

# AIOT newsletter

November 2014

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## Orthopaedic Soft Goods and Braces

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# Letter *from the President...*

Mr. Terry James

It is hard to believe that we are already well into the second half of 2014. I would like to welcome all our new members to our association. We encourage you to offer constructive feedback to the Executive and State Liaison Representatives if you have something which may be of interest regarding orthopaedic casting. Secondly you may need support with aspects associated with your position in the cast room, again please feel free to contact any of the executive or contact other AIOT members for assistance. A big thank you to those members who have paid their annual membership fees and a gentle reminder to those that haven't. Please forward your cheque or pay via direct debit.

We have had some very good educational seminars this year with the Melbourne Symposium held on April 12th at Royal Melbourne Hospital and the 2014 AIOT Annual National Symposium / AGM held at the Townsville Hospital 19th -20th of July. You can see some photos from both of these events on the following pages. Next year's National weekend conference/AGM will be held on the 8th and 9th August in Melbourne 2015. The following year it will be held in Sydney 2016 around July. Pencil those dates out in your diaries and a Flyer should be out in February next year. Early expressions of interest are highly valuable to us and the details are on the opposite page.

The Executive Committee have now signed off on a contract with an RTO (SWC Training) opening up the Education Pathway for cast room Personal to access the Certificate IV in Cast Technology. The course modules have been re written with a huge thank-you to John Kinealy and Greg Gysin. It is imperative that we have a well-structured course for all cast Technicians wanting to complete the Certificate. Members will be notified shortly as to the start date of the course.

The Training company we have Joined with is SWC Training which stands for Stanborough Wemyss Contracting has their head office based in Melbourne, with offices in Sydney, Brisbane and Adelaide. We have had many enquiries regarding the course including many questions from interested parties on how they may gain a position as an Orthopaedic Technician. First and foremost any person waiting to apply for the course, must be employed in a Health Facility that caters for Orthopaedic Services. They would need to discuss with their employer their expression of interest in orthopaedic casting and if any Trainee positions may be available in the plaster room. If successful you would need to Contact SWC Training regarding the course.

Please contact myself or any of the Executive members for any enquiries you may have.

Kind Regards,

Terry James.  
AIOT President  
Terry.James@health.qld.gov.au

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www.aiot.com.au

### Newsletter Layout

John Kinealy

# ROYAL MELBOURNE HOSPITAL ANNUAL CONFERENCE 8TH & 9TH AUGUST 2015, MELBOURNE VICTORIA

**\*EXPRESSIONS OF INTEREST TO ATTEND  
THIS EVENT PLEASE EMAIL JENNY DALTON  
[jennifer.dalton@austin.org.au](mailto:jennifer.dalton@austin.org.au)**



Melbourne's iconic Flinders Stree Station which is on the intersection of Flinders & Swanston Streets right next to the Yarra river.

# Do You know the answer to these questions?



John Kinealy  
*Answers in the next issue*

## Fractures

1. Is a Weber A caused by abduction or adduction of the ankle?
2. What is a Pilon fx?
3. Describe a Chopart fx?
4. An inferior posterior Tibial fx is the result of the foot in plantar flexion. True or false?
5. Is a Colles' fracture through diaphyseal or metaphyseal bone?
6. A Mallet finger is an injury to the PIP or DIP joint?
7. Is a Volar Bartons' fx a Smiths' type 3?
8. Is a Jones fx found in the hand?
9. Is a triplaner ankle fracture usually found in adolescents? Yes/No
10. What is the most common type of Salter Harris fx of the distal radius?

## Casts

1. What is the difference in characteristics between polyester and fibreglass bandages?
2. When is it best to excessively overpad a limb before casting or splinting?
3. Should the thumb be extended when applying a scaphoid cast?
4. Why is the web space bar critical when applying a Charnley splint?
5. What are the negatives of a Charnley splint?
6. Does a cast need to be completely rigid from end to end?
7. When splitting a fibreglass cast due to oedema, will univalving work? Why?
8. Are supracondylar humeral fractures generally flexed greater than 90 degrees?
9. Is a Sarmiento tibial cast used to treat Tibial Plateau fx's?
10. Is a Bennetts' fx considered a fx dislocation?



