

What cells need

- To understand the critical importance of the heart requires taking a step back so we understand the needs of each cell in our body. Remember that our body is composed of over 10 trillion cells that work together in remarkable unity (a lesson in good governance!). Cells have basic needs, and at the top of the list would be these four things:
 - 1) access to oxygen
 - 2) a source of glucose
 - 3) a balanced fluid environment with the right amount of water/electrolytes
 - 4) removal of waste (such as carbon dioxide)
- Consider how this compares to basic human needs: breathing air in and breathing out, eating food, drinking water, and getting rid of urine/stool. When you really stop and think about it, many of the things that we do can be traced back to our cellular needs.

Preview from Notesale.co.uk
Page 5 of 13



The white balls start out on the top and then move all over the matrix over time through random movements. If the white balls represent O₂ molecules, then this illustrates how random movements allow O₂ to move from an area of high concentration (alveoli) to an area of low concentration (blood)—a process called diffusion. (Adapted from Wikipedia from Runningamok19)