# Cough Assist®, It is the Cane of ALS life

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#### My encounter with the ALS

My mom has a disease that will kill her before I turn 20" My best friend said these words to me "when I was only14. At the time I didn't know anything about ALS.

Six years later, however, I got to see my friend's mother during my practical training to become a physiotherapist. She had been put on a Tracheostomy Positive Pressure ventilator, and using a large letter-board she said to me, "Satomi-chan, please become a good physiotherapist".

Thinking back to that day, she might want to say that I should learn from the real experience with the lives of ALS Patients in a hospital. Only by those a few word.

#### **First meeting with Mr. Okabe**

Four years ago, I met Mr. Okabe at an intractable disease outpatient clinic.

I had never seen such a positive, optimistic patient. That was my first impression of him.



#### **>The reason for introducing Mr. Okabe to the Cough Assist®**

What could I do for this patient as a physiotherapist? Was there some way I could make his current lifestyle even a little bit better before he had to begin using a ventilator? This was the thought that led me to introduce him to the Cough Assist®

device that I am here to talk about today.



Mr. Okabe decided on his own to be put on a ventilator. On his ventilator, he has come all the way here to Sydney with me. His daily life has been greatly improved by Cough Assist®, I hope all of you to know a bit more about this device by the end of this presentation.

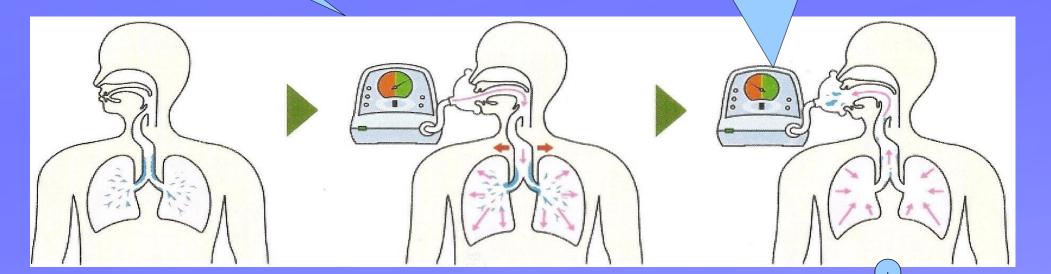
# The system is very simple.

The lungs are expanded by applying positive pressure (40cmH<sub>2</sub>O)to the respiratory tract.

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The internal pressure in the respiratory tract is raised for 0.1 seconds. The inserted air is sucked out with negative pressure  $(-40 \text{ cmH}_2\text{O})$  and phlegm is removed.

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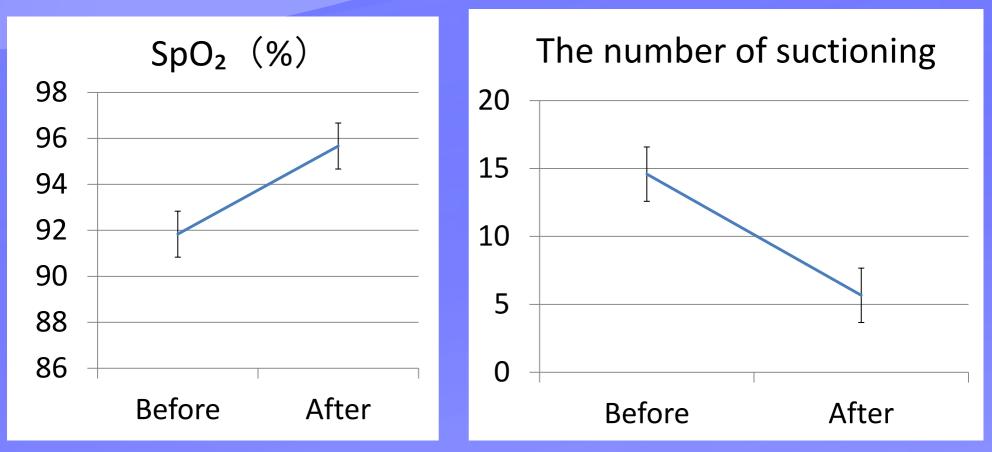


#### **Purpose: Remove phlegm**

Effects: ① Prevents pneumonia and lung apathy ② Facilitates deep breathing

### **<Effects of using Cough Assist during NPPV**

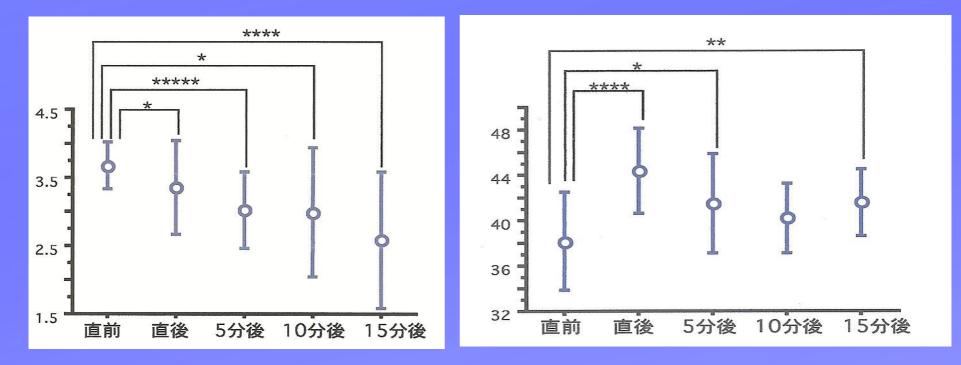
The SpO<sub>2</sub> and the number of suctioning per day before and after 4 months of using Cough Assist <sup>®</sup>.



- SpO<sub>2</sub> increased from 92 % to 96 % after 4 months of using the machine.
- The number of suctioning was decreasing from 15 to 5 times per day.

### **<Effects of using Cough Assist during TPPV**

- The perceived difficulty of breathing and the dynamic compliance of ventilation using TPPV.
- The cough assist was operated between first and second data.
- The 5, 10, and 15 minutes after operation were shown in right side.



- The perceived difficulty decreased immediately after using, and kept 15 minutes.
- The breathing compliance improved after using Cough Assist.

### **<Effects of use>**

Cough Assist seems to have had 3 effects on Mr. Okabe

-1-It Improves his oxygen blood oxygen level. -2-It Improves the mobility of his thorax. -3-

There are relaxation effects.

### ~What a patient who uses Cough Assist wants to tell you K Hiroki

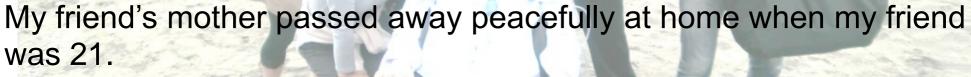
Healthcare professionals keep taking issue with the "evidence", but...

How easy the phlegm is removed! What a easy breath I can do!

What would they think if they face such a surprising experience with their own eyes, and if they heard the clear difference in lung sounds with their own ears?

> For the sake of patients, Please believe your own eyes and ears Please consider introducing this device

The Cough Assist played an important role in improving Mr. Okabe's life before he went on a ventilator. And as part of his current routine this device continues to provide him with periods of relaxation and comfort.



Now I think she is up in heaven looking down on me, saying "Don't stop now, Satomi-chan, keep on learning!"

> So I say to Mr. Okabe "What country are we going to visit next?"

- In Japan, the Cough Assist has been covered by public medical insurance since April 2010.
- That is why the ALS patients become able to use the Cough Assist without any monthly expense.
- ✓This is owing to the lobbying of the Japanese ALS association.
- ✓We would like you to be interested in the machine for improving the quality of life in ALS patients.



# Final annouce

- We have prepared a manual for using the Cough Assist for ALS patients.
- This manual instructs briefly the background, principles, scientific basis and the typical procedures for ALS patients.
- Please take the manual freely after the presentation.



# Thank you for your attention.



