Injury Prevention and Rehabilitation Strategies

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WARNING
Please note information contained in this manual is the author’s opinion and is no substitute for professional medical advice. Please consult a doctor or registered health professional before implementing any of the above techniques or guidelines. The author takes no responsibility for the incorrect technique or dietary modifications as a result of unsupervised performance of methods outlined in the manual.
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Enjoy and may you achieve your lofty dreams and goals you have set for yourself!

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Introduction

Who really cares about injuries until they happen right? Well you should because the number of injuries your team has will directly impact their success!

Think about it, if you’re BEST players are out injured, they are of no benefit to you or your team, although I’m sure they make great cheer leaders!

You probably think injuries are just bad luck and you really can’t do much about them and are just part of the game! This manual will shatter those myths.

And it’s highly likely that you’re coaching methods and techniques are actually contributing to those injuries. Most injuries are preventable and should never happen!

This manual was written with one thing in mind; to help coaches understand their contribution to the injury process and as a guide to assist coaches and athletes to rehabilitate their injuries and return to their chosen sport without the re-occurrence of injury.

You will learn how to prevent injuries from occurring and the major factors that contribute to injury, because if these guidelines are followed there won’t be any injuries to begin with. The chapter on massage and flexibility alone illustrates how these simple tools can markedly reduce pain and injuries.

I am proud of the contents within this manual as I have never seen such a comprehensive resource that details the rehabilitation process from start to finish.

The resource includes the initial treatment for how to minimize damage when injuries occur through the use of traditional and non-traditional methods including nutrition and supplementation, as well as the key physiological processes the body undergoes once injured.

The key principles of the injury management process and return to play skills and movement continuum have been included to ensure a progressive and successful return from injury.

The manual also details the psychological factors that can impact upon the athlete whilst returning from injury. This knowledge is crucial as it helps the coach understand the feelings and emotions the athlete is going through which can hasten the recovery process.

There is even a chapter on how to train when sick, with the content sure to surprise you.

“If you give a man a fish, you feed him for a day, teach him how to fish and you will feed him for a lifetime!”

This defines the approach that I have taken with the manual, in that the concepts, principles, treatment and processes can be applied to all injuries.

Don’t let unnecessary injuries and extended rehabilitation times cost you or your team the price of success!
Chapter 1

Why do Injuries Occur?

Why and how do injuries occur? If we understand the mechanisms behind injury it stands to reason that we can limit the number of injuries our athletes’ experience. There are 2 main categories of injuries; Acute Contact Injuries such as concussions and bruises and Non Contact Injuries such as strains and tendonitis. Contrary to what you may have been conditioned to believe, injuries are not bad luck and the majority of injuries are actually preventable! There are many factors that contribute to injuries that will be discussed in this chapter.

Not Knowing the History of the Athlete

Injuries can occur as a result of no background knowledge or history of the athlete. This means the coach should have an understanding of the athletes’ previous injuries. For example, had the coach known the athlete had a serious shoulder injury during the previous football season the coach would not have had that athlete perform swimming as part of the pre-season training for football. However the coach was unaware of the athletes shoulder injury history and the athlete suffered severe shoulder impingement as a result of the pre-season swimming training.

No Assessment

Non-existent or insufficient athletic assessments contribute to injury. Athletic assessments help the coach identify flexibility, strength, core stability and movement deficiencies the athlete may have. Without an assessment the coach has no idea of the injuries, limitations or restrictions the athlete has. For example, if the coach had performed a flexibility assessment, the coach may have been able to identify which muscles were excessively tight, as shortened muscles alter the length tension relationship in the body and contribute to injury. Providing this feedback to the athletes, provided the information is acted upon, can help reduce the risk of injury.

Non Specific Warm Up

A non specific warm up or an inadequate warm up can lead to increased instance of injuries. This is due in part to the body being insufficiently prepared to handle the increased speed and intensity that is associated with training or a game.

Non Specific Training Methods

Traditional fitness methods such as long slow distance runs that are used to develop a footballers “fitness” are non specific training methods that contribute to many over-use injuries. These methods decrease flexibility, speed, power and do not develop the sports specific technical skills required by the athlete.
Incorrect Developmental Zone

Training athletes in the incorrect developmental zone can contribute to injuries and fails to take the athletes physical maturation of into account. This is best illustrated by imposing adult training schedules upon junior athletes or by having a 13 year old athlete train in the training to win zone which is usually the appropriate training zone for 18-20 year olds when they should be training in the training to train zone. This is covered in more detail in the long term athlete development manual.

Lack of Periodised Planning/Training

A lack of periodised planning/training can cause injury. This means that the coach has not planned the training or workloads in a progressive manner. If a player is exposed to an increase training loads of more than 10% each week, they are more likely to get injured. For example the coach may do 1hr of drills on the first night of training and then do 2 hours of drills the following night at training or doing 20 mins of conditioning then do 40 mins the next training night.

Lack of Knowledge of Athletes Workloads

Another contributing factor to injury is the coaches’ lack of knowledge regarding his players’ total workloads at and away from training. For example the coach may be unaware of the total work load and training his athletes may be performing away from the club training. That includes other sports and physical activities the player may be involved in. The coach may not be utilizing any methods to monitor training loads.

Neglecting Recovery

It’s quite common for coaches to neglect recovery, this is a sure fire recipe for injury. As there is no focus on recovery or regeneration activities or no planned recovery sessions or unload or de-loading weeks. Players are likely to experience soft tissue and over-use injuries. If the coach has not planned or factored in any recovery sessions or unload weeks in the training cycle it is quite likely the players will not recover sufficiently to realize the fitness gains made from training.
Types of Injuries and Contributing Factors

The following table provides a brief description of the types of injuries and the major contributing factors as well as strategies that can be implemented to avoid injuries.

<table>
<thead>
<tr>
<th>Injury Types</th>
<th>Examples</th>
<th>Contributing Factors</th>
<th>Strategies to Avoid Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Contact Injuries</td>
<td>Head Bone Ligament Contusions</td>
<td>Fatigue Technique Bad Luck</td>
<td>Wear protective gear. Modify the content of training drills. Ensure junior players and athletes are matched in terms of height and weight.</td>
</tr>
<tr>
<td></td>
<td>Bumps Bruises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Contact Injuries</td>
<td>Over Use Injuries Strains in</td>
<td>Acute and accumulated loads in training/games. Change in training Loads Poor Risk Management</td>
<td>Know the athletes’ history. Conduct assessment. Perform thorough warm up. Use recovery protocols. Plan and periodise training. Monitor training loads and modify training days accordingly.</td>
</tr>
<tr>
<td></td>
<td>Training Strains in Games</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2
Injury Prevention

So the question needs to be asked, how do I keep my athletes injury free?

