

# DNase (Dornase Alpha)

Information for Patients and Parents

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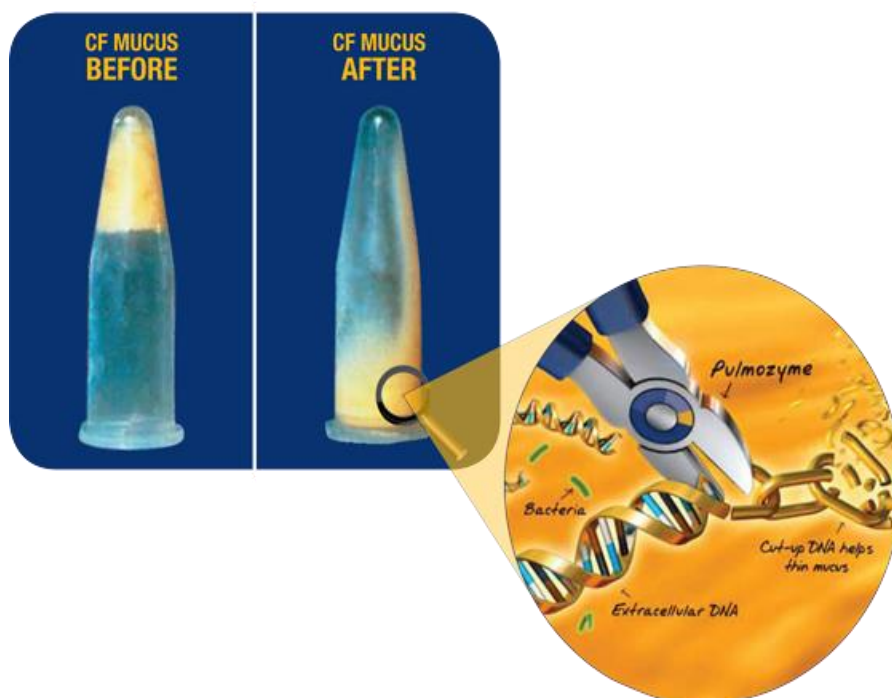
**Name of drug:** Dornase Alpha (DNase)

**Brand name:** Pulmozyme™

## What does it do?

Sometimes the mucus that lines the lungs is thicker than normal and is difficult to clear. This thick mucus contains a lot of deoxyribonucleic acid (DNA). Bacteria can become trapped in the mucus and cause infection.

DNase is a type of enzyme that breaks down the DNA and therefore reduces the thickness of the mucus making it easier to clear. Once the DNA bonds are broken they do not rejoin for 24 hours. There is evidence showing improvements in lung function 3 months after starting DNase.



## How is it given?

The physiotherapist will provide a nebuliser, which is a drug delivery device used to administer medication in the form of a mist which is inhaled into the lungs. DNase comes in plastic ampoules containing 2.5mg of solution.

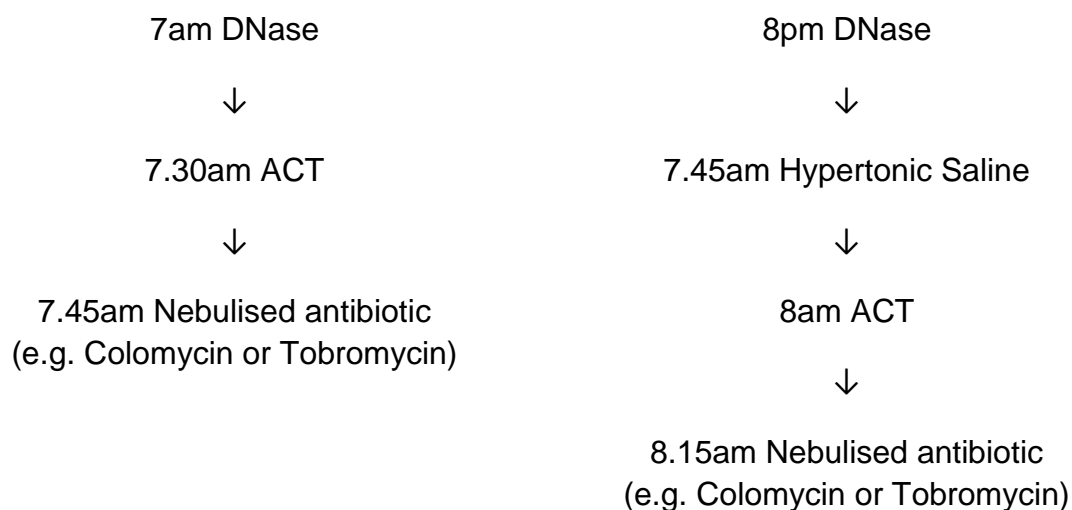


## Important points

- DNase should always be kept in the fridge and taken out 10 minutes before use to allow it to reach room temperature
- DNase should be kept in its packaging until it is ready to use to keep it away from strong light
- A separate chamber should always be used for DNase because nebulised antibiotics can break it down and stop it from working
- DNase takes a minimum of 30 minutes to work and patients should wait a minimum of 30 minutes to perform airway clearance techniques (ACT)
- The process of nebulising DNase should take no longer than ten minutes and there will always be a small bit of solution left in the chamber.

## Regime

Your physiotherapy regime and timing of treatment to maximize effectiveness can be individually discussed with your physiotherapist but here are two examples of regimes:



## References

Pressler T. 2008. Review of recombinant human deoxyribonuclease (rhDNase) in the management of patients with cystic fibrosis. *Biologics* 2(4): 611-617

RCPCH. 2011. Information for parents and carers: Dornase Alpha for Cystic Fibrosis. Medicine for Children: UK.

The Cochrane Collaboration, 2009. Timing of Dornase Alpha for Cystic Fibrosis (Protocol). Wiley: UK.

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