



PROCEDURE

Testes assessment

Scope (Staff):	Community health
Scope (Area):	CAHS-CH, WACHS

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

To identify deviations in testicular descent for timely referral and management.

Risk

If undescended testes (UDT) are not detected and treated effectively, there is an increased risk of subfertility and testicular malignancy.¹

Background

Undescended testes (UDT), also known as cryptorchidism, is defined as the failure of the testis to descend into the scrotum. Normal descent of the testes occurs in two steps, a trans-abdominal phase in the first trimester and an inguinoscrotal phase between 25 and 30 weeks gestation.² Spontaneous testicular descent has usually occurred by 6 months of age.³

UDT may be congenital or acquired. In cases of acquired UDT, the testis is initially located in the scrotum at birth but later becomes extra-scrotal. The incidence of congenital UDT is estimated at 2-4% in full term infants and up to 30% in preterm infants.^{2,3} Unilateral UDT is four times more common than bilateral UDT and is the most common congenital malformation in boys.⁴

Risk factors for congenital UDT include^{1, 3, 5}

- Prematurity
- Low birth weight for gestational age
- Family history
- Maternal tobacco use
- Placental insufficiency.^{3, 5}

The clinical examination of babies and infants aims to confirm the persistence of congenital UDT by 3–6 months, so surgery can be optimally timed at 6–12 months (corrected age).^{1, 2} Testicular migration to the scrotum is complete by about 3 months of age, so if the testis is still not in the scrotum by 3 - 4 months, the baby needs immediate referral for orchidopexy, ideally done at 6–12 months.²

Decreased fertility is largely a concern for bilateral UDT. Malignancy occurs at a higher rate but remains relatively low risk.¹

Parents/caregivers should be given information that all boys should be screened for acquired UDT at school entry.²

Refer to [Appendix A](#) for information on different conditions of the testes

Key points

- All nurses will refer to the [Nursing and Midwifery Board AHPRA Decision-making framework](#) in relation to scope of practice and delegation of care to ensure that decision-making is consistent, safe, person-centred and evidence-based.
- Nurses need to provide culturally safe service delivery which demonstrates a welcoming environment that recognises the importance of cultural beliefs and practices of all clients.
- Physical examination to be performed by staff with appropriate training.
- Community health nurses must follow the organisation's overarching Infection Control Policies and perform hand hygiene in accordance with WA Health guidelines at all appropriate stages of the assessment.

Procedure

Steps	Additional Information
<p>1. Informed consent and preparation</p> <ul style="list-style-type: none"> • Explain the examination to the parent/caregiver. • Obtain verbal consent to proceed. 	<ul style="list-style-type: none"> • Allow enough time for discussion of parental concerns. • Ask parents if the testes have ever been in the scrotum. Retractable testes often descend during a warm bath.¹ • After discussing parental concerns and gaining consent, explain physical examination briefly to infant or child before proceeding. • If the parent has concerns but does not consent to the examination, refer to a medical practitioner. • At the Universal contact 2 year, ask parent/caregiver about testicular descent. If parent is unsure, suggest testes examination. • Assessments or discussions involving genitalia require consideration of the privacy of the venue and the appropriateness of those attending with the client.
<p>2. Positioning ⁷</p> <ul style="list-style-type: none"> • Lay the infant on his back with legs in frog-leg position. • Older children can be examined lying down, standing, squatting or sitting cross-legged. 	<ul style="list-style-type: none"> • Ideally, the physical examination should be done in a warm environment and when the child is calm.¹ • Frog-leg position with foot soles together may help to locate retractile testes. • A squatting position helps the cremaster muscle to relax, enabling the testes to drop into the scrotum.

Steps	Additional Information
<p>3. Inspection⁷</p> <ul style="list-style-type: none"> • Visually inspect the scrotum. Observe for size, colour and position. • Refer to the <i>Physical assessment 0 - 4 years</i> guideline for further information about assessment of the genitourinary system. 	<ul style="list-style-type: none"> • A normal scrotum appears loose and wrinkled. • If the scrotum is small and flat, the testis or testes are not in scrotal sac. • An enlarged scrotum may indicate a hydrocele, inguinal hernia or enlarged testis.
<p>4. Palpation^{1, 7}</p> <ul style="list-style-type: none"> • Palpate both sides of the scrotum to assess the position and mobility of each testis. • Begin above the scrotum at the superior anterior iliac crest. • Apply consistent downward pressure while moving the hand obliquely towards the symphysis pubis. • Maintain a gentle downward pressure towards the sacrum and use the opposite hand to palpate the scrotum. • Maintain the position of the testis in the scrotum for up to 30 seconds so that the cremaster muscle becomes fatigued. • Release the testis. If it remains in place for a short time but then retracts, it is considered retractile. • A truly ascended testis that cannot be manipulated into the scrotum requires prompt medical review. 	<ul style="list-style-type: none"> • The examiner must have warm hands and a gentle touch. • A normally descended testis should be located well down in the scrotum. • The cremasteric reflex is activated by lightly stroking the superior and medial part of the thigh. This causes an immediate contraction of the cremaster muscle, which pulls up the testis on that side. • A retractile testis may stay in the scrotum for a short time when released but retracts when the cremasteric reflex is activated. • An undescended testis will return to the undescended position immediately after being released. • Testes can be described as normal, high scrotal, or impalpable.¹ • Parent concerns, assessment findings, actions and outcomes are clearly documented in client's electronic record.
<p>Referral pathway</p> <p>Refer to a medical practitioner for:</p>	<ul style="list-style-type: none"> • Discuss reason for referral with parent/caregiver. Ensure they

