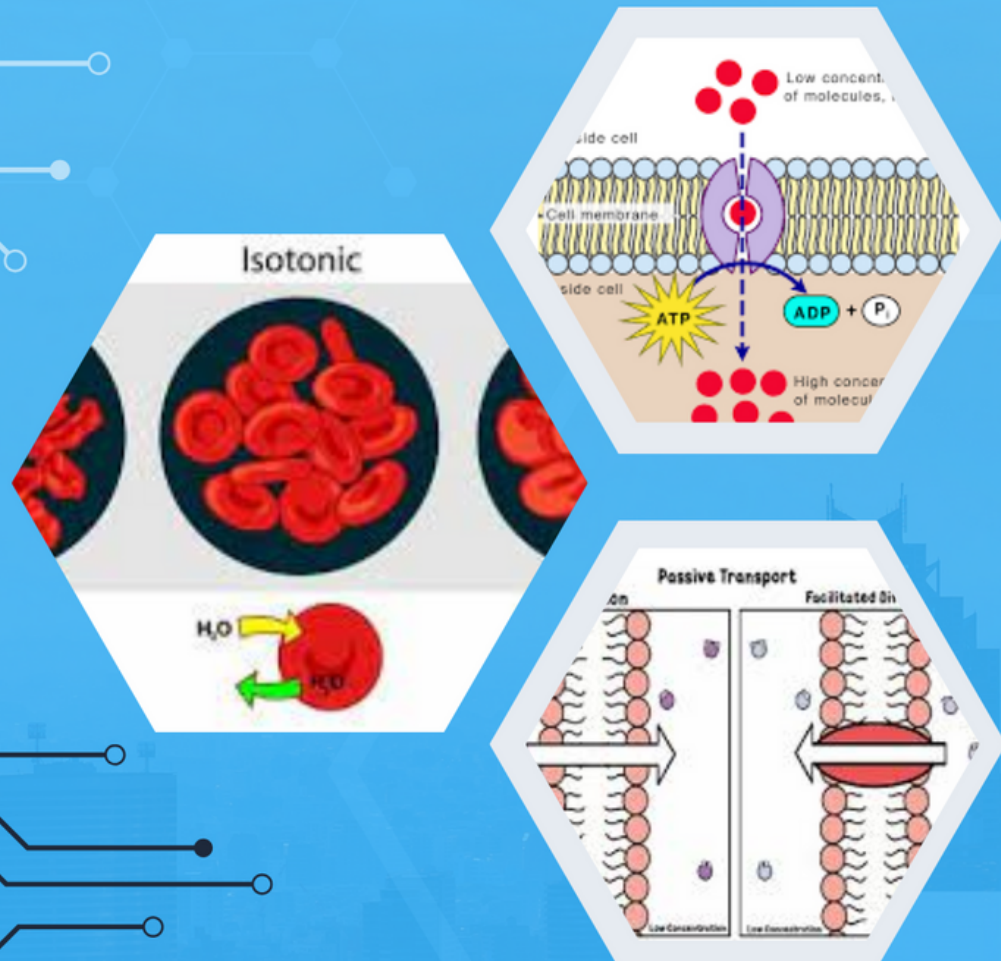




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FSI BIOLOGY:

CELLULAR TRANSPORT MADE EASY

A SIMPLIFIED EBOOK AND STUDY GUIDE WITH AN
EASY TO FOLLOW VIDEO AND QUIZ TO HELP YOU
MASTER CELLULAR TRANSPORT

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CELLULAR TRANSPORT PRETEST

Take the following pretest over cellular transport as a quick check for background knowledge and where you currently stand with your knowledge of cellular transport. Click the link below:

[Cellular Transport Pretest](#)

CELLULAR TRANSPORT VIDEO

Watch the video below to help you understand the topics of active transport, passive transport, and osmosis.

REVIEW

Active Transport

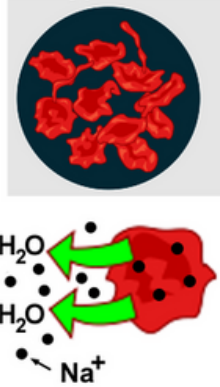
- Uses energy to move particles from areas of low concentration to high concentration against the concentration gradient
- Requires energy (ATP)
- Endocytosis: Cells bring in materials using ATP
- Exocytosis: Materials and waste are packaged into vesicles and released from the cell using ATP
- Protein pumps: Use ATP for proteins to move certain materials in to the cell and other materials out of the cell

Passive Transport

- Materials move from an area of high concentration to an area of low concentration down its concentration gradient
- Does not require energy (ATP)
- Diffusion: Movement of small, nonpolar molecules from an area of high concentration to an area of low concentration down its concentration gradient
- Facilitated Diffusion: Use of proteins to move materials across the cell membrane from high to low concentration.
- Osmosis: Diffuses water across the cell membrane to balance out the concentration of another substance

TYPES OF SOLUTIONS

Hypertonic



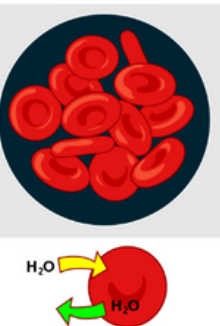
Water leaves from the inside of the cell to the outside of the cell. It moves from a high concentration of water to a low concentration of water to balance out the larger concentration of salt on the outside of the cell. This causes the cell to shrink and possibly die since most of the water has left the cell.

Hypotonic



Water leaves from the inside of the cell to the outside of the cell. It moves from a high concentration of water to a low concentration of water to balance out the larger concentration of salt on the outside of the cell. This causes the cell to shrink and possibly die since most of the water has left the cell.

Isotonic



Water flows evenly in and out of the cell because there is a balanced amount of solute to water concentration in and out of the cell. This type of cell is in equilibrium or homeostasis.

INTERACTIVE REVIEW ACTIVITY

Complete the following review activity to help strengthen your knowledge of cellular transport

Click the link below:

[**Cellular Transport Review Activity**](#)

CELLULAR TRANSPORT POST TEST

Take the following post test to test your knowledge on how much you have learned about cellular transport. Good Luck!

Click the link below:

[Cellular Transport Post test](#)

ABOUT THE AUTHORS



Chivas & Jordan Spivey

We are a father and son duo that began our journey of helping young men and women in their educational pursuit of greatness over 10 years ago. Since then we have made numerous educational activities. Everything from fun interactive labs, a resource website for teachers and students, over 200 Youtube science videos, and even an educational science cartoon video series. Our goal is to streamline and simplify science concepts to help the young minds of today apply their scientific knowledge and know how to bring greatness to their bright and promising future!

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