

Lower body: joint mobility and strength

These water-based exercises are recommended by Arthritis NZ to help with a variety of conditions.

It shouldn't hurt to do these exercises but it's OK to feel the joints and muscles work.

See your GP or physiotherapist if your pain or movement gets worse from doing these exercises.

Tell the pool staff and see your GP if you feel unwell while doing these exercises.

Repeat movements in sets of 10 to 15 repetitions.

If the exercise uses one limb at a time, do a full set on that side before changing to the other limb.

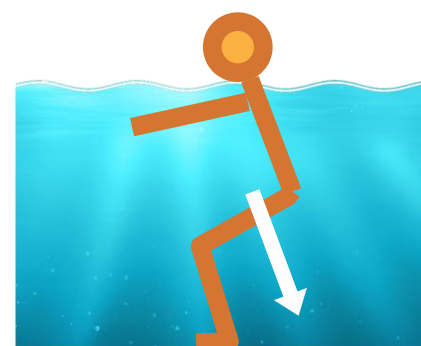
If you want to improve joint mobility, you can use the **easier** form. To increase muscle strength, you can use the **harder** form.

Squat

- Stand with feet hip width apart.
- Bend hips and knees to squat down.
- Keep knees over feet.
- Push back up with thighs and bottom.

EASIER: Hold rail or a float to take weight off legs.

HARDER: 1. Stand in more shallow water. 2. Stand on one leg (hold rail if needed). 3. Push up faster



Calf raise

- Stand with feet hip width apart.
- Hold rail if needed.
- Lift heels off floor and rise onto forefeet.
- Lower back down so feet are flat.

EASIER: Hold rail or a float to take weight off legs.

HARDER: 1. Stand in more shallow water. 2. Stand on one leg (hold rail if needed). 3. Push up faster.

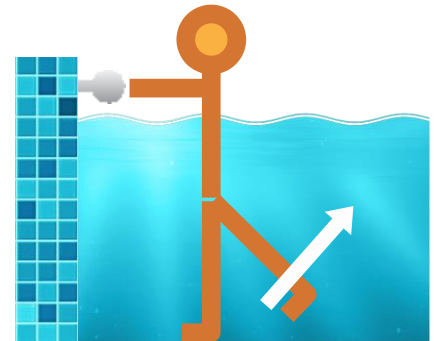


Hip extension

- Stand with weight on one leg
- Hold rail if needed
- Lift foot behind
- Keep knee straight and trunk upright
- Return foot to floor

EASIER: Hold rail and lean forwards before lifting leg.

HARDER: 1. Move faster. 2. Lie on back supported by floats (including one under pelvis) and push leg down towards bottom of the pool.

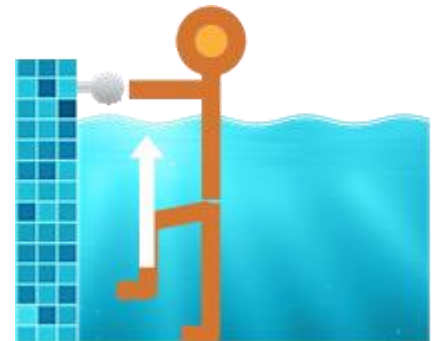


Hip and knee flexion

- Stand with weight on one leg.
- Hold rail if needed.
- Raise knee to horizontal if possible.
- Lower leg back down to floor.

EASIER: Place a float around ankle to help raise hip/knee (this will make it harder to push foot downward).

HARDER: 1. Place a fin on the foot. 2. Move faster.

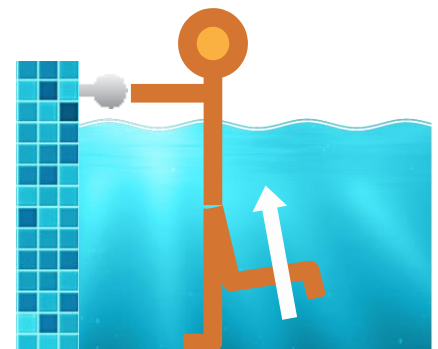


Hamstring curl

- Stand with weight on one leg.
- Hold rail if needed.
- Bend your knee and lift your heel behind you.
- Keep your hip straight and knees side by side.
- Straighten knee and return foot to floor.

EASIER: Allow knee to move forwards as you lift your heel.

HARDER: 1. Place a fin on the foot. 2. Move faster.

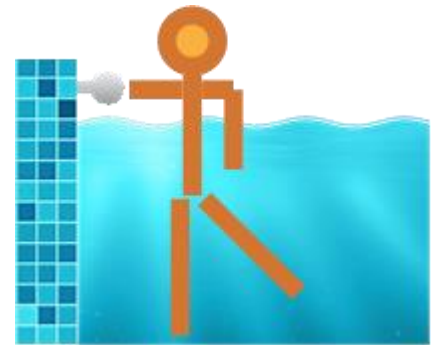


Hip abduction

- Stand sideways to wall (hold rail for support if necessary).
- Raise outer leg to the side, keep trunk straight and toes pointed forwards.
- Return leg to resting position.

EASIER: Place a float around ankle and allow this to assist movement.

HARDER: 1. Move limb faster. 2. Lie flat in the water using hip and neck floats. Keep knee pointed at ceiling while moving leg to side.



Adapted with permission from Darlow B, Perry M, Chapple C (2013) Water based exercise for people with arthritis. University of Otago and Arthritis New Zealand. This manual was produced as part of a joint project between Arthritis New Zealand and the School of Physiotherapy, University of Otago. Further information and advice about managing arthritis is available free by calling an arthritis educator 0800-663-463 or visiting www.arthritis.org.nz. Page created September 2019.