Steps	Additional Information
<ul style="list-style-type: none"> • Infants with absent or incompletely descended testes after 3-4 months of age. • Any child where previously descended testes become either high-scrotal, retractile, or non-palpable.³ • A child whose scrotal hydrocele has enlarged or is causing pain, or remains unresolved by 2 years of age.⁸ • An urgent surgical referral should be made for a child presenting with acute scrotal pain, with or without swelling or abdominal pain.^{3, 8} 	<p>understand the reason for referral and obtain consent.</p> <ul style="list-style-type: none"> • Complete <i>CHS663 Clinical Handover/Referral form</i> and provide parent/caregiver with completed form. • Document referral in CDIS/CHIS. <ul style="list-style-type: none"> ○ Attach copy of <i>CHS663 Clinical Handover/Referral form</i>, and update <i>CHS725 Consent for Release of Information form</i> if required.

References
<ol style="list-style-type: none"> 1. Yeap E, Nataraja R, Pacilli M. Undescended testes. Australian Journal of General Practice. 2019;48(1/2):33-6. 2. Hutson J, ., Vikraman J, Li R, Thorup J. Undescended testis: What paediatricians need to know. Journal of Paediatrics and Child Health 2017;53:1101-4. 3. Kurz D. Current Management of Undescended Testes. Pediatric Urology. 2016;2(1):43-5. 4. Fantasia J, Aidlen J, Lathrop W, Ellsworth P. Undescended Testes: A Clinical and Surgical Review. Urol Nurs. 2015;35(3):117-26. 5. Brouwers MM, de Bruijne LM, de Gier RP, Zielhuis GA, Feitz WF, Roeleveld N. Risk factors for undescended testis. Journal of pediatric urology. 2012;8(1):59-66. 6. Child and Adolescent Health Service – Perth Children’s Hospital. Pre-referral guidelines – Undescended Testes. 2021 [updated May 2021]. Available from: https://pch.health.wa.gov.au/For-health-professionals/Referrals-to-PCH/Prereferral-guidelines/Undescended-testes. 7. Duderstadt K. Pediatric physical examination: an illustrated handbook: Elsevier Health Sciences; 2013. 8. Child and Adolescent Health Service – Perth Children’s Hospital. Pre-referral guidelines – Hydrocele 2021 [updated May 2021]. Available from: https://pch.health.wa.gov.au/For-health-professionals/Referrals-to-PCH/Prereferral-guidelines/Hydrocele. 9. Hack W, Goede J, van der Voort-Doedens L, Meijer R. Acquired undescended testis: putting the pieces together. International journal of andrology. 2012;35(1):41-5.

Related internal policies, procedures and guidelines
The following documents can be accessed in the Community Health Manual: HealthPoint link or Internet link or for WACHS staff in the WACHS Policy link
Child health services
Clinical Handover - Nursing
Physical assessment 0 - 4 years
Universal contacts– 0-14 days, 8 weeks, 4 months, 12 months, 2 years
The following documents can be accessed in the CAHS-CH Operational Manual
Client Identification
Consent for services
Hand Hygiene
Infection Control manual
The following documents can be accessed in WACHS Policy
Enhanced Child Health Schedule

Related CAHS-CH resources
The following resources can be accessed from the CAHS-Community Health Resources page on HealthPoint
Practice guide for community health nurses

Related CAHS-CH forms
The following forms can be accessed from the CAHS-Community Health Forms page on HealthPoint
Clinical handover/Referral form (CHS 663)

Useful external resources
Brief overview on UDT from Royal Melbourne Children’s Hospital http://www.rch.org.au/kidsinfo/fact_sheets/undescended_testes/
Facts and diagrams on descent of testes http://www.embryology.ch/anglais/ugenital/diffmorpho04.html
Raising Children Network - Undescended testicle

This document can be made available in alternative formats on request.