## Webril™ II Undercast Padding

### Webril™ II 100% cotton undercast padding

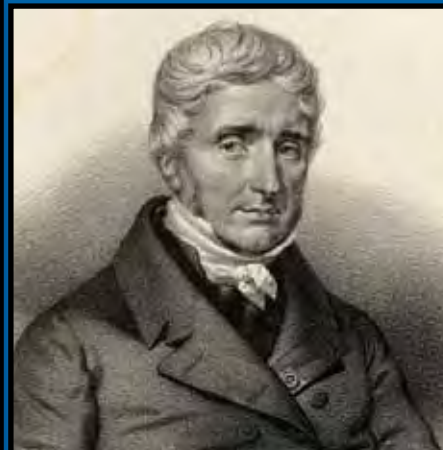
- Manufactured from 100% cotton
- Ideal for use with synthetic and plaster casting material.
- Crimped finish for extra loft and conformability
- Retains consistency wet and dry.
- Combination of mild stretch and cohesiveness, holds padding in place without shifting or bunching.
- Available in a sterile blister pouch for postoperative casting applications.



# ELEMENTS TO DEMONSTRATE A GOOD CAST

Jenny Dalton

1. Effective cast moulding (e.g, three-point mould)
2. Appropriate cast length.
3. Effective padding between the skin and casting material, especially where bony prominences are located.
4. Proper functionality of mobilised joints (both proximally and distally) just adjacent to the joint immobilized by a cast.
5. Cosmetic appearance of the cast applied, no rough edges.
6. Effective documentation.
7. Observe that the neurovascular status of limb is within normal limits.
8. Check the fit and functionality of cast.
9. Provide client and carer with written and verbal advice for care of cast and limb.
10. Fit client with sling, heel/overshoes and ambulation aids, as required.
11. Instruct client on correct use of ambulation aids and ensure client is safe.
12. Arrange appropriate support for client.
13. Clean equipment in accordance with manufacturer's specifications and stored safely.
14. Clean work surfaces in accordance with infection control guidelines.



## Historical Overview

*Lisfranc is named after the 18th and 19th century surgeon and gynecologist, Jacques Lisfranc de St. Martin (Who Named It? November 2011). He is arguably best known for his description of his self-titled injury, which involves a fracture within the forefoot (as outlined). This was first described by him during his time as a military surgeon in Napoleon's army around 1813 and occurred when riders fell from their horses with their feet caught in their stirrups.*

*This twisting, high-impact injury can also be found with athletes partaking in contact sports such as rugby and American football and with gymnasts, ballet dancers and track and field athletes.*

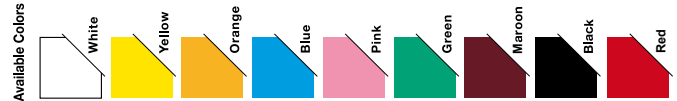
<http://www.surgeons.org.uk/history-of-surgeons/jacques-lisfranc-de-st-martin.html>



# PrimeForm™ Casting Materials

## PrimeForm™ Fibreglass

Fibreglass Casting Bandage

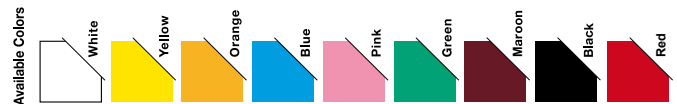


PrimeForm Fibreglass is a synthetic casting bandage impregnated with a water-activated polyurethane resin. The knitted fibreglass substrate & resin formula provides for multidirectional stretch as well as a smooth surface and strong end lamination.

- Multi directional stretch
- Lightweight & durable
- Smooth finish
- Cost effective
- Strong end lamination

## PrimeForm™ Polyester

Polyester Casting Bandage

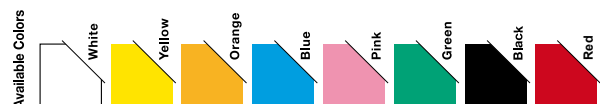


PrimeForm Polyester is a knitted polyester casting bandage impregnated with a water-activated polyurethane resin. The polyester substrate provides excellent conformability, soft cast edges, strong end lamination and excellent functional strength in weight bearing situations.

