

## MP.047- Cough Assist Devices

Maryland Physicians Care considers **Cough Assist Devices** medically necessary when used as an alternative to tracheostomy and/or other invasive procedures and is indicated when ALL of the following criteria are met:

1. Neuromuscular disease or high spinal cord injury; AND
2. The condition is causing a significant impairment of the chest wall and/or diaphragmatic movement, such that it results in an inability to clear retained secretions.

### Limitations

1. Careful consideration must be given before mechanical in-exsufflation is used for individuals with any of the following conditions:
  - Any patient with a history of bullous emphysema,
  - Known susceptibility to pneumothorax or pneumo-mediastinum,
  - Known recent barotrauma.
2. Requests must be signed and dated by the treating physician, kept on file by the supplier, and made available upon request.

### Background

The cough assist device, also known as, the mechanical in-exsufflation device is designed to inflate the lung with positive pressure and assist coughing with negative pressure. It is advocated for use in patients with muscular dystrophy, myasthenia gravis, poliomyelitis, or other neurologic disorder with some paralysis of the respiratory muscles, such as spinal cord injury.

These devices work by assisting patients in clearing secretions by gradually applying positive pressure to the airway to achieve a good inspiratory lung volume. The device then cycles in reverse to apply negative pressure to achieve an effective expiratory cough flow. This pressure cycle stimulates a cough, which assists in clearing broncho-pulmonary secretions. These mechanical devices, which can be used for children and adults, can be used at home, outside the home or in a hospital/institution.

In addition, effective clearing of broncho-pulmonary secretions reduces the risk of respiratory complications. It clears secretions from peripheral airways, avoids airway

damage and is effective in situations when cough muscles do not work. When used timely, it can avoid hospitalization and the need for a tracheostomy.

**Codes:**

<b>CPT Codes / HCPCS Codes / ICD-10 Codes</b>	
<b>Code</b>	<b>Description</b>
<b>HCPCS codes covered if selection criteria are met (If Appropriate):</b>	
A7020	Interface for cough stimulating device, includes all components, replacement only
E0482	Cough stimulating device, alternating positive and negative airway pressure
<b>ICD-10 codes covered if section criteria are met:</b>	
B91	Sequelae of poliomyelitis
G12.0	Infantile spinal muscular atrophy, type I [Werdnig-Hoffman]
G12.1	Other inherited spinal muscular atrophy
G12.20	Motor neuron disease, unspecified
G12.21	Amyotrophic lateral sclerosis
G12.22	Progressive bulbar palsy
G12.23	Primary lateral sclerosis
G12.24	Familial motor neuron disease
G12.25	Progressive spinal muscle atrophy
G12.29	Other motor neuron disease
G12.8	Other spinal muscular atrophies and related syndromes
G12.9	Spinal muscular atrophy, unspecified
G14	Postpolio syndrome
G35	Multiple sclerosis
G70.2	Congenital and developmental myasthenia
G70.89	Other specified myoneural disorders
G70.9	Myoneural disorder, unspecified
G71.01	Duchenne or Becker muscular dystrophy
G71.02	Facioscapulohumeral muscular dystrophy

G71.09	Other specified muscular dystrophies
G71.11	Myotonic muscular dystrophy
G71.2	Congenital myopathies
G72.41	Inclusion body myositis [IBM]
G82.50	Quadriplegia, unspecified
G82.51	Quadriplegia, C1-C4 complete
G82.52	Quadriplegia, C1-C4 incomplete
G82.53	Quadriplegia, C5-C7 complete
G82.54	Quadriplegia, C5-C7 incomplete
S14.0XXS-S14.109S	Unspecified injury at unspecified level of cervical spinal cord, sequel
S14.2-S14.2XXS	Injury of nerve root of cervical spine, sequela
S14.9XXS	Injury of unspecified nerves of neck, sequela
S24.109S	Unspecified injury at unspecified level of thoracic spinal cord, sequel
S24.2XXS	Injury of nerve root of thoracic spine, sequel
S24.3XXS	Injury of peripheral nerves of thorax sequela
S24.8XXS	Injury of other specified nerves of thorax, sequela
S24.9XXS	Injury of unspecified nerve of thorax, sequela
S14.101A-S24.154A	Cervical/thoracic spinal cord injury

**References**

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#### **Archived References**

1. Hayes Health Technology Brief. Cough Assist Mechanical Insufflation-Exsufflation Device (Philips Respironics) for Respiratory Insufficiency. Reviewed April 4, 2017. Archived May 30, 2018.

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