. You should be aiming for 10-12 reps per set of 3-5 sets, reaching exhaustion on the last rep of each set. The rest periods between sets should be relatively short, 3-1 minute long.

Maximum Strength: DO NOT TRY THIS UNLESS YOU HAVE GOOD TECHNIQUE AND TRAINING EXPERIENCE. To gain strength you must always lift with the intention of moving the load as fast as possible, despite the fact that because of the load you will move slowly. You should be aiming for 4 reps per set, 3 sets per session. You should never get to exhaustion, but be able to execute each lift dynamically. You should have longer rests between the sets to allow recovery, 5-3 minutes.

## Specific lifts

**In ALL these exercises concentrate on keeping your lower back flat, and your ribcage still relative to your pelvis.**

**BE SPECIFIC. Keep thinking about how the exercise relates to the rowing stroke.**

### To train the leg and body co-ordination:

#### Squat

- i) From standing, set the hips, tipping the pelvis forward, leaning slightly forward and bending the knees a little. Your lower back should remain flat.
- ii) Without scooping the hips underneath you, put the knees directly over your toes.
- iii) Without letting the knees track any further forward, lower the pelvis back and down until your thighs are horizontal.
- iv) Keep the knees over the toes as you start the lift. Push through your heels.



#### Deadlift

- i) Keep your chest up and lower back flat as you address the bar. Toes should be under the bar, which should be close to the shins.
- ii) Keep your shoulders loose as you straighten the legs and rotate the pelvis as in the boat from half slide to legs flat. Aim to start and finish both actions together.
- iii) Maintain good core posture as you lean slightly forward and bend the knees to return the bar to the floor.



### To train the use of the glutes/hamstrings to move the pelvis:

#### Romanian Deadlift

- i) Have your knees slightly bent when standing up straight.
- ii) Rock your PELVIS forward, bending at the hips. Keep your lower back flat.
- iii) Lean as far forward as your hamstrings allow. This will be just before you would start to bend at the waist.
- iv) Use your glutes and hamstrings to bring you back up to the vertical.



## Good Morning

- i) Better to use the Rom DL, but this is an alternative if you want variety.
- ii) Use your glutes and hamstrings to move your pelvis relative to your thighs, pivoting at the hip.
- iii) Keep the load LIGHT and your lumbar back straight. Only go as far over as your hamstrings allow.



## To train the leg action:

### Leg Press

- i) Feel the leg rhythm we are trying to develop in the boat, accelerating from the point the knees drop.
- ii) Don't bounce your knees as you straighten your legs. In the boat your legs stay down at the finish until the body swings over.



## If you have one leg weaker than the other:

### Bulgarian Squat

- i) Keep your chest up and lower back flat as you descend, not leaning forward by bending at the waist.
- ii) Bend your front knee until your back knee is just off the floor then push back up again.
- iii) Feel the effort through the front heel.



### Lunge

- i) Set yourself up by kneeling so that everything related to your legs is at ninety degrees. Then stand up without moving your feet.
- ii) Keep the weight distributed through both feet as you move up and down.
- iii) Sit back and down as you descend, keeping your lower back flat, your chest open and your shoulders over your hips at all times.



## Step Up

- i) Use a step that gets your thigh at least horizontal.
- ii) Only use your raised leg to lift you up, not your standing leg to push off.
- iii) Keep your pelvis level and upright as you lift. Keep your lower back flat too.



## To train the arm action:

### Bench Pull

- i) Make sure bar is low enough to have arms straight between each lift.
- ii) Engage the lats and the shoulder blades before the biceps. Feel your scapulae tracking down and together as you lift.
- iii) Pull the bar up to the solar plexus, as you would in the boat.
- iv) Keep your chest in contact with the bench at all times.



### Seated Row

- i) Keep your lower back flat and shoulders low as you draw in.
- ii) Engage your lats and feel your scapulae start to draw together before you try to engage your biceps.
- iii) You can use body and arms, but keep the sequence.



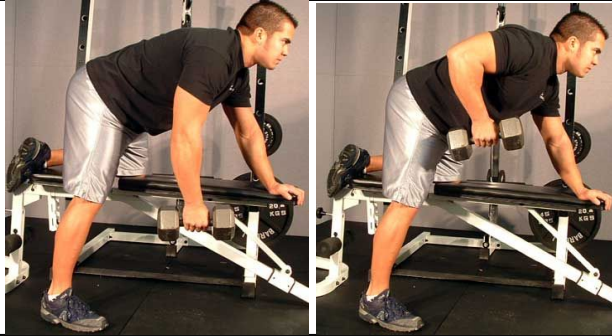
### Lat Pull Down

- i) Lean back slightly, but keep your core solid.
- ii) Engage your lats and scapulae before your biceps.
- iii) Don't collapse the core or lean back to lower the bar.
- iv) Only lower the bar to your collar bone. Make sure your arms extend fully between each rep.



### One Arm Pull

- i) Keep your torso in a strong horizontal position and still throughout the exercise. Keep your shoulder absolutely still rather than twisting the torso to lift the weight.
- ii) Just use your lat, then your bicep to draw the dumbbell up to your armpit.



### To maintain muscular balance:

#### Bench Press

- i) Have your hands far enough apart so that at the bottom of the lift your elbows will be at ninety degrees.
- ii) Bring the bar down to nipple level.
- iii) Don't push with your legs and let the bar swing to directly over your throat as you lift.



### FUNCTIONAL LIFTS:

#### Inverted Pull

- i) Have your feet up on a bench or a fitball.
- ii) Have the bar high enough to allow your arms to fully extend between lifts.
- iii) Think about where you would pull a blade through to.
- iv) Keep your core solid throughout.



#### Bent Over Row

- i) Have your knees slightly bent, and your torso horizontal with your lower back flat. If you cannot prevent your lower back from rounding, bend your knees more or stand up a little. Stay in this position throughout the lift.
- ii) Use your lats rather than your shoulders to lift. Keep your shoulders low.



### **Pull Up**

- i) Connect with the lats before you engage the biceps.
- ii) Use an overhand grip (ie with back of hands towards you rather than fingers).
- iii) Get your chin over the bar on each rep.



### **Single Leg Squat**

- i) Keep your lower back flat throughout the exercise.
- ii) Only squat as low as your technique allows.



### **Press Up**

- i) Don't allow your torso to drop down pinching your scapulae together.
- ii) Get good depth on each rep, and push up so that your arms are straight.
- iii) At the top really arch out to work the serratus anterior.



**NB Be inventive: If you cannot get to a well-equipped gym, improvise. Use body weight, functional exercises. No load is needed for pull ups and single leg squats for example. Can you get your hands on dumbbells/medicine balls/kettlebells/theraband? Get in a boat and do power strokes geared heavily/with a bungy/rowing part-crews.**