



# PMCare Capsule

*We Manage Because We Care*

THE QUARTERLY CAPSULE  
FOR INTERNAL CIRCULATION ONLY



CAPSULE THEME  
**SPORTS INJURY**

What are Sports Injuries?

Kecederaan ACL

10 Ways to Recover Quickly After Exercise

What should I do if I get injured?

INSIDE

## PMCare SDN BHD

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**PMCare** would like to thank all our members for your continuous support. We look forward to serve you better.



**PMCare**

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PMCare together with Malaysian Society of Occupational Health Physician organized Continuous Professional Development (“CPD”) conference with the theme “Strengthening Primary Care through Ethical Conduct” in conjunction with PMCare GP of The Year Award Presentation and the signing of Memorandum of Understanding (“MOU”) between PMCare, Narayana Hrudayalaya Hospital (India) and MediAssist4U Sdn Bhd on 12 May 2010 at Hilton Hotel, Petaling Jaya.

The conference was graced by Dr Che Abdullah bin Hassan, Ketua Penolong Pengarah Kanan, Bahagian Kawalan Penyakit, Kementerian Kesihatan Malaysia who represented the Director General for Ministry of Health (“MOH”), and was attended by more than 100 doctors, hospital administrators and human resource practitioners.

We had speakers from SOCSO, MOH, Stemlife Thailand and from Narayana Hrudayalaya Hospital, Bangalore India.

The interesting talks from the well known figures had made the audience stuck to their seat. The panel discussion on ethical practice sparked a very interesting debate among the audience. The other talks were on “Making Health Care Affordable”, SOCSO reporting & claims, Prevention of Allergy and DNA screening for diseases.



Meanwhile, Encik Wan Shukri Ariffin, the Chief Executive Officer of PMCare Sdn Bhd in his welcoming speech mentioned that PMCare believes in contributing back to society by conducting health talks, preventive and wellness programmes to their clients and communities. For the last 12 months, PMCare has conducted more than 80 health talks, preventive and wellness programmes to their clients and communities including the Orang Asli.

This small effort by PMCare would by itself be not enough. PMCare seeks support from all members of the society to join in the effort towards ensuring quality in healthcare. Hopefully the effort would result in much healthier and productive employees who can be pride of our nation.

Further, he also mentioned when PMCare manage the healthcare of their members, they look at not only the resources that we have in Malaysia but also those beyond our shores. They are fortunate to come across Dr Devi Prasad Shetty, a Cardio-thoracic Surgeon and Chairman of Narayana Hrudayalaya Hospital, whose vision and effort, offered an affordable alternative to a range of heart ailments. He has opened up the chest in his work and in the process also our minds to the endless pursuit of providing affordable quality care we so aspire.

During the event also, a tripartite MOU was signed between PMCare, Narayana Hrudayalaya Hospital, and MediAssist4U witnessed by Dr Che Abdullah bin Hassan. PMCare was represented by Encik Wan Shukri Ariffin, Narayana Hrudayalaya Hospital was represented by the Chief Executive Officer, Dr Nitish Shetty, and MediAssist4U was represented by Dr Patrick Justin Lawrence. With the signing of the MOU, MediAssist4U can arrange to send PMCare Members who have limited medical benefits and cannot afford to go to the private hospitals in Malaysia to have heart treatments at Narayana Hrudayalaya Hospital in Bangalore for less than RM15,000.

PMCare also took the step to inculcate quality care by taking the members' perspective into consideration. A questionnaire survey allowed members to choose their 'preferred' clinic to PMCare. This was supplemented by a range of criteria that were used for the final selection process – the winner of The PMCare GP of the Year 2009 award. The selection of PMCare GP of the Year award was a tedious and difficult task for the committee members. Nevertheless after 8 long months of selection through various processes and stages, Klinik Kita was chosen as the PMCare GP of the Year 2009 award winner.





## WHAT ARE SPORTS INJURIES?

“Sports injuries” are injuries that happen when playing sports or exercising. Some are from accidents. Others can result from poor training practices or improper gear. Not warming up or stretching enough before you play or exercise can also lead to injuries.

The most common sports injuries are:

- Sprains and strains
- Knee injuries
- Swollen muscles
- Achilles tendon injuries
- Pain along the shin bone
- Fractures
- Dislocations.

