



# **SOFT TISSUE INJURIES: MINIMISING RISK, MANAGEMENT & RECOVERY**

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SELF-HELP GUIDE FOR PLAYERS AND CLUBS



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The information provided is for general neuro-musculoskeletal (NMSK) issues; often called soft tissue injuries.

NMSK: This applies to symptoms coming from the muscles, tendons, joints, ligaments and nerves. These symptoms are often aggravated with certain movements, positions or activities such as sitting, standing, walking, running, hopping and jumping.

The material contained within this guide is provided for general informational purposes only and is not intended as a replacement to supervised coaching and medical advice. It has been designed a self-help resource for players, coaches and officials involved in basketball.

Should you experience any significant increase in symptoms from following any of the advice, please contact a medical professional.

As with all information and materials related to health, exercise and diet, you may wish to first consult your doctor, physician, health care provider, coach or specialist before implementing changes into your lifestyle.



# CONTENTS

MINIMISING THE RISK OF NMSK INJURIES	4
IF YOU DO HAVE AN INJURY OR SYMPTOMS	5
BARRIERS TO RECOVERY	6
PAIN RELIEF	7
RECOVERY FROM SYMPTOMS AND REDUCED FUNCTION	9
ACTIVITY & MOVEMENT FOR RECOVERY	10
NUTRITION FOR RECOVERY	12
SLEEP FOR RECOVERY	15
POSITIVITY FOR RECOVERY	16
BREATHING AND RELAXATION FOR RECOVERY	17
PUTTING IT ALL TOGETHER (GOAL SETTING)	18
FLARE-UP AND SETBACK MANAGEMENT	21

# MINIMISING THE RISK OF NEURO-MUSCULOSKELETAL (NMSK) INJURIES

The NMSK system is strong and robust. It is made of bones, muscles (supplied by nerves), tendons and ligaments working together very effectively. Your NMSK system is designed for support, stability, and movement of the body. Movement is key to its adaptability and keeping the NMSK system and other systems healthy.

There are a number of good NMSK care habits that can greatly reduce the risk of pain, injury, keep you functioning and in the game. To look after your NMSK system, make sure you:

- Have a good conditioning programme that incorporates mobility, strength and power. Additionally, working on agility, speed and landing mechanics is essential for basketball.
- Whilst basketball doesn't require extensive cardiovascular fitness. Keeping your cardiovascular system strong reduces the risk of injury and helps you recover quicker.
- Good nutrition - refuelling after training/games and maintaining a healthy weight (Maintain good lifestyle choices)
- Manage your mental health and do enjoyable activities
- Take rest days from exercise and use relaxation techniques
- Have a good sleep routine

## IF YOU DO HAVE AN INJURY OR SYMPTOMS

The NMSK system is strong and robust but you cannot prevent injuries when it comes to basketball. You cannot stop yourself from landing on someone's foot and rolling your ankle. On the other hand, you can minimise the risk of that action causing an injury by building up your tolerance to that stress. When something does go temporarily wrong, we can experience pain, other symptoms, decreased function and may need to stop the game for a short while.

Diagnosing a structural cause for many NMSK symptoms is not as simple as you may think, in most cases it is also not needed. The majority of the time it's nothing more significant than a strain or sprain.

This is often referred to as a soft tissue injury.

It is worth noting that the body can repair itself relatively quickly (as it does with a graze or a cut). The healthier your body is, the quicker the injury is likely to heal. Often no treatment is required and the amount of pain you experience can be disproportionate to the level of tissue injury.

There are a number of factors that can influence the severity of pain such as:

Mood, emotions and thoughts	Your reaction to pain/injury	
Poor sleep	Poor nutrition	Other illnesses



# BARRIERS TO RECOVERY

Like the factors that can influence the level of pain you feel, there are factors that can lengthen or even stop your recovery. In fact, most of the factors are similar but there are some additional factors to look out for:

- [Activity cycles](#)
- Worry or fear of reinjuring yourself
- Poor expectation of recovery
- Stress
- Anxiety and low mood
- Over-reliance on passive treatments such as massage or manual therapy
- Poor Sleep and relaxation
- Poor nutrition or lifestyle

It is just as important to understand what might hinder your recovery as much as understanding what will help. Understanding your barriers to recovery can also help with realistic timescales for return to play.