Well I’ll outline the step by step approach I use to ensure they remain injury free!

Firstly, I know their injury history, this is crucial so I know the areas and injuries I may need to focus on and or rehabilitate to ensure the injury has healed and is not restricting their current performance. It also allows me to know what activities or injuries may aggravate the injury.

I conduct a thorough physical assessment that includes postural analysis, flexibility, core strength and functional movement assessment. The assessment allows me to identify restrictions that may limit performance or contribute to increased risk of injury. Common findings include severe flexibility limitations, poor posture and core strength which increase the likelihood of injury. The results and findings of the tests dictate the individual training programs I prescribe for the athletes. These tests are outlined in the physical assessment for athletes DVD.

I am aware of the injuries that are prevalent in the athletes sport. For example the most common muscular injuries in AFL are to the hamstring, groin, glute and calf muscles. Common joint injuries to AFL players include damage to the shoulder, knee and ankles. This information allows me to include injury prevention exercises for these areas of the body. An example of these drills may be Glute Ham Raises to strengthen the hamstrings, rotator cuff drills to strengthen and stabilise the shoulders and mini tramp hop and stick balance and stability drills to strengthen the ankle and knee stabilisers and increase joint proprioception. Specific flexibility drills would be included to lengthen the commonly injured and shortened muscles of the calves and glutes.

I plan and periodise the athletes training programs. I have a schedule of the training my athletes will undertake and ensure that the training is progressive in nature. The training loads and volumes do not increase by more than 10 percent per week. I also include planned de-load and recovery weeks into the training program. This helps break the boredom of training, decrease injuries, helps re-invigorate and freshen the athletes which leads to quicker faster performance gains.

I insist the athletes use recovery protocols. This is a rule that I have, in that I only work with athletes that are willing to do the necessary work away training. This means undertaking recovery protocols no matter how uncomfortable that may be. I’m yet to meet any athlete that loves ice baths or deep tissue massage, but the reality is that they are proven recovery methods that keep athletes’ injury and pain free!

I monitor the athletes’ recovery and training loads through the use of questionnaires e.g. muscle tightness, soreness and RPE data. This information allows me to predict possible injuries before they occur. As a coach simply asking what your athletes have done over the last few days and how the body feels can provide you with tremendous insight and valuable information as to the injury risk to your athletes. This feedback from the athlete helps me to plan the training session accordingly.
The magic of massage and flexibility is terribly underrated. Personally, I have seen and experienced almost all musculoskeletal injuries healed via the use of hands on massage modalities and specific flexibility techniques. An expert massage therapist is a secret weapon in any athletes’ arsenal that will help keep them injury free and performing at their optimum.

So how does it work? Put simply, the goal is to maintain optimal flexibility around each joint in the human body. This is done by performing static stretching before and after each training session or game. The stretching elongates the muscle and improves tissue length, which optimizes the joint gap. When the muscles are tight or shortened the joint gap and joint space decreases due to tissue creep. When the joint gap decreases, joint friction occurs, the gap is decreased and inflammation and pain results. The Yoga for Athletes DVD outlines the key stretches to keep your athletes healthy and injury free for a lifetime.

Hands on massage, optimizes the tissue quality by reducing muscle tension and tonicity. A skilled massage therapist will keep the athletes’ injury free and provide you valuable feedback as to the condition of their body and any tight areas that need to be worked on. I recommend a minimum of 1 full body massage per week. However if budget is a limiting factor, self massage is of tremendous benefit between massages. Self massage is performed on a foam roller. I recommend all athletes invest in a foam roller to decrease the tonicity of the muscle and help stay injury free!

Foam rollers can be purchased from the website www.injoewetrust.com.au

What is the joint gap theory and how does it work? When the muscles are tight, shortened or hypertonic the joint gap and joint space decreases due to tissue creep. When the joint gap decreases, joint friction occurs, resulting in inflammation, swelling and pain. The pain can come in the form of achy joints or muscle strains if the joint space decreases and inhibits the nerve transmission to the muscle.
Injury Prevention through Monitoring

This table outlines the key methods for monitoring training and playing loads and to assist with injury prevention for your athletes.

<table>
<thead>
<tr>
<th>Method</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td>Soreness, Mood, Stress Levels, Wellness Scales, etc.</td>
</tr>
<tr>
<td>Training Loads</td>
<td>RPE, Load, Strain, Monotony</td>
</tr>
<tr>
<td>Physical Performance Tests</td>
<td>Flexibility, Muscle Strength, Balance-reactive strength index testing,</td>
</tr>
<tr>
<td></td>
<td>drop jumps, bench throws power output test, muscle flexibility,</td>
</tr>
<tr>
<td></td>
<td>range of motion, SA H/rate recovery test, muscle tone.</td>
</tr>
<tr>
<td>Hormonal Biochemical</td>
<td>Testosterone, Cortisol Ratios</td>
</tr>
<tr>
<td>Analysis of sports performance</td>
<td>Distance ran, game time, number of body contacts, time spent above</td>
</tr>
<tr>
<td></td>
<td>85% max heart rate or 85% max speed, etc.</td>
</tr>
</tbody>
</table>

In a professional setting all 5 methods may be used to monitor recovery and used to correlate for possible injury as fatigue can be a predictor of injury. However, when working with junior athletes, the use of a questionnaire would be the easiest, least time consuming and would not require any extensive equipment. When working with younger athletes, I simply ask them how they are feeling today and wait for a response. Their response usually dictates what I do with their training at that point in time. This is called reactive programming and allows the coach to modify training according to the athletes’ current status. For example, if the athlete said they were extremely tired and had already played a game of football during the day, I would adjust their strength training program to reflect this. For example, if they had 4 sets of 12, I would say to do 2 sets of 12 and try to increase the weight, rather than aim for an increase in volume or total number of reps or sets. Be wary as some athletes are lazy and will tell you they are tired all the time and they won’t ever want to train, you will know who they are. Simply use an average of the 5 kids that always give honest representations of how they feel to ascertain what to do with their training. Another example would be for an athlete that has a lower body injury the athlete can train the upper body.

