

Ovarian Hyperstimulation Syndrome

Symptoms and treatments

This handout explains ovarian hyperstimulation syndrome. This condition can happen when some fertility medicines are used.



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What is ovarian hyperstimulation syndrome?

Ovarian hyperstimulation syndrome (OHSS) happens when the ovaries overreact to fertility medicines, especially when used during *in vitro fertilization (IVF)*. It usually happens after taking medicines like injectable gonadotropins which are used to make eggs grow. Rarely, it can happen with other medicines, such as clomiphene citrate.

With OHSS, hormone changes from fertility medicines can make your blood vessels leaky. Fluid can move out into places it shouldn't, like your belly or chest. This can cause swelling, low blood pressure, and other problems. It can also make your blood thicker, or more concentrated.

OHSS causes enlarged ovaries, bloating, nausea, and swelling in the abdomen. In severe cases, it can cause problems like dehydration, vomiting, abdominal pain, shortness of breath, or blood clots.

Most of the time, OHSS goes away by itself in 1-2 weeks, but it can last longer if you are pregnant.

What causes OHSS?

We do not fully understand what causes OHSS. We believe that it happens because of the hormones from the ovaries and the fertility medicines.

How is it treated?

OHSS usually goes away by itself. Treatments focus on making you comfortable until your symptoms improve.

Who is at risk for OHSS?

You might be at risk of OHSS if:

- Your levels of *estradiol* (a type of estrogen) are very high
- You have multiple growing *follicles* (egg sacs)
- You have many eggs retrieved
- You have a condition like *polycystic ovarian syndrome (PCOS)*
- You have high levels of *anti-mullerian hormone (AMH)*

OHSS may get worse after your ovulation trigger shot. This shot causes follicles to mature and prepare eggs for release.

Between 1 and 5% of patients (1 to 5 out of 100 patients) who take fertility drugs may get OHSS. Most of these patients have mild to moderate OHSS. Severe OHSS happens in less than 1% of patients (fewer than 1 out of 100 patients).



Talk with your fertility specialist if you have any questions about OHSS.

Symptoms of Mild to Moderate OHSS

The most common first symptoms of mild to moderate OHSS are:

- Belly bloating and discomfort
- Weight gain (up to 10 to 15 pounds of fluid weight)
- Nausea
- Constipation
- A sense of fullness in the pelvic area (caused by enlarged ovaries)

Symptoms of Severe OHSS

As the blood becomes more concentrated, these symptoms occur:

- Severe belly pain and bloating
- Nausea and vomiting
- Decreased urination and dark urine
- Dizziness when standing up
- Shortness of breath
- Rapid, shallow pulse
- Trouble breathing (caused by fluid buildup in the belly or lungs)
- Electrolyte imbalances (shows on lab work)
- Weight gain of more than 20 pounds

About Severe OHSS

In severe OHSS, enlarged ovaries may be more likely to twist. Follicles are more likely to *rupture* (break open) and bleed. This may cause pain and, very rarely, internal bleeding. This is why we recommend all IVF patients avoid high-impact activities like running or jumping. This is especially important if you have OHSS.

Severe OHSS is rare, but it is a serious condition. If you get severe OHSS, you must be treated right away. You will need many follow-up visits in the clinic and may even need a hospital stay.

How is OHSS prevented?

We can usually avoid severe OHSS with close monitoring. Some ways to prevent it include:

- Freezing all embryos to allow OHSS to resolve. We then transfer an embryo in a later cycle (*frozen embryo transfer cycle*).
- Using a medicine called Lupron to trigger ovulation.
- Avoiding HCG (pregnancy hormone) for ovulation trigger, or reducing the dose (this is less effective and rarely used).
- Canceling treatment if blood and ultrasound tests show the risk for severe OHSS is very high.
- Giving a medicine called Cabergoline during ovulation trigger **and** after the egg retrieval.
- Giving a medicine called Letrozole after the egg retrieval.

How can I lower my risk of OHSS?

If we think that you might be at risk for OHSS, we will ask you to do these things after your ovulation trigger:

- Stay hydrated with electrolyte-rich drinks such as coconut water, Gatorade, or water with electrolyte tablets such as Nuun.
- Weigh yourself each morning **before** you eat or drink anything.
- Check the color and amount of your urine.
- Report your weight and urine output to your Center for Reproductive Health and Fertility (CRHF) team every day.

When you report to CRHF, we will tell you if there are any other steps you need to take to prevent or manage OHSS.

When to Call the Clinic

Call 206.598.4225 weekdays from 8 a.m. to 5 p.m. if you have **any** of these symptoms:

- You are gaining more than 2 pounds a day.
- You urinate less than a cup of urine in 8 hours.
- Your urine looks dark.

Urgent Care

Call us **right away** if you have:

- Nausea or vomiting
- Severe belly pain

If it is after clinic hours, call 206.598.3300 and ask to page the provider on call.

If You Have Symptoms of OHSS

If you call us with OHSS symptoms, we will ask you to come to the clinic. At your visit, we will do an ultrasound exam and blood tests.

We may need to see you every day for retesting and treatment until your symptoms improve. If needed, you may be given *intravenous* (IV) fluid in the clinic or hospital.

If your symptoms are severe, we may need to drain the fluid from your belly through your belly wall or vagina. You may also need to start taking a blood-thinning medicine to prevent a blood clot.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Center for Reproductive Health and Fertility:

Weekdays 8 am – 5 pm:
Call 206.598.4225

After hours, weekends, and holidays: Call 206.598.6190 and ask to page the CRHF provider on call.