# PAIN RELIEF

Hot water bottles, heat pads or ice packs applied to the painful area may offer some relief.

Deep tummy breathing, distraction and relaxation exercises can also be beneficial. They help to release our own pain-relieving hormones.

A hot Epsom salt bath can also help relax sore and tense muscles.

If this does not work, then over the counter pain relief medications such as paracetamol and ibuprofen can be used. NB. Within the first 48-72 hours following an injury, our bodies actually need inflammation as it is a part of the repair process.

Before taking pain relief medication that you do not take regularly, it is recommended that you speak to your doctor or pharmacist, particularly if you have any diagnosed health conditions and or take prescription medication.





# PAIN RELIEF

Self-massage tools:

Self-massage tools have become increasingly popular,

Massage/lacrosse balls, foams rollers, massage guns, physio sticks and yoga wheels are all easily available and you will see professional players using them.

They can all be beneficial in reducing pain and tension. However, these should be used in addition to rehab and not replace natural healing and rehab.

Best advice is to not use them directly over an injured area in the first few days...you wouldn't keep prodding a cut, so, probably best not to prod a strain or sprain.

If there was no trauma or mechanism of injury, or you are just experiencing muscle tension, these tools may be useful. If unsure, ask for advice from a therapist.



# RECOVERY FROM SYMPTOMS AND REDUCED FUNCTION

The main symptom of the majority of NMSK injuries is pain and this often leads to reduced function. How we react to the injury is important to our recovery.

For the majority of NMSK problems, there are 4 main areas that can help to create the best environment for recovery:



Activity and movement



Nutrition and Lifestyle



Relaxation (breathing) & Sleep



Positivity



The sooner you can restart normal activities the sooner you will feel better. However, it is important to get the right balance of activity and rest. Don't change the way you move – avoiding activity or adjusting the way you move and carry can encourage the stiffening of joints, deconditioning and increases muscle tension. Avoiding aggravating activities for 48-72 hours may be helpful while remaining as active as possible.

## **ACTIVITY & MOVEMENT FOR RECOVERY**

A graded and steady increase in activity, exercise and movement that suit your needs will help your recovery. General exercise is a great way to maintain an NMSK system. It is also beneficial for your mental health, cardio-respiratory and digestive systems. Normal activity is highly unlikely to cause damage, especially if you use a graded approach.

Your muscles may be weak and your joints stiff, but starting to move and building up activity will help to resolve this. Exercise also releases various pain-relieving and happy hormones that help to lift our mood and make us feel better.

# ACTIVITY & MOVEMENT FOR RECOVERY

A person in a grey t-shirt is shown from the chest up, holding a basketball with both hands above their head, ready to shoot. The background is a bright, outdoor setting with trees and a clear sky.

Try to find activities levels that suit you. When you have pain can be difficult to get going:



Steadily increase your level of activity and do a little more each day.



Do not stay in one position for too long – get up, stretch and change posture. Move about and take some walks.



Set small functional goals so you can build up in a step by step manner.



Exercise non-affected parts of the body – remember it is possible to continue exercising the non-affected parts of your body. For example, seated or stationary ball handling/shooting when you have sprained an ankle



Rehab and gradually return to play





# NUTRITION FOR RECOVERY

Recovery can be helped by what we put in our bodies. Diet plays a significant part in how quickly we heal and recover. Increasing foods that promote recovery and reducing those that can add to inflammation can be beneficial.

## Foods that can help:



**Water:** The average adult is made up of 60-70% water. Without proper hydration, the injury won't receive the right nutrients for healing.

**Berries:** Research shows that vitamin C is helpful in rebuilding collagen and soft tissue, which can help you heal quicker. e.g. blueberries, raspberries and strawberries.

**Dark Leafy Greens:** A big handful of green on your plate (or in your smoothie) gives you a dose of vitamin A, C, and E, as well as vitamin K and magnesium. These are essential to support blood clotting and wound healing. E.g. Kale, Spinach and Romaine lettuce.

