

# Epididymal cysts

## Description

Smooth, extratesticular, spherical cysts in the head of the epididymis are not uncommon in adult men. If the cyst contains spermatozoa (usually seen on histology only), it may be referred to as a spermatocele.

They are benign and do not usually require treatment. It is important to appreciate when they might be significant and when further investigation or treatment is recommended.

## Epidemiology

Epididymal cysts usually develop in middle-aged men<sup>[1]</sup>. Epididymal cysts are rare in children and when they occur, usually present around [puberty](#). The incidence in children is between 5-20%<sup>[2]</sup>. The prevalence in the general population is difficult to estimate but a 2019 paper showed the incidence of men with either hydro or spermatocele diagnosis in specialised healthcare was around 100 per 100,000 men<sup>[3]</sup>.

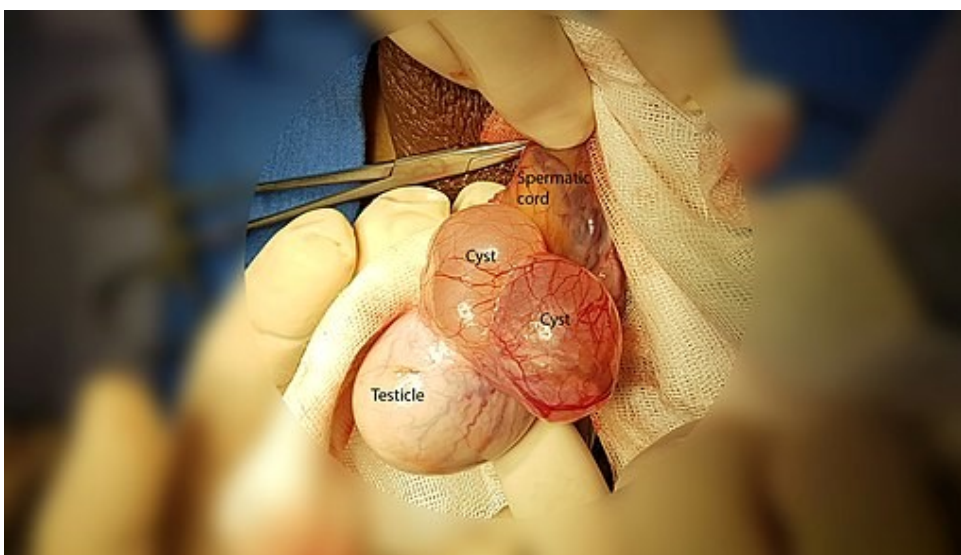
## Presentation

Patients usually present having noticed a lump. This often causes a great deal of anxiety and clinical examination can enable reassurance.

- Often epididymal cysts are multiple and are frequently bilateral<sup>[1]</sup>.
- Small cysts may remain undetected and asymptomatic. Small cysts are tolerated by patients. However, once epididymal cysts get large (with size equivalent to the size of a testicle) they are, unsurprisingly, more likely to present for removal.
- As they are cystic and fluid-filled they are well defined, fluctuant and do not usually transilluminate<sup>[1]</sup>.

- As they arise in the epididymis, the testis is palpable quite separately from the cyst (unlike a hydrocele where the testis is palpable within the fluid-filled swelling).
- Extratesticular, fluctuant, and cystic swellings which are readily palpable separate from the body of the testis, are epididymal cysts and do not usually need further investigation.
- These can readily be distinguished from [testicular tumours](#) which arise from the testis.

The image below represents a typical appearance during surgical procedure.



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## Differential diagnosis

- Inflammatory thickening, either acute or chronic of the epididymis.
- [Hydroceles](#). These are collections of fluid surrounding the entire testicle.
- [Varicoceles](#). These are dilated veins and have been described as feeling like 'a bag of worms'. They increase with increase in abdominal pressure (Valsalva manoeuvre).
- Other scrotal masses, particularly extratesticular scrotal masses <sup>[4]</sup>. These are predominantly benign and include adenomatoid tumour of the epididymis, paratesticular abscess and epididymal cystic lymphangioma.

- [Lipomas](#) are the most common extratesticular tumours.

## Investigations

Scrotal ultrasound will assist diagnosis if there is uncertainty. Aspiration of fluid is rarely useful or necessary from either a diagnostic or a treatment perspective.

## Associated diseases

- [Cystic fibrosis](#). Congenital absence of the vas deferens is the most common genital tract anomaly in cystic fibrosis (99% of patients) <sup>[5]</sup>. Epididymal cysts are common.
- Von Hippel-Lindau disease. Along with other more significant manifestations of this syndrome, epididymal cysts are associated with the condition <sup>[6]</sup>. It is a rare disease and important to recognise early.
- Adult polycystic kidney disease (autosomal dominant) <sup>[7]</sup>.
- Maternal exposure to diethylstilbestrol <sup>[8]</sup>.

There is no evidence that epididymal cysts are associated with infertility <sup>[9]</sup>.

## Management

- Treatment is not usually necessary and explanation and advice are all that is usually required <sup>[1]</sup>. Patients should be advised to seek medical advice if epididymal cysts become painful or suddenly start increasing in size.
- Spontaneous resolution may take up to 50 months <sup>[10]</sup>.
- Surgical excision is recommended in children with intractable scrotal pain or if the cyst size does not seem to involute. Excision may also be offered to symptomatic adults.
- Percutaneous aspiration with instillation of sclerosant is another option. The success rate in one study (at a median of 31 months post-initial procedure, after at most two procedures) was 85% for spermatoceles/epididymal cysts <sup>[11]</sup>.

# Complications

Torsion of the cyst can occur but is extremely rare with only a handful of cases reported <sup>[2]</sup> <sup>[12]</sup> . They do not become infected.

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## Further reading

- [Sinha V, Shankar M, Sardana N, et al](#); A Rare Case of Epididymal Cyst Due to Schistosomiasis. Cureus. 2019 Sep 25;11(9):e5755. doi: 10.7759/cureus.5755.

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