

Providence Health Care	Department: Respiratory Services	Date Originated: July 2008 Date Reviewed/Revised:
PROCEDURE	Topic: <u>Critical Care</u> – Maximal Inspiratory Pressure (MIP) / Negative Inspiratory Force (NIF) Using the NIFometer (Respiratory Therapy) Number: B-00-12-12029	Related Links: B-00-12-10012
<p>APPLICABLE SITES: St. Paul's Hospital Mount Saint Joseph Hospital</p> <p>GENERAL INFORMATION:</p> <p>Maximal Inspiratory Pressure (MIP) or Negative Inspiratory Force (NIF) measurements may reflect, to some extent, relative patient strength when weaning from mechanical ventilation.</p> <p>Although not part of the routine criteria for weaning assessment, MIP should be measured on patients where muscle strength is questioned, or as ordered by a physician.</p> <p>The NIFometer is a single patient use device, and should be kept at the patient bedside for future measurements. It should be disposed of when no longer required.</p> <p>EQUIPMENT:</p> <ul style="list-style-type: none"> ▪ NIFometer negative inspiratory force meter (single-patient-use) ▪ Personal Protective Equipment (PPE) as appropriate <p>PROCEDURE:</p> <ol style="list-style-type: none"> 1. Gather equipment, assemble, and explain procedure to patient. 2. Set NIFometer gauge to zero. 3. Connect the NIFometer to the endotracheal tube or tracheostomy tube. 4. To record the maximum negative inspiratory force, press down on the occlusion knob and then instruct the patient to inhale. <p>NOTE: Airflow will be willfully occluded by the clinician to record the inspiratory pressure measurements.</p>		

5. Release knob immediately after measurement.

NOTE: Measure the patient's effort for 15-20 seconds. It is not appropriate to occlude inspiration greater than 30 seconds.

NOTE: If the patient exhibits poor tolerance to the procedure (dysrhythmias, distress, decreasing SpO₂) stop the test immediately and resume previous therapy.

6. The memory pointer identifies and remains at the maximum inspiratory force.

NOTE: The maximum gauge measurement is -40 cmH₂O.

7. To reset the memory pointer, rotate the memory pointer knob counterclockwise.
8. Repeat measurement to obtain reproducible results as necessary.
9. When the measurement is complete, remove the NIFometer from the endotracheal tube or tracheostomy tube and re-connect breathing circuit as per prior therapy.
10. Document measurement and patient tolerance of the procedure onto the Respiratory Flowsheet and Respiratory Kardex as appropriate.