Monitoring exact training loads is challenging at junior level due to the non-controlled environment. As all athletes are performing various activities at school and away from training. Whereas a professional athlete has their entire training week and routine structured which is much easier to quantify and control. The RPE method discussed in the recovery and regeneration manual outlines this process in more detail. However, the junior coach can still monitor training and activity loads by asking what the players have done over the previous days. Whilst this method is not exact and is similar to the use of a questionnaire, it can provide the coach with feedback as to how to modify the training according to the athletes work load.
Physical Performance Tests involving conducting physical performance tests that assess flexibility, strength, speed and power. For this to be relevant the junior coach actually has to have conducted some form of physical testing. Though my experiences, physical performance testing at junior club level is relatively uncommon. At the professional level these tests are implemented with the use of expensive scientifically calibrated equipment which is usually out of the budget for junior clubs.

However similar principles without the need for expensive equipment can still be applied, albeit at a lower level. An example of this may be using the flexibility or self massage component of the warm up; whereby the athlete can perform specific stretches and self massage techniques that assess for any unusual muscle tightness, soreness or tension. The athlete can then inform the coach and the appropriate trainings decision can be made. For this method to be effective the coach must educate the athletes on how to listen and assess their body on a daily basis. The athletes must also exhibit some level of maturity and honesty when performing the appraisal.

Hormonal and biochemical markers can be used to predict injury, however they are usually unavailable to junior athletes as they require scientists to conduct the testing and analysis. There is also a large degree of variance with respect to hormone levels amongst junior athletes so the data may not be relevant to young athletes anyway.

Analysis of sports performance can be used as a guide to foresee injuries. If the weekends’ game was hard fought, with a large degree of physical contact and a small winning margin, the coach can ask the players for feedback or use coaching instincts and personal judgment to plan the following training week accordingly. The reduced weekly training load allows the athletes to recover sufficiently which decreases the risk of injury in the following week.
Injury Prevention Checklist

Taking all these factors into account I have compiled an Injury Prevention and Rehabilitation Checklist for both the coach and athlete. The checklist was developed using outcome based decision making. This allows the coach or athlete to use the checklist to ascertain what part of the process is breaking down or not allowing them to successfully achieve their desired goals.

For the coach

1. Do I prioritize injury prevention over performance enhancement?
2. Do I know each athlete's injury history and background?
3. Did I conduct a thorough assessment and screening on each athlete?
4. Have I asked my athletes how they feel today?
5. Do I conduct a proper warm up that prepares the athletes muscle, nerves and joints?
6. Do I ensure the athletes use adequate safety equipment when available?
7. Do I use appropriate training methods relevant to the age and ability of the athletes I coach?
8. Do I ensure that competition is evenly matched
9. Am I aware of the common injuries inherent in the athletes sport?
10. Do I plan and periodise my athletes training in a progressive manner?
11. Do I insist athletes use recovery protocols?

For the athlete

1. Have I informed my coach about my injury history?
2. Have I informed my coach of my other physical and sporting commitments away from that training?
3. Am I aware of areas of weakness in my body that need to be monitored and developed?
4. Do I inform the coach of any unusual soreness, aches, pains or dramatic increases in training and playing loads?
5. Do I perform recovery protocols after every training session and game?
6. Do I know what processes to undertake when I am injured?
7. Do I warm up thoroughly before each training session or game?
8. Do I warm down after each session
9. Do I monitor my soreness levels each day?
10. Do I perform regular flexibility and sessions?
11. Do I undertake regular hands on massage and self massage treatments?
12. Do I use protective safety equipment when appropriate?
Even with proper preparation, injuries may still occur. Now what? Regardless of the degree of damage, all injuries undergo a similar reaction in the first 2 to 3 days post injury, called the inflammatory phase. The signs and symptoms involved in this phase can be summarized by the acronym SHARP:

- **S** – Swelling
- **H** – Heat
- **A** – Altered form or function
- **R** – Redness
- **P** – Pain

These signs and symptoms can last anywhere from 2 to 72 hours post injury (duration depends on severity of injury). Luckily, the treatment during the first few hours or days following an injury is just as easy to remember RICE:

- **R** – Rest (restrict activities that cause pain)
- **I** – Ice (Ice packs - 20 minutes every hour)
- **C** – Compression (tensor bandage or compression shorts to limit swelling)
- **E** – Elevation (ideally above the level of the heart, but sometimes difficult with a high groin strain)

**Note:** Gel freezer packs can actually reach temperatures colder than ice. Make sure to have 1-2 layers of paper towel between the ice pack and your skin.
When do I need to go to a Clinic?

In a professional sporting environment, you would get a diagnosis for any injury, aches or pains incurred during training or a game. The diagnosis may come from a physiotherapist or doctor.

In reality, at junior level there are very few qualified medical staff available, so as an athlete it is important to know, if the injury is serious enough to warrant a trip to the doctor or physio. It is also important to note whether the pain could be considered a normal pain or bad pain. How can I decipher between what constitutes normal pain and what bad pain is.

Normal pain could be considered the usual pain that would normally be encountered after a training session or game. For example muscle damage as a result of a strength training session could be interpreted as normal pain. The pain may last for 24-48 hours following the session, however this would be termed good pain as the muscle has been broken down by resistance training and will be sore and needs to regenerate to get stronger.

Whilst playing a contact sport, collision and impact injuries are quite common; these include bumps and bruises to muscles of the body. These types of injuries can cause some pain and discomfort and may restrict full fluid movement only for a few days. However provided RICE, SHARP, massage and flexibility methods are implemented following the game or training, the minor injuries should subside within a few days and should not require a special trip to the physio or doctor. If the pain gets progressively worse and is not improving with the implementation of the methods outlined above, then definitely seek further medical advice from the qualified experts.

Alternatively, if the injury is to a bone, ligament, tendon, or joint, such as the shoulder, ankle, knee, elbow, wrist etc and the athlete is in severe pain, unable to place load on or through the joint, this is a sign that a qualified medical practitioner should view the injury to provide a diagnosis. Again the athlete should still perform the appropriate care for an injury until they see the physio or doctor as scans may be required.

