

RESOURCE GUIDE

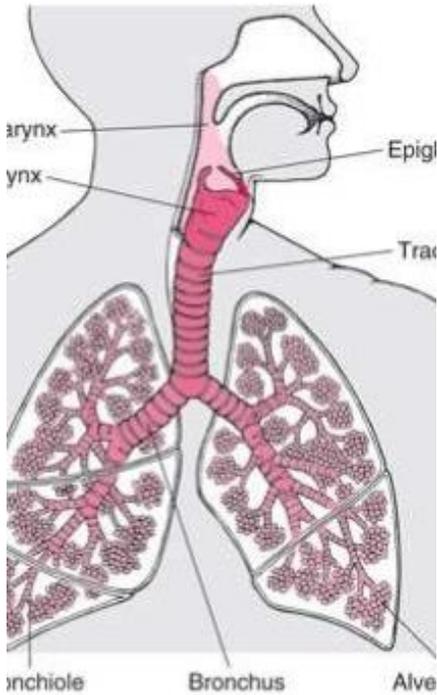
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SECTION 4 - Breathing

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EMORY

ALS CENTER *Celebrate Life...
Imagine a Cure*



Respiratory Therapist

Our respiratory therapists specialize in the respiratory effects of ALS and educating ALS patients and families on these changes. The respiratory therapist will evaluate breathing and measure respiratory muscle strength in the patient. Respiratory therapists also provide expertise in the necessary equipment, and the importance of early intervention, required to alleviate symptoms from the decline in respiratory strength often seen from ALS. They will also act as a liaison between the patient and home health agencies to meet patients' respiratory needs.

RESPIRATORY HEALTH

ALS causes the voluntary muscles (muscles we can consciously control such as those in the limbs) to lose strength over time. One of those muscles, although we may not think about it as being under voluntary control, is the diaphragm, responsible for drawing air into the lungs and enabling us to breathe. Measurements that you will have done every time you come to visit the clinic include two tests designed to tell the medical team how well you are breathing. One, the forced vital capacity (FVC), involves blowing your breath out forcefully into a machine called a spirometer. This indicates how much air your lungs can hold as compared to a standard person of your same age, height, and gender, and is expressed as a percentage. The other, called the negative inspiratory force (NIF), involves the opposite maneuver, drawing in your breath as hard as possible through a mouthpiece with a pressure meter attached to the end. The NIF test is measuring the strength of the diaphragm muscle itself.

The average vital capacity for adults not affected by ALS is between 80 – 120%, and a normal NIF is a reading greater than -60 on the pressure meter. If your VC has dropped below 50%, and/or your NIF is below -60, the neurologist will prescribe use of a machine to provide Non Invasive Positive Pressure Ventilation (NIPPV) to reduce the work of breathing and to help your lungs fully inflated and clean. There are several different types of NIPPV, and you may hear the terms biPAP, Trilogy, or AVAPS. These machines are similar to cPAP, a type of breathing equipment that you may be familiar with.

If the neurologist has prescribed NIPPV it is very important to begin using it as instructed. Research strongly shows that using that NIPPV is one of the best ways to keep your lungs as healthy as possible for as long as possible, which can have a direct impact on disease progression. We can help answer any questions you have, and the respiratory therapist who comes to your home to set up the equipment will also be a primary resource to assist you.