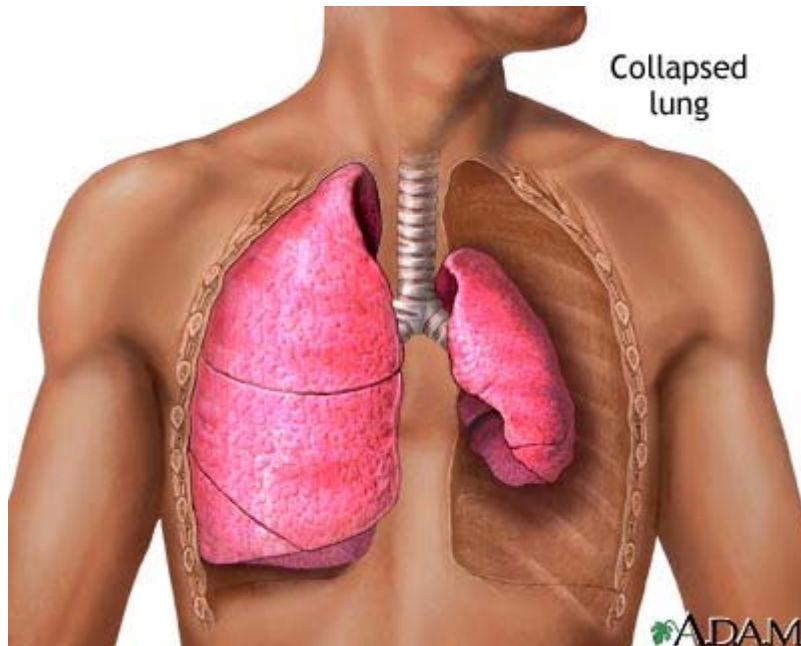

PNEUMOTHORAX

What is pneumothorax?

Pneumothorax occurs when air gets into the space between the outside of the lung, and the lining at the back of the ribs. This is commonly because of a small tear or rip in the lung, which allows air to escape into the pleural space. The air then forces the lung to collapse down. This often happens suddenly, without warning. It can be very serious, and is occasionally life threatening.



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What causes it?

Usually a pneumothorax is a spontaneous event. It is most common in tall, teenage boys and young men, but can occur in girls, and at any age. It may be associated with underlying problems with the lung. People who have disorders of collagen formation (e.g. Marfan's Syndrome, Ehler's Danlos) are more at risk of pneumothorax than the general population. Some people have abnormal lungs with over distended areas near the top of the lungs. Those who have an underlying lung disorder (e.g. asthma, cystic fibrosis etc) are more at risk of pneumothorax than those without such problems.

Pneumothorax can also occur after traumatic injury (e.g. a punctured lung after breaking a rib).

How might it affect my child?

Immediate symptoms from pneumothorax include pain in the chest, and shortness of breath. Often the pneumothorax is described as being 'under tension.' This means the air in the pleural space accumulates, and so the lung gets more and more compressed. This causes severe lack of oxygen to the blood, and can be life threatening.

How is it treated?

A small pneumothorax (<10% of the lung volume) can usually be left alone, and will resolve over a few days.

Larger pneumothoraces or those under tension require a chest drain to be inserted. This may be done under an anaesthetic, but if the person is very unwell, it may need to be done as quickly as possible, as an emergency procedure.

The drain is usually left in for 2-5 days until there is no more air accumulating in the pleural space. If the lung doesn't re-expand during this time then it may be necessary to consider an operation to repair the leak in the lung. Surgery can also be performed to "stick" the lung to the inner surface of the lining of the ribs (pleurodesis).

Can it recur?

Some individuals are at risk of recurrence of the pneumothorax. If this is the case, then sometimes a pleurodesis is performed electively (as a planned procedure) to stop further pneumothoraces happening. In order to better understand the risk of recurrence, some people undergo CT scanning of their chest to help make a decision about whether surgery is needed or not.

Are there any other precautions necessary?

Current Air New Zealand advice (Aug 2011) is that one cannot fly until the pneumothorax has resolved in chest xray. SCUBA diving is not permitted at all after someone has had a pneumothorax (PADI Guidelines).

This information sheet is produced to answer some of the questions parents ask about pneumothorax. It is not intended to replace discussion with your child's Respiratory Specialist and you are encouraged to discuss your child's condition with the specialists when you attend clinic.