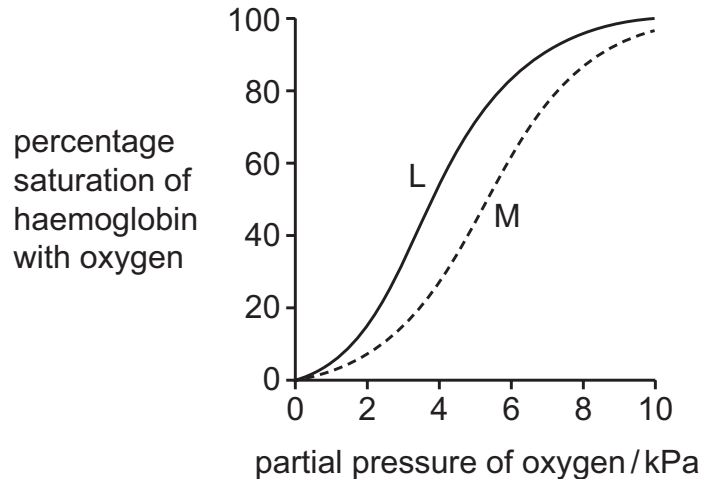


34 The diagram shows the Bohr shift in actively respiring cells.



What causes the shift from L to M?

- A Carbonic acid dissociates to release protons that bind to oxyhaemoglobin, affecting the conformation of haemoglobin to reduce its affinity for oxygen.
- B Hydrogencarbonate ions produced by carbonic anhydrase alter the charge of oxyhaemoglobin, reducing its ability to bind oxygen.
- C Hydrogen ions combine with chloride ions in tissue fluid to produce hydrochloric acid, distorting oxyhaemoglobin and causing it to lose bound oxygen.
- D A low concentration of oxygen in actively respiring cells causes oxyhaemoglobin to release oxygen more quickly down the concentration gradient.