

QUIZ CASE OF THE MONTH – JUNE 2010

Which of the following statements about pulmonary function during pregnancy is true?

- A. Total lung capacity is reduced.
- B. Functional residual capacity is reduced.
- C. FEV₁/FVC ratio is reduced.
- D. Lung compliance is reduced.
- E. The single breath diffusing capacity for carbon monoxide is reduced

Correct answer:

B. Functional residual capacity is reduced.

There is a progressive decrease in expiratory reserve volume of 8% to 40% and residual volume of 7% to 22% throughout pregnancy. This leads to a 10% to 25% decrease in functional residual capacity by the fifth or sixth month of pregnancy. These changes are due to the cephalad displacement of the diaphragm and are worsened with obesity and the recumbent position. Vital capacity and total lung capacity are not significantly changed in normal healthy pregnant women. Lung compliance has been measured in the third trimester in pregnant women and has been found to be unchanged 2 months after delivery. Flow rates during pregnancy remain normal. The single breath diffusing capacity may increase early in pregnancy but then will return toward normal values as the pregnancy progresses.