

Sports Related Injuries & Management

Physical Health & Fitness - Secondary 2
Lesson 3

NTSS PE Department 2020



OBJECTIVES

By the end of the lesson, I am able to:

- ✓ State 3 types of injuries

**LIGAMENT
INJURIES
(SPRAIN)**

**MUSCLE
INJURIES
(STRAIN)**

**HEAT RELATED
INJURIES**

- ✓ Understand the Principles of injury management with regards to Common Injuries

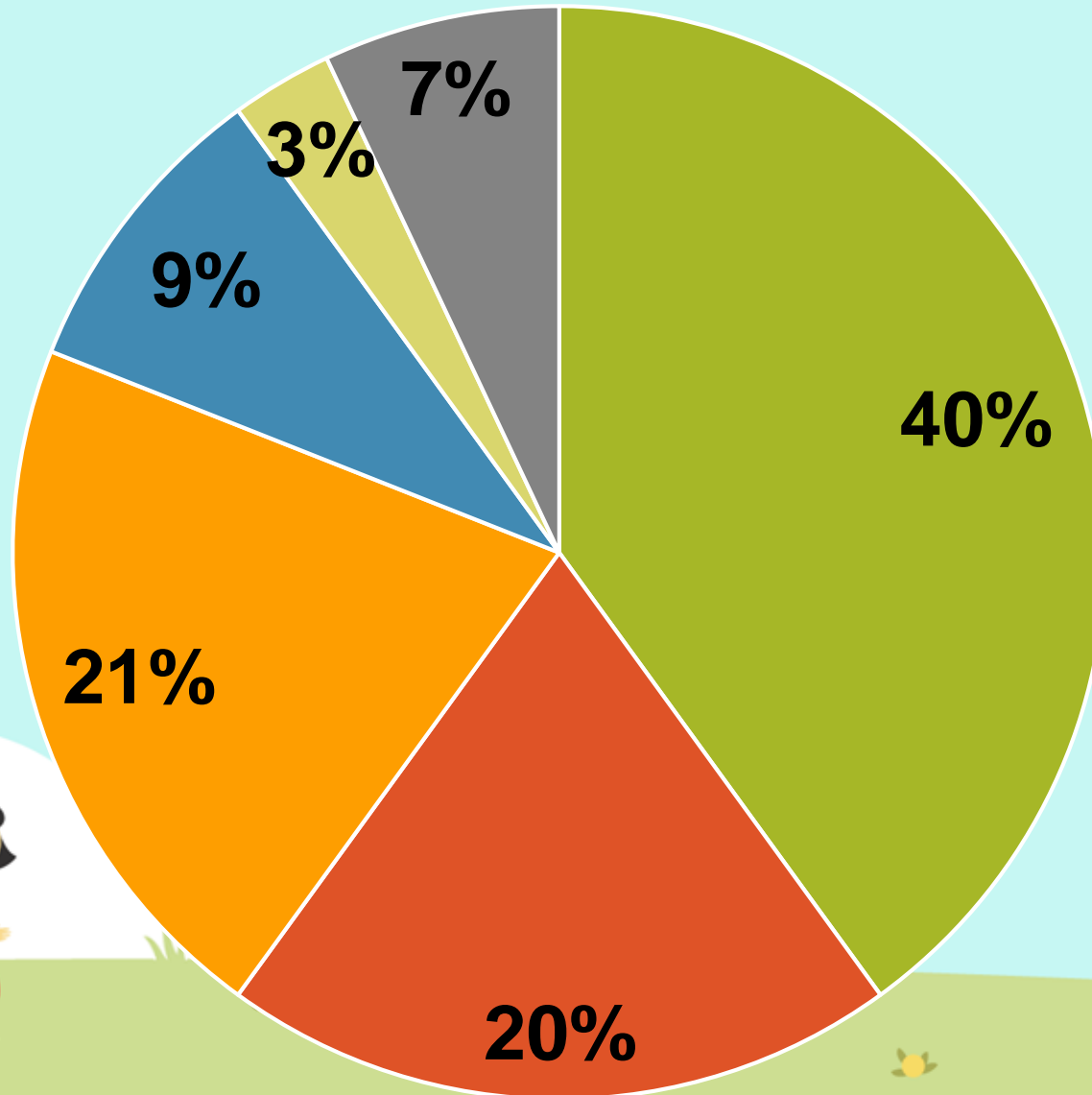




In Singapore's Context...
Let's look at what are the TOP
injuries during a PE lesson...



