

Chemistry in Pictures

One thing that applies to chemistry a lot is my job. I work at the University of Utah in the phlebotomy and processing department drawing and testing all the blood work that is done throughout the University hospital and Huntsman Cancer Center. One machine that we use is called the centrifuge and it separates the blood plasma so that we are able to run different tests for different reasons. I separated this example in specific which is drawn in a mint top tube and can run about 8 different tests on it. Some of those tests include potassium, sodium, glucose, troponin, renal function, protein in the heart, etc. I spun this tube down myself and then I had to pour it into an aliquot tube for testing. Most people don't know that the red blood cells are actually just tossed out for tube like this. The only portion in the photo that we will be testing is the yellowish looking serum on the top. The rest will be discarded and taken to dispose of. There is some test however, that would require whole blood. Checking hematocrit, hemoglobin, red blood cells, and your type and screen (which is just your blood type). It's also interesting because different tubes can test for different things. For example, a blue top tube has a anti coagulation liquid in it that when mixed with the patient's blood, it will keep it from clotting. Where a gold top tube, also referred to as a serum separator tube or a red top, that would actually making the blood clot instantly and you cannot run the blood until it has been clotted. There are other tests such as lactic acids and ammonias that have to go down on a bag of ice and be ran within 15 minutes of collection time.

I knew all this information because it my job, but I find it so interesting that chemistry plays such a role in everything I do with my life. I am very fortunate having the knowledge about these labs before becoming a nurse because it will help me better problem solve and find a solution for the patient care. I am excited that chemistry is going to be something that I will use in my everyday life.

