



## Lesson 6: Heart Surgery Time Machine

Name \_\_\_\_\_

Date \_\_\_\_\_

### Note from Advocate Christ Medical Center Cardiology Staff:

To: Junior Heart Doc  
From: Cardiology Staff  
Re: Heart Surgery Time Machine


Bill Harvey sure is lucky to be having his coronary artery bypass graft surgery at Advocate Christ Medical Center, considering our state-of-the-art cardiovascular care center. He will receive the best treatment and care that is available today.

But, imagine Bill Harvey is transported back in time to the year 1900. How would Bill Harvey's condition be treated then? Would he have open-heart surgery? Would he die of a heart attack or maybe not even live to the ripe old age of 57?

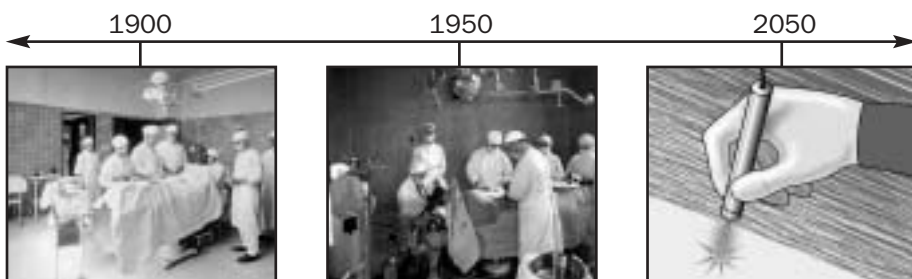
What about if it were the year 1950? What would Bill's situation have looked like then? Would things be looking up for him?

Finally, imagine that Bill were transported to the year 2050? What might his treatment for coronary artery disease look like? Will heart surgery exist like it does today, or might there be newer technologies with which to treat coronary artery disease?

Using research, what you have learned in this unit and your own creativity, describe the scenarios that Bill Harvey would face in the years 1900, 1950 and 2050.

 Advocate Christ Medical Center

Notes:



Photos provided courtesy of Advocate Health Care Media Center.



# Lesson 6: Heart Surgery Time Machine

**1900**

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**1950**

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**2050**

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### Here is a list of topics to guide your research:

Leeches	Closed-heart surgery
Bloodletting	Xenotransplantation
Artificial heart	Dr. Christian Barnard
William Harvey	Angiography
Joseph Lister and antisepsis	Anesthesia
First heart transplant	Wilhelm Conrad Roentgen and X-rays
Heart-lung machine	Gene therapy
Robotic surgery	Dr. Walton Lillehei
Nanotechnology	Dr. Dwight Harken
Stem cell research	Dr. Michael DeBakey
Open-heart surgery	

### Tips for finding resources on the Internet:

Use search engines like [www.yahoo.com](http://www.yahoo.com), [www.yahooligans.com](http://www.yahooligans.com), [www.about.com](http://www.about.com), or [www.google.com](http://www.google.com).

### Try the following websites:

**History of medicine:** [www.medhelpnet.com/medhist4.html](http://www.medhelpnet.com/medhist4.html)

**Early heart surgeons:** [www.pbs.org/wgbh/nova/heart/](http://www.pbs.org/wgbh/nova/heart/)

**Artificial heart:** [www.howstuffworks.com/artificial-heart.htm](http://www.howstuffworks.com/artificial-heart.htm) or [www.abiomed.com/](http://www.abiomed.com/)

**Open-heart surgery:** [sln.fi.edu/biosci/healthy/openheart.html](http://sln.fi.edu/biosci/healthy/openheart.html)

**Advances in surgery:** [www.geocities.com/HotSprings/1652/latest.html](http://www.geocities.com/HotSprings/1652/latest.html)

**William Harvey:** [phy025.lubb.ttuhsu.edu/Figures/Harvey.shtml](http://phy025.lubb.ttuhsu.edu/Figures/Harvey.shtml)

### Important dates in the history of transplantation:

[www.lhsc.on.ca/transplant/imptdate.htm](http://www.lhsc.on.ca/transplant/imptdate.htm)

### The heart through time:

[www.accessexcellence.org/AE/AEC/CC/heart\\_background.html](http://www.accessexcellence.org/AE/AEC/CC/heart_background.html)

**Robotic surgery:** [www.advocatehealth.com/sites/hospitals/chmc/robottour.html](http://www.advocatehealth.com/sites/hospitals/chmc/robottour.html) or [www.cnn.com/HEALTH/9805/28/germany.robot.surgery/](http://www.cnn.com/HEALTH/9805/28/germany.robot.surgery/)

### Gene therapy:

[www.pbs.org/safarchive/4\\_class/45\\_pguides/pguide\\_605/4565\\_bypass.html](http://www.pbs.org/safarchive/4_class/45_pguides/pguide_605/4565_bypass.html)

**General information:** [www.britannica.com](http://www.britannica.com) or [www.howstuffworks.com](http://www.howstuffworks.com) (search for "heart surgery")

Notes:

