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# The Anatomy

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Making Doctors

University of Delaware

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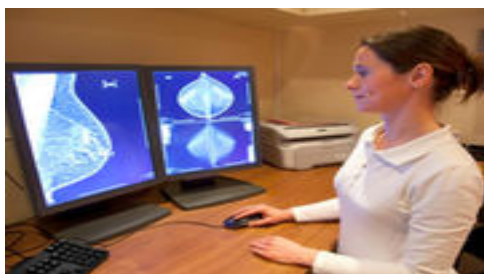
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## What's in the News?

### Breast Reconstruction – Improved

It has been recently discovered that after breast cancer, it is safe to “reuse” fat from various parts of the body to reconstruct breasts in women who need/desire some sort of breast reconstruction, Mary Dallas writes in *HealthDay News*. Called “lipofilling,” surgeons are able to take excess fat from various parts of the body and implant it into the breast in order to add mass to breasts that have otherwise been removed as part of a breast cancer treatment and/or mastectomy.

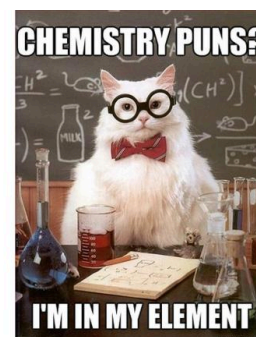
Traditionally, surgeons used alternate techniques to achieve these results, but research is showing that even in cases where women are more predisposed to breast cancer, there is no added risk to using lipofilling. Researchers followed both women who underwent surgery for lipofilling and women who did not for five years, and analyzing the resurgence of cancer in both groups, and compared the results. They concluded that there is no added risk to lipofilling, a practice that is traditionally used in plastic surgery and cosmetic alterations. Medical professionals once fear the practice as being an alley for cancer to resurge through, but it is now becoming more common in the practice of reconstructive surgeons.



## What Nerds Laugh About...

What did the father atom say to his child when the child said he lost an electron?

“You really have to keep an ion them.”



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## MCAT Question of the Week:

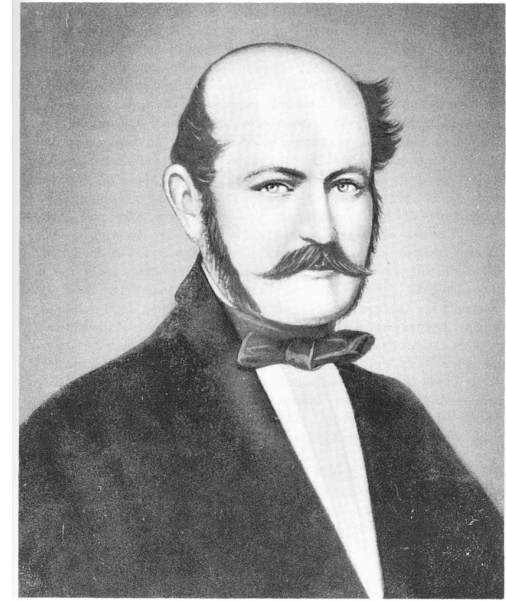
Which set of 1 Molar solutions has the correct pH values?

- A. Water pH = 0; hydrochloric acid pH = 4; acetic acid pH = 7; ammonia solution pH = 10; sodium hydroxide solution pH = 14.
- B. Acetic acid pH = 0; hydrochloric acid pH = 4; water pH = 7; sodium hydroxide solution pH = 10; ammonia solution pH = 14.
- C. Sodium hydroxide solution pH = 0; ammonia solution pH = 4; water pH = 7; acetic acid pH = 10; hydrochloric acid pH = 14.
- D. Hydrochloric acid pH = 0; acetic acid pH = 4; water pH = 7; ammonia solution pH = 10; sodium hydroxide solution pH = 14.

(Answer on the Next Page!)

## Doctor of the Day

**Ignaz Semmelweis** was a Hungarian physician who was known as the “Savior of Mothers.” In 1847, he discovered that simply having physicians wash their hands significantly decreased the incidence of childbed. Despite the seemingly obvious truth to this claim, Semmelweis was often ignored and ridiculed for having this idea. At one point, he was even driven from Vienna to Budapest. Regardless, he continued to advocate hand washing by physicians. People still thought he was crazy, and as such, he was admitted to a mental asylum. He died shortly after, possibly after being severely beaten by the guards at the asylum (You thought there was a happy ending? Sorry....) Even so, Semmelweis was a pioneer in antiseptic procedure.

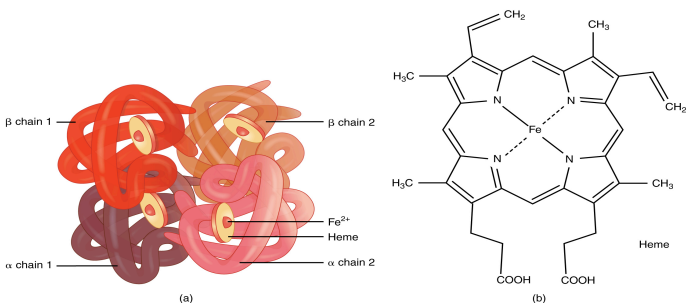


**Hydrocephalus** is a condition in which there is an excessive accumulation of cerebrospinal fluid (a clear fluid that surrounds the brain and spinal cord) in the brain. This is extremely rare, but as a result, spaces in the brain become larger due to increased pressure. As such, patients experience severe swelling and pain in their heads. Some possible causes include premature birth, diseases such as meningitis, tumors, head injuries etc.

## Umma’s Random Molecule of the Week is...

### Hemoglobin!!

Hemoglobin is a protein that is essential for life. Hemoglobin is found in red blood cells and it allows for oxygen to move from the lungs to the rest of the body. Each subunit of hemoglobin has a heme group embedded in it. This heme group contains one iron atom to which oxygen binds in order to be transported. Hemoglobin can also transport other gases such as carbon dioxide and nitric oxide.



### A Quick Study Tip:

Make a study guide of your own before the exams. Combine lecture notes and your own notes to make a clean study guide. Go over that everyday before the exam.

(MCAT QotW answer: D)

### Could the Pittsburgh be your future home?

The School of Medicine at the University of Pittsburgh is located in Pittsburgh, PA. Unlike most of the other medical schools, this university has a lower cost for in-state students compared to out of state students. At this university, the curriculum focuses on problem based learning and participatory approach to studies. The students are able to choose an area of concentration and they will complete a scholarly project before graduation. The university is actively involved in research.