



# Orthotech Professional

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## TIP OF THE MONTH

### **The Berkhalter Immobilization for Metacarpal Fractures**

*by Cynthia Henderson, OTC, CO and Melissa Patterson, OTC*

Metacarpal fractures have always been a challenge to immobilize. The Berkhalter Method allows for early flexion in both the involved fingers and the associated fingers that have to be immobilized to control the fracture site.

#### **Case Study:**

The patient is a 23 year-old female who sustained a Right 4th Metacarpal oblique fracture. The fracture site was first immobilized using the long familiar ulnar gutter splint. At 7 days post injury out of splint x-rays taken and patient placed in a Berkhalter Cast.

#### **Materials Necessary:**

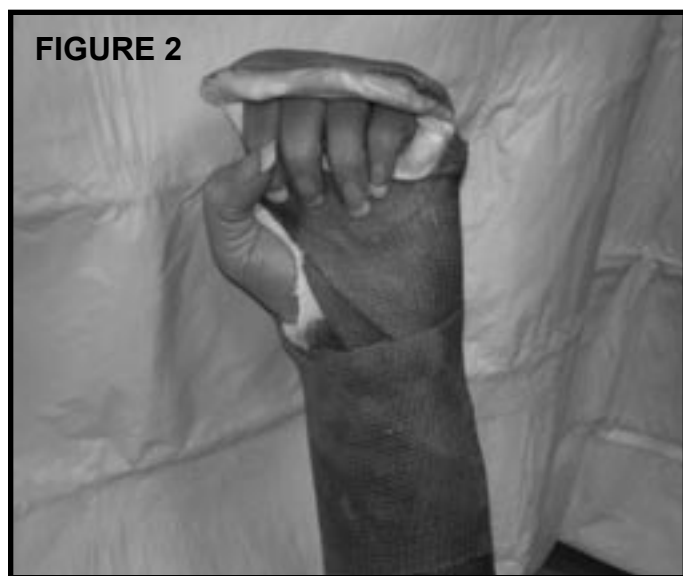
- 2 - 2" or 3" rolls of Synthetic Casting Tape
- 1 - 2" roll of Synthetic Cast Padding
- 1 - 4" Strip of adhesive felt (optional)
- 1 - 8-10 " 2" or 3" Stockinet

Position patient's hand in the intrinsic plus position (Fig 1).



Apply the stockinet with cut out for the thumb and allowing stockinet to extend a few inches past the distal end of the patient's fingers. Once stockinet is applied, then apply cast padding with limiting amount under the fingers but applying extra layers on the dorsal aspect to the hand and fingers.

Begin to roll the Synthetic Cast Tape. You should have a good buttress of casting material over the dorsal aspect of the fingers to prevent extension. You may achieve the extra material by fan splinting over the top of the hand. You will want to limit the amount of tape on the volar aspect since the area between the tips of the fingers to the palmar crease will be removed to allow for full flexion of the fingers (Fig 2).



Cut away the casting tape and padding on the volar area to the palmar crease. Then use the adhesive felt to tack down the stockinet. Use the final roll of 2"

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cast padding to finish your cast. Patient should have full flexion of PIP, MIP and MCP joints while maintaining the fracture site. With flexion motion during fracture healing, the patient should return to full range of motion sooner than if immobilized for the full treatment in a ulnar gutter splint or cast.

**ABOUT THE AUTHOR**

Cindy Henderson has been a Certified Orthotist for 4 years and a Certified Orthopaedic Technologists for 23 years. She currently serves as the President for the National Association of Orthopaedic Technologists, Secretary/Treasurer OTA of Oklahoma, and Secretary of the Oklahoma Association for O&P. Cindy is presently the Orthotist Manager for The Brace Place in Oklahoma City.

**CONTRIBUTOR:**

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McBride Clinic Oklahoma City, OK

**CEU REPORTS TO BE ISSUED:**

For all OTC-certified NAOT members that submitted questions for any of the "Tip of the Month" articles in 2005-2006, either on-line or via fax or mail), please note that NAOT staff will be mailing you a complete report of the credits that you have earned during the first part of January 2007.

Please remember that you will still need to log these units directly with the NBCOT at the appropriate time to ensure your proper recertification.

**2007 NAOT MEMBER DUES:**

If you are a current member of NAOT, and would like to continue your membership with us for 2007, please note that your membership fees are due. Please notify the NAOT office if you have not received your dues renewal statement in the mail.

**QUESTIONS FOR CEU CREDIT: Nov/Dec 2006**

*The Berkhalter Immobilization for Metacarpal Fractures*

Please answer the questions in the space provided below and return to NAOT via mail, fax or email (see information below) to receive 1 CEU (Category 2).

1. What method allows for early flexion in both the involved fingers and the associated fingers that have to be immobilized to control the fracture site?

