

Lab(2)

Pharmaceutical Calculation **Weight Measurement**



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Introduction

Weight is measurement by means of a balance. There are different types of balance, types for rough weights and others for sensitive weights.



Rules for the use and care of the balance

1-the balance should be located in a well –lightened place ,as far as possible from vibration ,dust, moisture and corrosive vapor.

2-the balance should be kept clean at all times.

3-watch glass should be used for weighing of solids, stoppered bottles used for corrosive substances and liquids

4-check to see if the balance is adjusted including zeroing of it ,also check the adjustment before each weighing.



Source of error in weighing :

- 1-failure to adjust the scale .
- 2-currents of air.



■ Systems of measuring weights

- 1-Imperial system which is mainly used in UK and USA, example (grain ,ounce, pound, and drachm).
- 2-metric system example (gram , kilogram , milligram, microgram).





The relation between metric and imperial system

- 1 grain = 0.065 g
- 1 gram = 15.432 grain
- 1 grain = 65 mg
- 1 drachmae = 60gr \approx 4 g
- 1 ounce \approx 30 g
- 1 kg = 2.2 pound





General notes

- A clean spatula may be put into a bottle to remove solids for weighing .
- Do not contaminate reagents by using dirty equipment's or improper techniques.
- Bottle should be kept clean and restopper each reagent bottle with it's own stopper .
- Never place materials to be weighed directly on the pans .
- Accuracy requires both understanding and care .
- Most countries are following the metric system of weight and measure.





Thank you