**Protein:** stock up on protein foods (at least a handful at every meal) to help with growth and repair: e.g. poultry, beans, lentils and eggs.



# NUTRITION FOR RECOVERY

## Foods that are anti-inflammatory:



**Healthy Fats**(nuts, oils, and fish): help keep any excess inflammation lower. E.g. oily fish or avocado. **Omega 3** found in fish and fish oil supplements also helps reduce inflammation.



**Turmeric** has powerful anti-inflammatory properties as it contains a chemical group known as curcuminoids.



The activity of these compounds has been shown to be comparable to anti-inflammatory drugs.



**Ginger**: gingerols found in ginger interferes with the chemical reactions that are produced by the immune system during inflammation



**Bromelain**: found in pineapple, is an anti-inflammatory and anti-swelling agent

# NUTRITION FOR RECOVERY

## Foods that are inflammatory:

Aim is to minimise and reduce these foods as they can increase inflammation



**Processed foods** are typically high in additives and preservatives. Inflammatory compounds are created when processed meats are dried, smoked, pasteurised and cooked at high temperatures



**Refined grains** such as white bread and rice are more likely to have high inflammatory markers compared to their whole-grain counterparts. Their processing removes dietary fibre, iron and many B vitamins



**Alcohol** affects the liver and causes inflammation. This can slow down healing

**Dairy:** while a moderate intake of yoghurt with gut-healing probiotics can help, dairy is a common allergen that can trigger inflammatory reactions



# SLEEP FOR RECOVERY



Pain and other NMSK symptoms can cause poor sleep and vice versa, sleep problems can lead to NMSK pain. Improving sleeping routines and habits can be very helpful in the prevention and reduction of NMSK symptoms

## Basic Sleep Guidelines

- Allow time to relax. Do relaxing activities and use relaxation, distraction and breathing techniques
- Avoid caffeine in the late afternoon and evening
- Avoid alcohol
- Avoid large meals and drinks late at night
- Keep the room temperature cool, the room dark and minimise noise
- Quality, not quantity – sleep restriction can be beneficial for some
- Exercise and activity help sleep but not within the 3 hours before bed
- A hot relaxing bath can help you feel sleepy.
- Establish a regular sleep routine
- Avoid naps after 3pm
- Aim for 8 hours (8 to 10 for teenagers and more if younger)
- Don't lie in bed awake - If you find yourself still awake after staying in bed for more than twenty minutes or if you are starting to feel anxious or worried, get up and do some relaxing activity until you feel sleepy.

# POSITIVITY FOR RECOVERY



Our mood, emotions, thoughts and reactions can all affect pain levels and how we recover. Aim to reduce stress, develop a positive mindset and maintain enjoyable activities.

How we feel can influence the amount of pain we experience. Stress, low mood and worry can all influence pain originating from our NMSK system. Likewise, pain and muscle tension can be triggered following changes in life, stressful events, and low mood or anxiety levels.

If you had no trauma or injury, think about whether a stressful event occurred around the time your symptoms started.

Try to reduce stress where possible. Relaxation and breathing exercises can be beneficial. Develop a positive mindset and remind yourself things will get better. Maintain enjoyable activities, socialise and talk through concerns with friends and family, your coach and teammates. Self-limiting beliefs, behaviours and assumptions can also impact your recovery. More on this can be found [here](#).



# BREATHING AND RELAXATION FOR RECOVERY

[Breathing exercises](#), relaxation, distraction, enjoyable activities and mindfulness can help if and when you have a sudden increase in pain.

In addition to this, they also help with your mental health and sleep too.

Practising breathing and relaxation exercises regularly have shown to increase “happy hormones” in the brain such as endorphins, opioids, oxytocin, serotonin and dopamine. These are all part of our own pain-relieving “medicine cabinet” as well.

These hormones can not only turn down the pain dial but they also help to relieve tension in the connective tissue and muscles.

There’s no one-size-fits-all technique, so try different styles to work out what’s best for you.

[Body scan and breathing relaxation](#)

[Rectangular breathing](#)

Practising this regularly when you are in a good space will also help you when you need to call upon it in a stressful or painful moment.




