New Injury? Treat it with PEACE & LOVE

For years we've heard the acronyms RICE/PRICE/POLICE for treating acute injuries. However, this method has little research backing for recovery of acute injuries. Instead, we should be treating those injuries with PEACE & LOVE.

Acute injury (1-3 days): Give it PEACE

In the initial stages following an injury our main goal is to minimise further injury to the area and manage pain. Here is where PEACE comes in. First, and most importantly, we need to protect the injured area. This means stopping the activity if able, and provide protection to prevent further injury. While in this phase it is important to listen to pain as your guide for when to start moving again. Rest is helpful and necessary, though try to minimise rest as prolonged resting of an injured tissue can lead to worse outcomes in the long term. Your pain will guide you as to when you can start to remove protection and start slowly loading the damaged tissues again and get back to your normal activities.

It is known that pain and swelling inhibit muscle strength, and management in the first few days after injury is an important time to work to minimise swelling in the area. By elevating your injured area above your heart you can promote interstitial fluid to flow out of the tissue. It is important to note that elevation should be above your heart as that allows gravity to assist in returning the fluid towards your core and away from your injury.

Probably most controversial is the A – avoid anti-inflammatories. Despite their widespread use, there is little evidence to support the use of NSAID's for chronic tendon injuries [3]. Similarly, the regular use and prescription of NSAID's following a fracture has little evidence, and has actually been shown to impair bone healing in both animal and human trials [4]. For treating minor injuries such as muscle sprains and strains the evidence is a bit more foggy. Many studies have shown that the use of NSAID's in the subacute phase (generally starting about 3 days after injury) can impair rebuilding and hinder the recovery from your injury. However, research into their use in the initial days following injury is varied. NSAID's have been shown to help reduce swelling and pain felt in the area, but the long term effects of their use within the first few days are not well known. Overall the current research suggests to try to avoid NSAID treatments, both oral and gels, for musculoskeletal injuries once out of the acute/initial days following injury. Exploring different options for pain relief and management is a worthwhile endeavour, especially for those recovering from a bony injury as using NSAID's for these injuries have consistently been shown to have negative long term effects.

What about ice? Most of us have grown up with one our first thoughts after injury being to put ice on it. The theory behind this is that ice can slow down tissue metabolism and circulation, thereby delaying and reducing the overall inflammatory response and reducing the risk of secondary injury to nearby tissues (notably muscle). However, this temperature-dependent effect has been hard to recreate in humans due to injury type, depth, and amount of adipose tissue [2]. One study found that even with ground ice applied for 50 min to the injured area, they were not able to recreate the temperatures required for any significant benefit. That being said, ice can reduce perceived levels of pain which may be enough to warrant its use as the risks of using ice are low and have not shown any significant long term detriments to healing.

Compression to an injury can help reduce swelling and provide stability, thereby helping reduce pain in the area and help you get back to normal movement sooner.

Education. This is where we come in. Often after an injury it is hard to know exactly what is damaged, and what kind of pain is okay vs pain that is signalling further damage. The easiest approach to this is resting. However, as we said before, prolonged rest can hinder your recovery overall. I prefer to think of it more as relative rest. Say for example you've injured your ankle. This doesn't mean that you can't continue to work your abs, glutes, back or upper body. Continuing

movement through your injury not only helps you maintain strength in other areas, it also helps increase blood flow and circulation, both of which are necessary to optimise healing in the injured area. Physiotherapists can help in these early stages to guide you towards exercises that will not cause further injury, and guide you through progressive loading of the injury guided by your pain. Recovery should be active, and we want to help you keep moving and doing what you love.

Well done! You've made it through the first stage. Now it's time to give that injury some LOVE.

We've already touched a bit on some of these concepts earlier, but the sooner we get this injury loaded and moving the better. Our bodies are meant to move and the only way to make tissue stronger is by putting some stress on it – load it. Load to an injury should be started early without exacerbating symptoms. By loading early we help our body to start repairing the injured tissues and increasing their tolerance to load and movement. Physiotherapists can guide you through this process to help you keep good range of motion and start to safely load your injury to optimise your recovery.

Optimism. This is key. There are numerous studies to date that show a positive effect of optimism on outcomes following musculoskeletal injuries. Optimists tend to think more positively about future outcomes and are more likely to engage in goal-directed efforts to achieve those outcomes [6]. In the context of rehab following an injury, people who think positively about their recovery are more accepting of their initial pain, more adherent to rehab work, and less likely to develop chronic pain from their injury. We understand injuries are frustrating and pain can be distressing, but exercise is the best medicine for both body and mind and we can help you throughout the process.

Now for my personal favourite, vascularisation. Or really, just a long way to say blood flow. In general, blood=healing when it comes to recovery. If you've ever hurt your Achilles tendon you've probably heard that the lack of blood flow to our tendon makes rehab a bit longer for those types of injuries. This is where cardiovascular work comes in. By keeping moving and increasing your heart rate, you are increasing blood flow throughout your body, bringing oxygen and helping to clear out those inflammatory markers as soon as they are no longer needed. For those injuries to ligaments and tendons that don't generally get great blood flow, cardiovascular exercise can help speed up recovery and get you back to the exercises and activities you love. As an added benefit, aerobic exercise can increase mood, lessen pain, and increase confidence in your injury and what you are still capable of while you are healing.

And lastly, exercise. This idea has been incorporated in lots of the previous areas as it is key in healing and preventing further injury. Most of the time when we injure something once it is more likely to happen again. By properly rehabbing the injury and addressing any motor patterns that lead to happening in the first place, we can reduce the chance of further injury and potentially help you to return stronger than where you left off. Rather than thinking of injury as a set back and annoyance, physiotherapists can help you to determine the root cause of your injury and work on fixing that so that you won't be as likely to end up back in our clinic with the same injury.

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