

Biomedical Engineering

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What do you think a biomedical engineer does?



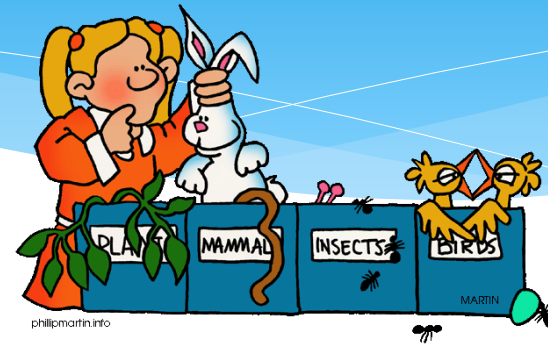
<http://upload.wikimedia.org/wikipedia/commons/d/d2/Stethoscope-2.png>

http://www.jhuapl.edu/newscenter/stories/images/st12_0524_arm3.jpg

<http://preparednessadvice.com/wp-content/uploads/2014/01/BloodPressureCuff.jpg>

What is biomedical engineering

- * Bio: Relating to biology – study of living things



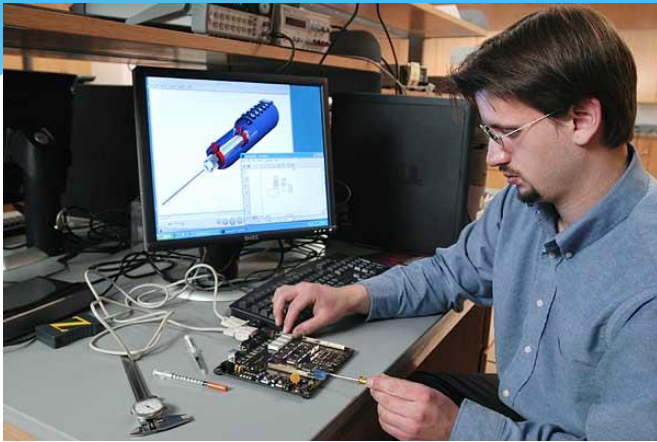
- * Medical: Relating to medicine



- * Engineering: designing and building new things



What do biomedical engineers do?



<http://photos.uc.wisc.edu/photos/3821/view>



<http://www.bls.gov/ooh/images/1867.jpg>

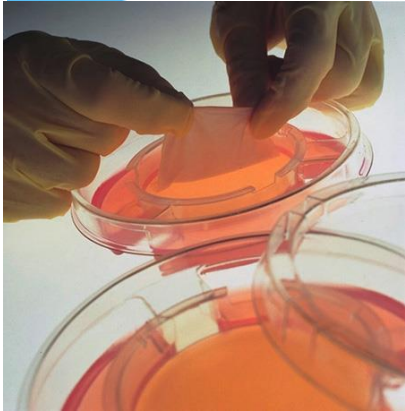


<http://cafnrnews.com/uploads/2013/09/Doctor.jpg>



http://www3.uwic.ac.uk/English/sport/research/groups/PublishingImages/TD_Wired_Runner_newJPG.jpg

What do biomedical engineers make?



http://c.oobc.com/rf/image_5390215/Boston/2011-2020/2014/01/17/Boston.com/Business/Images/organ.jpg



