



# Ovarian Vein Thrombosis: Causes and Treatment in Pregnancy and Non-Pregnant Cases

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## DESCRIPTION

Blood clots that obstruct veins or arteries can cause thrombosis. One leg pain and swelling, chest pain, or numbness on one side of the body are some of the symptoms. Thrombosis complications, like a heart attack or stroke, can be fatal. Ovarian Vein Thrombosis (OVT), a condition characterized by the formation of blood clots within the ovarian veins, can occur both during pregnancy and in non-pregnant individuals. Although it is relatively rare, OVT can lead to serious complications if left untreated. This article aims to provide a comparative analysis of pregnancy-related and non-pregnancy-related OVT, focusing on causes, risk factors, symptoms, diagnosis, and treatment.

### Pregnancy-related ovarian vein thrombosis

Pregnancy-related OVT, also known as postpartum ovarian vein thrombosis, typically occurs in the postpartum period. Several factors contribute to its development:

**Pregnancy-related hypercoagulability:** During pregnancy, there is a natural increase in blood clotting factors to reduce bleeding during childbirth. This hypercoagulable state can increase the risk of thrombosis.

**Ovulation and pregnancy hormones:** Hormonal changes during pregnancy, including increased estrogen levels and the presence of a gravid uterus, can lead to compression and stasis of blood in the pelvic veins, contributing to clot formation.

**Trauma during childbirth:** Vaginal or cesarean delivery can cause injury to the ovarian veins, further increasing the risk of thrombosis.

Symptoms of pregnancy-related OVT may include abdominal or pelvic pain, fever, and localized tenderness. Prompt diagnosis and treatment are significant to prevent complications such as pulmonary embolism.

### Non-pregnancy related ovarian vein thrombosis

Non-pregnancy-related OVT can occur in women who are not pregnant or in men. The underlying causes and risk factors differ from pregnancy-related OVT:

**Hypercoagulable conditions:** Conditions like inherited thrombophilia's, malignancies, and connective tissue disorders can predispose individuals to OVT.

**Gynecological procedures:** OVT may develop following gynecological surgery or interventional procedures.

**Infections:** Localized infections in the pelvis, such as appendicitis or diverticulitis, can lead to OVT.

**Ovarian vein pathology:** Conditions like ovarian vein varices or compression due to adjacent structures can promote clot formation.

### Diagnosing ovarian vein thrombosis

Diagnosing both pregnancy-related and non-pregnancy-related OVT involves a combination of clinical evaluation and imaging studies:

**Clinical assessment:** A thorough medical history and physical examination are essential to identify risk factors and assess the patient's symptoms.

**Imaging studies:** Doppler ultrasound, Computed Tomography (CT) scans, or magnetic resonance imaging (MRI) are used to confirm the presence of clots in the ovarian veins.

### Treatment

Treatment for OVT typically involves anticoagulation therapy to prevent clot propagation and embolization. In pregnancy-related OVT, anticoagulation is safe during breastfeeding and poses minimal risk to the infant. In non-pregnancy-related OVT,

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the underlying cause must also be addressed. In some cases, intervention to remove the clot may be necessary.

Ovarian vein thrombosis is a rare but potentially serious condition that can occur during pregnancy and in non-pregnant individuals. While the underlying causes differ, the symptoms and diagnostic methods are similar. Early diagnosis and

appropriate treatment are essential to prevent complications, and healthcare providers must consider the specific circumstances of each patient when managing OVT. By understanding the differences between pregnancy-related and non-pregnancy-related OVT, healthcare professionals can provide more effective care and improve outcomes for those affected by this condition.