



Ovarian Torsion: the complete or partial twisting of the ovary on its supporting structures, causing impairment of blood flow. It is a **surgical emergency**.



ETIOLOGY

Ovarian enlargement is a key risk factor. Common causes include:

- Ovarian cyst (especially if >5 cm)
- Dermoid cyst (teratoma)

BUT torsion can still occur **without** risk factors—normal ovaries and patients with no anatomic risk factors can still be affected!

PRESENTATION

- **Pelvic Pain**
 - Sudden onset
 - Severe
 - Unilateral (right side is more commonly affected)
 - May have history of recent crampy abdo pain
- **Nausea/Vomiting**
- Most common during reproductive age, but can occur at any age

PHYSICAL EXAM

- Lower abdo tenderness
- Pain out of proportion to exam
- May have a palpable and tender adnexal mass

DIAGNOSIS



Transabdominal Pelvic Ultrasound with Colour Doppler

✓ Suggestive Findings

- Enlarged heterogeneous ovary
- Asymmetric ovaries
- Multiple peripheral follicles
- A coiled vascular pedicle (Whirlpool Sign)
- Absence of arterial blood flow on Doppler

Consult pediatric surgery/ gynecology for **Diagnostic Laparoscopy**

Torsion Confirmed

Laparoscopic Detorsion with Ovarian Preservation

- Standard of care; performed regardless of ovary appearance (e.g., necrotic-appearance) or timing of presentation

✗ Non-Suggestive Findings

- Normal ovarian size and position
- Symmetric ovaries

Ongoing Pain

Consider other diagnoses

Pain Resolves

Observe (Be alert for **intermittent torsion**)

POTENTIAL DIFFERENTIAL DIAGNOSES

GYNECOLOGIC

- Ectopic pregnancy
- Ruptured ovarian cyst
- Tubo-ovarian abscess
- Pelvic inflammatory disease

GASTROINTESTINAL

- Acute appendicitis
- Intussusception

UROLOGIC

- Nephrolithiasis/ ureteral colic
- Urinary tract infection



Normal Doppler flow on US

does NOT rule out ovarian torsion! Clinical suspicion is key—**don't rely on Doppler alone** for decision-making!

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Emily Cheung (Medical Student, McMaster University), Dr. Erin Boschee MD FRCPC (Pediatrician, Stollery Children's Hospital) for www.pedscases.com