



Fall 2020
Volume 10 Number 3

What's TAPANing

The Official Newsletter of the West Texas and Panhandle Region

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Join the
[wesTpan Region](#)

group on Facebook!

Pictures, comments,
events are posted regularly!



Hello wesTpan members!

I hope you all were able to enjoy the summer while social distancing. As summer comes to an end, it is time to get ready for fall. Like many of you, my favorite season is fall.

Fall brings us to that time of year for our TAPAN state conference.

Unfortunately, it has been cancelled. No details have been released yet, but TAPAN leadership is working on making it a virtual conference. For more details, please check the website frequently <https://www.tapan.org>.

Our Member Spotlight has been an ongoing success. If you, or someone you know, would like to be mentioned in the Spotlight, please send us a picture and a short bio, and we will put it in the next newsletter. If there is more than one entry, we will publish the first one we receive and include the next one in the next newsletter. Everyone deserves their time in the spotlight for the work they do!

Are you interested in organizing an event with the other PeriAnesthesia nurses in your area to benefit your community or organization? If you would like to get something started, but are not sure what to do, please let us know.

We will help you with ideas or answer any questions you may have.

Again, if you have any ideas for activities or educational opportunities, please let us know. If you are interested in becoming more engaged in our regional activities, please contact us. Liaisons are needed for every area in our region.

We would love to have suggestions and any help from you that you can give. Please go to the ASPAN website at <http://www.aspan.org>, the TAPAN website at <https://www.tapan.org>, and the wesTpan website at <http://tapan-westtexas-panhandle.com> for information about our organization. You can also get ideas about ways to get more involved. Any time you can give will be greatly appreciated!

Thank you for all you do every day for your family, friends, coworkers and communities! Please stay healthy and safe during this ongoing COVID-19 pandemic.

Sincerely,

Trina Mora, MSN, RN, CAPA, CPAN



Notice



Visit www.TAPAN.org for updates about the 44th TAPAN State Conference

There are plans for virtual presentations. Details will be posted as soon as possible to the website.

Please plan to attend!

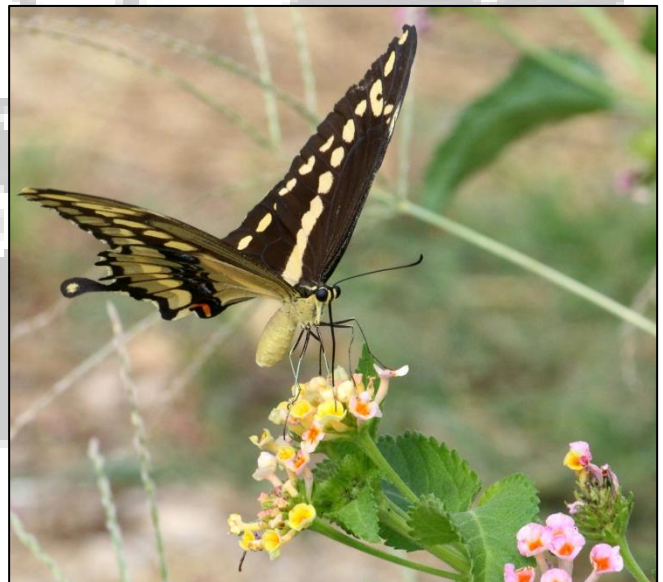
ASPAN Member-Get-A-Member Campaign

It's not too late to participate in the ASPAN Member-Get-A-Member Campaign, which runs from January 1, 2020 to December 31, 2020. Invite your colleagues to join ASPAN today! To thank you for your recruitment efforts, there are a variety of rewards:

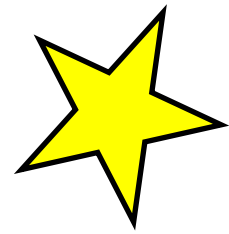
- Tier One – (Recruit 4 – 9 members) \$25 Amazon Gift card, ASPAN Member Pin, or ASPAN Team T-Shirt
- Tier Two – (Recruit 10 or more members) \$50 Amazon Gift card, ASPAN Zip Pullover, or ASPAN 2019-2020 Standards
- Tier Three – Recruiter of the Year (Recruits the most members for the calendar year)
Complimentary basic registration to the next ASPAN National Conference, complimentary 1-year ASPAN membership, and a commemorative plaque to be presented at National Conference.

You can obtain promotional materials and membership applications by contacting Doug Hanisch at the ASPAN National Office toll free at 877-737-9696, extension 215 or email dhanisch@aspan.org. Request as many copies as you like and make sure to put your name as the recruiting member on each application you distribute.