- Excellent conformability
- Soft edges
- Cost effective
- Air permeable & X-ray translucent
- Strong end lamination

## PrimeForm™ Soft

Semi-Rigid Casting Bandage



PrimeForm Soft is a fibreglass casting bandage impregnated with specially formulated water-activated polyurethane resin that allows the bandage to remain semi-rigid & flexible. It is ideal for use in the management of soft tissue injuries, for selected orthopaedic casting applications and in paediatric settings.

- Permits controlled movement
- Smooth & soft finish
- Application flexibility
- Cost effective
- Range of colours



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# Melbourne Workshop Royal Melbourne Hospital April 2014





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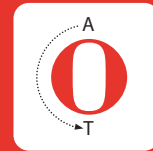
# AIOT National Conference Townsville Hospital July 2014





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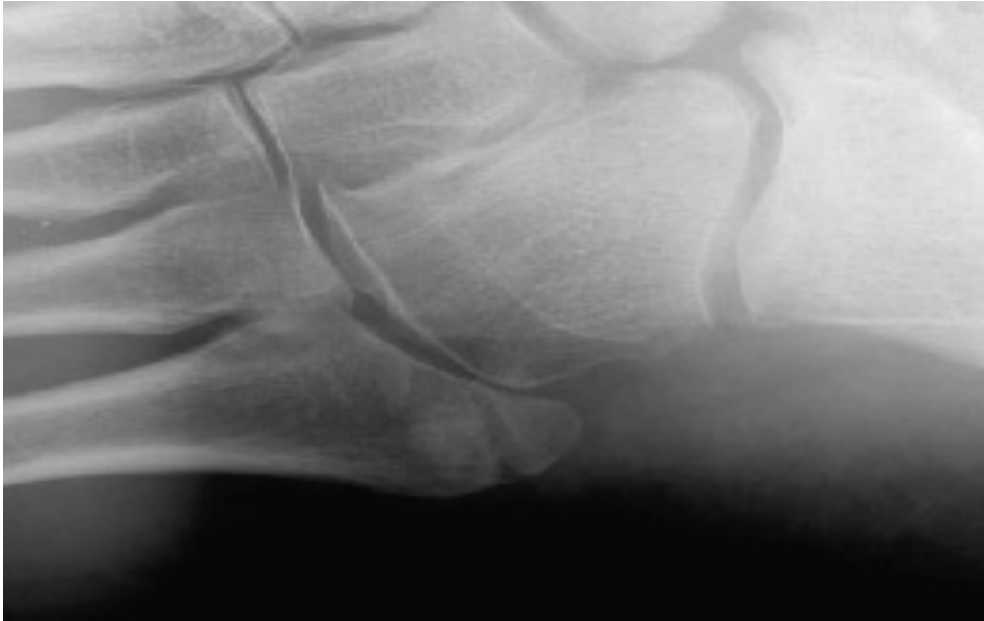