INJURIES IN PE CONTEXT



- Ligament Sprain & Muscle Strain
- Abrasion, Contusion, Bruise, Crushing, Bleeding
- Bone Injuries (Fracture & Dislocations)
- Lacerations & Cuts
- Concussion & Head Injury
- Others



GUESS THE TOP 5 INJURIES for the following sports!

1. BASKETBALL

2. NETBALL

3. BADMINTON



COMMON
**BASKETBALL
INJURIES**
AND HOW TO AVOID THEM



TOP 5 INJURIES IN BASKETBALL

SIDELINING INJURIES

TOP INJURIES IN THE NBA

FOR 2014-2015
NBA REGULAR SEASON



GE imagination at work



1. Ankle Sprain
2. Jammed Fingers
3. Knee Injuries :
Sprain, ACL Tear,
fracture
4. Muscle Strains :
Groin, Thigh, Calf,
Back
5. Back / Neck Injuries



TOP 5 INJURIES IN NETBALL



1. Ankle Sprain
2. Jammed Fingers
3. Knee Injuries :
Sprain, ACL Tear
4. Muscle Strains :
Groin, Thigh, Calf,
Back
5. Dislocations :
Shoulder



TOP 5 INJURIES IN BADMINTON



1. Ankle Sprain
2. Achilles Tendonitis
3. Tennis / Golf Elbow
4. Shoulder & Rotator Cuff Injuries
5. Knee Injuries :
Fracture, Ligament Tear



FOCUS on 3 TYPES OF INJURIES



**LIGAMENT
(SPRAIN)**

**MUSCLE
(STRAIN)**

HEAT RELATED





**WHAT IS A COMMON INJURY
THROUGHOUT ALL 3 SPORTS ?**

ANKLE SPRAIN !!!



Is an Ankle Sprain a...

**LIGAMENT INJURY
(SPRAIN)**

**MUSCLE INJURY
(STRAIN)**

**HEAT RELATED
INJURY**



LIGAMENT INJURIES (SPRAIN)

