



PiLATES PATiO

*“Winter is the season in which people try to keep the house as warm as it was in the summer, when they complained about the heat.” ~Author Unknown*

**Pilates for Winter sports**

Winter is here and there is a good month left to enjoy winter activities. How can Pilates help enhance your enjoyment during this time? Whether it’s skating, playing hockey, downhill skiing, cross country skiing, snow boarding, snow shoeing, curling or just walking on the canal, Pilates is an excellent form or cross training, conditioning and injury prevention.

Pilates is great for toning the whole body including all the areas used in most winter activities and sports. A combination of mat and reformer exercises provide the ideal conditioning for activities like skating, skiing and other winter activities. Matwork is great for strengthening the ‘core’ region, abdominals, muscles along the spine, pelvic floor and working on stabilizing the shoulder girdle and pelvis. Exercises on the reformer are great for toning the muscles in

the legs, upper body and arms including working on stability in the pelvic region and shoulder girdle in a more dynamic setting, similar to all the winter activities. For examples, foot work on the reformer is great for toning the hamstrings, quadriceps and calf muscles. Exercises with feet in the straps on the reformer is great for working hip flexors. A series of standing exercises on the reformer works the abductors which are used in many of the winter activities, i.e. skating, skiing, snowboarding. There are many exercises on the reformer that work the upper body. More can be found in our Winter Sports Special.

<http://www.pilatespatio.com/PatioBreeze-WinterSpeical2011.pdf>

Below are some of the major

muscles used in some of the more common winter activities:

**Skating:** Hamstrings, quadriceps, gluteals, calf muscles, tibialis anterior (shin), abdominals

**Downhill skiing:** Hamstrings, quadriceps, gluteals, calf muscles, tibialis anterior (shin), adductors,

**Cross country skiing:** Quadriceps, gluteals, calf muscles, Triceps, biceps, pectoralis major, latissimus dorsi, Abdominals

**Snowboarding:** Hamstrings, quadriceps, gluteals, calf muscles, abductors, feet. Abdominals, back, plevlic floor

**Snowshoeing:** Hamstrings, Quadriceps, gluteals, iliopsoas, Arms, shoulders, Back,

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## Rock Climbing and Pilates

Whether outside or indoors, rock climbing is a full body workout. Some muscles do work harder than others while moving upwards against gravity. Some of the more common muscles used when climbing:

**Forearms:** Grip strength is the quickest way to improve climbing performance. Forearms alone aren't used in rock climbing but without forearm strength, your rock climbing ability is limited. Some of these muscles are, the brachioradialis, pronator teres, flexor carpi radialis, palmaris longus, flexor carpi ulnaris

The **forearm flexors**, made up of the carpi ulnaris, flexor carpi radialis, flexor pollicis longus muscles, are responsible for flexing the fingers and forearms so that you can grip the rock.

**Upper arm and Shoulders:** Side and upward movements where your feet are not directly under you require strong arms and shoulders. Working the shoulder muscles can help. Some of these muscles are, triceps, deltoids and biceps brachii (biceps). The biceps, allow you to bend your arm. Work in conjunction with latissimus dorsi to pull body up. Strong biceps important on steep routes or tackling overhangs.

**Upper body:** Upper body muscles are needed when rock climbing. For example, the

latissimus dorsi which helps pull arms downward and inward as you pull yourself up using your arms.

**Obliques and abdominals:** Help add stability to climbing moves.

**Quadriceps:** Real strength while climbing comes from the legs. The arms are not used to lift the bodies. The arms are used predominately to stay tight against the rock surface. While moving up a rock face a climber uses their quadriceps to allow them to step up from any angle.

**Calf muscles** (gastrocnemius and soleus): A rock face with small nooks and crevices, the calf muscles aid in keeping your toes against the wall. When moving upwards the calf muscles allow your rise up onto tip toes to get a better reach.

Other muscles used while climbing:

**Legs and lower body:** hamstrings (back of thighs), hip adductors (inner thighs), abductors (outer thighs), gluteals

**Upper body:** anterior and posterior deltoid (front and back of shoulders), pectoralis major (chest), erector spinae (muscles along spine), rectus abdominis, upper trapezius

### How can Pilates help?

With rock climbing you don't want to add extra weight by adding unnecessary bulk. Muscle density is greater than the same volume of fat. Pilates is great way to tone the entire body without adding extra bulk and weight. A combination of exercises on the mat and reformer will help tone and strengthen all the muscles used in rock climbing.



Back rowing exercises on the reformer. Work muscles in the arms, and mid-back.

Mat-work is great for working the ab-

dominals, obliques, back, muscles along the spine, all muscles that help stabilize the body. Exercises on the reformer help work the stabilizers in a more dynamic setting while strengthening and toning muscles in the legs, upper body and arms.

## Pilates for Rehabilitation

Joseph Pilates suffered from many illnesses as a child which resulted in muscular weaknesses. It was these weaknesses and illnesses that motivated Joseph Pilates to study movement and exercise which led to the development of what is now known as Pilates.

Pilates continues to be a form of exercise and movement that is used in the restorative process and is gaining popularity in rehabilitation setting. Many physiotherapists, chiropractors and doctors will either use or recommend Pilates in the recovery/rehabilitation process.

