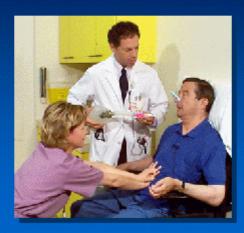
Online Education
from
The Institute for Rehabilitation Research and Development (IRRD)
at The Rehabilitation Centre (Ottawa)

http://www.irrd.ca/education/



# Assisted Cough Why?

- Coughing is the primary mechanism of clearing secretions
- It requires a maximal insufflation (volume greater than 2.3 L) with strong contraction of the abdominal & intercostal muscles
- Clients with weak cough are at risk of pulmonary infection

What?

 Client or caregiver replaces weak abdominal and intercostal muscles with forceful arm movements



#### **Assisted Cough**

When?

- Follows a deep spontaneous or volume augmented breath
- Once a day for clients with impaired cough
- More often if phlegm or infection present
- Best done before meals or at bedtime

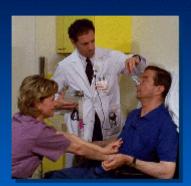
How?

#### Position:

- Seated or supine with head slightly elevated
- Back & head must be fully supported
- Straight posture

#### If seated:

- Buttocks as far back in the chair as possible
- Lock wheelchair and position against a wall to prevent tipping



# Assisted Cough Helpful Hint

To ensure straight posture, you may need to have a small rolled towel placed horizontally just below the shoulder blades



Techniques

- 1. Caregiver-assisted abdominal thrust
- 2. Caregiver-assisted lateral costal compression
- 3. Client self-assisted cough







#### **Assisted Cough**

**Abdominal Thrust - Why?** 

Most closely simulates abdominal muscles during cough



**Abdominal Thrust - Hand Placement** 

 Landmark naval and place heel of one hand on abdomen just above navel





#### **Assisted Cough**

**Abdominal Thrust - Hand Placement** 

- Place the other hand on top of the first hand with fingers interlocked and pulled away from the body
- Avoid the ribs and xiphoid
- Keep elbows straight





**Abdominal Thrust - How?** 

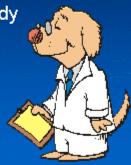
- The client takes a deep spontaneous or augmented breath
- Breath is held
- The caregiver pushes once, upwards and inwards under the rib cage just prior to saying "cough"



#### **Assisted Cough**

**Abdominal Thrust - Helpful Hints** 

- The caregiver must shift their body weight through straight arms
  - If thrust is not forceful enough, secretions may not be mobilised
- At the command of "cough" the client attempts to cough simultaneously with the thrust



**Abdominal Thrust** 



# **Assisted Cough**

**Abdominal Thrust - Contraindications** 

- Pregnancy
- Abdominal aneurysm
- Recent abdominal surgery
- Acute upper GI bleed



Abdominal Thrust Caution



- Filters in the vena cava may be dislodged
- Insertion of new abdominal feeding tube (< 48 hrs)</li>

**Lateral Costal Compression - Hand Placement** 

- Locate the lower third of the ribs
- Place a hand on each side with fingers pointing to the back



#### **Assisted Cough**

**Lateral Costal Compression - How?** 

- Client takes a deep spontaneous or augmented breath
- Breath is held
- Caregiver squeezes the ribs up and in just prior to saying "cough"
- At the command of "cough" client attempts a cough simultaneously with the compression