

MACERATION

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MACERATION

- In this process solid ingredients are placed in a stoppered container with the whole of the solvent and allowed to stand for a period of at least 3 days (3 - 7 days) with frequent agitation, until soluble matter is dissolved.
- The mixture is then strained (through sieves / nets), the marc pressed and the combined liquids clarified (cleaned by filtration).



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- **TYPES OF MACERATION :**
 - Simple maceration: for organized and unorganized Crude drug
e.g. i) Tincture of Orange
 ii) Tincture of Lemon
 - Double maceration : Concentrated infusion of orange
 - Triple maceration: The maceration process may be carried out with help of heat or stirring
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- **Maceration with Adjustment**

- **SIMPLE MACERATION:** for organized drugs e.g. roots, stems, leaves etc.
 - ✓ Alcohol is used as a menstruum.
 - ✓ In this process, the drug is placed with the menstruum in a closed vessel for seven days.
 - ✓ At this period shaking is done occasionally.
 - ✓ After seven days, the liquid is strained & marc is pressed.
 - ✓ The expressed liquid is mixed with strained liquid.
 - ✓ Then again filter for obtaining the clear liquid.
 - ✓ The final volume is not adjusted.
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- **MODIFIED MACERATION or MACERATION WITH ADJUSTMENT** : for Unorganized drugs e.g. Gum, Resins, Gum-resins, Oleo gum-resins.
- ✓ In this process, the unorganized drug is placed with $4/5^{\text{th}}$ volume of menstruum in a closed vessel for seven days.
- ✓ At this period shaking is done occasionally.
- ✓ After the stated period, the liquid is filtered & not necessary to press the marc.
- ✓ After that, the final volume is adjusted with the remaining quantity of $1/5^{\text{th}}$ volume of menstruum through the filter.

- **DOUBLE MACERATION PROCESS:** it is carried out in the same way as simple maceration process, but menstruum used is divided into two parts.
- In that process drug is macerated twice by using the menstruum which is divided into two parts in a such manner that the same volume is used for each maceration.
- The volume of menstruum required is calculated as follows
 - i. Volume of menstruum req. for first maceration
$$\frac{\text{Total Vol.of menstruum} - \text{Vol.to be retained by the drug}}{2} + \text{Vol.to be retained by the drug}$$
 - ii. Volume of menstruum req. for second maceration
$$\text{Total vol.of menstrum} - \text{Vol. of menstruum used in first maceration}$$



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- In that process the whole drug is macerated for 48 hrs with qty. of menstruum for first maceration.
- Strain the liquid & press the marc after 48 hrs.
- Then again macerated for 24 hrs with remaining qty. of menstruum for second maceration.
- Strain the liquid & press the marc after 24 hrs.
- Then mix the liquids obtained from the two maceration & allows it to stand for 14 days & then filter.
- e.g. Concentrated infusion of orange
Concentrated compound infusion of chirata



- **TRIPLE MACERATION PROCESS:** it is carried out in the same way as simple maceration process, but menstruum used is divided into three parts.
- In that process drug is macerated thrice by using the menstruum which is divided into three parts in a such manner that the same volume is used for each maceration.

- The volume of menstruum required is calculated as follows

- i. Volume of menstruum req. for first maceration

$$\frac{\text{Total Vol.of menstruum} - \text{Vol.to be retained by the drug}}{3} + \text{Vol.to be retained by the drug}$$

- ii. Volume of menstruum req. for 2nd & 3rd maceration

$$\frac{\text{Total vol.of menstrum} - \text{Vol. of menstruum used in first maceration}}{2}$$

CONT..

- In that the drug is macerated for one hour with a part of menstruum req. for first maceration & strained.
- Macerated again for one hour with a part of menstruum for second maceration & strained.
- Macerated again for one hour with a part of menstruum for third maceration & strained.
- After that, marc is pressed lightly.
- Then combine the liquids obtained from 2nd & 3rd maceration & evaporated it to a specified extent.
- Then, mix it with the liquid obtained from 1st maceration & add alcohol 90% equal to 1/4th of the volume of the finished product.
- Then adjust the volume with water.
- Allow this solution for 14 days & then filter.
- e.g. Concentrated infusion of Quassia, Liquid extract of senna

THANK YOU