- Ankle
- Jammed Finger

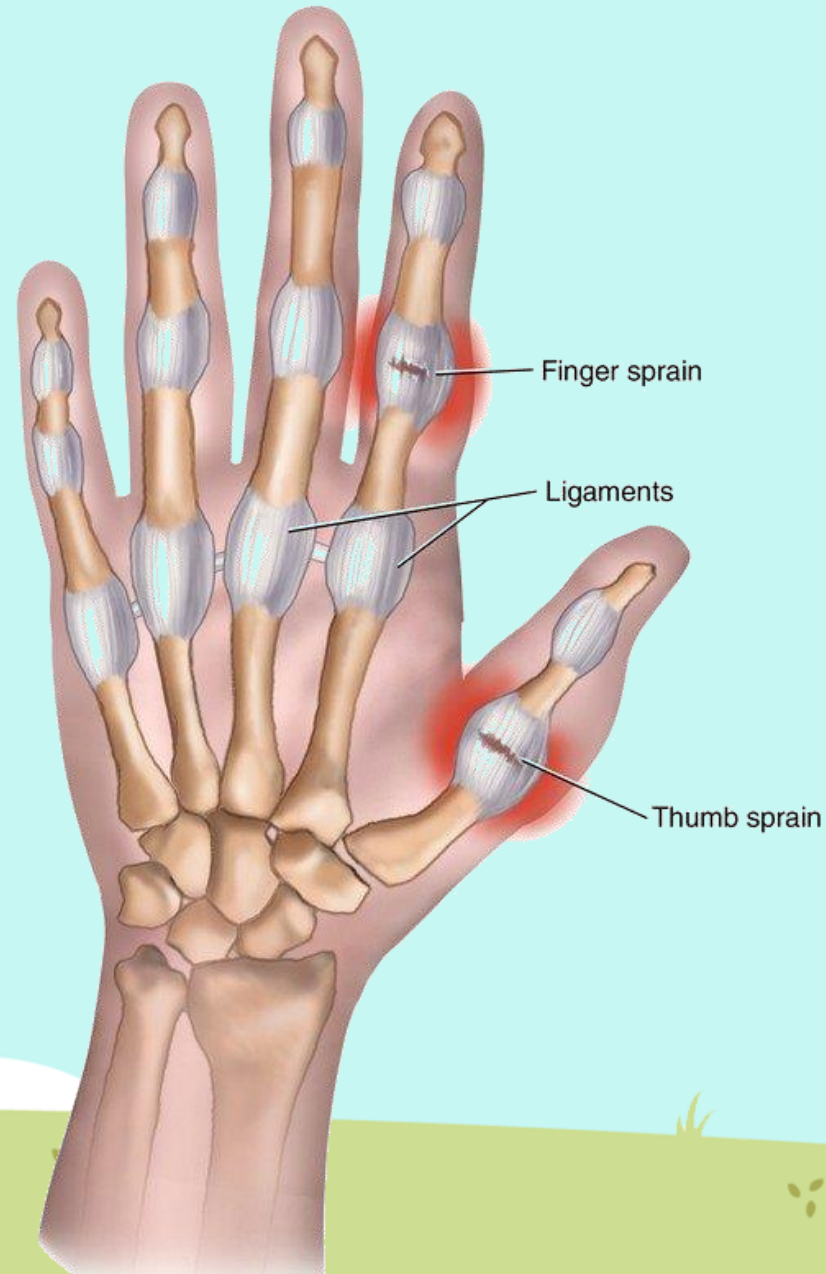




FINGER SPRAIN

- Known as:
 - 1) Finger Jab
 - 2) Jammed Finger
- Condition that:
Ligaments are damaged

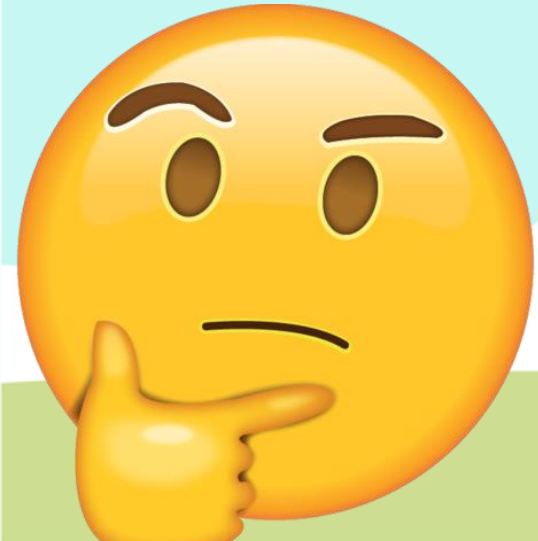
Finger and Thumb Sprain



**LIGAMENT
(SPRAIN)**

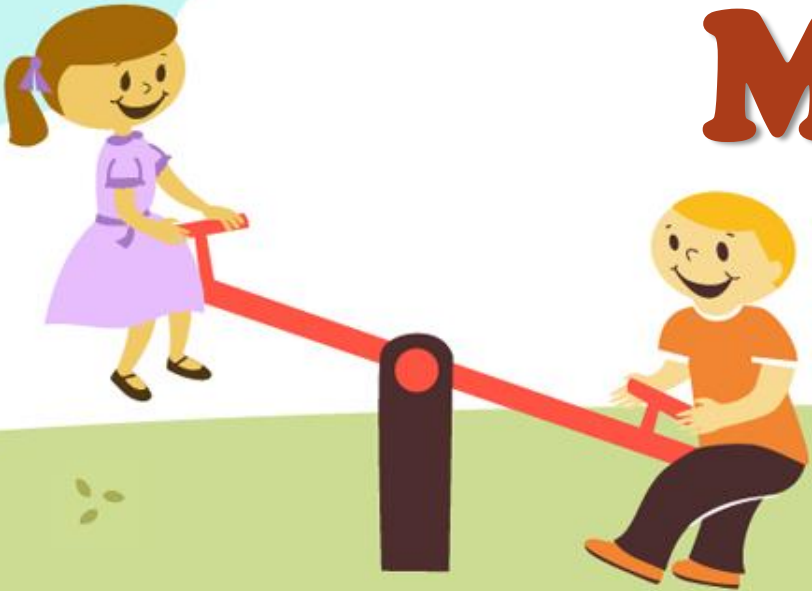
GUESS THE SYMPTOMS & SIGNS

1. **P**ain
2. **S**well
3. **B**ruise
4. **N**umb
5. **W**eakness
6. **D**eformity
7. **L**imitation of **M**ovement



**LIGAMENT
(SPRAIN)**

PRINCIPLES OF MANAGEMENT



**LIGAMENT
(SPRAIN)**

5 STEPS TO PREVENT INJURIES !!!

1. Wear Protective Gear
(eg. Helmets, knee/ankle guards)
2. Warm up & Cool down
3. Know the rules of the game, avoid contact during competition. Play **SMART**, not hard.
4. Space & Body Awareness:
Watch out for self & others
5. DO NOT play when you are **INJURED**.

PREVENT / PROTECT

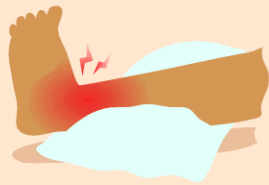


PRICE

**LIGAMENT
(SPRAIN)**



R



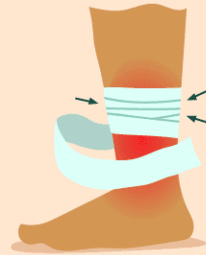
Rest
the injured
area for 48 hours
Use crutches
if needed

I



Ice
for 20 minutes
at a time,
4 to 8 times
per day

C



Compress
to help
reduce swelling

E



Elevate
the injured limb
6 to 10 inches
above the heart

verywell

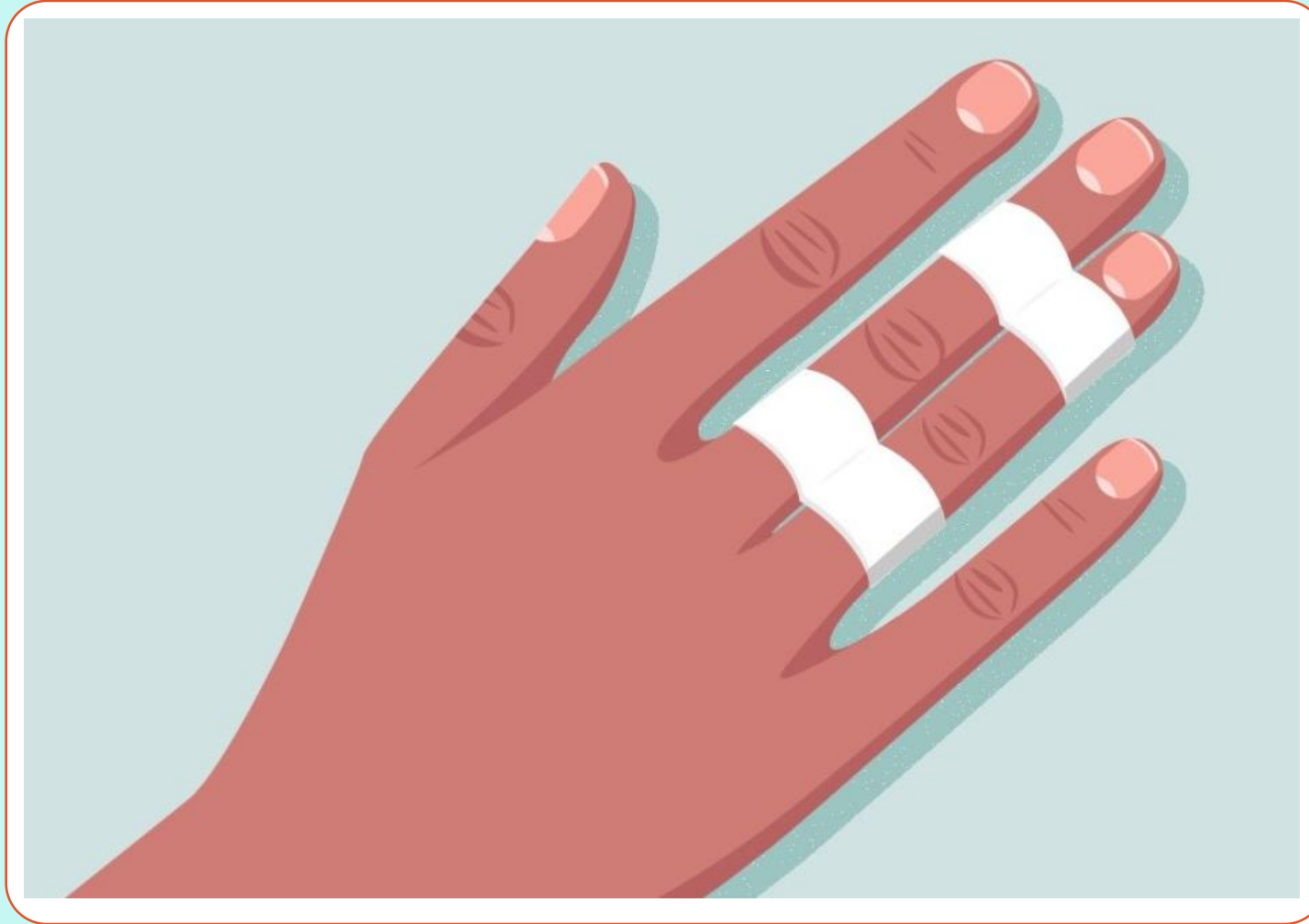
REST
ICE
COMPRESS
ELEVATE

PRICE

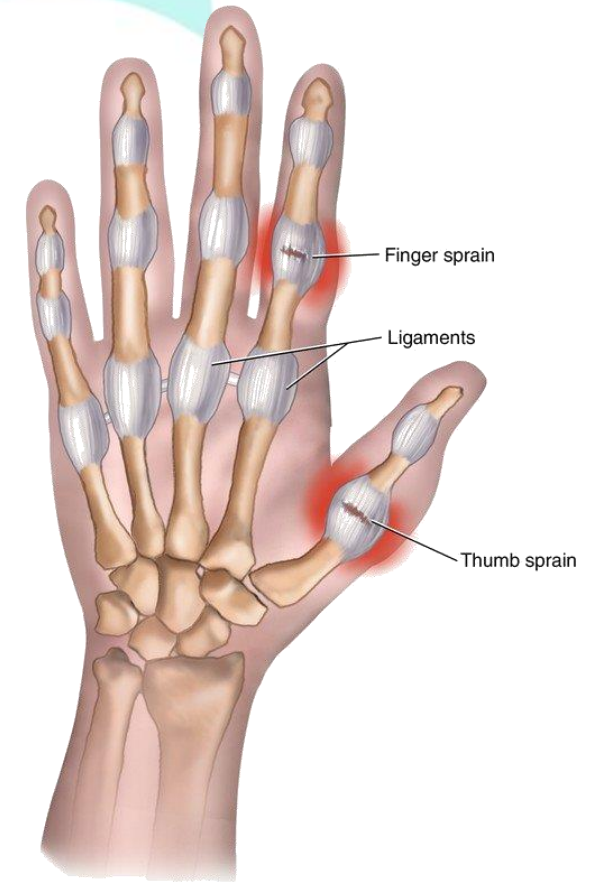
**LIGAMENT
(SPRAIN)**



Use of a SPLINT to fully restrict the ligament and keep it straight while it heals.



Finger and Thumb Sprain



**LIGAMENT
(SPRAIN)**

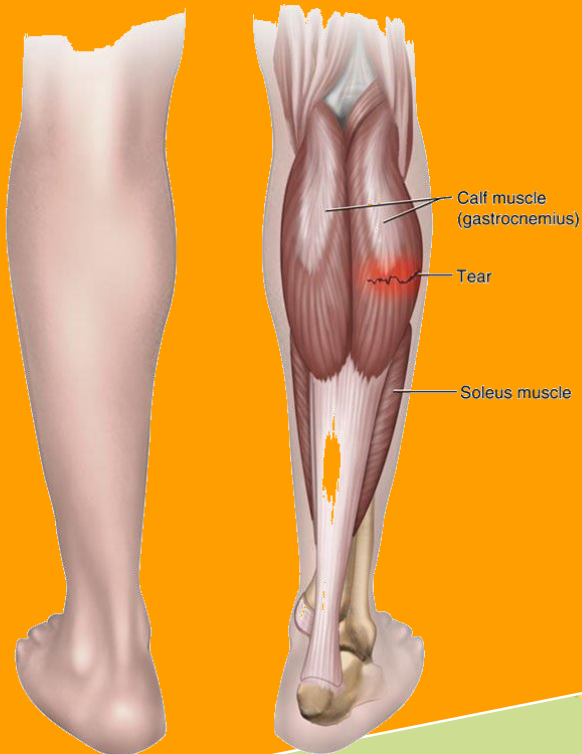


MUSCLE INJURIES (STRAIN)