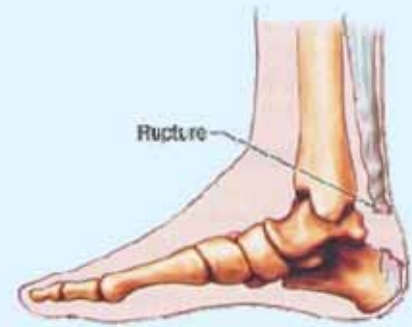
### What are the Difference between an Acute and a Chronic Injury?

There are two kinds of sports injuries: acute and chronic. Acute injuries occur suddenly when playing or exercising. Sprained ankles, strained backs and fractured hands are acute injuries. Signs of an acute injury include:

- Sudden, severe pain
- Swelling
- Not being able to place weight on a leg, knee, ankle or foot
- An arm, elbow, wrist, hand or finger that is very tender
- Not being able to move a joint as normal
- Extreme leg or arm weakness
- A bone or joint that is visibly out of place.

Chronic injuries happen after you play a sport or exercise for a long time. Signs of a chronic injury include:

- Pain when you play
- Pain when you exercise
- A dull ache when you rest
- Swelling.



ACHILLES TENDON RUPTURE



ACHILLES TENDINITIS



BONE SPURS ON THE ANKLE

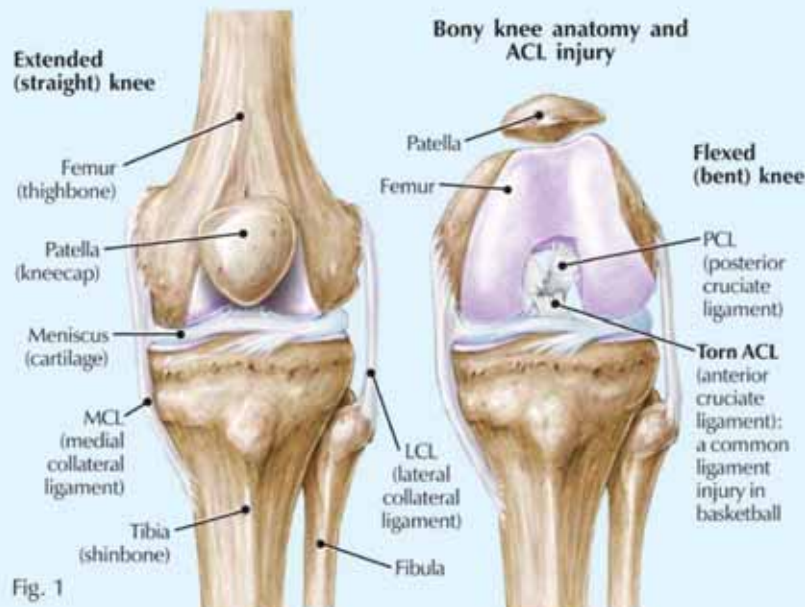
## KECEDERAAN ACL

Kecederaan ACL (*anterior cruciate ligament*) berlaku disebabkan oleh kecederaan pada lutut seseorang sewaktu aktiviti sukan. Mekanisme ini sering terjadi kepada seseorang ketika sedang berhenti mengejut sewaktu larian deras atau menukar arah secara tiba-tiba. Hal ini sering terjadi kepada pemain bola dan atlet-atlet lainnya.

Dengan adanya penekanan kepada sukan dan aktiviti lasak atau ekstrem, terdapat peningkatan dalam insiden kecederaan yang berkait rapat dengan sukan, baik bagi pemain profesional mahupun yang bermain secara sosial.

Peningkatan minat masyarakat terhadap sukan pada hari ini, secara tidak langsung telah menyumbangkan peningkatan jumlah kecederaan di dalam sukan. Tidak hairanlah kebanyakan pesakit adalah terdiri daripada golongan muda, namun golongan yang lebih tua tetapi masih aktif bersukan tidak terkecuali dari kecederaan ini. Begitu juga, golongan wanita pada dewasa ini menunjukkan peningkatan terlibat dalam aktiviti sukan, turut tidak terlepas dari masalah ini.

