

Iodine prescriptions

Iodine is rapidly bactericidal, fungicidal, tuberculocidal, virucidal, and sporicidal.



iodine tincture

► **Tincture of iodine** or **iodine tincture** is an **antiseptic**, it is also called weak iodine solution. It is usually 2–7% elemental **iodine**, along with **potassium iodide** dissolved in a mixture of **ethanol** and water.

► It was used from 1908 in pre-operative skin preparation.

► As in the case of **Lugol's iodine**, the role of iodide and water in the solution is to increase the solubility of the elemental iodine, by turning it to the soluble I_3^- . However, since iodine has moderate solubility in ethanol, it is also assisted by this solvent directly.

Thus, iodine **tincture** solutions are characterized by the presence of alcohol, and about the same amount (weight % content) of elemental iodine as iodide. **Lugol's iodine**, by contrast, has no alcohol, and has twice the amount of iodide as elemental iodine.

1 Preparation of weak Iodine Solution (Tincture Iodine)

R_x

- | | | |
|--|------|---------|
| • Iodine crystals | | 25 g |
| • Pot.Iodide | | 25 g |
| • Aqua dist. | | 25 ml |
| • Alcohol 90% | ad | 1000 ml |
| Ft : Solution | send | 50ml |
| Sig. : To be used as antiseptic on the skin. | | |



Iodine in Heart Surgery



sporotrichosis



nodular vasculitis

❖ Procedure :

1. Calculate the amount of the drugs necessary to prepare the required volume of sol.
2. Dissolve pot. Iodide first with D.W. then add Iodine crystals after that add Alcohol , mix well till complete dissolve occur.
3. Put the solution in a dark bottle to protect from light.
4. Stick a red label (for external use) with instructions about use.

❖ Medical Use :

- It is used as antiseptic for the skin before and after surgical operations and can be used to disinfect the infected wounds.

③ Preparation of Aqueous Iodine Solution (Lygol's Iodine)

R_x

- Iodine crystals 5 g
- Potassium Iodide 10 g
- Aqua dist ad 100 ml

Ft : Solution send 50 ml

Sig. : wash the inflamed joint twice daily.

❖ Uses :

1. This solution is used to treat hygroma in all animals.
2. Diluting of this solution to 0.2% used as a lavage for vagina and uterus; and it is prepared as the following:

④ Lygol's solution (0.2%)

R_x

- Lygol's solution 0.2 ml
 - Aqua dist. ad 100 ml
- Ft: sol.

Sig : used as antiseptic for intrauterine and vaginal irrigation.

❖ Uses :

1. Iodine is useful in treating fungal infections e.g.: Trichophyton and Microsporium also used to treat skin parasites like dermatophytic mange.
2. Salts of Iodine useful in treating Iodine deficiency (goiter).

❖ Uses of pot. Iodide :

1. It's act to stabilize Iodine in the solution and to prevent conversion it to inactive form.
2. In the Rx of tincture iodine, it enhance the dissolving of iodine in D.W.
3. Pot. Iodide used in treatment of wooden tongue (actinobacillosis).
4. It is considered as Eexpectorant which liquefy the sputum in case of bronchitis and chronic pneumonia.

② Preparation of Iodine Ointment (B.Vet. C.)

R_x

- Iodine crystals 2 g
- Pot. Iodide 2 g
- Glycerin 6 ml
- Vaseline ad 40 g

Ft : Ointment .

Sig : to be applied on the swelling glands and in tendonitis.