Life Without Limitations®

# Guess The Fracture

John Kinealy  
Answers Next Issue

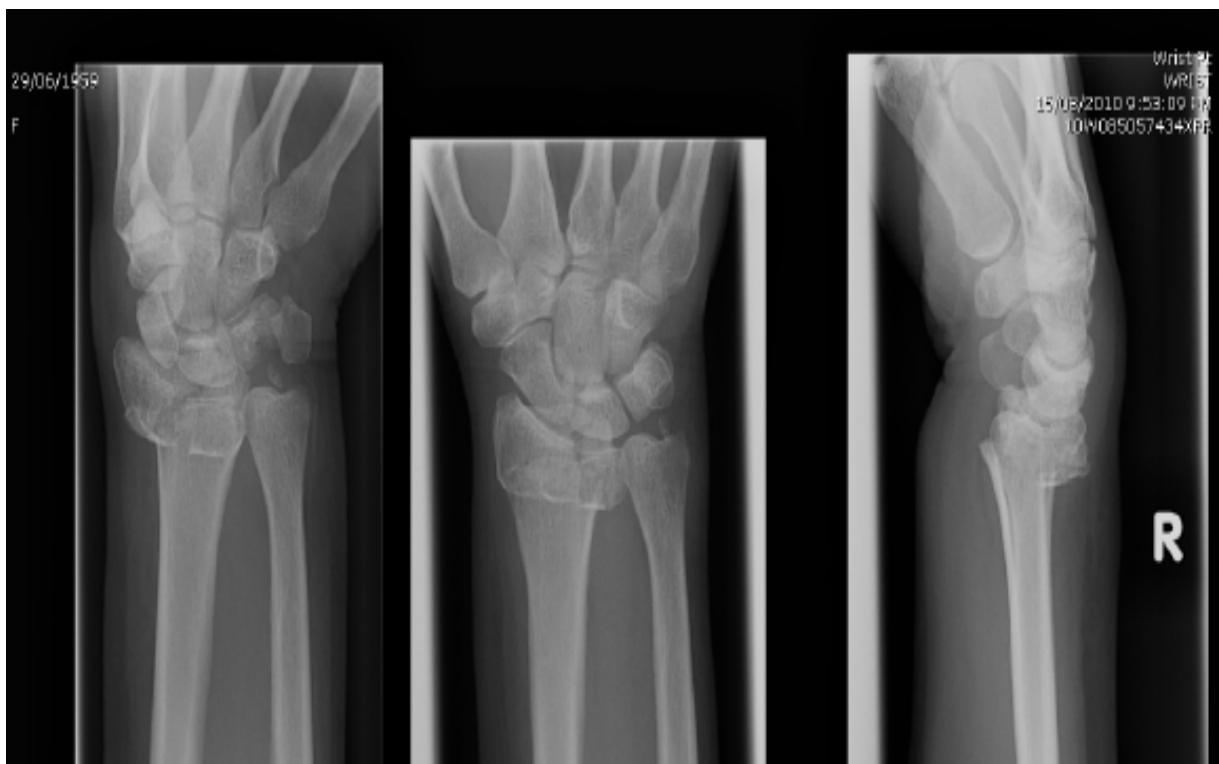
1. **What type of fracture is this?** \_\_\_\_\_  
**What is the mechanism of injury?** \_\_\_\_\_



2. **What is this fracture called?** \_\_\_\_\_

**There can be six components to this fracture, can you name them?**

1. **Dorsal angulation** \_\_\_\_\_      2. \_\_\_\_\_      3. \_\_\_\_\_  
4 \_\_\_\_\_      5. \_\_\_\_\_      6. \_\_\_\_\_



3. **Is a Monteggia Fx a result of forced supination or forced pronation?** \_\_\_\_\_  
**What position is the forearm placed in when treating this injury?** \_\_\_\_\_



4. **What part of the appendicular skeleton sustains a Triplaner fx ?** \_\_\_\_\_
5. **Is a transverse Weber B ankle fx a supination or pronation injury?** \_\_\_\_\_
6. **Is a Buckle or Torus fx caused by-** a. Rotation    b. rotation & bending  
    c. Compression & bending    d. Shear & bending





7. **Fractures can- Off end, Shorten, Impact, Distract, Angulate or \_\_\_\_\_**

8. **What type of Salter Harris fx is this?**



9. **What is this fx called? \_\_\_\_\_**

**What is the mechanism of injury? \_\_\_\_\_**



(a)



(b)

**10. Match these fx's with their definitions**

- \_\_\_\_\_ **FRACTURE A fracture of the lower end of the radius with dislocation of the ulna at the wrist.**
- \_\_\_\_\_ **FRACTURE A symptomatic fracture that is not visible radiographically until callus formation or bone resorption is seen more than two weeks after onset of symptoms.**
- \_\_\_\_\_ **FRACTURE A fracture through the neck of a metacarpal bone. Usually seen on the fifth metacarpal and is marked by anterior displacement.**
- \_\_\_\_\_ **FRACTURE Intra-articular oblique fracture involving a triangular piece of bone that includes the radial styloid. It typically originates at the junction of the scaphoid and lunate fossae.**
- \_\_\_\_\_ **FRACTURE Comminuted intra articular fracture of the distal tibia due to impaction of the talus into the tibial plafond.**
- \_\_\_\_\_ **FRACTURE A fracture through a joint surface.**
- \_\_\_\_\_ **FRACTURE Fracture of the 5th metatarsal distal to the intermetatarsal joint.**
- \_\_\_\_\_ **FRACTURE The anterior Tib/Fib ligament is avulsed and a fracture of the neck of the fibula.**
- \_\_\_\_\_ **FRACTURE A fracture-dislocation of the base of the first metacarpal bone that involves the carpometacarpal joint.**
- \_\_\_\_\_ **FRACTURE A midshaft ulnar fracture caused by a direct blow to the forearm or, by falling onto something sharp like the corner of a step.**
- \_\_\_\_\_ **FRACTURE A fracture through both lateral and medial malleoli of the ankle joint as well as the posterior process of the tibia.**
- \_\_\_\_\_ **FRACTURE A Y shaped or comminuted fracture involving the base of the thumb metacarpal.**
- \_\_\_\_\_ **FRACTURE A fracture of the lower end of the radius in which the radial fragment is displaced anteriorly. It is usually caused by a direct blow to the dorsal aspect of the radius.**
- \_\_\_\_\_ **FRACTURE Paediatric intra articular fracture of the anterolateral part of the distal tibial epiphysis.**