Terdapat beberapa ligamen yang penting di dalam dan luar lutut seseorang yang diklasifikasikan kepada penstabil lutut statik dan penstabil lutut dinamik. Ini termasuklah ligamen krusiat anterior/ depan (ACL), ligamen krusiat posterior (PCL), ligamen kolateral lateral (LCL), ligamen kolateral medial/tengah (MCL), kompleks lateral posterior (PLC) dan meniskus lateral dan medial yang mana semuanya dikategorikan sebagai penstabil lutut statik.



Penstabil lutut dinamik adalah otot-otot yang terdapat di sekeliling lutut yang turut berfungsi sebagai penstabil lutut. Terdapat banyak struktur di dalam lutut boleh mengalami kecederaan dan kerosakan tetapi artikel kali ini akan ditumpukan kepada kecederaan pada ACL sahaja yang paling kerap dialami oleh mereka yang aktif bersukan. Ligamen pula adalah tisu tegar yang berfungsi sebagai penstabil kepada sendi-sendi di dalam badan kita.

Persoalannya sekarang, dengan wujudnya banyak penstabil lutut, apakah kecederaan pada ACL seseorang itu perlu dirawat? Fungsi ACL sebagai penstabil yang spesifik dan unik untuk mengekalkan kedudukan sendi lutut itu sendiri agar tidak longgar pada posisi-posisi tertentu. ACL menstabilkan lutut untuk mendaki bukit atau menaiki tangga dan menjadi penstabil untuk putaran lutut dan juga aktiviti larian mahupun pemain bola sepak menukar arah larian ketika berlari.

## Bagaimana kecederaan ACL boleh berlaku?

Kecederaan ACL berlaku disebabkan oleh kecederaan pada lutut seseorang sewaktu aktiviti sukan, lazimnya secara non-contact seperti dalam sukan bolasepak, tennis, badminton dan lain-lain.

Mekanismenya adalah – berhenti secara mengejut sewaktu larian deras dan menukar arah secara tiba-tiba. Ini dapat dilihat terutamanya pada sukan-sukan yang melibatkan larian dan putaran berlebihan pada lutut seperti dalam permainan bola sepak, futsal, ragbi, bola keranjang dan bola jaring atau digelecek dengan agak keras sewaktu bermain.

Mekanisme kecederaan ACL dalam sukan melibatkan lompatan pula – sewaktu mendarat, lutut berputar ke arah dalam dengan kaki tetap di atas gelanggang dan ini akan menegangkan ACL dan menyebabkan kecederaan, ia putus atau terkoyak. Hal ini sering terjadi kepada pemain badminton dan tennis.

Akan tetapi terdapat juga pesakit-pesakit kecederaan ACL yang disebabkan oleh aktiviti sukan yang lain dan ada juga yang disebabkan oleh kemalangan jalan raya yang melibatkan mekanisme kecederaan yang sama seperti kecederaan sewaktu bersukan.

Contoh lain yang lebih jelas adalah dalam sukan ragbi atau American football yang mana seseorang pemain digelecek pemain lawan dengan diasak lutut dari sebelah kiri atau kanan pemain tersebut.



## Lelaki atau perempuan

Kajian ada menunjukkan bahawa perempuan adalah lebih berisiko untuk mendapat kecederaan ACL berbanding lelaki atas sebab-sebab tertentu. Terdapat perbezaan bentuk anatomi tulang dan sendi wanita dan lelaki dan perbezaan juga dalam kekuatan ligamen dan otot, koordinasi dan kontraksi otot.

Perbezaan hormon juga dilihat sebagai salah satu sebab ligamen ACL seseorang atlet wanita lebih berisiko untuk tercedera. Oleh itu, teknik-teknik latihan yang rapi dan intensif dapat mengurangkan insiden kecederaan ACL ini.

Namun ini tidak bermakna atlet lelaki akan terlepas dari kecederaan ACL kerana jenis sukan bagi atlet lelaki juga lebih mendedahkan mereka kepada kecederaan di atas berbanding dengan jenis sukan atlet wanita.



## WHAT SHOULD I DO IF I GET INJURED?

Never try to “work through” the pain of a sports injury. Stop playing or exercising when you feel pain. Playing or exercising more only causes more harm.

