## **STEM CELLS: WHAT YOU NEED TO KNOW**

You've seen the headlines. Now, go deeper. Here's what stem cells do and what they might mean for you.

## **TYPES OF STEMS CELLS**

#### **a** Adult:

- They are found in bone marrow, organs, and even fat -- but they're rarer than stem cells in embryos.
- They're specific. Heart stem cells can only help the heart, for instance, not the rest of the body.
- · Kids have them, too!

#### **b** Induced Pluripotent (IPSCs):

- These are made in a lab by tweaking ordinary cells.
- Making these was a huge breakthrough, because it might provide an alternative to embryonic stem cells.
- Still, their safety has to be checked before they can be tested in people.

### C Embryonic:

- These have more potential than adult stem cells, because they can make more types of cells.
- Scientists are working on how to harness their potential safely.
- There are strict rules about using them in research.



Blastocyst containing stem cells

Embryonic stem cells about 4 days in culture

### **SEARCHING FOR CURES**

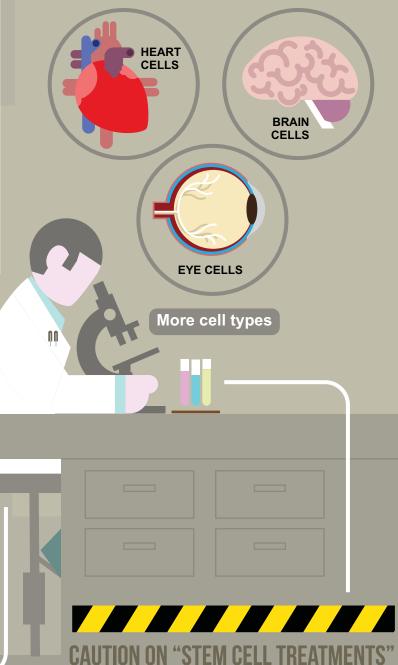
Researchers hope to create stem cell treatments for diabetes, heart disease, MS, spinal cord injury, stroke, and more.

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#### Sources: http://stemcells.nih.gov/ http://stemcells.nih.gov/info/faqs.asp http://isci.med.miami.edu/stem-cells-101

## WHAT THEY DO

Stem cells make just about every part of you. They may be able to help you heal after a heart attack, stroke, spinal cord injury, or other serious conditions.



- Be wary of unapproved stem cell treatments not part of a clinical trial.
- Always talk to your doctor first if you're looking for a stem cell treatment or trial.

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