Likewise, strained muscles that force an athlete from the game or training should be viewed by qualified medical practitioner. Strained muscles are sometimes challenging to diagnose and may be a result of nerve impingement, restricting the nerve supply to the muscle. The athlete may attempt some light stretching and massage to help alleviate the pain. I have witnessed rapid improvements in athletes that apparently have muscle strains, when using hands on massage and stretching techniques. Please note that when performing stretching and massage techniques the therapist should work on and through all muscle groups and not restrict treatment to only the injured muscle groups. If the pain is reduced significantly with massage and flexibility, then it is probably not a serious injury, however if the pain gets worse or aggravated, it’s best to see a physiotherapist.
The Truth about Doctors and Physios

Through my experience, it is rare to find medical doctors that have high levels of experience diagnosing sports injuries, unless they are a specialist sports medicine doctor. Doctors with this specialization are rare and as far as I’m aware there are only 2 of these doctors on the Gold Coast. If using a doctor try to find a doctor that has an active interest in sports that possibly undertakes some form of physical activity themselves, as they will have more experience treating, dealing and understanding injuries than a regular GP. A trip to the doctor may be necessary for obtaining prescription drugs such as anti-inflammatory and pain killing medication. Or in order to obtain documents for scans to determine damage caused by bone, ligament and tendon injuries. The benefits of seeing a doctor include the fact that it may be able to be bulk billed therefore cost of service will not be a decisive factor.

If the athletes had experienced the muscular skeletal injuries outlined above, I would be more inclined to refer them to a physiotherapist. Physiotherapists have also studied extensively and have specialized expertise dealing with injuries, whereas a doctor has only general training and does not treat physical injuries each and every day like a physio does. If prescription medications (pain killer, anti-inflammatories) and medical images other than x-rays are required, the athlete will most likely have to see a doctor, as physios are generally unable to prescribe medications or refer athletes for medical imaging such as ultrasounds and other scans.

With regards to a physio, they do cost money, so the athletes’ finances and budget may be a determining factor if treatment and diagnosis will be undertaken. If the parents/athlete has private health insurance, depending on the type of cover, the gap required to be paid is reasonable. The athlete and parents need to weigh up the costs in terms of time and money. By this I mean the athlete can see a physio and have a diagnosis which provides peace of mind and an estimated time frame for return to play, obviously there is a price to pay for this knowledge. Alternatively the athlete can see a doctor, pay nothing by being bulk billed, however the athlete may not get an accurate or specific diagnosis or time frame for return to play and no rehabilitation plan. This may hinder the rehab process and increase the athletes’ chance of re-injury. Thereby forcing the athlete to go and see either the doctor again or see a physio. Therefore costing the athlete important game time, when this could have been averted originally had the athlete paid to see a good physio.

During this chapter I have discussed pain killers and anti-inflammatory drugs that are often prescribed by doctors to injured athletes. I do not recommend or endorse this practice, unless the injury is extremely serious and calls for it. By this I mean the athlete has to have had surgery or broken limb or major joint damage. But prescribing pain killers or anti-inflammatory drugs for a hamstring strain or slightly rolled ankle is ridiculous. There are just too many side effects to the use of these drugs, like addiction and gastro-intestinal disorders. As, I have mentioned there are many safer, healthier and more natural alternatives. So in conclusion the choice to whether you pursue further diagnosis and medical opinion will depend upon the pain and severity of injury. The source and choice of injury diagnosis will be dictated by the athletes’ budget and specific requirements and needs of the athlete.
Alternative Methods for Curing Injuries

Here are some alternative cutting edge methods I use with my athletes that work wonders!

**Castor Oil**

It is a plant used medicinally for eliminating waste removal, soothing chapped skin and reducing pain, swelling and bruising due to soft tissue injuries.

Castor oil packs are one of the most healing modalities you can use.

How to use it:

1. Soak a piece of wool flannel or cotton with castor oil.
2. Place over the area of pain (ex. abdomen for cramps, liver for detoxification or a specific wound area, corky or bruise or sprain).
3. Place a piece of plastic over the castor oil pack.
4. Place a heat source on the very top (heat pad on low-medium).
5. Leave on for 30 minutes, 4 days in a row, take 3 days off.
6. Keep the pack in a sealed plastic bag and keep in a dark area - this may be used for many applications.

**Washing Soda**

It is commonly used for inflammation on ankles, knees and joints.

How to use it:

1. Purchase washing soda from local supermarket.
2. Place washing soda in a stocking.
3. Place washing soda on affected limb or inflamed joint (ex. ankle).
4. Hold stocking with washing soda in place with compression bandage.
5. Leave on injured swollen area until the washing soda goes hard.
6. The washing soda will draw out the swelling.
7. I recommend using new washing soda for each application.
8. Swelling will subside and pain will go away.
Chapter 4

Nutrition and Supplementation

Injury is characterized by pain, swelling, and dysfunction and can further be classified into 3 defined stages: Inflammation, Proliferation and Remodeling. The athlete can target each defined stage of the injury process with unique nutrition and supplementation strategies.

The Inflammation stage lasts up to 4-5 days post soft tissue injury (2-3 weeks in bone injury) and is in place to clear out injured tissue debris. The main nutrition goal at this stage is to manage the acute inflammation. The inflammation process can be managed by balancing fats as an increased intake of olive oil, mixed nuts, avocados, flax oil, ground flax, and other seeds will balance out the saturated fats naturally present in animal-based protein sources, leading to a healthy fats profile. Balancing out the omega 6:3 ratio will help decrease inflammation. This can be achieved via the addition of 3-9g of fish oil each day, while reducing omega 6 fats such as vegetable oils found in corn oil, sunflower oil, safflower oil, and cottonseed oil. The inclusion of anti-inflammatory foods such as curry powder/turmeric, garlic, pineapple, cocoa, tea, and blueberries will assist with the inflammation process.

The next stage, proliferation lasts about 2-3 weeks (10-12 weeks in bone injury) and is in place to form temporary replacement tissues. These tissues are usually weaker than the originally injured tissues yet still provide some structure and function to the site of injury. The nutritional goal at this stage is to support immune function. Great strategies for improving recovery and immune function include the consumption of large quantities of calories from the 21 superfoods included in the nutrition and supplementation manual to increase tissue turnover rates.

The final stage in the process is known as remodeling. Remodeling can last up to 1-2 years (even longer in bone injury) and is in place to form new tissues to be as strong as the original tissues. The target here is the implementation of nutritional strategies that support long term tissue healing and regeneration. The following nutritional strategies can be employed to both support and enhance the repair process. Eating every 2-4 hours ensures a constant supply of nutrients to the body. The consumption of protein-rich foods with each meal including lean meats, lean dairy, eggs, or protein supplements (if whole foods are unavailable) will aid in the recovery process. The ingestion of fruits and vegetables with each meal will aid in balancing the acid-base ratio which will promote a more favorable internal environment to promote continued healing. Increasing healthy fat intake from fish oil, avocados, olive oil, mixed nuts, flax seeds, and flax oil will assist with joint inflammation, swelling, and pain. Simply following the 8 rules for nutritional success will also aid in the healing and recovery process.
Chapter 5

Key Principles of Injury Rehabilitation

So you’re injured, now what.....well firstly, as described above we want to minimize the damage to the injured area. This can be done by ceasing the current activity that performed the injury. Unloading the injured area or obtaining assistance to de-load the injured area to prevent further injury and harm.

Reduce Inflammation and Pain

The next step involves reducing the inflammation and pain. This is done using cryotherapy (ice) and alternative modalities such as castor oil and washing soda. Limb compression and elevation techniques can also support decrease inflammation. Inflammation and pain can be reduced through the use of nutrition and supplementation intervention as described in the previous chapter.

Treatment Modalities

Once the pain and inflammation has subsided, heat, frequency specific microcurrent, prolotherapy and manual therapies such as massage and physio can help promote and enhance the healing process.

Recondition Injured Area

At this point in time the goal for rehabilitation is to restore and maintain flexibility, range of motion, strength, stability, balance and proprioception to the injured area. This will be achieved through the use of various forms of exercise rehabilitation depending on the nature of the injury. The rehabilitation will also aim to correct any underlying factors that may have caused the injury.

Goals of Rehabilitation

The primary aim of injury rehabilitation is to allow the athlete to return to pre-injury activity level or better. If this does not occur the athlete may reinjure the area, be unable to compete at pre-injury levels or possibly injure another area of the body. The rehabilitation process encompasses 8 phases/goals/stages/objective/purposes. The first stage involves reconditioning the injured muscles or muscles surrounding the injured joint. This is done through the use of basic low intensity strengthening exercises progressing to more advanced resistance exercises. Once a sound strength base has been established, the athlete will then focus on improving the flexibility and range of motion surrounding and including the injured area.
Increase Proprioception

When this achieved the athlete will focus on increasing the proprioception to the injured area. Proprioception is the body’s ability to have a perception of space, position, location and movements of its parts, which is crucial to an athlete’s performance. Proprioception rehabilitation drills for an injured ankle may include balancing on one leg on an unstable surface with the eyes closed. Functional rehabilitation exercises should be included to return the athlete to an optimal level of functioning. Functional movements such as hopping, skipping, jumping, bounding, lunging, squatting, pushing, pulling, bounding, crawling, rolling and falling should be incorporated into the rehab program to ensure a fully functional integrated sport specific and replicable training program that prepares the athlete to return to the field. Motor re-learning and technical skills relevant to the athlete’s sport need to be included once the athlete is capable of performing them pain free.

Biomechanical Analysis

If the athlete exhibits any biomechanical flaws/faults the coach and rehabilitation team may recommend the use of specific coaching or equipment to correct the fault.

Physical Performance Goals

Another key aspect of the rehabilitation process is the physical performance, fitness and conditioning goals (as discussed in chapter 6) such as the maintenance of cardiovascular conditioning and the minimization of skin folds.

Psychological Processes

The final phase of the rehabilitation process is the psychological processes the athlete goes through during the injury and rehabilitation stage. This is covered in great detail in chapter 7. It gives the coach the tools and knowledge of how best to assist with the injured athlete’s confidence and psychology. Please note that the phases are not distinct or separate from one another and may take place simultaneously. This is simply detailing the most important factors to complete first in the rehabilitation process.
Chapter 6
Monitoring Pain When Returning to Play

The purpose for the recording process is to allow the coach to see what the athlete has done that may have aggravated the injury. The record also allows the coach and other treatment providers to see if the athlete is improving and provides the coach with an indication of whether the treatment and exercise rehabilitation program is working.

1. Date, and keep note of the exercises, sets, reps and form of exercise you perform.
2. Rate how your body feels (Rating Scale- 1: No Pain, 10: Extreme Pain).
   - When you wake up
   - When you are in a seated position
   - When you sleep or lie in bed
   - When you walk or move around
   - When you warm up
   - When you perform the rehab activities
3. Note when the pain occurs, in morning, during exercise, after exercise.
   - How severe that pain is
   - How long the pain lasts for
   - Type of pain (sharp stabbing, dull aching, throbbing, pulsating, etc)

This is a not a time based rehab program. The goals are based on pain free movement! If athletes are not prepared to do this, they are not serious about getting back on the field. If they work to a level of pain, this will delay the healing process and actually cause them to regress backwards. Instruct athletes to stay pain free and avoid any exercise or activity that causes pain.
Skills Continuum to Return to Play from Injury

The following table can be used as a guide for coaches and athletes when returning from injury. The table is progressive and allows the athlete to see constant improvement in terms of movement and skills. The table also serves to instruct the athlete how to advance their rehabilitation in a continual manner based upon what they can do. Physical performance, fitness and conditioning goals have also been included to assist with helping the athlete determine what they can focus on and improve whilst they are undergoing the rehabilitation process.

| Pain Goals                               | Stand pain free  
|                                         | Walk pain free   
|                                         | Jog pain free    
|                                         | Run pain free    
|                                         | Accelerate and change direction pain free |
| Physical Performance Fitness and Conditioning Goals | Maintain Athlete participation and inclusion as much as possible  
|                                                  | Maintain aerobic conditioning  
|                                                  | Minimize skin folds  
|                                                  | Maintain or increase flexibility  
|                                                  | Improve tissue quality  
|                                                  | Increase strength and power levels of appropriate limbs  
|                                                  | Improve stability and neuromuscular control  
| Skill Goals                                 | Stationary skills  
|                                         | Walking skills    
|                                         | Jogging skills    
|                                         | Running skills    
|                                         | Change of direction skills  
|                                         | Involved in team skills (no competition and controlled environment)  
|                                         | Team skills (competitive environment controlled)  
|                                         | Full contact team skills (return to play)  |
Skills Continuum to Return to Play for AFL Players

- Stage 1: Stationary, no opposition pressure, technique emphasis, increasing distance.
- Stage 2: Movement, straight line progressing to lateral, increase distance, no opposition pressure.
- Stage 3: Multi-directional movement with passive opposition pressure introduced.
- Stage 4: Apply skills in modified game scenarios.
- Stage 5: Match scenarios/Full field games.