Some injuries should be seen by a doctor right away. Call a doctor when:

- The injury causes severe pain, swelling or numbness
- You cannot put any weight on the area
- An old injury hurts or aches
- An old injury swells
- The joint does not feel normal or feels unstable

If you do not have any of these signs, it may be safe to treat the injury at home. If the pain or other symptoms get worse, you should call your doctor. Use the RICE (Rest, Ice, Compression and Elevation) method to relieve pain, reduce swelling and speed healing. Follow these four steps right after the injury occurs and do so for at least 48 hours.

- **Rest.** Reduce your regular activities. If you have injured your foot, ankle or knee, take weight off of it. A crutch can help. If your right foot or ankle is injured, use the crutch on the left side. If your left foot or ankle is injured, use the crutch on the right side.
- **Ice.** Put an ice pack to the injured area for 20 minutes, four to eight times a day. You can use a cold pack or ice bag. You can also use a plastic bag filled with crushed ice and wrapped in a towel. Take the ice off after 20 minutes to avoid cold injury.
- **Compression.** Put even pressure (compression) on the injured area to help reduce swelling. You can use an elastic wrap, special boot, air cast or splint. Ask your doctor which one is best for your injury.
- **Elevation.** Put the injured area on a pillow, at a level above your heart, to help reduce swelling.

## How Are Sports Injuries Treated?

Treatment often begins with the RICE method. Here are some other things your doctor may do to treat your sports injury.

### Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)

Your doctor will suggest that you take a nonsteroidal anti-inflammatory drug (NSAID). These drugs reduce swelling and pain.

### Immobilization

Immobilization is a common treatment for sports injuries. It keeps the injured area from moving and prevents more damage. Slings, splints, casts and leg immobilizers are used to immobilize sports injuries.

### Surgery

In some cases, surgery is needed to fix sports injuries. Surgery can fix torn tendons and ligaments or put broken bones back in place. Most sports injuries do not need surgery.

### Rehabilitation (Exercise)

Rehabilitation is a key part of treatment. It involves exercises that step by step get the injured area back to normal. Moving the injured area helps it to heal. The sooner this is done, the better. Exercises start by gently moving the injured body part through a range of motions.

### Rest

Although it is good to start moving the injured area as soon as possible, you must also take time to rest after an injury. All injuries need time to heal; proper rest helps the process. Your doctor can guide you on the proper balance between rest and rehabilitation.

### Other Therapies

Other common therapies that help with the healing process include mild electrical current (electrostimulation), cold packs (cryotherapy), heat packs (thermotherapy), sound waves (ultrasound) and massage.

## WHEN TO USE ICE AND WHEN TO USE HEAT ON A SPORTS INJURY

Do you know when to use ice and when to use heat on a sports injury? Most athletes know to apply ice to an acute injury, like a sprained ankle, but are not so sure when to use heat. The following guidelines will help you sort it out.



There are two basic types of athletic injuries: acute and chronic.

- Acute Pain is of rapid onset and short-lived or
- Chronic Pain develops slowly and is persistent and long-lasting.

### Cold Therapy with Ice

Cold therapy with ice is the best immediate treatment for acute injuries because it reduces swelling and pain. Ice is a vaso-constrictor (it causes the blood vessels to narrow) and it limits internal bleeding at the injury site. Apply ice (wrapped in a thin towel for comfort) to the affected area for 10 to 15 minutes at a time. Allow the skin temperature to return to normal before icing a second or third time. You can ice an acute injury several times a day for up to three days.



Cold therapy is also helpful in treating some overuse injuries or chronic pain in athletes. An athlete who has chronic knee pain that increases after running may want to ice the injured area after

each run to reduce or prevent inflammation. It is not helpful to ice a chronic injury before exercise.

### Heat Therapy

Heat is generally used for chronic injuries or injuries that have no inflammation or swelling. Sore, stiff, nagging muscle or joint pain is ideal for the use of heat therapy. Athletes with chronic pain or injuries

#### Source

1. The American Orthopedic Society for Sports Medicine
2. The Use of Ice in the Treatment of Acute Soft-Tissue Injury. A Systematic Review of Randomized Controlled Trials; Chris Bleakley, et al, The American Journal of Sports Medicine 2004, Volume 32.

may use heat therapy before exercise to increase the elasticity of joint connective tissues and to stimulate blood flow. Heat can also help relax tight muscles or muscle spasms. Do not apply heat after exercise. After a workout, ice is the better choice on a chronic injury.

