Urinary Tract and Genitalia
**Undescended Testes**

**Definition**
Undescended testes occur following an abnormality of migration of the testes. The testes are located outwith the scrotum and can be described as retractile, ectopic or incompletely descended.

**Diagnosis**
It is important to distinguish between retractile and ectopic or incompletely descended testes.

Retractile testes are normally present within the scrotum until the child is approached for examination, at which point they ascend. If the testes can be brought down to the base of the scrotum with gentle manipulation then they are almost certainly retractile. This process is helped if the child is comfortable and the environment is warm.

**Management**
Approximately 5% of full term babies have one or both testes undescended. By three months of age only 1.5% will remain undescended and within a year of life this is further reduced spontaneously to 0.3%.

At the 6 week check, if is doubt that one or both testes are not palpable, please refer the baby to surgical paediatrics at Yorkhill.

Retractile testes are a normal variant. Parents should be reassured that the testes will stop being retractile as their son develops. Referral is not required.

Both incompletely descended testes and ectopic testes are treated by surgery. The procedure (orchidopexy) is performed under general anaesthetic, usually as a day case. At Yorkhill we aim to perform the surgery when the child is between 1 and 2 years old.

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Women and Children’s Services

Complications

In cases of undescended testes there is an increased risk of torsion and associated inguinal hernia. If the patient experiences pain or swelling then urgent referral is advised. In cases of bilateral undescended testes there is a risk of subfertility. Boys born with bilateral non palpable testis need to be assessed urgently. However, this should have been identified at the child’s baby check.

Parent information

Parents should be reassured that if a baby boy has an undescended testicle that in most cases no surgical intervention is required as most testes are retractile. If surgery is required it will be performed when the child is 1 to 2 years old, so early referral to a specialist is not indicated unless there are complications. An information leaflet may be useful.
Undescended Testes

Testes not in Scrotum following 6 week check

- Palpable
  - Can testes be palpated at inguinal ring and brought down into scrotum?
    - YES (Retractile)
      1) Observe annually. Testes are likely to descend spontaneously.
      2) Information to parents.
    - NO (Ectopic or Incompletely Descended)
      Refer to Yorkhill for investigation

- Impalpable
  Refer to Yorkhill for investigation
Phimosis

Definition

Phimosis is a tight foreskin which cannot be retracted over the glans.

The majority of boys have a tight non retractile foreskin at birth, a physiological phimosis. Over the first three years of life the foreskin starts to loosen up, this is normally associated with some ballooning and the occasional inflammation. By three years of age 90% of boys will have a retractable foreskin, but in 10% spontaneous separation can continue well into their childhood.

Pathological phimosis can be acquired following acute or chronic inflammation of the prepuce. It is very uncommon to see this before 5 years of age.

Diagnosis

Pathological and physiological phimosis can be distinguished on physical examination. Boys with a pathological phimosis are normally older and a white plaque of scar tissue can be indentified.

Management

• In the majority of cases physiological phimosis resolves spontaneously as the child develops.
• In physiological phimosis, ballooning is not a sign of obstruction to the urinary flow, and will resolve following spontaneous separation of the prepuce.
• Circumcision is indicated for pathological phimosis (when scarring prevents retraction). This is also performed under general anaesthetic as a day case.
• Retraction of the foreskin or a prepuceplasty may be performed under general anaesthetic as a surgical day case.
• A non-retractile foreskin is not necessarily abnormal up to early puberty.
• In the absence of the complications listed below referral to a specialist is not necessary until the child is 4 years old.

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Complications

Recurrent inflammation is common with phimosis but is not an indication for circumcision before 4 years of age.
Pain and urinary retention are indicators for referral to specialist care.

Parent information

• Parents can be advised that phimosis is due to the ongoing development of the foreskin. The majority of cases resolve spontaneously
• They should be made aware that ballooning and recurrent inflammation is to be expected with this condition.
• Circumcision is not performed as routine management of phimosis.
• An information leaflet may be useful.
**Inguino - scrotal swellings**

**Hydrocoele**

**Definition**
Asymptomatic scrotal swellings
Collection of fluid in tunica vaginalis
Congenital hydrocoele is most common in children

**Diagnosis**
Enlarged scrotum
Often testes cannot be felt separately
In hydrocoele, one can get above the swelling (i.e. feel normal cord structures in the groin superior to the scrotum)
Transillumination may be observed

Patients/parents may give a history of the hydrocoele enlarging throughout the day and reducing at night. If the patient/parents give a history of sudden enlargement, hernia should be considered.

**Management**
Referral to specialist care is not indicated until the child is 2 years old, as the majority of hydrocoele resolve spontaneously
Surgery is performed under general anaesthetic. Ligation of patent processus vaginalis and evacuation of hydrocoele fluid is done as a day case.
If there are concerns regarding the diagnosis, eg possible hernia, referral to a specialist is indicated.

**Inguinal hernia**

**Definition**
The peritoneal sac protrudes through the deep inguinal ring and may extend into the scrotum

**Diagnosis**
Usually reducible
May be associated with discomfort/pain
Present in groin and scrotum
Parents may give history of the swelling being intermittent

**Management**
Refer to secondary care for repair. Children less than 6 months old should have an urgent referral.
The procedure is usually performed under general anaesthetic in the day surgery unit.
If the child is less than 6 months old they will be admitted to the ward for observation overnight.

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Complications
Hydroceles are uncomplicated. If there is pain or a significant increase in size, referral to a specialist is indicated.

Parent information
Parents can be advised that the majority of hydroceles will resolve spontaneously within the first year of life.

Complications
Inguinal hernia carries a risk of becoming irreducible, in which case urgent referral is indicated.

Parent information
Inguinal hernia will require surgical repair.