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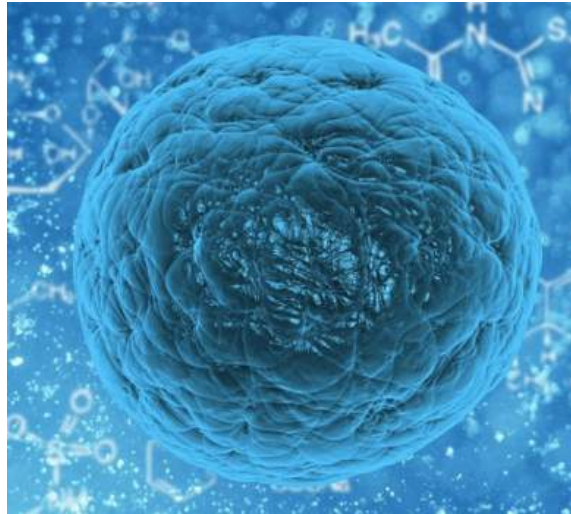
6th, 7th, 8th Grade Reading Mega Bundle

Reading Comprehension Passage & Questions

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Stem Cells: The Future of Medicine?



Introduction: What Is Stem Cell Therapy?

Every living thing is made out of trillions of **cells**. Normal cells can only make more of the same type of cell. For example, skin cells can only make more skin cells. **Stem cells** are cells that are able to develop into any type of cell. Stem cell therapy is a method used to treat or prevent certain diseases by inserting healthy stem cells into the body. Treatable diseases include heart disease, diabetes, different types of cancers and other conditions. There are two main types of stem cells:

- Embryonic stem cells
- Adult stem cells

Interesting Fact:

Stem cells will become the type of cell they are near. If you put a stem cell in muscle, it will become a muscle cell. If you put it in the brain, it will become a nerve cell.

How Does Stem Cell Therapy Work?

All cells are programmed to be what they are. This makes it hard to replace or repair certain kinds of cells in the body. You can't just take a cell from your leg and tell it to be a brain cell. Cells are stubborn and don't like change. This is where stem cells come in. Stem cells help to repair and replace damaged cells in the body. Stem cells divide and make new cells within organs such as the brain, heart, and lungs. Some people have **organs**



The kidneys

Cells: The smallest part of a living thing. We are made from trillions of cells.

Stem cells: Cells that can become any kind of cell.

Organs:

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What We Can Do With Stem Cell Therapy Today

Today, parents can choose if they want stem cells to be taken from the umbilical cord of their newborn babies. These stem cells can be donated or stored for later use if needed. Also, using human stem cells can help scientists' discover how well some medications will work on humans by testing them on real human cells.

Arguments and Controversies against Stem Cell Therapy

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The Future Benefits of Stem Cell Therapy

Stem cell research has the potential to be very helpful for us. In the future, we could use stem cells to:

- 3D printers organs.
- eliminate the need for drug testing on animals or humans.
- regrow nerve cells for people who have brain or spinal injuries.



Photograph of Stephen Hawking who suffers from ALS. ALS could potentially be treated with stem cell therapy.

Reading Comprehension Questions:

1. What are stem cells?
2. What
3. Can a skin cell divide to produce a muscle cell? Explain.
4. Name a
5. Why doesn't
6. Where are stem cells taken from today? Where were they taken from in the past?

Extension Questions

7. Why are
8. After doing some research, explain how 3D printers can be used with stem cells to treat patients.

Watch the video below to answer the remaining questions. It can be accessed through the URL or the QR code.

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9. Within your body, each cell has the same information (DNA). What then makes one cell different from another cell?
10. Stem
11. Which two brain diseases (that were mentioned) might be treatable using stem cells?
12. A lot of

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TWF READING

References

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