Because heat increases circulation and raises skin temperature, you should not apply heat to acute injuries or injuries that show signs of inflammation. Safely apply heat to an injury 15 to 20 minutes at a time and use enough layers between your skin and the heating source to prevent burns.

Moist heat is best, so you could try using a hot wet towel. You can buy special athletic hot packs or heating pads if you use heat often. Never leave heating pads on for more than 20 minutes at a time or while sleeping.



Because some injuries can be serious, you should see your doctor if your injury does not improve (or gets worse) within 48 hours.

# 10 Ways to Recover Quickly After Exercise

There are as many methods of recovery as there are athletes. The following are some of the most commonly recommended by the experts.

**Rest.** Time is one of the best ways to recover (or heal) from just about any illness or injury and this also works after a hard workout. Your body has an amazing capacity to take care of itself if you allow it some time. Resting and waiting after a hard workout allows the repair and recovery process to happen at a natural pace



**Stretch.** If you only do one thing after a tough workout, consider gentle stretching. This is a simple and fast way to help your muscles recover.

**Cool Down.** Cooling down simply means slowing down (not stopping completely) after exercise. Continuing to move around at a very low intensity for 5 to 10 minutes after a workout helps remove lactic acid from your muscles and may reduce muscles stiffness. Warming up and cooling down are more helpful in cooler temperatures or when you have another exercise session or an event later the same day.

**Eat Properly.** After depleting your energy stores with exercise, you need to refuel if you expect your body to recover, repair tissues, get stronger and be ready for the next challenge. This is even more important if you are performing endurance exercise day after day or trying to build muscle. Ideally, you should try to eat within 60 minutes of the end of your workout and make sure you include some high-quality protein and complex carbohydrate.



**Replace Fluids.** You lose a lot of fluid during exercise and ideally, you should be replacing it during exercise, but filling up after exercise is an easy way to boost your recovery. Water supports every metabolic function and nutrient transfer in the body and having plenty of water will improve every bodily function. Adequate fluid replacement is even more important for endurance athletes who lose large amounts of water during hours of sweating.

**Try Active Recovery.** Easy, gentle movement improves circulation which helps promote nutrient and waste product transport throughout the body. In theory, this helps the muscles repair and refuel faster.





**Have a Massage.** Massage feels good and improves circulation while allowing you to fully relax. You can also try self-massage and Foam Roller Exercises for Easing Tight Muscles and avoid the heavy sports massage price tag.

**Alternate Hot and Cold Baths or Showers.** Some athletes swear by ice baths, ice massage or alternating hot and cold showers to recover faster, reduce muscle soreness and prevent injury. The theory behind this method called contrast water therapy is that by repeatedly constricting and dilating blood vessels helps remove (or flush out) waste products in the tissues. Limited research has found some benefits of contrast water therapy at reducing delayed onset muscle soreness (DOMS).



**“How to use contrast water therapy:** While taking your post-exercise shower, alternate 2 minutes of hot water with 30 seconds of cold water. Repeat four times with a minute of moderate temperatures between each hot-cold spray. If you happen to have a spa with hot and cold tubs available, you can take a plunge in each for the same time.

”



**Get Lots of Sleep.** While you sleep, amazing things are taking place in your body. Optimal sleep is essential for anyone who exercises regularly. During sleep, your body produces Growth Hormone (GH) which is largely responsible for tissue growth and repair.

**Avoid Overtraining.** One simple way to recovery faster is by designing a smart workout routine in the first place. Excessive exercise, heavy training at every session or a lack of rest days will limit your fitness gains from exercise and undermine your recovery efforts.



## Listen to Your Body for a Faster Recovery

The most important thing you can do to recovery quickly is to listen to your body. If you are feeling tired, sore or notice decreased performance you may need more recovery time or a break from training altogether. If you are feeling strong the day after a hard workout, you do not have to force yourself to go slow. If you pay attention, in most cases, your body will let you know what it needs,

## COMMON STRETCHES

### ARM STRETCHES



Wrist flexor stretch



Tricep stretch



Wrist extensor stretch



Tennis elbow stretch

### BACK AND ABDOMINAL STRETCHES



Back stretch



Lat dorsi stretch



Abdominal stretch



Back arch stretch

### LOWER LEG STRETCHES



Shin stretch



Standing shin stretch



Advanced shin ch



Advanced soleus