

Ovarian Hyperstimulation Syndrome (OHSS)

The medications used to stimulate your ovaries may cause side effects. These side effects can range from mild to severe. When the ovaries over-respond and cause symptoms it is called ovarian hyperstimulation syndrome. This may require treatment, even to the extent of needing to remove some of the fluid or a hospital stay in approximately 1% of the patients. Be aware of your body changes and ask if you have any questions or concerns. You may have symptoms of mild hyperstimulation during your treatment cycle, however, moderate and severe symptoms usually occur 6-8 days after treatment ends.

Classification

In mild forms of OHSS the ovaries are enlarged, in moderate forms there is additional accumulation of ascites with mild abdominal distension, while in severe forms of OHSS there may be decrease fluid in the blood stream, blood clots, abdominal pain and distension, decreased urine production and fluid on the lungs. Early OHSS develops before pregnancy testing, and late OHSS is seen in early pregnancy.

Mild

You may experience:

- Abdominal bloating and feeling of fullness
- Nausea
- Diarrhoea
- Slight weight gain

This is likely due to:

- Ovaries are larger than normal, tender and fragile
- High levels estrogen and progesterone in the bloodstream that may upset your digestive system and fluid balance causing bloating.

Moderate

You may also experience:

- Weight gain of greater than 1kg per day
- Increased abdominal measurement causing clothes to feel tight
- Vomiting & diarrhoea
- Urine is darker and amount is less - Skin/hair may feel dry
- Thirst

This may be due to:

- High levels of hormones in the bloodstream upset the digestive system - Fluid imbalance causes dehydration because body fluids collect in the abdomen and other tissues
- This fluid collection causes severe bloating

Severe

You may also experience:

- Fullness/bloating up above the belly button
- Shortness of breath
- Calf pains and chest pains
- Marked abdominal bloating
- Lower abdominal pain

This may be due to:

- Extremely large ovaries
- Fluid collects in lungs and/or abdominal cavity, as well as in tissues - The risk of abnormal blood clotting increases

OHSS FAQs

Why does it happen?

OHSS is characterised by the presence of multiple cysts within the ovaries leading to ovarian enlargement and secondary complications. As the ovary undergoes a process of change after egg release called luteinisation, large amounts of estrogens, progesterone and local hormones (called cytokines) are released. It is held that vascular endothelial growth factor (VEGF) is a key substance that cause OHSS by making local small blood vessels (the capillaries) "leaky", leading to a shift of fluids from in the blood vessel system to the abdominal and lung (pleural) cavity. Thus, the patient accumulates fluid in these areas, called ascites, but this fluid is not available to the blood supply and she actually becomes dehydrated and has a concentrated but lower blood volume. She may become at risk of respiratory, circulatory and renal problems. Patients who are pregnant sustain this process by the production of hCG.

How common is it?

Sporadic OHSS is very rare, and may have a genetic component. Clomid therapy can occasionally lead to OHSS, but the vast majority of cases develop after use of FSH, such as Puregon or Gonal F, and the administration of hCG (Profasi or Ovidrel) to trigger ovulation. The frequency varies and depends on patient factors, management and methods of surveillance. Women with PCOS are at highest risk. About 1-5% of treated patients may encounter moderate to severe OHSS. Mortality is low, but several fatal cases have been reported.

What complications may occur?

OHSS may be complicated with ovarian torsion, ovarian rupture, thrombophlebitis and renal insufficiency. Symptoms generally resolve in 1 to 2 weeks, but will be more severe and persist longer if pregnancy is successful. This is likely due to the role of the corpus luteum in the ovaries in sustaining the pregnancy before the placenta has fully developed. Typically, even in severe OHSS with a developing pregnancy, the duration does not exceed the first trimester.

How can it be treated?

Physicians can reduce the risk of OHSS by monitoring of FSH therapy to use this medication judiciously, and by withholding hCG medication. Once OHSS develops, reduction in physical activity, closely monitoring fluid and electrolyte balance, and aspiration of accumulated fluid (ascites) from the abdominal/ pleural cavity may be necessary, as well as opioids for the pain. If the OHSS develops within an IVF protocol, it can be prudent to postpone transfer of the pre-embryos since establishment of pregnancy can lengthen the recovery time or contribute to a more severe course. Over time, if carefully monitored, the condition will naturally reverse to normal - so treatment is typically supportive, although patient may need to be treated or hospitalised for pain, paracentesis, and/or intravenous hydration.

Recommendations

- Drink electrolyte fluids such as Powerade, Gatorade or Gastrolyte if mild
- Notify the nurses
- You may need to be assessed at the clinic
- Excess fluid may need to be removed from your abdominal cavity
- Drink at least 1000ml of electrolyte fluids in this case Gastrolyte as well as your normal daily fluids - Call our nurses
- You may need to be seen by your doctor.

If your period starts, you will likely begin to feel better. Pregnancy may prolong or exaggerate these side effects. It may take up to 10 weeks for the symptoms to resolve if you are pregnant. Remember: The fact sheet is only a guide and not intended as a substitute for medical care.