

Accreditation Statement:

The American College of Foot and Ankle Surgeons is approved by the Council on Podiatric Medical Education as a sponsor of continuing education in podiatric medicine.

Designation Statement:

The American College of Foot and Ankle Surgeons designates these educational activities for CPME Continuing Education Contact Hours. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Learning Objectives:

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

1. Integrate the latest technologies, materials and techniques into the treatment planning process for treatment of non-union or delayed union
2. Identify important pearls and pitfalls gleaned from case based discussions
3. Critically evaluate the available evidence related to various grafting and augmentation options
4. Evaluate treatment approaches and their application to your practice for bone healing delays and non-unions.

Instructions

1. Watch the online video presentations.
2. Fill in your contact information on the CE Test.
3. Complete the CE Test.
4. Complete the Evaluation form.
5. E-Mail (must have Microsoft Outlook) your CE Test and Evaluation form to:
eLearning@acfas.org

OR

Mail your CE Test and Evaluation form to
American College of Foot & Ankle Surgeons
Barbara Turbett, Education Assistant
8725 W. Higgins Road, Suite 555
Chicago, IL 60631-2724

6. Please allow 6 - 8 weeks to receive your CE confirmation.

* Please note: the minimum passing score is 70%.

Questions

1. **Factors that contribute to bone non-union include which of the following?**
 - a. Smoking
 - b. Movement at the fracture site
 - c. Infection
 - d. Poor blood supply
 - e. All of the above

2. **Surgical treatment of a bone non-union can be achieved by:**
 - a. Surgical removal of scar tissue between the non-union
 - b. Immobilization of the fracture fragments utilizing plates and pins
 - c. Utilization of a bone graft interface
 - d. External bone stimulation
 - e. All of the above

3. **Factors that increase the rate of non-union include:**
 - a. Age
 - b. Diabetes mellitus
 - c. Anemia
 - d. Medications such as prednisone
 - e. All of the above

4. **All of the following statements are true regarding regrowing bone grafts *except*:**
 - a. A bone graft cannot manifest biologic activity without adequate blood supply
 - b. Motion during healing impedes bone graft incorporation
 - c. Graft volume is the most critical failure when selecting a bone graft to manage non-union
 - d. Use of a structural allogenic bone graft to manage a non-union is a relative contraindication
 - e. Biologic response is influenced by load and stability

5. **Factors affecting osteoinductive potential of a bone graft include all of the following *except*:**
 - a. Size or shape of particles
 - b. Age of bone graft donors
 - c. Nature of the carrier
 - d. Extent of residual bone mineral content
 - e. Method of sterilization

6. **Non-union treatment should follow which of the following principles?**
 - a. Realignment
 - b. Stabilization
 - c. Stimulation
 - d. Both a and c
 - e. All of the above

Questions (Cont'd.)

7. Which of the following local factors is associated with the etiology of non-union?
 - a. Infection
 - b. Energy of fracture mechanism
 - c. Inadequate fixation
 - d. Regional edema
 - e. Increased motion between bone segments

8. A non-union of bone can be best diagnosed with which of the following imaging modalities?
 - a. Ultrasound
 - b. Radiography
 - c. CT scan
 - d. MRI without contrast
 - e. MRI with contrast

9. Which of the following should be avoided during joint arthrodesis surgery?
 - a. Fish scaling of subchondral bone
 - b. Fenestration of subchondral bone
 - c. Curettage of cartilage and subchondral bone
 - d. Minimal interruption of subchondral bone
 - e. Preservation of blood supply to bone

10. Revision surgery for a non-union using autogenous or cancellous tricortical or bicortical graft is being completed. What type of fixation is the most appropriate?
 - a. Internal fixation with fully threaded screws without compression and neutralization plating
 - b. External fixation with compression
 - c. Internal fixation using partially threaded screws or lag/compression technique
 - d. External fixation with callus distraction
 - e. Steinmann pin fixation

CE Test

Please type your information.

ACFAS ID #			
Name:			
Company:			
Address 1:			
Address 2:			
City:			
State:		Zip Code:	
Daytime Phone:			
E-mail:			
Signature:			

Please select your answer.

Question	Answers				
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Evaluation

1. The course achieved its learning objectives.

strongly agree agree neutral disagree strongly disagree

2. The course was relevant to my clinical learning needs.

strongly agree agree neutral disagree strongly disagree

3. The course was relevant to my personal learning needs.

strongly agree agree neutral disagree strongly disagree

4. The electronic method of instruction was conducive to learning.

strongly agree agree neutral disagree strongly disagree

5. The course validated my current practice.

strongly agree agree neutral disagree strongly disagree

6. I plan to change my practice based on what I learned in the course.

strongly agree agree neutral disagree strongly disagree

7. Any suggestions for the ACFAS e-Learning program?

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