Amyotrophic Lateral Sclerosis (ALS) and the Trilogy Ventilator

Lungs, the Diaphragm, and ALS

The lungs or the organ in the body where air is exchanged – oxygen is pulled in and carbon dioxide pushed out with the help of muscles around the lungs. The diaphragm, which is under the lungs is the biggest muscle that is used to move air in and out of the lungs. In ALS, the diaphragm becomes weak and does not work the way it should. The person with ALS is not able to take deep enough breaths in or exhale fully. The person may feel short of breath and fatigued during the day. During the night, the person breathes shallower than they should. The leads to not enough oxygen reaching the body cells and carbon dioxide, the gas that needs to be breathed out or exhaled is not pushed out of the body. Because of the breathing problem, the person does not “ventilate” properly.

Trilogy Ventilator by Philips Respironics

The Trilogy Ventilator is a ventilator that supports breathing without the need for intubation or a surgical airway. This type of ventilator does the work of the human diaphragm. Using positive pressure, it forces the person with ALS to breathe deeper and exhale more fully. It is used with a mouth piece during the day. The person uses a “sip and puff” mode and breathes on it when feeling short of breath. At night, when their breathing is more at risk, a face mask is worn. The ventilator will help rest the persons lungs and diaphragm and other respiratory muscles. The ventilator will prolong survival and improve quality of life for people with ALS.

Face Mask

The respiratory therapist fits people with the mask that works best for them personally. Sometimes a mask must be tried at home and sometimes another mask may end up working better. Once the right mask is decided on and the person is wearing the mask when they need it then their energy level goes up and they will feel more rested. There are different types of masks that work well.

- Nasal pillow mask (fits inside the nose or nostrils)
- Full face mask (goes over mouth and nose)
- Nasal Mask (goes over only the nose)