(article from [Breathline](#) vol.39 issue 36
November/December 2019 p.3)



Photos on this page courtesy William Tollett



Midland Memorial Hospital:



MASK UP 2020!!

It is amazing how much you can communicate with only your eyes. Keep smiling, we will get through this!

Recovery room nurses in Midland show you how it's done. Pictured here are (back row) Ruby Sapien RN, Natalie Kingston RN, Estela Jimenez RN, Manuel Gonzales, Karin LeBlanc RN, Michelle Seglem RN, Jason Frederick RN, and Trina Mora RN. (Front row) Jodi Turney RN, Jessica Herrera RN, Sarah Salcido RN, Norma Sanchez RN

Photo by Jessica Herrera



******Share the news from your area! Send your top sTar-bits to be included in ***
What's TAPANing to admin@tapan-westtexas-panhandle.com***

<p align="center"> \$\$ wesTpan Financial Report \$\$ Report as of August 31, 2020 INCOME (including dues, fundraising, donations, etc): \$73.98 EXPENSES (reimbursements, meeting expenses): \$ 0 BALANCE: \$2672.44 </p>

Save the date...2020!

24/7/365

Willingness to Serve

TAPAN and wesTpan websites are *always* ready

To take Willingness to Serve forms!

Show how much you care for your patients and your profession
By filling out a form found on the websites under the “forms” tab

Saturday November 7th

ASPAN Virtual Leadership Development Institute

Visit www.aspan.org registration is now open!

November 15th

Winter 2020 Newsletter submission deadline

Submit events, pictures, congratulations, and even jokes
to admin@tapan-westtexas-panhandle.com

July 1st - September 15th

ABPANC Fall Exam Registration Open

Check out the website. Be sure to review the new rules
for testing and recertification.

September 15th - November 15th

Fall CAPA CPAN exam dates

Visit the ABPANC website at: www.cpancapa.org

October 10, 2020

TAPAN's 44th Annual State Conference

Virtual Conference

Visit www.tapan.org for updates

April 25-29, 2021

39th ASPAN National Conference

In Orlando, Florida

Visit www.aspan.org for updates

Predicting Fluid Responsiveness by Passive Leg Raise

By Vicky Lessing BSN, RN, CCRN, CAPA

There are challenges in fluid resuscitation. Preventive measures are the most important element of resuscitation. Fluids are necessary to optimize stroke volume and distal tissue perfusion although administration of excessive fluids can increase patients' morbidity and mortality. The appropriateness of the selected intervention to guide the fluid management is often crucial to avoiding the deleterious effect of over-, under-, or inappropriate resuscitation. Over-resuscitation with fluid may result in pulmonary edema. Under-resuscitation would result in hypoperfusion of the tissue with complications of end organ damage or dysfunction such as renal failure. It remains a challenge to accurately predict when and how much fluid to administer to critically ill patients. Fluids are sometimes administered excessively in critical care areas. A patient who is not responsive is at risk for having poor outcome. In order to predict responsiveness, several tasks have been developed and passive leg raise (PLR) is one of them. Passive Leg Raise (lowering the head and upper torso from a 45° angle to lying supine [flat] while simultaneously raising the legs to a 45° angle) is a transient, reversible auto-transfusion method that simulates a fluid bolus and is performed to predict a response to fluid administration.

PLR maneuvers have been reported to transport 150–300 ml of blood from the legs to the central blood department...

Passive Leg Raise is gaining popularity since physicians are looking for safe, reversible methods and less invasive ways to predict fluid responsiveness.

Raising the lower extremities affects arterial blood flow by facilitating venous blood drainage from these extremities. In a recent research, the hemodynamic response to PLR maneuver, considered as auto-transfusion, has attracted widespread attention. This auto-transfusion or translocation increases cardiac preload by 10%–15%, and also CO in the same value, through Frank–Starling mechanism. PLR maneuvers have been reported to transport 150–300 ml of blood from the legs to the central blood department, through a process that is rapid, reversible, and applicable to clinical cases that require rapid volume expansion, such as in operating rooms, emergency departments or intensive care units.