AFL Kicking Skills Continuum

<table>
<thead>
<tr>
<th>Closed Skills</th>
<th>Kicking</th>
<th>Drill examples</th>
</tr>
</thead>
</table>
| Stationary    | 10m to 30m stationary kicking.  
No Pressure    | Set shot goals up to 25m.     |
| Increasing Dist |         | Pairs kicking.  
Tech Emphasis | Goal shooting (golf score card). |
| Movement      | Straight line lane kicking.    |
| Straight Line | Lateral movement & kick.       |
| Lateral       | Lanework.                       |
| No Pressure   | Triangular or square kicking.  |
| Movement      | Straight line with passive pressure from behind or front.  
Straight & Lat | Lateral movement with pressure. |
| Passive Pressure | Lanework with opp trailing press  
Movement off straight line with multi-dir pressure. |
| Modified Games | Kicking possession games.       |
|                | 10 vs 5 keepings off.          |
| Open Skills    | 10 vs 10 possession game.      |
| Match Scenarios | Kick in and stoppage strategy drills.  
Full Field Games | Forward entry drills.      |
|                | Full field 1 on 1 match practise. |
|                | Defensive 50 kick ins, transition.  
                | Fwd 50 entry patterns.  
                | Match practise. |
## AFL Handballing Skills Continuum

<table>
<thead>
<tr>
<th>Closed Skills</th>
<th>Handball</th>
<th>Drill examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stationary</strong></td>
<td>5m to 30m stationary.</td>
<td>Pairs hands. Target hands.</td>
</tr>
<tr>
<td>No Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing Dist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech Emphasis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Movement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral</td>
<td>Lateral movement &amp; handball.</td>
<td></td>
</tr>
<tr>
<td>No Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Movement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive Pressure</td>
<td>Lateral movement with pressure.</td>
<td></td>
</tr>
<tr>
<td><strong>Modified Games</strong></td>
<td>Handball possession games.</td>
<td>10 vs 5 keepings off.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 vs 10 possession game.</td>
</tr>
<tr>
<td><strong>Open Skills</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Match Scenarios</td>
<td>Quick reflex and hands drills at stoppages.</td>
<td>Ball ups, reading ball off rucks and creating clearance.</td>
</tr>
<tr>
<td>Full Field Games</td>
<td>Quick handball release drills under tackling pressure.</td>
<td>Match prac with pre-stated # of handballs.</td>
</tr>
</tbody>
</table>
So what can the Injured Athlete do?

So what can the injured athlete do? They can do anything that does not cause pain or further damage to the injury. It’s vitally important to keep injured athletes involved in training in any way possible. This helps the injured athlete’s psychology and encourages them to remain actively involved which takes away from the victim mentality often seen when an athlete is injured.

One of the best ways to do this is via the use of cross training or well limb training. This refers to performing activities and or skills that do not aggravate the injury. For example if the athlete has an injured upper body, the athlete can perform exercises for the lower body. (See physical performance fitness and conditioning goals).

Common methods to achieve this include the use of the pool (swimming or deep water running), bike and boxing sessions for conditioning and upper or lower body and trunk strengthening exercises and flexibility drills. The athlete can also undertake sport specific skills if they do not aggravate the injury. This will help the athlete return to sport quicker and at a higher functioning level than if the athlete undertook complete rest.
12 Week Periodised Bike Program

This cardiovascular cross training conditioning program was written for an athlete that had a long term upper body injury that was being rehabilitated from shoulder surgery.

In phase 1, the goal for the program is simply to introduce the body to cardiovascular training once again. Light cardiovascular training has been shown to increase blood flow and circulation around the body and the increased flow of oxygen and red blood cells around the body enhances the healing process. As the athlete was in a sling to support the arm, the intensity and speed was relatively low with a (Target Heart Rate 120) to ensure the shoulder was stable and risk of re-injury minimized. The training is continuous steady state cardio which keeps the athlete active, aids the recovery process and helps minimize bodyfat levels.

**Note:** Target Heart Rate is determined by the following equation (220 - Athletes Age x %). Example- 20 yr old athlete 60%; THR = (220-20 x 60%) =120 beats per minute. To determine the heart rate per minute, use a heart rate monitor or take the athletes pulse for 15 seconds and then multiply by 4.

### Phase 1 and 2 Training Sessions

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time</th>
<th>Heart Rate</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Work up to 45 minutes</td>
<td>60% of THR HR= 120</td>
<td>1-3</td>
</tr>
<tr>
<td>2</td>
<td>20 minutes</td>
<td>80% of THR HR= 160</td>
<td>4-6</td>
</tr>
</tbody>
</table>

Prior to commencing the phase 3 workouts, a solid base has been built over the preceding 6 weeks. The athlete has progressed from steady state continuous training to shorter slightly higher intensity interval training with moderate volume lower intensity speeds for recovery between intervals. The number of sets the athlete performs weekly progressively increases and the low intensity rest period decreases. The high intensity speed is the highest possible speed the athlete can maintain for 40 seconds whilst not causing pain to his injured arm. The low intensity interval is based upon 50% of the athletes' maximum speed during the 40 second interval. The athletes' heart rate would be upwards of 180+ during the high intensity interval. The program is performed 3 days per week with one day rest in between.
The phase 4 workouts are becoming more specific in nature and will allow the athlete to begin to maintain or increase their level of fitness. As per the previous phase the athlete performs timed intervals. The number of sets continues to increase and the rest period decreases weekly. The intensity in phase 4 workouts should be faster and higher than in the preceding phase, as the athlete injury will be less painful and more stable and not impact upon the bike session as much. The sessions are to be performed 3 times per week with a minimum of 1 day in between them.

