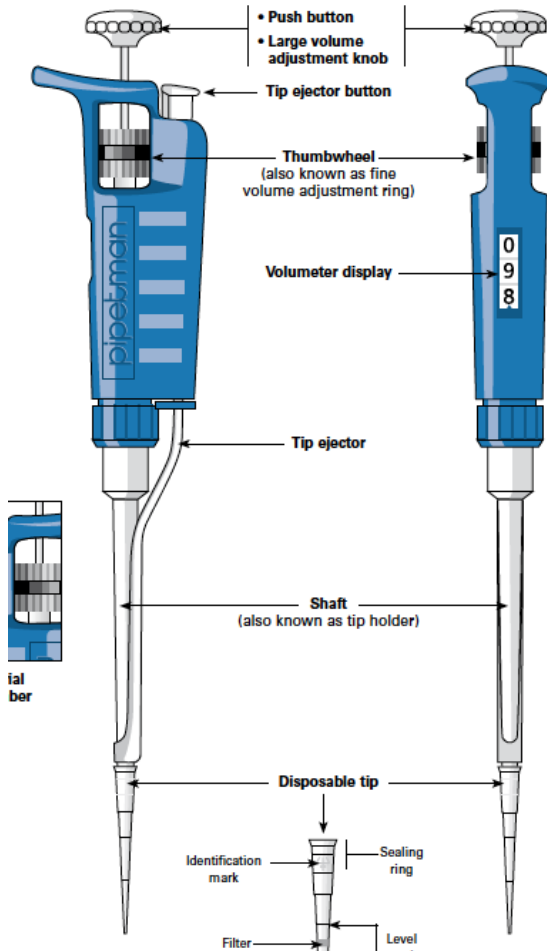


Pipetteman practice

1. Wear gloves. This is primarily to keep us from contaminating samples.

2. Get to know your pipetteman:



We have 3 different volumes of pipettes:

0-20 μl , (light yellow) P20 **DIAL READING: 020-200**

20-200 μl , (yellow) P200 **DIAL READING: 020-200**

and 200-1000 μl (blue) P1000 **DIAL READING: 020-100**

A microliter (μl) is 0.001 ml

So 1000 μl = 1 ml

Pipettemen are really useful for measuring small volumes.

Different disposable tips fit on the different pipettemen (blue with blue, yellow with yellow).

3. Using the normal pipette, add 1 ml of water to the small beaker.
4. If needed, adjust the volume of the P1000 to 1000 μl . (dial reads 100)
5. Tilt the beaker to the side, so you'll be able to get all the volume.
6. Using the P1000, use the tip holder to gently tap a tip on directly from the box of tips.
7. Press the push button down to the first stop (this will be close to the full range of the button).
8. NOW put the pipette tip into the water.
9. ****Very slowly**** allow the push button to return to the top position. You should have removed all the liquid (1000 μl = 1 ml).
10. Look at the pipette tip. Can you see the level of the liquid? It should be near the top. ALWAYS check your tip to make sure you have liquid in it, and as you practice, you'll get an idea of what a specific volume of liquid looks like in the tip too.
11. You can return the liquid to the same beaker by pushing the push button right the way to the second stop (this blows out any residual liquid).
12. Using the tip ejector, place the tip over the plastic disposal beaker, and kick off the tip.
13. Practice using the other two pipettes.

Volume	Which pipette (P20, P200 or P1000)?	Appearance of volume?
500 μl		
250 μl		
100 μl		
50 μl		
10 μl		
5 μl		

***NOTE: when you are pipetting a small volume for the range of that pipette (so 21 μl for the P20—which goes from 20-200 μl), your first stop on the push button won't be very far! Be aware, and do a dry run before trying it out with liquid.

Second note: when adjusting the volume, *****do not***** go outside the specified range for that pipette.

The P20 has 3 numbers displayed in the volume display. The third number is a decimal, so if you're pipetting 15 μl , the volumeter display will read:



1
0
0

Volumes for the P1000!. Here the decimal is after the top number. So the above image is = 1.0 ml or 1000 μ l, which is the MAXIMUM volume of this pipette.