



**Lifespan Cardiovascular Institute**

Rhode Island Hospital • The Miriam Hospital  
Newport Hospital

*Delivering health with care.®*

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Center For Cardiac Fitness  
Pulmonary Rehab Program  
The Miriam Hospital

## **Patient Education**

### **Lung Disease and Swallowing**

COPD is a disease of the respiratory system. COPD stands for Chronic Obstructive Pulmonary Disease and includes such conditions as emphysema, chronic bronchitis and asthma. People with COPD and other lung diseases such as pulmonary fibrosis can develop a swallowing dysfunction called DYSPHAGIA. Dysphagia can often have severe consequences including an exacerbation or worsening of COPD and pneumonia.

Swallowing and respiration are the only two systems in the body that share a common part of the body, namely the throat. Swallowing and respiration are considered reciprocal functions. This means that when we are swallowing, we should not be breathing and when we are breathing, we should not be swallowing. During breathing, the airway is open and the tube to the stomach is closed. During swallowing, the airway is closed and the tube to the stomach, the esophagus, is open. It takes finely coordinated movements of many muscles to achieve proper timing of this! People with COPD often have trouble with this timing.

The airway closing during swallowing is called an apneic period. During a whole meal, there are hundreds of these apneic periods. Sometimes, when people have lung disease, this causes increase shortness of breath and fatigue. This fatigue may result in poor timing between respiration and swallowing. Sometimes, a person with COPD or Lung disease may inhale vs. exhale after the swallow which causes penetration or “aspiration” of food or liquid into the trachea (the tube to the lungs) or the larynx (voice box) . This is can cause an “Aspiration Pneumonia”.

The suggestions on the following page are given to increase your safety during meals.

**Patient Education**  
**Lung Disease and Swallowing**

1. Eat at a slow rate
2. Put the fork/spoon down between bites to help slow down
3. Avoid drinking through straws
4. Avoid consecutive drinking of liquids as this requires sustaining airway closure which is difficult for people with lung disease
5. Do not eat when short of breath; do recovery breathing first (pursed lip breathing)
6. Exhale after swallowing
7. Do not exercise immediately prior to eating
8. Take small bites and sips
9. ALWAYS eat in an upright position and do not lie down right after eating
10. Do not talk and eat at the same time. Speech requires coordinated timing of the breathing as does swallowing. Precise timing of both these mechanisms is too difficult for people with lung disease

### **Identifying a Swallowing Problem**

1. Drooling
2. Difficulty chewing
3. Choking
4. Food left in the mouth
5. Feeling of lump in the throat
6. Changes in eating habits
7. Notable delay initiating the swallow
8. Wet gurgle voice
9. Spiking a fever
10. Changes in respiration
11. Coughing with medication or after a meal
12. Chest X-Ray revealing infiltrate
13. Heartburn
14. Chest pain
15. Hoarse voice

### **Causes of a swallowing Problem**

1. Stroke
2. Head Injury
3. Spinal cord injury
4. Muscular dystrophy
5. Cerebral palsy
6. Parkinson's disease
7. Motor neuron disease
8. Multiple sclerosis
9. Myasthenia gravis
10. Alzheimer's disease
11. Tumors of the head and neck, and their treatments
12. Lung disease/COPD

### **Dangers of a Swallowing Problem**

1. Dehydration
2. Malnourishment
3. Pneumonia
4. Increased secretions

5. Repeated admissions and treatments for: bronchitis, asthma, pneumonia, "colds"  
Shortness of breath, respiratory infections