### Phase 3 Training Sessions

<table>
<thead>
<tr>
<th>Week</th>
<th>Days</th>
<th>Sets</th>
<th>High Intensity</th>
<th>Low Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Mon</td>
<td>4</td>
<td>40 Sec.</td>
<td>4:00</td>
</tr>
<tr>
<td></td>
<td>Wed</td>
<td>4</td>
<td>40 Sec.</td>
<td>3:45</td>
</tr>
<tr>
<td></td>
<td>Fri</td>
<td>4</td>
<td>40 Sec.</td>
<td>3:30</td>
</tr>
<tr>
<td>8</td>
<td>Mon</td>
<td>5</td>
<td>40 Sec.</td>
<td>3:15</td>
</tr>
<tr>
<td></td>
<td>Wed</td>
<td>5</td>
<td>40 Sec.</td>
<td>3:00</td>
</tr>
<tr>
<td></td>
<td>6 - Fri</td>
<td>5</td>
<td>40 Sec.</td>
<td>2:45</td>
</tr>
<tr>
<td>9</td>
<td>7 - Mon</td>
<td>6</td>
<td>40 Sec.</td>
<td>2:30</td>
</tr>
<tr>
<td></td>
<td>8 - Wed</td>
<td>6</td>
<td>40 Sec.</td>
<td>2:15</td>
</tr>
</tbody>
</table>

### Phase 4 Training Sessions

<table>
<thead>
<tr>
<th>Week</th>
<th>Days</th>
<th>Sets</th>
<th>High Intensity</th>
<th>Low Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Fri</td>
<td>6</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td>10</td>
<td>Mon</td>
<td>6</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td></td>
<td>Wed &amp; Fri</td>
<td>7</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td>11</td>
<td>Mon &amp; Wed</td>
<td>8</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td></td>
<td>Fri</td>
<td>9</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td>12</td>
<td>Mon</td>
<td>9</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
<tr>
<td></td>
<td>Wed &amp; Fri</td>
<td>10</td>
<td>40 Sec.</td>
<td>2:00</td>
</tr>
</tbody>
</table>
Keeping a Record of Injuries

To assess the effectiveness of your injury prevention and rehabilitation program, I recommend you keep a record of the injuries that occur. The type of injury, the date of the injury, when the injury occurred, how the injury occurred and when the athlete was able to return to play are all factors that can be recorded. The following table has been designed as a ready to use template. The template can be printed out and used to keep athlete injury records for future years. This way the coach creates a record that can be passed onto the athletes’ future coaches as he progresses through the ranks. The records can be used to assess for trends; for example if there are 3 lower body muscle strains during the same training week of the pre-season, that may indicate the training workload was too high or the athletes were under-recovered. The coach can look through his training records to see the training that occurred in the preceding days and modify future training or increase recovery time in the following days, weeks and years.

Injury Record Table

<table>
<thead>
<tr>
<th>Athletes Name:</th>
<th>Date of Birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of injury</td>
<td></td>
</tr>
<tr>
<td>Date injury occurred</td>
<td></td>
</tr>
<tr>
<td>Time of season (ex. Pre season/In season)</td>
<td></td>
</tr>
<tr>
<td>Activity athlete was performing when it occurred</td>
<td></td>
</tr>
<tr>
<td>When did the Injury Happen? (ex. During training/game, warming up, last quarter)</td>
<td></td>
</tr>
<tr>
<td>Return to play date</td>
<td></td>
</tr>
<tr>
<td>Days missed (Date of injury-Return to play date)</td>
<td></td>
</tr>
<tr>
<td>New v/s old injury</td>
<td></td>
</tr>
</tbody>
</table>
Injury Rehabilitation Checklist

The following is an injury rehabilitation checklist for the athlete. The checklist allows the athlete to assess how adherent they have been in all aspects of the rehab process. The feedback allows the athlete to immediately see any areas of the rehabilitation process that may need to be improved.

1. Am I recording my injury and pain level status daily?
2. Am I using recovery modalities daily? (ex. ice, heat, compression, elevation, etc)
3. Am I sleeping 8 hrs per night and asleep before 10.30pm?
4. Am I following my injury rehabilitation nutrition and supplementation protocols?
5. Am I following 6 key principles of the injury process?
6. Am I performing specific injury rehabilitation and cross training protocols?
7. Am I following the return to play skills and movement continuum?
8. Am I working on my psychology and maintaining a positive mindset towards the rehab process?
9. Have I returned to my pre-injury levels of function and performance in terms of strength, speed, power, motor control, co-ordination and pain?
Chapter 7

Psychological Response to Injury and Rehabilitation

Often times the psychological processes involved in injury rehabilitation are overlooked. As the coach often mistakenly believes it is out of their realm of expertise to provide any psychological assistance to the athlete. That need not be the case, the following tables aim to assist and provide the coach with an overview of the myriad of factors both positive and negative that may be impacting upon the injured athletes return from injury. A sound understanding of the principles discussed in these tables will provide you with a strong platform to assist with your injured athletes to assist them to cope psychologically.

Factors That Influence Good Rehabilitation Adherence

<table>
<thead>
<tr>
<th>Adaptive Characteristics of the Athlete</th>
<th>Positive Individual Attributes</th>
<th>Professional Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adaptable</td>
<td>Adaptable</td>
</tr>
<tr>
<td></td>
<td>Educated</td>
<td>Educated</td>
</tr>
<tr>
<td></td>
<td>Confident</td>
<td>Confident</td>
</tr>
<tr>
<td></td>
<td>Used to Pain</td>
<td>Used to Pain</td>
</tr>
<tr>
<td></td>
<td>Enjoy Physical Activity</td>
<td>Enjoy Physical Activity</td>
</tr>
<tr>
<td></td>
<td>Level of Athlete</td>
<td>Level of Athlete</td>
</tr>
<tr>
<td></td>
<td>Motivated</td>
<td>Motivated</td>
</tr>
<tr>
<td></td>
<td>Adaptive Thoughts</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>Understand the Injury</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>Understand the Rehabilitation</td>
</tr>
<tr>
<td>Good Support Structures</td>
<td>Good Social Support</td>
<td>Social Support</td>
</tr>
<tr>
<td></td>
<td>Social Support</td>
<td>Social Support</td>
</tr>
<tr>
<td></td>
<td>Coach Involvement</td>
<td>Coach Involvement</td>
</tr>
<tr>
<td></td>
<td>Trust in Rehab Team</td>
<td>Trust and Value Rehabilitation Team</td>
</tr>
<tr>
<td></td>
<td>Trust in Rehab Team</td>
<td>Trust and Value Rehabilitation Team</td>
</tr>
<tr>
<td></td>
<td>Trust and Value Rehabilitation Team</td>
<td>Believe in Rehabilitation</td>
</tr>
<tr>
<td></td>
<td>Facilitative Environment</td>
<td>Given Time to Rehabilitate</td>
</tr>
<tr>
<td></td>
<td>Facilitative Environment</td>
<td>Given Time to Rehabilitate</td>
</tr>
<tr>
<td></td>
<td>Given Time to Rehabilitate</td>
<td>Appropriate Environment</td>
</tr>
<tr>
<td></td>
<td>Appropriate Environment</td>
<td>Appropriate Environment</td>
</tr>
<tr>
<td>Positive Injury and Rehabilitation Experience</td>
<td>Nature of Injury</td>
<td>Nature of Injury</td>
</tr>
<tr>
<td>Positive Injury and Rehabilitation Experience</td>
<td>Experience of Injury</td>
<td>Experience of Injury</td>
</tr>
<tr>
<td>Positive Injury and Rehabilitation Experience</td>
<td>Nature of Rehabilitation</td>
<td>Nature of Rehabilitation</td>
</tr>
</tbody>
</table>
## Factors That Influence Good Rehabilitation Adherence