# PUTTING IT ALL TOGETHER (GOAL SETTING)

Now you have identified the strategies and/or barriers for your situation, it is time to put it all together. Making a problem list or setting goals are the best ways to keep you on track.

Setting Goals and tracking benefits can be beneficial in recovery. Goals that have been written down are more likely to be achieved. Sharing your goals with friends, family, teammates or your coach increases your chance of being successful even further.

You may consider utilising the following steps to help.

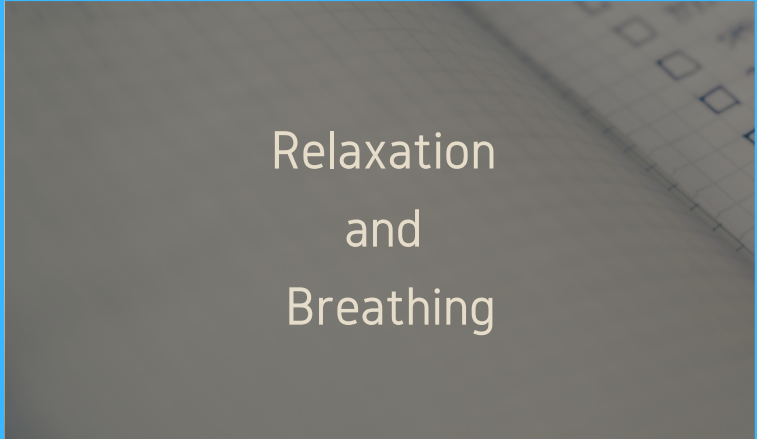
1st, identify which of the recovery areas is your top priority.




Activity,  
Movement  
and Exercise



Nutrition  
and  
lifestyle



Relaxation  
and  
Breathing



Positivity:  
Improving  
mood/stress

# PUTTING IT ALL TOGETHER (GOAL SETTING)

2nd:

For your selected recovery area, write out your goal or the changes you could make.

3rd:

Write out what might get in the way of you achieving your goal.

Repeat this process for any of the other recovery areas you think are important.

After week 1:

Once you have completed your first week towards your goal(s), spend a few minutes evaluating.

Have you noticed any benefits?

What have you learnt?

Have you bitten off more than you chew?

How could you adjust if you haven't got things quite right?

Repeat this process each week to fine-tune your goals and overcome any new barriers that arise.

# PUTTING IT ALL TOGETHER (GOAL SETTING EXAMPLES)

## Goal Examples

Activity: I want to be able to rebound (jump and land) within 3 weeks with minimal pain. I will do a graded strengthening plan 4 days a week.

Relaxation: I will do breathing exercises every day to help manage my stress and improve my sleep.

Nutrition: I will make sure I drink 8 glasses of water a day.

## What might get in my way examples

Activity: I don't know what strengthening exercises are best for jumping = I will speak to a therapist or coach to help me plan my regime.

Relaxation: I may forget to do the breathing exercises - I will set an alarm on my phone to remind me.

## Evaluation examples

Activity: I was a bit too sore following that exercise, I will reduce the repetitions to a more manageable amount and build from there.

Nutrition: Improving my hydration has also helped my concentration. I will continue this change even after I recover.

# FLARE-UP AND SETBACK MANAGEMENT

Flare-ups and setbacks can be common, especially if you increase activity too quickly or become stressed/anxious. However they are not dangerous and are no cause for panic. They often settle quickly with the right strategies. If it was getting better before, it will improve again.

Remember that the most important steps in managing your pain are the things that you can do to help yourself. If you have had a flare-up, use the following:

- **Modify activity** for a short while
- **Dont fight** the flare-up, accept where you are
- Use **relaxation** and **breathing** techniques
- Remember **heat and Ice** can be beneficial
- Take **pain relief medication** if necessary
- Think positively and remind yourself '**this can get better**'
- **Readjust** your goals
- As your symptoms improve, **pace yourself** and **grade activity** back up
- **Analyse** why the flare-up happened after the flare-up has settled. Analysing during a flare is difficult.
- **Learn** – what can you do to minimise the risk of another flare-up

If symptoms do not settle within 2 weeks of a flare-up, seek medical advice from a healthcare professional



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