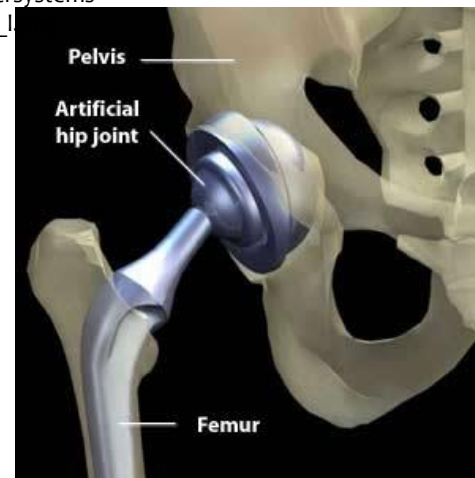
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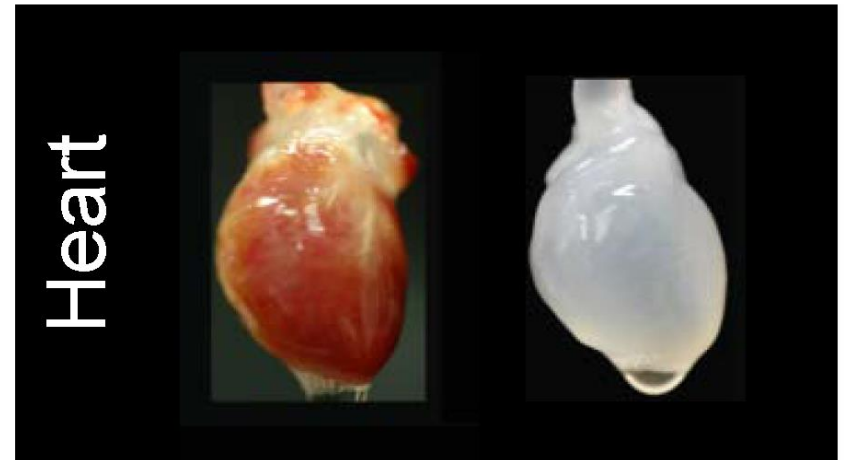
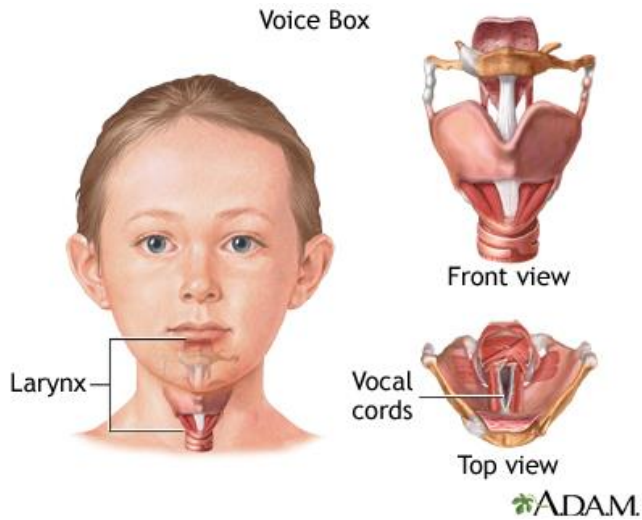


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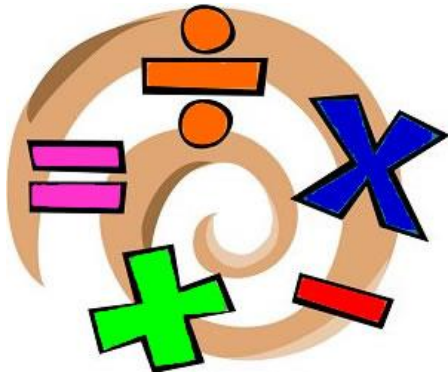
What we are working on:



What do you need to do to become a biomedical engineer?

