

## RESPIRATORY CONDITIONS

Our bodies have an amazing natural defense and repair system to keep us healthy. Our respiratory system has millions of little hair cells sticking out into the channels of our bronchial tubes. These hair cells have a natural rhythm which directs mucus and inhaled bacteria up the bronchial tubes into the throat where they are swallowed and the bacteria are killed by the hydrochloric acid in our stomachs. This layer of mucus normally contains copious amounts of a natural molecule called glutathione, which helps to detoxify inhaled chemicals and toxins as well as provide a steady repair of the linings of the bronchial tubes. Adequate nutrition is necessary to keep up the production of glutathione and glutathione or precursor supplements can be taken as an oral supplement where blood and urine tests ([Genova Diagnostics](#)) demonstrate low levels or increased need.

The European medical literature, experience of environmental physicians in the Seattle area ([American Academy of Environmental Medicine](#)), as well as our own experience have demonstrated that glutathione inhalations ([Boulevard Compounding Center](#)) can be taken with beneficial results in nine out of ten patients with chronic respiratory conditions. Whereas this is a natural substance, it cannot be patented, so pharmaceutical companies will not produce it, is not available in conventional drug dispensaries, and needs to be produced by compounding pharmacies. Look in the Yellow Pages to find the one nearest you. When glutathione is taken by nebulization, in a similar fashion to albuterol nebulization, patients usually experience improvement in their lung condition and a reduction in the use of their conventional lung drops; it may even retard the progress of chronic obstructive pulmonary disease (COPD).

### References:

1. Rahman, I., MacNee, W. Lung glutathione and oxidative stress: implications in cigarette smoke-induced airway disease., Am J Physiol. 1999 Dec; 277(6 pt 1):L1067-88.
2. Rahman, I., Inflammation and the regulation of glutathione level in lung epithelial cells., Antioxid Redox Signal. 1999 Winter; 1(4):425-47.

3. Rahman, I., MacNee, W. Oxidative stress and regulation of glutathione in lung inflammation., *Eur Respir J.* 2000 Sep; 16(3):534-54.