Passive Leg-raising Maneuver (PLRM)
A Procedure to Identify Patients as Responders or Nonresponders

PLRM is a simple, reversible maneuver that mimics rapid fluid loading and increases cardiac preload. This procedure enables the tester to obtain accurate measurements to help classify spontaneously breathing patients as responders or nonresponders. Because hemodynamic changes may be transient, this procedure should not be practiced without adequate preparation and understanding of all the physiology and effects. Additional information can be found in the webinar, Live Q&A: Functional Hemodynamic Monitoring.

PLRM procedures should be followed exactly as described in the steps below. Accurate measurements are essential to providing optimal care.

Use the formula below to determine if the patient is a responder or a nonresponder

**Formula**

\[
\Delta_{pl}SV = \left(\frac{SV \text{ during PLRM} - SV \text{ at baseline}}{SV \text{ at baseline}}\right) \times 100
\]

*Values >12 % indicate that the patient is a responder*

**Sample calculation**

Baseline SV = 69 mL/beat; PLRM SV\(_{\text{max}}\) = 75 mL/beat

\[
\Delta_{pl}SV = \left(\frac{75-69}{69}\right) \times 100 = 9%
\]

**Results**

Patient is a nonresponder