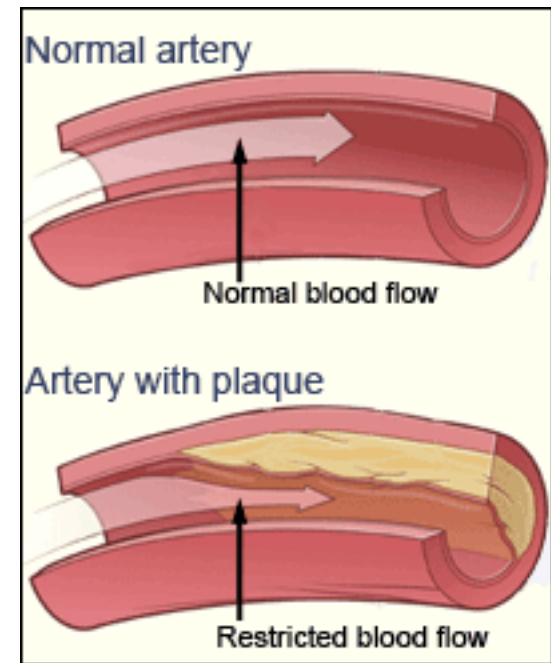
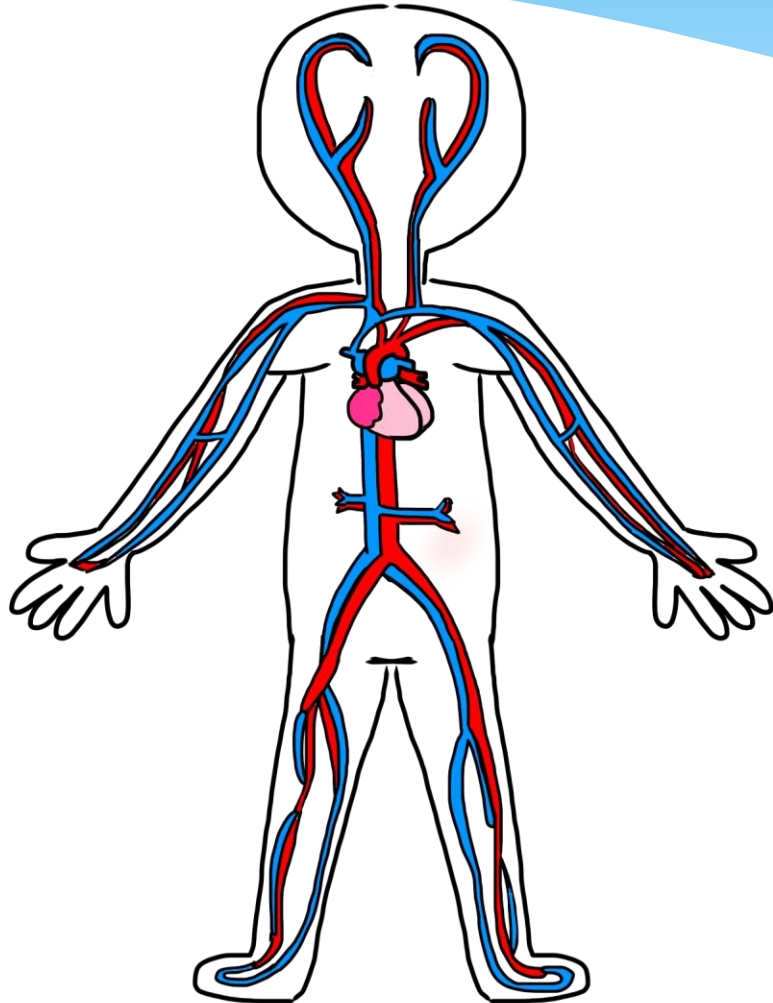


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Questions?

Activity: Background



Activity: Directions

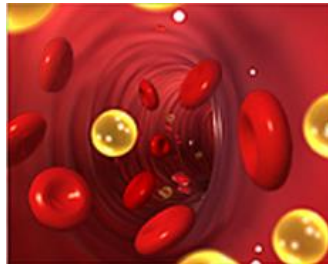
- * 5 minutes: Plan what you will use and how you will create a device to flatten or remove the plaque



- * 10 minutes: Construct and implement your device

Activity Directions

- * Retrieve or flatten the plaque – do not just knock it out



- * Do not scrape against the side of the artery walls



Activity: Directions

Materials you can use:

- * Pipe cleaner
- * Paper clip
- * Paper
- * Tape
- * Q-tip
- * Aluminum foil
- * Rubber bands
- * Drinking straw
- * Fuzzy balls



You do not have to use all of the materials provided

Questions?

Activity: Trial #2

- * 5 minutes: Plan what you will use and how you will create a device to flatten or remove the plaque



- * 10 minutes: Construct and implement your device

Activity: Discussion and Debrief

- * What worked well to remove or flatten the plaque?
What did not work well to remove or flatten the plaque?
- * What would you do differently next time in order to make a more successful design?
- * What would be different or what would have to be changed to use this device in a real person?

Questions?