

**Distribution**

Human tissue or organ distribution of FSH and LH has not been studied for Gynogen-HP

**Metabolism**

Metabolism of FSH and LH has not been studied for in humans.

**Pediatric Populations**

Gynogen-HP has not been studied in the pediatric population.

**Geriatric Populations**

Gynogen-HP has not been studied in the geriatric population.

**Special Populations**

The safety and efficacy of Gynogen-HP in renal and hepatic insufficiency have not been studied.

**Drug Interactions**

No drug/drug interaction studies have been conducted for Gynogen-HP in humans.

**Storage Conditions**

Store between 2°C - 8°C. Do not freeze.

Use Immediately after reconstitution.

After reconstitution of Gynogen-HP, if the reconstituted solution is not used, do not store, discard the portion.

**How Supplied**

Box containing 1 Ampoule of sterile freeze-dried Highly Purified Human Menopausal Gonadotrophin 75 IU + 1 Ampoule of Sodium chloride injection I.P.(0.9 %w/v).

Box containing 1 Ampoule of sterile freeze-dried Highly Purified Human Menopausal Gonadotrophin 150 IU + 1 Ampoule of Sodium chloride injection I.P.(0.9 %w/v).

® -Regd. Trade Mark

Manufactured in india by :

# UNI-SANGYO

A Healthcare Unit of UNI-SANKYO LTD  
Gaganpahad, R.R. Dist. - 501 323, A.P., India

# Gynogen® HP

Highly Purified HMG

Menotropins for Injection

For Subcutaneous / Intramuscular Injection only

**Presentation :**

Each ampoule of sterile freeze-dried product contains :

|   |         |
|---|---------|
| Menotropins U.S.P.<br>(As Highly Purified Menotropins)<br>Equivalent to the activity of |         |
| Follicle Stimulating Hormone (FSH)  | 75 I.U. |
| Luteinizing Hormone (LH)  | 75 I.U. |
| Mannitol I.P.   | 12 mg   |
| Potassium Dihydrogen orthophosphate B.P.  | 0.46 mg |
| Dipotassium Hydrogen orthophosphate B.P.  | 0.36 mg |

Each ampoule of sterile freeze-dried product contains :

|   |          |
|---|----------|
| Menotropins U.S.P.<br>(As Highly Purified Menotropins)<br>Equivalent to the activity of |          |
| Follicle Stimulating Hormone (FSH)  | 150 I.U. |
| Luteinizing Hormone (LH)  | 150 I.U. |
| Mannitol I.P.   | 12 mg    |
| Potassium Dihydrogen orthophosphate B.P.  | 0.46 mg  |
| Dipotassium Hydrogen orthophosphate B.P.  | 0.36 mg  |

**Drug Description**

Gynogen-HP (menotropins for injection, USP) is a preparation of gonadotropins, extracted from the urine of postmenopausal women, which has undergone additional steps for purification. Each ampoule of Gynogen-HP contains 75 International Units (IU) of follicle-stimulating hormone (FSH) activity and 75 IU of luteinizing hormone (LH) activity.

The biological activity of Gynogen-HP is determined using the USP bio-assays for FSH (ovarian weight gain assay in female rats) and LH (seminal vesicle weight gain assay in male rats), modified to increase the accuracy and reproducibility of these assays.

**Indications & Dosage****Indications****Selection of Patients**

i. A thorough gynecologic and endocrine evaluation, including an assessment of pelvic anatomy must be performed before treatment with Gynogen-HP. Patients with tubal obstruction should receive Gynogen-HP only if enrolled in an IVF program.

ii. Primary ovarian failure should be excluded by the determination of gonadotropin levels.

iii. Careful examination should be made to rule out the presence of an early pregnancy.

iv. Patients in late reproductive life have a greater predilection to endometrial carcinoma as well as a higher incidence of anovulatory disorders. A thorough diagnostic evaluation should always be performed in patients who demonstrate abnormal uterine bleeding or other signs of endometrial abnormalities before starting Gynogen-HP therapy.

## Dosage & Administration

### Assisted Reproductive Technologies

The recommended initial dose of Gynogen-HP for patients who have received a GnRH agonist for pituitary suppression is 225 IU. Based on clinical monitoring (including serum estradiol levels and vaginal ultrasound results) subsequent dosing should be adjusted according to individual patient response. Adjustments in dose should not be made more frequently than once every two days and should not exceed 150 IU per adjustment. The maximum daily dose of Gynogen HP given should not exceed 450 IU and dosing beyond 20 days is not recommended.