TYPES OF MUSCLE INJURIES

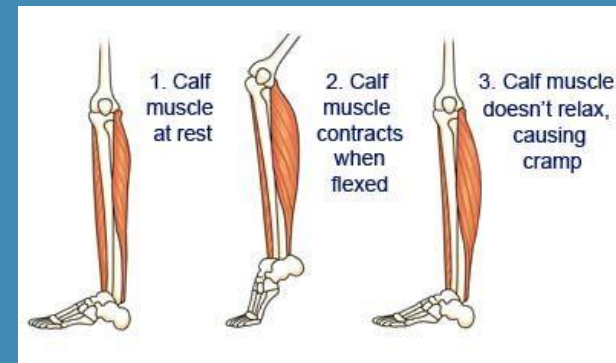
Muscle Strain / Tear



- Overstretching of the muscle
- Prolonged physical Exertion.

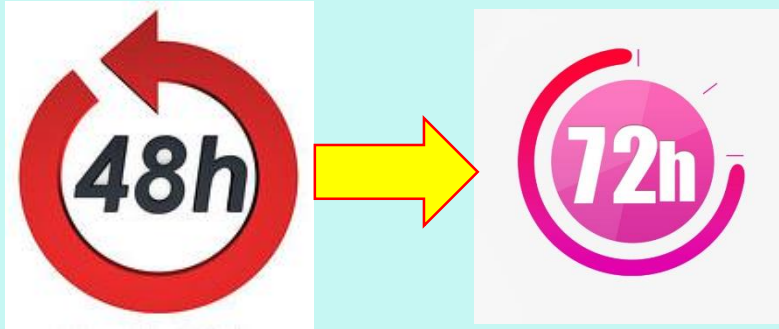
Muscle Cramps

- Spontaneous & sustained muscle contractions.
- Due to dehydration, low sodium levels



**MUSCLE INJURY
(STRAIN)**

WHEN A MUSCLE INJURY HAPPENS...

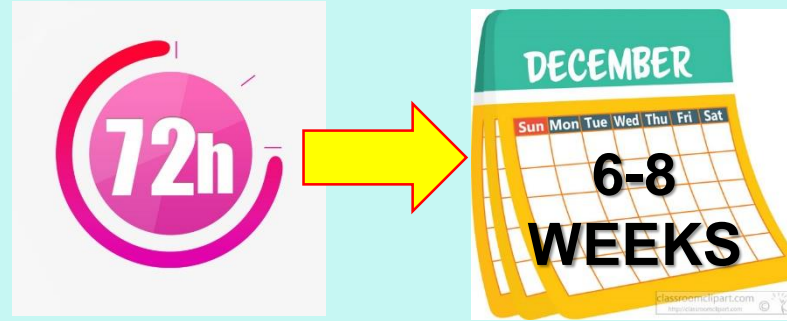


1. ACUTE INFLAMMATION

- ↑ Blood Flow & Fluid to injured Area
- Swelling, Redness & Warmth
 - ❑ Excess swelling can slow down recovery of the affected area.

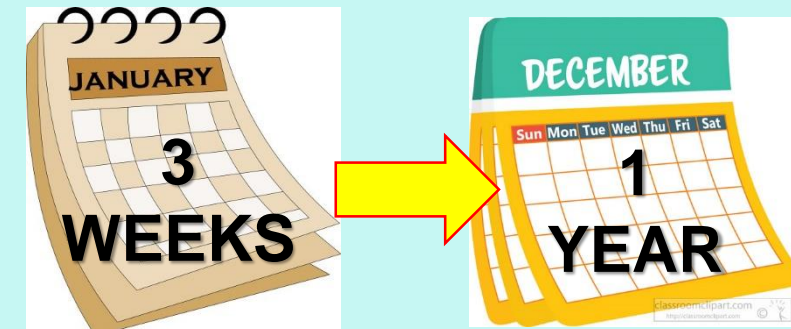
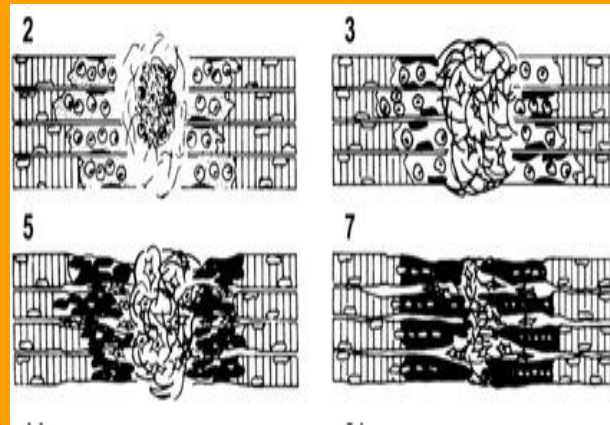


