

## **A leg crossing technique is a low cost, low risk, and effective strategy to teach to pediatric patients resulting in reducing vasovagal symptoms” McIntyre-Patton et al (2017).**

Abstract:

Peripheral intravenous (PIV) catheter insertion is a common procedure that can cause vasovagal symptoms. Lower extremity muscle tensing techniques decrease these symptoms in adults. However, there are no studies examining this technique in the pediatric population.

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**OBJECTIVE:** This study aims to determine whether pediatric patients are able to perform the technique and to determine the effects of this technique on vasovagal symptoms in a pediatric population.

**DESIGN, SETTING, PARTICIPANTS:** A parallel-group randomized controlled trial was conducted with 28 patients cared for in a pediatric surgery unit.

**INTERVENTION:** Patients randomized to the experimental group performed the leg crossing and muscle tensing technique during PIV placement. Patients in the control group received standard care during PIV placement.

**PRIMARY OUTCOME MEASURE:** The primary outcome measure was the frequency of experiencing at least one vasovagal sign or symptom which included nausea, vomiting, dizziness, pallor, sweating/diaphoresis, and fainting.

**RESULTS:** Patients randomized to perform the technique were able to perform it without difficulty. There was a lower frequency of experiencing vasovagal symptoms among patients in the experimental group (15%) compared to patients in the control group (62.5%) (Fisher’s exact test,  $p=0.02$ ). The number of vasovagal symptoms experienced by patients in the experimental group ( $M=0.3$ ) was significantly lower than the number of vasovagal

symptoms experienced by patients in the control group ( $M=1.13$ ),  $t(26)=2.302$ ,  $p=0.03$ .

**CONCLUSION:** A leg crossing technique is a low cost, low risk, and effective strategy to teach to pediatric patients resulting in reducing vasovagal symptoms.

Reference:

McIntyre-Patton, L., Wanderski, S., Graef, D., Woessner, L. and Baker, R. (2017)  
Randomized Trial Evaluating the Effectiveness of a Leg Crossing and Muscle Tensing  
Technique on Decreasing Vasovagal Symptoms Among Pediatric and Young Adult Patients  
Undergoing Peripheral IV Catheter Insertion. *Journal of Pediatric Nursing*. October 28th. .

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