Once adequate follicular development is evident, hCG (Pubergen JO 7500 IU) should be administered to induce final follicular maturation in preparation for oocyte retrieval. The administration of hCG must be withheld in cases where the ovaries are abnormally enlarged on the last day of therapy. This should reduce the chance of developing OHSS.

### Administration

Dissolve the contents of the ampoule of Gynogen-HP in one mL of sterile saline and administer either intramuscularly or subcutaneously immediately. Any unused reconstituted material should be discarded

### Side-Effects & Drug Interactions

#### Side-Effects

Commonly observed side-effects

- General - Pain / rash at injection site, headache, malaise
- Gastrointestinal – Nausea, vomiting, abdominal pain, bloating
- Urogenital – Breast tenderness, hot flushes, OHSS ( in susceptible individuals)

#### Drug Interactions

No information available

### Warnings & Precautions

#### Warnings

Gynogen-HP is a drug that should only be used by physicians who are thoroughly familiar with infertility problems.

#### Overstimulation of the Ovary During Gynogen-HP Therapy

Ovarian Enlargement: Mild to moderate uncomplicated ovarian enlargement which may be accompanied by abdominal distension and /or abdominal pain occurs in approximately 5 to 10 % of women treated with menotropins and hCG, and generally regresses without treatment within two or three weeks. The lowest dose consistent with expectation of good results and careful monitoring of ovarian response can further minimize the risk of overstimulation. If the ovaries are abnormally enlarged on the last day of Gynogen-HP therapy, hCG should not be administered in this course of treatment; this will reduce the chances of development of the Ovarian Hyper Stimulation Syndrome (OHSS).

### Precautions

#### Laboratory Tests

The combination of both estradiol levels and ultrasonography are useful for monitoring the growth and development of follicles, timing hCG administration, as well as minimizing the risk of the OHSS and multiple gestations. The clinical confirmation of ovulation, is determined by:

- i. A rise in basal body temperature;
- ii. Increase in serum progesterone; and
- iii. Menstruation following the shift in basal body temperature.

When used in conjunction with indices of progesterone production, sonographic visualization of the ovaries will assist in determining if ovulation has occurred. Sonographic evidence of ovulation may include the following:

- I. Fluid in the cul-de-sac;
- ii. Ovarian stigmata; and
- iii. Collapsed follicle.

### Carcinogenesis and Mutagenesis

Long-term toxicity studies in animals have not been performed to evaluate the carcinogenic potential of menotropins.

### Pregnancy & Lactation

Menotropins are not to be used in pregnancy. Clinical studies have not established as to whether menotropins are secreted in breast milk.

### Pediatric Patients

Safety and effectiveness in pediatric patients have not been established.

### Geriatric Patients

Safety and effectiveness in geriatric patients have not been established.

### Overdosage & Contraindications

#### Overdose

Aside from possible ovarian hyperstimulation, little is known concerning the consequences of acute over-dosage with Menotropins

#### Contraindications

Gynogen-HP is contraindicated in women who have:

- i. A high FSH level indicating primary ovarian failure.
- ii. Uncontrolled thyroid and adrenal dysfunction.
- iii. An organic intracranial lesion such as a pituitary tumor.
- iv. Sex hormone dependent tumors of the reproductive tract and accessory organs.
- v. Abnormal uterine bleeding of undetermined origin
- vi. Ovarian cysts or enlargement not due to polycystic ovary syndrome.
- vii. Prior hypersensitivity to menotropins or Gynogen-HP.
- viii. Gynogen-HP is not indicated in women who are pregnant.

### Clinical Pharmacology

Gynogen-HP, administered for 7 to 20 days, produces ovarian follicular growth and maturation in women who do not have primary ovarian failure. In order to produce final follicular maturation and ovulation in the absence of an endogenous LH surge, hCG must be administered following Gynogen- HP treatment, at a time when patient monitoring indicates sufficient follicular development has occurred.

#### Absorption

The SC route of administration trends toward greater bioavailability than the IM route for single and multiple doses of Gynogen-HP