- ⊘ Heat
- ⊘ Alcohol
- ⊘ Running / Exercise
- ⊘ Massage



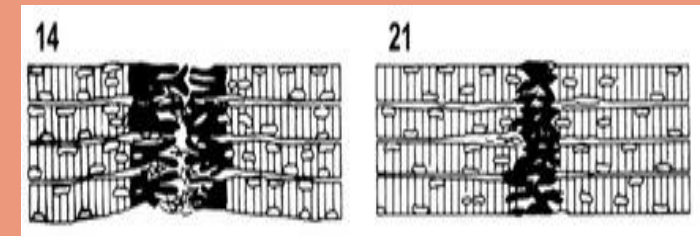
2. REPAIR

- Repair & Regeneration of injured muscle.
- New muscle fibres laid down.



3. REMODELING

- Organization & alignment of muscle fibres.
- Injured muscle strengthened.



To help your recovery, you should avoid **HARM** for the first two to three days after your injury.



H

Heat



Heat can increase blood flow which may increase swelling so don't take hot baths, showers and saunas, or use a heat pack.

A

Alcohol



Drinking alcohol can increase bleeding and swelling in the injured area.

R

Running



Running or other forms of exercise that may cause further damage.

M

Massage



Massaging the injured area can cause more swelling or bleeding.

**MUSCLE INJURY
(STRAIN)**

Tips for Treating Leg Cramps



**Massage the
cramped muscle**



**Cool the skin with
a cold, moist cloth**



Stretch

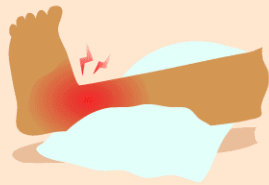


**Drink more
fluids**



**MUSCLE INJURY
(STRAIN)**

R



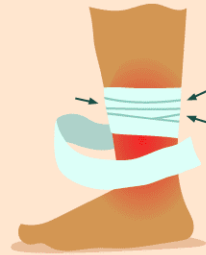
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PRICE

**MUSCLE INJURY
(STRAIN)**



HEAT RELATED INJURIES



HEAT RELATED
INJURIES

TYPES OF HEAT INJURIES

HEAT STRESS INJURIES

HEAT RASH

- Red raised rash
- Impairs sweating and decreases effectiveness of sweating

HEAT CRAMPS

- Muscle cramps, pain or spasms in the abdomen, arms or legs

HEAT EXHAUSTION

- Moist, clammy skin
- Dilated pupils
- Normal or subnormal temperature
- Dizziness, confusion and/or nausea
- Weak pulse
- Rapid breathing

HEAT STROKE

- Dry, red, hot skin
- Pupils constricted
- Very high body temperature
- Dizziness, confusion and/or nausea
- Pulse rapid
- Unconsciousness
- Coma
- Death



**HEAT RELATED
INJURIES**

HEAT INJURIES : WHAT TO DO?



1. Send for emergency medical assistance.
2. Rest in **cool**, shaded area.
3. Drink **cool** water.
4. Remove excess clothing & equipment.
5. Apply **ice** to neck, back or stomach to cool the body.

HEAT RELATED
INJURIES

HEAT INJURIES : HOW TO PREVENT ?



1. Monitor weather conditions.
2. Use lighter clothings.
3. Self Awareness (Overweight)
4. Replace fluids lost through perspiration.
5. Replace electrolytes with fruits & vegetables.

HEAT RELATED
INJURIES

In Pairs,

✓ <https://kahoot.it>

✓ Enter Game Pin

✓ Enter UserName

Kahoot!

Highest Score Wins!!!



Thank
you! .