2. In what position is the person's hand in Figure 1?

3. Why should you have a good buttress of casting material over the dorsal aspect of the fingers?

4. When rolling the Synthetic Cast Tape, why would you want to limit the amount of tape on the volar aspect?

Name \_\_\_\_\_

NAOT Member No. \_\_\_\_\_

Email address \_\_\_\_\_

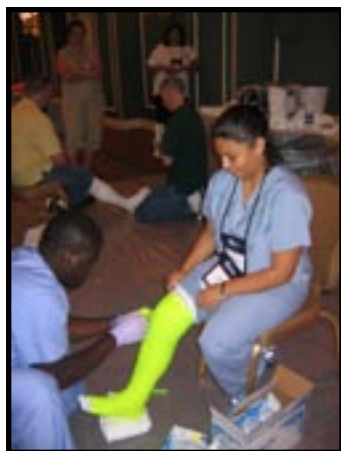
OTC Number \_\_\_\_\_

Return to NAOT via fax at (317) 205-9481 or by mail to 8365 Keystone Crossing, Suite 107, Indianapolis, IN 46240  
This information may also be submitted on-line at [www.naot.org/onlineceus.html](http://www.naot.org/onlineceus.html).



## MARK YOUR CALENDARS EARLY!

**National Association of Orthopaedic Technologists (NAOT)  
25th Annual Clinical Symposium  
August 1-4, 2007  
Hilton Charlotte City Center, Charlotte, NC**



### Session topics to include:

- Advanced Casting PTB and SLW Foot Plate
- Advanced FCT
- Advanced Splinting
- Alternative Fracture Management System
- Application of Hip Spica
- Assessment of the Lower Extremity
- Basic Casting
- Bone Tumors
- Casting and Splinting Skills Workshop
- CPR
- Diagnostic Ultrasound
- Orthopaedic Trauma
- Pediatric Orthopaedics
- Role of Flight Services in Emergency Care
- Sawbones
- Spinal Bracing
- The Evolution of Fracture Management
- Throwing Injuries in the Athlete
- Total Joints
- Wound Management

#### CONFERENCE FEES:

NAOT Member	\$300
Non-member	\$375
Student Member	\$150
Student Non Member	\$175

Special \$127 per night rate for  
NAOT 2007 attendees at the  
Hilton Charlotte City Center

*Over 20 CEUs will be available for OTCs, ATCs, OPA-Cs, ABC and BOC.*

A full conference program will be available in January 2007. For more information, please visit [www.naot.org](http://www.naot.org) or contact NAOT Headquarters at (317) 205-9484 or via email at [naot@hp-assoc.com](mailto:naot@hp-assoc.com).

#### NATIONAL ASSOCIATION OF ORTHOPAEDIC TECHNOLOGISTS

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**CASTING AND SPLINTING SKILLS WORKSHOP • FEBRUARY 16, 2007 • SAN DIEGO, CA  
SAN DIEGO MARRIOTT HOTEL AND MARINA AT THE AAOS ANNUAL MEETING  
WEST PROGRAM**

**FORMAT:** 3.5 hour program  
1:30 pm - 5:00 pm  
Hands-On Application

**COST:** Early Bird \$ 150  
On-Site \$ 200

**CLASS SIZE:** Limited to 50 attendees

**FACULTY:** **Roberta Charlesworth**  
**OTC, RTR**  
*Commonwealth Orthopedics  
and Rehabilitation  
Ashburn, VA*  
**Cynthia Henderson**  
**OTC, CO**  
*The Brace Place  
Oklahoma City, OK*  
**Kenneth Niblack, OTC**  
*Miami Children's Hospital  
Miami, FL*  
**Sue Turcotte, OTC, RTR**  
*The Orthopaedic Center  
Goffstown, NH*  
**Nicole Williams, OTC**  
*Oklahoma Sports  
Science & Ortho  
Del City, OK*

**HOTEL:** Rooms are available at  
[www.aaos.org/am2007](http://www.aaos.org/am2007)

**CEUs:** Please ask your relevant  
provider directly.

**SPONSORED BY:**



**OVERVIEW:**

A hands-on interactive skills session outlining the fundamentals of basic casting. The “show one, do one” atmosphere will allow each participant to apply newly learned skills.

**OBJECTIVES:**

At the conclusion of this session, the participant will be able to:

- Understand and explain the purpose of a cast and immobilization.
- Demonstrate instructed techniques for better casting and precautions.
- Apply the following casts - short arm, thumb spica, short leg walking.

**WHO SHOULD ATTEND?**

Orthopaedic technologists, orthopaedic physician's assistants, physician assistants, nurses, residents, medical students and other orthopaedic allied health professionals.

**REGISTER:**

Visit [www.aaos.org/am2007](http://www.aaos.org/am2007) to register on-line.

**QUESTIONS?**

Call AAOS at (800) 346-2267 or email at [meeting@aaos.org](mailto:meeting@aaos.org).