| Unhelpful Characteristics of the Athlete | Negative Individual Attributes | Unprofessional Approach.  
Negative Emotions | Negative Emotional Response to Injury.  
Lack of Confidence.  
Maladaptive Thoughts | Lack of Understanding About Rehab.  
Lack of Understanding about Injury.  
Negative Attitude.  
Factors Related to Over-Compliance | Enthusiastic.  
Elite Athlete.  
Long-Distance Runners.  
Intense.  
Lack of Social Support | Negative Influence of Coach.  
Lack of Supervision.  
Lack of Support.  
Environmental constraints | Poor Access to Resources.  
External Demands.  
Unhelpful Environment.  
Skepticism about Rehab Team and Plan | Skeptical About Rehabilitation Team.  
Skeptical About Rehabilitation Plan.  
Pressure | Social Pressure.  
Competitive Pressure.  
Negative Injury and Rehabilitation Experiences | Poor Past Experience with Rehab.  
Negative Nature of Rehabilitation. |
Chapter 8

What to do When Sick?

I’m sick, should I still train or play? This question arises all the time.

Training whilst sick can be advantageous. As it can help athletes get over a cold faster as it helps to flush useful healing nutrients through the body and aids in expelling toxins.

Athletes commonly feel stronger when training whilst sick. This is due to the immune system releasing antibodies to combat invading toxins and microorganisms. The antibodies are strength enhancers.

Empowerment is another reason to train whilst sick. As training helps athletes’ feel positive and provides a sense of control and taking charge of the situation, rather than sitting at home and moaning about their illness like a victim.

How should athletes train whilst sick? If their symptoms are above the neck, the athletes can do some intense training. If the symptoms are below the neck they should forget about intense strength training. If the athlete has a cold with symptoms such as are sneezing, coughing and a runny nose, they should be able to do some low volume skill or strength training. This means the athlete can train for a short duration, and should only train for approximately 50% of the proposed training time. This helps keep skill levels whilst minimising the risk of fatigue associated with long and enduring sessions.

In terms of strength training athletes may be able to lift heavier weights than normal, but may find their muscular endurance is compromised. After a significant illness, the following guidelines are recommended for returning to training: athletes should use the week they recover from a cold as a recovery/back off week and should reduce the intensity to approximately 70% of maximal speed and weight and keep the overall training volume and time moderate.

I use the following sickness scale to determine if athletes should play or train. Simply ask the athletes on a scale of 0-10, how bad do you feel? If it’s a 10, you should be emailing me from the hospital.

If it’s 0-3, you’re fine.
If it’s 4-5, go in, warm-up, and then see how you feel.
If it’s 6, just go in and do something, even if it’s just a warm-up.
If it’s 7, push things back a day.
If it’s 8-9, take a few days to rest.
If it’s 10, you should be in hospital.

How can athletes speed up the flu process? Athletes can use a dry sauna to force the body to sweat; as sweating can assist with the release of toxins from the body which increases the recovery from cold and flu like symptoms. Massage therapy can help aid recovery due to increased blood flow and circulation around the body. Homeopathic remedies such as olive leaf oil extract and Epsom salts gargles can be used for a sore throat. While consuming lemon juice, boiling water, bush honey and fish oils can support increased recovery of cold and flu like symptoms.
Conclusion

Sixteen Ways to Succeed!

So in recapping,

Most injuries are preventable! Coaches, athletes and parents are all responsible!

Know your athletes and conduct a thorough screening and assessment (refer to the Physical Assessment for Athletes DVD).

Plan and periodise your training programs to include unload and de-load weeks.

Perform a proper warm up (for more information refer to the Secret Warm Up Methods for Athletes DVD).

Implement recovery protocols (refer to the Recovery and Regeneration Secrets manual for more information).

Monitor your athletes training loads and recovery.

Keep a record of the injuries using the injury recording table.

In some cases it may be better to train whilst sick.

If an athlete does happen to get injured implement the RICE SHARP Acronym.

The severity of injury and need for diagnosis will dictate if the athlete consults with a physio or doctor.

Nutrition and supplementation can play a key role in the injury rehabilitation and management process.

Be aware of the 8 fundamental principles of the injury rehabilitation process.

Ensure the athlete records their daily pain level status.

Set appropriate goals for the injured athlete.

Follow the skills and movement return to play continuum for progressive rehabilitation.

Be aware of the injured athletes psychology and thought processing.

There you have it, everything you need to know about injury prevention and rehabilitation!

I look forward to helping you and your athletes stay injury free and maximising your full potential!
About the Author

Joey Hayes has earned a reputation as one of Australia’s leading, innovative and most successful strength and conditioning specialists. This reputation has been established by the phenomenal results of Professional Sporting Teams, Elite Sporting Institutes and Organizations and Elite athletes utilizing his Training Programs, methodologies and philosophies.

Athletes have proclaimed Joey to be their secret weapon, and a catalyst behind their results and success. His training programs have resulted in world records, world championship medallions, commonwealth games medals, grand final premiership glory, junior athletes procured by professional sporting teams and numerous athletes achieving life-time personal bests!

Joey has trained over 250 State, National and International athletes in a multitude of sports, most notably, AFL, Rugby League, Swimming and Martial Arts.

He owns and operates a highly renowned Private High Performance Athletic Training Facility known as The PIT. The number one place for athletes to train; exclusively dedicated to Elite Athletic Performance Enhancement.

Joey has achieved the highest level of academic qualifications and expertise for a Strength and Conditioning Specialist. He has completed a Masters Degree in Exercise Science (Strength and Conditioning) from Edith Cowan University and a Bachelor of Business (Sports Management) from Griffith University.

He is recognized as a Certified Strength and Conditioning Specialist (CSCS) through the National Strength and Conditioning Association (NSCA). He has qualifications in Olympic Weightlifting and speed development as a Track and Field Sprint Coach.

Joey’s unique blend of in-the-trenches-knowledge, coupled with superior academic qualifications ensure astonishing results in record time, and have affirmed his status as one of Australia’s most successful and highly sought after strength and conditioning specialists.