- **TRIMALLEOLAR**
- **PILON**
- **BENNETT'S**
- **MAISONNEUVE**
- **GALEAZZI**
- **CHAUFFEUR'S**
- **SMITHS'**

- **OCCULT**
- **ROLANDO**
- **NIGHTSTICK**
- **INTRA-ARTICULAR**
- **BOXERS'**
- **TILLAUX**
- **ROLANDO**

# CAN YOU LABEL THESE A.P. and Lateral X-ray of the carpal bones?

John Kinealy

Answers on the next page

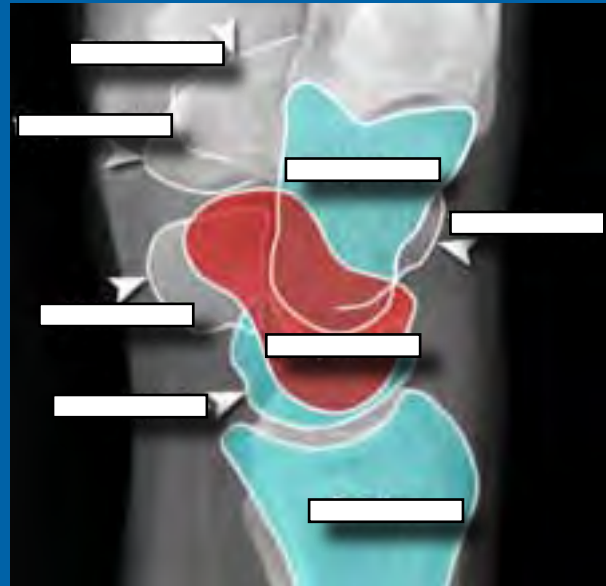
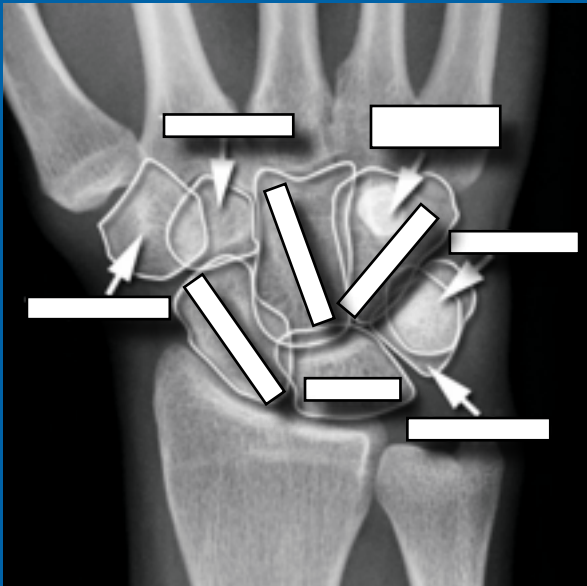


Image from [www.masterclass.uk](http://www.masterclass.uk)

This is a patient that was casted in a TCC for ulcers. He presented with this heavily saturated cast which left him with maceration and a severe skin reaction to his plantar and dorsal aspect of his foot.



# A.P. and Lateral X-ray of the carpal bones.



Taken from [www.masterclass.uk](http://www.masterclass.uk)



**"The pain in his side indicates cracked ribs. The tender knee is possible ligament damage. And the screaming means you're standing on his hand."**