Respiratory System

The following case studies relate to injuries to the Respiratory System.

More detailed information regarding the assessment of injuries to the respiratory system may be found at Chapter 8 of the MAA’s Permanent Impairment Guidelines and Chapter 5 of the AMA4 Guidelines.

The Motor Accidents Authority of NSW makes no warranties or representation about the accuracy or completeness of the information contained in these Case Studies. It should be noted that the information contained herein is not provided as a substitute for legal advice.
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Injuries: Fractured Ribs and Pneumothorax

A 51 year old male was hit from behind by a front end loader which ran over his torso. He sustained multiple left sided rib fractures, a flail chest (paradoxical movement of the left chest wall), a left sided pneumothorax requiring intercostal drainage, a large left sided pleural effusion, a small right sided pleural effusion and bibasal atelectasis (area of collapse and airlessness of the lungs).

He was placed on a ventilator and had a tracheostomy. Whilst in hospital he also developed a lower respiratory tract infection which was treated with antibiotics.

At assessment the claimant was found to have slightly reduced chest expansion, breath sounds were reduced and percussion note was reduced at the base of the left lung, consistent with an area of pleural thickening. No wheezes or crepitations were heard.

Lung Function
Oxygen saturation at rest was 98% (normal) and there was evidence of respiratory weakness in that his maximal inspiratory and expiratory pressure measurements were reduced.

Vital capacity was reduced as was total lung capacity, consistent with an extra pulmonary restrictive disorder; the assessor determined that changes were likely to be due to abnormality of the pleura or of the chest wall, rather than due to an intrinsic disorder of the lungs.

WPI Assessment
The injuries to the chest wall, pneumothorax and pleural effusion were assessed using clauses 8.1 to 8.5 of the MAA Guides and the relevant sections of the AMA4 Guides as outlined below:

According to Table 2 on page 5/156 of AMA4, the claimant’s predicted vital capacity (FVC) is 5.06 litres. His best vital capacity was 3.44 litres, which is 68% of the predicted value.

According to Table 4 on page 5/158, the predicted FEV1 is 4.06 litres. His value was 2.54 litres, which was 63% of the predicted value.

According to Table 6 on page 5/160, the claimant’s predicted diffusing capacity is 36.78, his value was 22.08 which was 60% of the predicted value.

Using Table 8 on page 5/162, the claimant’s respiratory impairment fulfills the criteria for Class 2, and he was assessed as 25% WPI.