

Some people with Alpha-1 COPD develop lots of thick, sticky mucus that seems to be trapped in their throat or lungs. This makes it difficult to breathe. Mucolytics thin out the sticky mucus, so it's easier to cough up.

You may take mucolytics to treat:

- Pneumonia
- Bronchitis
- Emphysema
- Bronchiectasis (If it's causing a lot of thick, sticky mucus in your lungs.)

**Guaifenesin** is a mucolytic **and** an expectorant. At high doses, it thins your mucus. However, if you take it regularly, it increases the amount of mucus you have. So most people just take it for short periods when their mucus gets too thick.

**Acetylcysteine** is another mucolytic. People take it 3-4 times a day by nebulizer until their mucus decreases to a manageable level. Acetylcysteine can also increase the amount of mucus you produce and is sometimes irritating to the airways.

**Dornase alpha** is used in special cases, such as for cystic fibrosis or severe bronchiectasis due to Alpha-1. This mucolytic enzyme destroys or "chews up" DNA. Doing so thins the mucus in your airways. Dornase alpha is very expensive because it's made by genetically engineering cells and growing them in a lab.

## Possible side effects of mucolytics include:

- Nausea
- Runny nose
- More mucus
- · Coughing up blood



Acetylcysteine and dornase alpha can cause bronchospasm. That's when the muscles in your airways narrow and block airflow. To minimize bronchospasms, your doctor may ask you to use a bronchodilator before (or with) the mucolytic. (Bronchodilators open your airways.)

Although a few patients with thick mucus may benefit from mucolytics, the overall benefits seem to be very small. Mucolytics thin your mucus, but they also allow the mucus glands in the lung to produce more mucus. So, they're usually used for a short time, just to help you get through a <u>flare-up</u>. They aren't commonly recommended for Alpha-1 COPD.

For more in-depth information on this topic, please visit the Big Fat Reference Guide (BFRG). If you are enrolled in AlphaNet's Subscriber Portal, you can access the BFRG here.

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