Top 5 Tips avoiding Back Pain in the Gym

A Physiotherapist's Guide

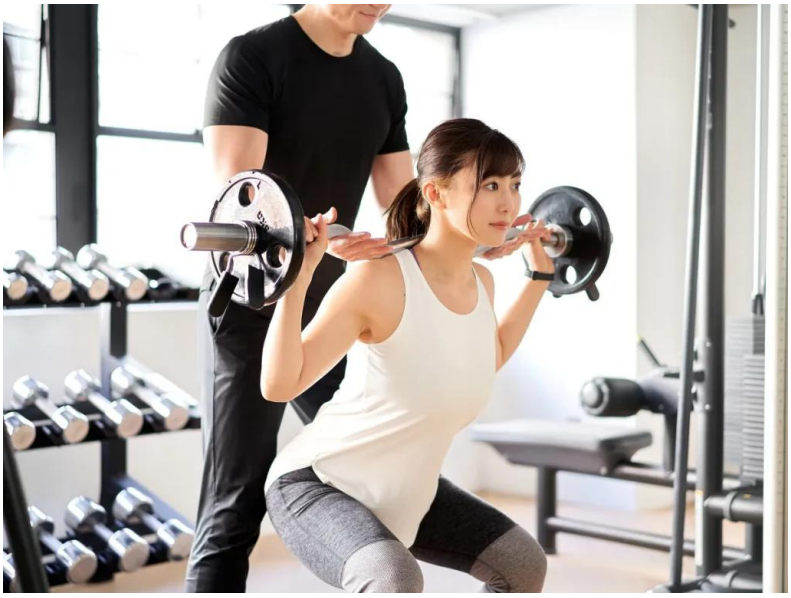
The benefits of strength training in the gym are well established. Unfortunately, back injuries sustained in the gym are commonly seen in the physio clinic, often leading to significant periods out of training or worse, people avoiding exercises that have led to injury, resulting in weakness and lack of protection in these movements. Here are a few top tips to help you avoid some of the common pitfalls leading to injury.



1. Technique

Performing the exercise with the correct technique for the desired movement is crucial. If you are not sure on the specific movement patterning, muscle recruitment and process for the desired exercise, consider a variation, or speak with a professional to obtain the correct technique. Poor technique often results in overload to tissues and joints and subsequent injury.

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2. Progressive Overload

Progressive overload refers to increasing the demands of the exercise you are performing to stimulate physiological changes, typically an increase in muscle strength or mass/size. This is a well-known principle; however certain considerations need to be taken into account to avoid injury;

- Only change one stimulus at a time to avoid excessive overload. This may be a change to either reps, sets or load.
- Only increase the difficulty of the exercise when the muscles have made enough adaption. You can generally tell this by the last 2 reps of the set not being as challenging.

3. Global vs Local

Global muscles are larger, cross multiple joints, typically superficial or easily seen, and play an important role in generating gross movement of body segments. Local muscles are typically smaller, affect one joint, and are deeper within the body and may assist with generating movement but also play more of a stabilising role.

It is important to train both a combination of global and local muscles. Your global muscles tend to be trained with larger,

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compound movements involving movement of multiple joints such as squats, lunges, deadlifts and dips (add pic of dips for clarity). Examples of some good exercises to train your local muscles include plank, biceps curls and single leg balance exercises.



4. Warm Up

Research shows that an appropriate warm up is a cornerstone of avoiding injury in the gym. One well known method, which is highly utilised in professional sport, is called the *RAMP* method. This method consists of:

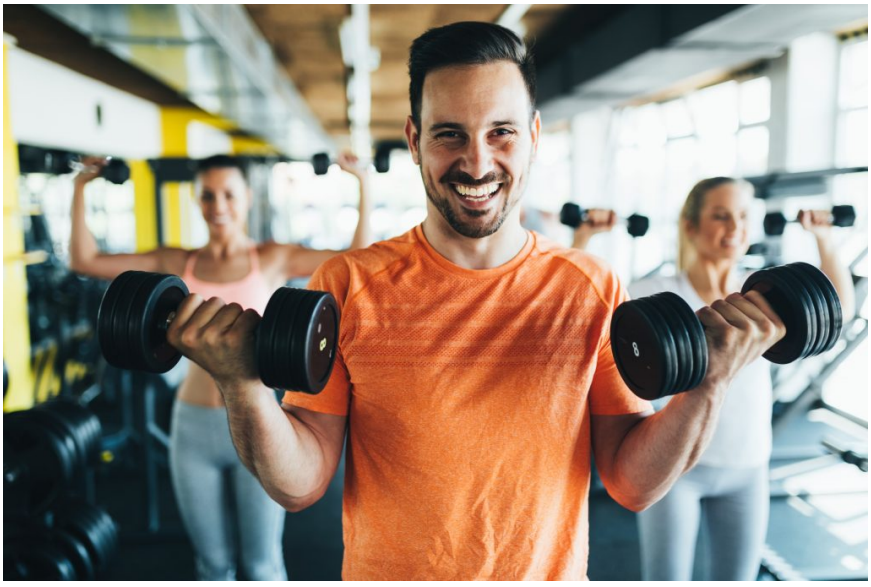
- Raise -Increasing the body temperature
- Activate – Activate muscles that will be trained in the gym
- Mobilise – Mobilise muscles and joints that will be trained in the gym.
- Potentiate – Specific drills utilised to mimic the movements programmed into the session.
- Increasing the load to build up to the working sets.

The RAMP method has been shown to reduce injury risk and improve sporting performance. However, this should be individual and specific to yourself, and the exercises/movements been performed in the session(s).

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5. De-load

Resistance training places a high stress load on the soft tissues of the body as well as the nervous system. Maintaining this high stimulus for a prolonged period, leads to an increased risk of injury to soft tissues, joints or the nervous system. De-loading involves a period of structured rest, whether this be full rest from exercise, or part rest, training at a lower level to allow the tissue and nervous system to rest, recover and repair. If the recovery is adequate, the body enters a supercompensation period where it's able to perform better than before the workout. This is because the body adapts to the stress of the workout and becomes better able to handle similar stress in the future.



Maintaining strength is an important in protecting us from a variety of injuries. While injuries in the gym are common, following the above steps should allow you to push hard and get the most out of your training, while avoiding injury risk as much as possible.

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