### What makes Pilates good for restorative work?

- Low impact
- Many modifications of the exercises. This allows for almost everyone and injuries to do some exercise for the injured area.
- Principles behind Pilates work with restorative work. i.e. **eight principles** are: control, breath, flowing movement, precision, centering, stability, range of motion and opposition.
- Stability, range of motion, control
- Pilates works muscles both eccentrically and concentrically so strength and tone is muscles is hopefully more uniform and balances.
- Pilates can be done as gently or as intensely as possible.

### What injured areas can Pilates help restore?

Pretty much every area of the body Pilates can help rehabilitate and restore. Some of the common areas or injured areas that we see in the studio are:

- Back (e.g. upper, lower)
- Knees
- Feet (e.g. plantar fasciitis )
- Shoulders (e.g. frozen shoulder)

- Ankles
- Hips

Before starting Pilates or any other form of exercise after an injury, consult your doctor. Usually visits to a physical therapist, physiotherapist, chiropractor and/or other health practitioners are usually accompanied during the rehabilitation process.

### How can Pilates help?

Pilates is known for working on 'core' strength. This includes working the lower back and abdominal muscles and pelvic floor to help stabilize the lumbar spine and pelvis. Stability is a big part of Pilates so any exercise done in Pilates first involves stabilizing the body which includes the pelvic region. As a result, these muscles get stronger over time resulting in a stronger lower back.

There are many exercises both on the mat and equipment and in particular on the reformer that help strengthen the lower, upper and mid back. Just maintaining neutral posture helps strengthen many muscles in the back.

The reformer is a great way to help strengthen muscles around the knees. Because there are so many exercises that can be done in a lying down position, there is much less stress and impact on the joints and in particular the knees. There are exercises with your feet in the straps and with your feet on the footbar all done in a lying down position getting all the muscles around your knees, quadriceps, hamstrings, muscles on the lateral and medial sides of the knee. All of this allows you to strengthen the muscles all around the knee gradually without any

strain. So many modification are available to the exercises in Pilates that there is some exercise that everyone can do for any muscle group.

The exercises in Pilates are done in stocking or bare feet. This gives the muscles in the feet a chance to work. There is a series of exercises called footwork that positions the feet differently for each exercises working muscles in the feet while working muscles in the quadricep and hamstring group. A series of exercises on the reformer for the calf muscles also help strengthen the ankles.

Many exercises for the upper body may be performed using the reformer. There is a series of exercises strengthening the rotator cuff as well as exercises that strengthen the shoulders (deltoids) while getting the latissimus dorsi, rhomboids, trapezius, pectoralis major and other muscles in the mid back and chest.

There are various exercises targeting the hips, whether it's strengthening the hip flexors, stretching out the hip flexors, working on stability in the pelvic region, rotation in the hip joint etc., there are many exercises on the reformer and in particular with the feet in the straps that allow for strengthening and stretching out the hips.

There are many other areas that Pilates can help with the restorative process with.



LENGTHEN, STRENGTHEN and ENERGIZE

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There are a number of training principles. Below is a description of these principles. Whatever exercise routine, regime you choose this new year, try and ensure the training principles below are incorporated.

**FITT** stands for Frequency, Intensity, Time and Type of exercise. When planning your training program you want to consider these four areas. Frequency is how often you do the exercise, intensity is how hard your work or the level of difficulty of the exercise, time is how long you exercise each time and type is the choice of exercise.

**Individualization** means that programs and modifications to programs can be made to accommodate each person's individual needs. We provide modifications to help individualize your program to your specific needs.

**Specificity** means that if you want to improve a specific aspect of your

performance, you will have to train that aspect. For example if you want to work on strengthening your knees, you'll have to do exercises that strengthen the muscles around your knees, i.e. quadriceps, hamstrings, abductors, adductors

**Progressive overload** suggests that to improve you must continually challenge your fitness. If you don't continually challenge yourself you will plateau and stop making any improvements.

**Recovery** is the amount of time of rest between workouts. The recovery time must be enough for you to be at least as fit if not more fit than the previous workout. If you don't have enough recovery time you will eventually become ill or injured.

**Structural tolerance** is the strengthening of tendons, ligaments etc. resulting in the ability to sustain greater stresses in training with a greater resistance to injury. Usually this is a benefit of regular exercise but sometimes specific training is needed. e.g. marathon runner may need specific strength training for areas

# STUDIO

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**\$15 New Client Special**

## Training Principles

that will feel more stress, like the ankles, hips, knees and back.

**All-around development** suggests that people who are well conditioned in all components of fitness are less likely to sustain injury and more likely to perform better in sport and in life. Balance is really what you're aiming for when exercising. Working opposing muscle groups help achieve muscular balance.

**Reversibility** principle suggests that once training stops the body will gradually return to pre-training state. While this is frustrating you can take this as a cautionary principle implying consistency is needed with exercise to continue achieving results and sustain the results of your hard work.

**Maintenance** is required once you have reached your desired goals to keep that result. It is possible to maintain your fitness level with less work. To prevent adaptation to exercise you could train as little as one third of the amount at the same intensity for up to 12 weeks.