

## Balance

Balances are laboratory instruments that are widely used for substances weighing.

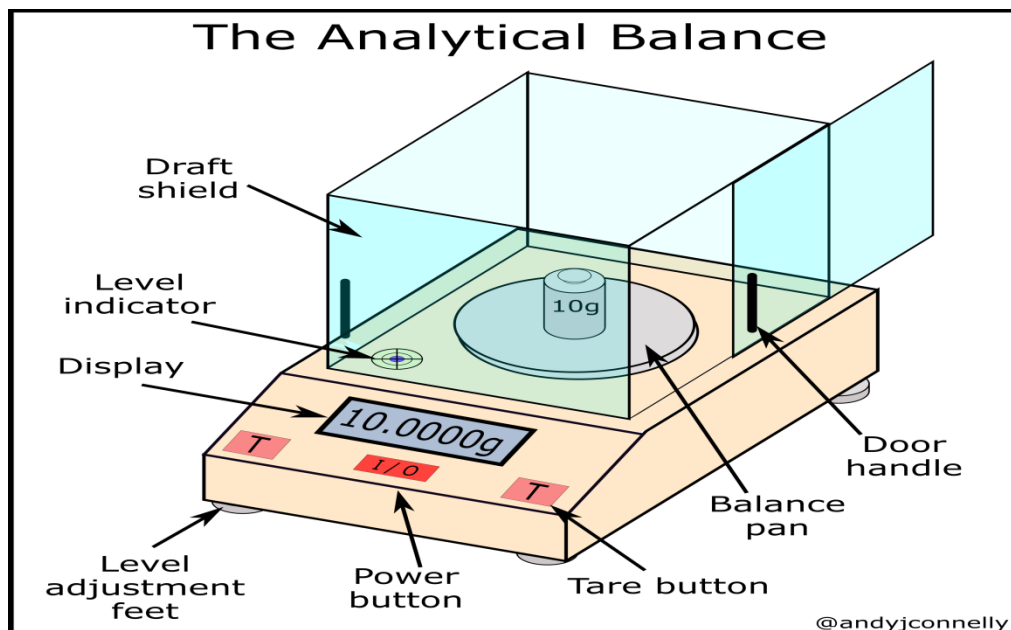
Balances in medical laboratory may be:

- A. mechanical balances
- B. electronic balances (Analytical balances)

**Analytical balances:** is a class of balance designed to measure small mass in the sub-milligram range

### ***Parts:***

1. Pan: which is stainless steel platform; it has removable wind that makes it easy to clean.
2. Key board
3. Screen which is LCD
4. Glass draft shield
5. Battery box
6. Level indicator: helps to ensure the balance is in level prior to use
7. Feet adjust level (leveling foot)



### **How to use:**

1. Open the door of the analytical balance.
2. place the weighing container, hut the door and wait a few seconds until the unit stabilizes, press tare
3. Open the door and carefully add the substance being weighed until the display shows the desired weight, then close the door and again wait until the scale stabilizes
4. return the analytical balance to the standby mode
5. Use a soft brush to clean the weighing pan and cabinet

### **How to leveling balance:**



For bringing the bubble to the Centre:

- If the bubble at 12 o'clock : turn both feet clockwise
- At 3'oclock: turn left clockwise and right anti clockwise
- At 6 o'clock turn both feet anticlockwise
- At 9 o'clock turn left anti clockwise and right clockwise

### **Faults**

- Electrical faults: may occur in cable, fuse, transformer, on/off switch and light
- Optical faults: may occur in mirror and microfilm which may contain scratches

- Mechanical faults: occur because the scale is overloaded, or the device has been used for a long time.

### Maintenance:

- It must put on steady surface to minimize vibrations
- Put away from air or doorways because it has sensitive enough to be affected by air current
- Check air bubble
- Clean up after each using

### Simplified block diagram

Microprocessor based electronic Balance

