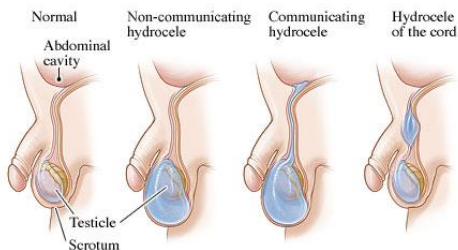




# Indian Association of Pediatric Surgeons

## Patient Information Sheet

# HYDROCELE



**Concept, Text & Photograph Courtesy :**

**Dr. Shandip Sinha,**

**Neonatal & Pediatric Surgeon, Madhukar Rainbow Hospital, New Delhi**

**Edited, designed and formatted by :**

**Dr. Veereshwar Bhatnagar,**

**Former Professor & Head, Pediatric Surgery, AIIMS, New Delhi,**

**Currently Professor of Pediatric Surgery & Dean Research, School of Medical Sciences & Research, Sharda University, Greater Noida, UP.**

**Published by :**

**Dr. Amar Shah, Jt. Secretary, IAPS, Consultant Pediatric Surgeon, Amardeep Children Hospital, Ahmedabad &**

**Professor Ravi Kanojia, Secretary, IAPS, PGIMER, Chandigarh**

**for & on behalf of the Indian Association of Pediatric Surgeons**

## What is hydrocele?

A hydrocele is a collection of fluid around the testis caused by a patent processus vaginalis. This can be present on one side or on both sides. However, right sided hernias are more common.

## What causes this problem and how common is it ?

During fetal life when the testis descends into the scrotum from the abdominal cavity it pulls along a fold of peritoneum. This fold of peritoneum is called the processus vaginalis and the part around the testis is called tunica vaginalis. Under normal circumstances this closes off after the descent of the testis is complete. If it remains open then it can give rise to hydrocele.

If the processus vaginalis is patent and allows only a trickle of peritoneal fluid which collects in the tunica vaginalis it is called 'communicating' hydrocele. If fluid has collected in the tunica vaginalis and the processus vaginalis has closed off then it is called 'non-communicating' hydrocele. If there is a fluid collection in an isolated part of the processus vaginalis it is called 'hydrocele of the cord'.

Hydrocele is a very common problem in boys.

## What are the symptoms ?

- Communicating and non-communicating hydroceles will present as a swelling around testes in the scrotum.
- Communicating hydrocele will have a typical history that when the child is sleeping or lying down then the swelling is smaller or may not be present and it appears when the child is ambulatory.
- In non-communicating hydrocele the swelling will always be present.
- Hydrocele of the cord will present as a constant swelling in the inguinal region.
- These swellings are painless but can be large enough to be alarming.

## When to see your doctor ?

As soon as an inguinal or scrotal swelling is noticed.

## How it is diagnosed ?

The diagnosis is done by clinical examination.

These swellings are transilluminant ie if a pinpoint light is held against the swelling then the swelling will glow.

Communicating hydrocele swellings can be emptied by a gentle squeezing pressure but should not be done as it maybe painful to the child..

## What are the treatments available ?

If a hydrocele has not resolved spontaneously by the age of 1-2 years then surgery is the only modality available to treat this condition. It can be done by either open method or laparoscopic method.

## When it should be operated ?

Your child will need surgery to remove the fluid if :

- He still has the hydrocele at age 2.
- The swelling comes and goes.
- The swelling causes pain.
- The swelling gets worse.

## Are there other alternative methods of treatment ?

There is no medical management in this condition.

However, expectant treatment is advised up to the age of 1-2 years. During this period there is a possibility that the hydrocele may resolve due to spontaneous closure of the processus vaginalis.

## What does the operation involve ?

In open surgery, a small cut is made in the groin area.

The processus vaginalis is looked for and excised. The scrotal sac with the collected fluid is pulled up into operation wound and punctured to empty it out. The testis is then placed back in the scrotum before stitching up the wound.

In laparoscopic surgery, keyhole incisions are made over abdomen and the processus vaginalis is closed from inside the abdomen. The scrotal fluid collection is also drained.

## What are the possible complications / what happens after the operation ?

Postoperatively,

- Feeding can be resumed as soon as the effects of general anesthesia wear out.
- A few doses of pain killers maybe required.
- The dressing can be removed on the next day.
- A visit to the doctor is usually asked for after 2 weeks.

For majority of children, if surgery is done by trained pediatric surgeons, complications are rare.

Reported ones are :

- collection of blood in the scrotal sac – ‘hematocele’
- recurrence
- injury to vas and vessels
- testicular atrophy

## What is the outlook or future of these children ?

They do not have any long term problems after surgery unless there has been an injury to the vas or vessels. The scars of surgery, whether open or laparoscopic, are hardly discernable a few years after the surgery.



Bilateral and unilateral hydrocele



View of open and laparoscopic surgery