

**2007 PAEA Annual Education Forum**  
**Spotlight Presentation**  
***Teaching Suturing Techniques in Therapeutic Skills Lab.....***  
***It is more than pig's feet lab.***

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**Overall Goal:**

To introduce innovative methods to teach the therapeutic skills of suturing and knot tying in the classroom setting.

**Educational Goals and Objectives:**

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

1. describe challenges in teaching suturing and knot tying skills in the classroom setting;
2. compare and contrast enduring versus non-enduring models for teaching suturing and knot tying skills;
3. describe traditional and three innovative techniques to assist students learning to perform the therapeutic skills of suturing and knot tying.

**Session Description and Summary**

The session will begin by contrasting experiential learning strategies that students utilize in achieving entry level technical skills of suturing and knot tying to rote memorization utilized in retaining didactic coursework content. Included will be a brief review of the literature recognizing societal pressures to improve safety in medical care that has altered the traditional concept of "learning by doing" to be less acceptable today. A pictorial comparison of various models of teaching tools and learning instruments will be shown.

Models of three innovative tools to teach suturing and knot tying will be presented. The first will demonstrate teaching advanced knot tying skills using a traditional knot tying board while wearing surgical gloves to which spray vegetable oil is applied, thus simulating the feel of body fluids/adipose tissue within a surgical field. A series of weighted cans is used in the second model which emphasizes the tactile skills necessary for tying suture with sufficient tensile strengths. With the third model a non-organic, inexpensive, reproducible yet enduring 3-dimensional suturing pad will be explained. It is used to teach techniques of suture placement

and drainage tubes securement. Each table will have examples of these teaching materials for participants to manipulate. A questions and answer session will conclude the presentation. Participants will leave with several new innovative concepts they may employ to teach suturing and knot tying to their students.

### **Selected References:**

Evans, Stephen, MD, Sarani, Babak, MD (2002). The modern medical school graduate and general surgical training. *Archives of Surgery*, 137(3), 274-277.

Gray, Jane, MD, Lacey, Candace, PA-C, Alexander, Sarah, PA-C, Andresen, Mary, PA-C (1995). Do PAs use the procedures and skills they learn? *Journal of the American Academy of Physician Assistants*, Feb, 45-51.

Reznick, Richard, MD, M.Ed., MacRae, Helen, MD (2006). Teaching surgical skills – Changes in the wind. *The New England Journal of Medicine*. Dec 21, 355(25):2664-9.

Sharp, Lisa K., PhD, Wang, Ralph, Lipsky, Martin S., MD (2003). Perception of competency to perform procedures and future practice intent: A national survey of family medicine practice residents. *Academic Medicine*, 78(9), 926-932.

Vozenilek, John, MD, Huff, J. Stephen, MD, Reznick, Martin, MD, Gordon, Ames A., MD, MPA (2004). See one, do one, teach one: Advanced technology in medical education. *Academic Emergency Medicine*, 11(11), 1149-1154.

### **Selected Resources:**

Ethicon

phone- 1-800/4-ETHICON

<http://www.ethiconliterature.com>

materials available- Knot Tying Manual (KTMOOR)  
Wound Closure Manual (EPBO10R3)  
Knot tying board (KBOOO)  
Multi-colored instructional tying string (KROPE)

All materials are available free of charge. Must allow several weeks for delivery. Occasionally are out-of-stock, so allow sufficient time when ordering is necessary.

American Academy of Facial Plastic and Reconstructive Society

phone- 703/299-9291

email- [info@aafprs.org](mailto:info@aafprs.org)

materials available- Wound Management and Suturing Manual

Manual includes detailed explanations and instructions, clear diagrams and review questions. Available at reduced cost with written request on letterhead and bulk quantity order. Must receive payment before ship order.

E-Suture.com

phone- 888/416-2409

email- [Anthony@Sutures.com](mailto:Anthony@Sutures.com)

materials- suture

Wide variety of drastically price reduced, outdated to nearly outdated suture material. If given sufficient time will work to survey their inventory to match your budget needs. Generally ship 2-3 days after order placed.