Fluid responsiveness is defined by at least 10% increase in stroke volume (SV) in response to rapid infusion of 20-30 ml/kg or 500 ml of fluids over 10-15 min. The resuscitation fluids increase the mean circulating filling pressure greater than the increase in central venous pressure (CVP), thereby increasing the gradient for venous return. Fluid resuscitation with a goal of hemodynamic optimization is important in the clinical management of patients in shock. However, only approximately 50% of patients respond to fluid administration with a clinically significant ($\geq 10\%$ to 15%) increase in stroke volume. The administration of fluids to patients whose SV does not improve in response to fluid administration may cause fluid overload, which can exacerbate pulmonary edema, precipitate respiratory failure, and prolong mechanical ventilation. Alternatively, under-treated hypovolemia may lead to inappropriate use of vasopressors and may increase organ hypoperfusion and ischemia. To prevent overload and undertreatment of hypovolemia it is important to recognize which patients in shock will increase their stroke volume in response to a fluid challenge.

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Several studies have shown that passive leg raising maneuver reliably predicts preload responsiveness. The use of PLR to assess patients' volume status has been

added to revisions of the Surviving Sepsis Campaign bundle, a national evidence-based protocol. PLR causes a transient reversible auto-transfusion that temporarily increases preload, thus mimicking a fluid bolus. If the patient responds to PLR with a clinically significant increase in SV, the patient would most likely respond to a fluid bolus.

Benefits of PLR:

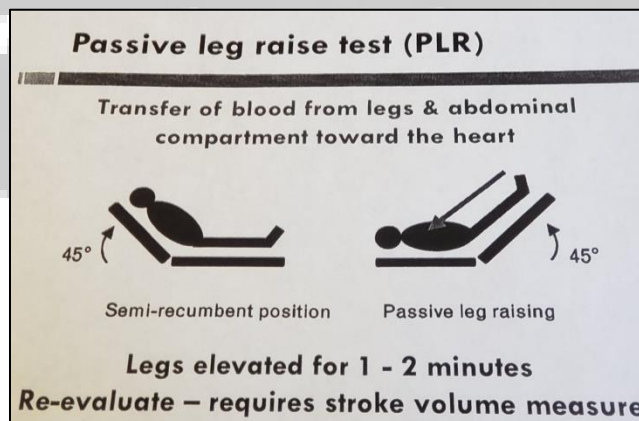
- Completely reversible
- Noninvasive
- Easy to perform in patients breathing spontaneously and with arrhythmias (but must use measures other than stroke volume variation and pulse pressure variation)
- Can be repeated many times to reassess preload responsiveness without any risk of inducing pulmonary edema or cor pulmonale in potential nonresponders

Disadvantages of PLR:

- Unreliable in severely hypovolemic patients: the blood volume mobilized by leg raising (which is dependent on total blood volume) could be small and can show minimal to no increase in cardiac output (CO) and blood pressure, even in fluid responsive patients
- Need to stop any other interventions during the test
- Positional changes may be contra-indicated in some patients
- Not useful in patients with raised intra-abdominal pressure
-

How to perform a passive leg raise correctly

1. The patient should not be supine, but be in semi-recumbent position. When the trunk is lowered (from 45°) then legs raised, the effects of leg elevation on cardiac preload are increased, thus increasing the sensitivity of the PLR.
2. Use real time CO monitor to assess the effects of the PLR. Any increases greater than 10% would suggest that the patient is preload responsive.
3. When performing PLR, ensure patient is stable beforehand. In unstable patients, CO changes could be due to instability rather than cardiac preload changes.
4. When performing the PLR, the bed should be adjusted to raise the legs to 45°. The patient’s legs should not be raised manually. Be aware that pain, cough, and discomfort could cause adrenergic stimulation which could affect the interpretation of the intervention. Aspirate bronchial secretions in vented patients prior to performing PLR and, if the patient is awake, explain the procedure to patient.



Conclusion:

Passive Leg Raise is a simple, rapid, safe maneuver and effective method for predicting fluid responsiveness. PLR can determine accurately and reversibly which patients are in the pre-load-dependent area of the Frank-Starling curve. An increase in end-tidal CO₂ (ETCO₂) \geq 5% after the maneuver predicts an increase in CO \geq 12% and \geq 15% in cardiac index (CI), with adequate sensitivity and specificity.

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Editor's Note:

What's TAPANing is the official Newsletter of West Texas-Panhandle Region.

Contributions to *What's TAPANing* are encouraged. All articles and comments relevant to Perianesthesia care must be double spaced and typed. The author is responsible for providing appropriate references for accuracy and reliability of information.

Submission Deadlines:

Feb 15th - Spring newsletter

May 15th - Summer newsletter

August 15th - Fall Newsletter

November 15th - Winter newsletter

Photos are property of the editor unless otherwise noted. Send comments, suggestions, and/or submissions (including individual achievements!) to admin@tapan-westtexas-panhandle.com