

UTMB RESPIRATORY CARE SERVICES <b>PROCEDURE - Incentive Spirometry</b>	Policy 7.3.8 Page 1 of 3
Incentive Spirometry  Formulated: 11/80	<b>Effective:</b> 10/17/94 <b>Revised:</b> 10/31/14 <b>Reviewed:</b> 08/14/23

## Incentive Spirometry

**Purpose** Identify accountability and standardize the use of Incentive Spirometry. Incentive Spirometry is a method that encourages the patient's achievement of maximal inspiratory volumes to inflate the alveoli and help prevent atelectasis by duplicating the yawn reflex. The purpose is to enable patients with varying inspiratory capacities to receive reinforcement in a planned program of inspiratory maneuvers and gradually regain their pre-operative inspiratory volume ability.

**Policy** **Accountability/Training**

- A Licensed Respiratory Care Practitioner may administer incentive Spirometry or a licensed nurse trained in the proper procedure with recognition of age specific requirements of patient population.
- Training must be equivalent to the minimal entry level in the Respiratory Care Service.
- After the initial setup and instruction by the therapist, the patient's nurse will be responsible for the continuing therapy

**Physician's Order** The physician's order must specify Incentive Spirometry.

Floor Patients: IS at bedside

- Initial set-up and teaching session only.
- Order must include "By RT" and frequency if RCS is to monitor and do the therapy with a patient on the floors.

ICU Patients:

- Physician's order must specify frequency of therapy.

**Indications** In the pre/post operative patient with compromised inspiratory efforts, the bedridden patient, or in any patient who benefits from a deep breath and is able to voluntarily cooperate with this method.

**Contraindications** Patient is unable or unwilling to understand or demonstrate proper use of the incentive spirometer

**Equipment**

- Volume and/or goal oriented incentive spirometer
- Predictive inspiratory capacity nomogram.

**Procedure**

Step	Action
1	Verify physician's order and identify patient using two identifiers.

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2	Wash hands.
3	Assemble Incentive Spirometer Unit: <ul style="list-style-type: none"> <li>• Remove all parts from plastic bag.</li> <li>• Attach mouthpiece to one end of wide-bore tubing and attach other end of tubing to the spirometer.</li> </ul>
4	Explain therapy to patient, by relating it to disease or injury state.
5	Explain procedure to patient.
6	Position patient for best effort, as allowed by condition (i.e., sit and brace if indicated).
7	Auscultate chest.
8	Instruct patient to: <ul style="list-style-type: none"> <li>• Breathe out into the room with a complete exhalation.</li> <li>• Place mouthpiece in mouth, between teeth, and seal lips around mouthpiece.</li> <li>• Inhale as deeply and slowly as possible from the mouthpiece.</li> <li>• Continue to hold for three (3) seconds.</li> <li>• Relax, remove mouthpiece and let air out into the room.</li> </ul>
9	Achievement levels may be indicated with the achievement levels arrows provided with some units.
10	Repeat exercise. Each treatment should consist of at least ten (10) deep inhalations, followed by three to five normal breathing cycles. Instruct patient to remove mouthpiece from mouth after each deep inhalation and post-inspiratory hold.
11	Have patient rest as needed.
12	Follow the IS therapy with several cough/deep breath to remove any secretions. To assess patient's own ability to clear lungs.
13	Following therapy, auscultate chest to evaluate effectiveness of therapy.
14	Explain to the patient that the exercise may be repeated every hour on own.
15	Record pertinent data in EPIC per policy 7.1.1

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16	Document Patient/Family Teaching on the Interdisciplinary Patient/Family Teaching form per policy 7.1.17
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### Assessment of Outcome

The effectiveness of Incentive Spirometry will be judged on how well it accomplishes the stated clinical goals.

Methods used to evaluate effectiveness include, but not limited to:

- Breath sounds - before and after therapy.
- Volume(s) achieved per therapy session.
- Number of maneuvers at each volume(s) achieved.

### Infection Control

Follow procedures outlined in Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services.  
<http://www.utmb.edu/policy/hcepidem/search/02-24.pdf>

### References

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