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Healthy kids, healthy communities

Compassion

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Appendix A - Conditions of the testes

Maldescended testis⁹

This term refers to any abnormality in testicular descent that is not a normal variant.

Undescended testis^{1, 6}

Undescended testis (UDT) is the second most common paediatric surgical condition after inguinal hernias. It refers to a testis that is not in the scrotum by the age of three months because of a failure of normal descent. Five per cent of boys have a UDT at birth, 1–2% at three months and 1% at one year; hence, it is uncommon for testes to descend after three months.¹

Undescended testes are those that are unable to be manipulated to the base of the scrotum or can be manipulated into the base of the scrotum under tension but will retract back quickly once released.⁶

- UDT may be:
 - palpable elsewhere in the normal descending pathway, either incompletely descended or retractile
 - palpable outside the descending pathway (ectopic)
 - non-palpable
 - absent
 - unilateral or bilateral.

Acquired Undescended Testes¹

Acquired undescended testes (also known as ascended testes) occur if the spermatic cord fails to elongate as the child grows, causing the testes to retract back into the groin.^{6, 9}

An ascended testis may appear to have descended previously but then moves to a higher position in early or middle childhood (1- 10 years). The testis may be located in the high-scrotal area initially, but eventually may become inguinal.⁹ For this reason regular re-examination is recommended in a primary care setting even if the testes were previously noted in the scrotum.¹ For those boys who develop acquired UDT later in childhood, the 'ascending' testis often needs surgery between 5 years and 10 years. Parents/caregivers should be given information that all boys should be screened again for UDT at school entry.²

The re-ascended testis is not able to be manipulated back into a stable scrotal position. It immediately retracts out of the scrotum after manipulation, often with associated pain; this feature distinguishes it from retractile testes.

- A truly ascended testis that cannot be manipulated into the scrotum requires referral for medical review.⁹

When an ascending testis is detected during childhood, the optimum time for orchidopexy is before puberty (usually around 7–8 years).¹

Retractile Testes

The cremaster muscle contracts to control the temperature of the testis, retracting it to the body when environmental temperature changes. When androgen levels are high at birth and at 3–6 months, the cremaster muscle is more relaxed. When androgen levels decrease after this, the muscle has a greater tendency to contract, causing retractile testes.¹

Retractile testes can be manipulated into the base of the scrotum without tension. Once released, they will maintain the position at the base of the scrotum for a period of time.¹ After holding the testis in the scrotum for about 30 seconds, the cremasteric muscle fatigues and helps to discern a retractile testis from an UDT; a retractile testis will remain intrascrotal until the cremasteric reflex is stimulated again, while a UDT will not.³

Retractile testes often fully descend by puberty, with no increased risk of infertility. However, testicular ascent may be higher in boys with retractile testes compared to boys with testicles always located in the dependent scrotum. The incidence of testicular ascent with a retractile testis ranges widely from 2 to 45 %. Ascended testes may also be at a higher risk of decreased fertility as well as germ cell disorders. Therefore, boys with a retractile testis are recommended to undergo a testicular examination at least annually.³

Impalpable testis ¹

Thirty per cent of testes not palpable in the scrotum (impalpable) are found in the inguinal region, 20% are intra-abdominal, and 10% are in an ectopic location. An impalpable testis may be absent in approximately 40% of boys as part of a testicular regression syndrome. This is usually secondary to intrauterine or perinatal torsion prior to fixation of the testis in the scrotum, and a testicular 'nubbin' or abnormal testicular remnant is the only tissue present. Hypertrophy of the contralateral testis is likely to occur. A useful comparison for the appropriate size of the testis is the size of the glans penis.

Bilateral non-palpable testes

Infants presenting with bilateral non-palpable testes require additional assessment for disorders of sexual development¹. In particular, they should be investigated for congenital adrenal hyperplasia, which may have lethal salt-wasting consequences.

Testicular torsion

Testicular torsion is a rotation of the testis with resultant strangulation of its blood supply. It most commonly occurs in infancy and between 12 and 18 years of age and affects the left testis more often than the right. Symptoms include acute scrotal pain and swelling, nausea and vomiting, followed by scrotal oedema.⁹

Acute scrotal pain requires **urgent surgical review**.

Hydrocele⁸

A hydrocele is a non-tender, soft, fluctuant scrotal swelling commonly found in infants (congenital) although it may develop later (acquired). Most congenital hydroceles will resolve spontaneously within the first two years of life, without intervention. Refer if hydrocele:

- is causing pain or enlarging, or
- is still present after 2 years of age.