



# *History & Physical Examination of Genitourinary system*

# Scrotal, Groin Swelling & Hernia

History: **as a Lump**

Chief Complain : swelling	
Question	Indications
1. Site	Where is the lump?
2. Duration	When it was first noticed? / When did you notice it ?
3. First Symptom	What brought it to the patient's notice? /How did you notice it?
4. Other Symptoms	What symptoms does it cause?
5. Progression	How has it changed since it was first noticed? / Does it change since the first time you noticed ?
6. Persistence	Has it ever disappear? What makes the lump to reappear?
7. Multiplicity	Has /had the patient any other lumps? / Do you have other lumps ?
8. Cause	What does the patient think caused it? / What do you think the cause ?
9. Association	Nausea , vomiting , pain , discoloration of the skin
10. Risk Factors	Depends on the site*check the last page*

## Examination: as a Lump

Inspection		
S	Site	Location exact anatomy , measure distance from bony point by tape measure
	Shape	Remember that lumps have three dimensions, you cannot have a circular lump because a circular is plane figure. many lumps are not regular spheres , or hemisphere , but have an asymmetrical outline , in these circumstance , it is permissible to use descriptive such as pear shape or kidney shaped
	Size	At least 3 dimension → width , length , height or depth
	Surface	Smooth or irregular / there may be mixture of surface if the lump is large
C	Color of the skin	The skin become discolored and <u>smooth shiny</u> or <u>thick and rough</u>
	Composition (composed <u>one or more</u> of the following )	<ul style="list-style-type: none"> <li>- Calcified tissue → hard (such as bone )</li> <li>- Tightly packed cell → solid</li> <li>- Extravascular fluid → cystic (such as urine , serum , CSF , synovial fluid , extravascular blood )</li> <li>- Gas</li> <li>- Intravascular blood</li> </ul> <p>The physical sings which help you decide the composition of a lump are → consistence , fluctuation , fluid thrill , translucence , resonance , pulsatility ,compressibility and bruits</p>
	Consistency	<ul style="list-style-type: none"> <li>- Stony hard → not indentable ( bone or calcification )</li> <li>- Firm → hard but not as hard as bone</li> <li>- Rubbery → slightly squashable similar to rubber ball</li> <li>- Spongy → soft and very squashable with some resilience</li> <li>- Soft → squashable no resilience</li> </ul> <p>The consistence of a lump depends not only upon its structure but also on the tension within it (some fluid-filled lumps are hard)</p>
Palpitation		
Compressibility	Some fluid-filled lumps can be compressed until they disappear , <u>when the compressing hand is removed the lump re-form</u> → ( vascular malformation or fluid collection which can be pushed back into a cavity or cistern )	
Reducibility *	<ul style="list-style-type: none"> <li>- If lump is reducible ( disappear ) by gently compressing it , will be felt to get smaller and to move into another place as it is compressed .</li> <li>- <u>Cough impulse</u> → if you ask the patient to cough , the lump may return , expanding as it does so .</li> </ul>	
* <b>Compressibility ≠ Reducibility</b> : Compressibility when the compressing hand is removed the lump reforms, but Reducibility : the lump can be pushed away into another place but will often not appear spontaneously without the stimulus of coughing or gravity.		

Temperature	hot or normal temperature , (by dorsal surface of your finger)
Tenderness	tender or not ( feel first not tender , look to the patient's face)
Edge	clearly defined or indistinct
Relation to surrounding structures	<ul style="list-style-type: none"> <li>• Attachment of skin and other superficial structure to lump can easily determined</li> <li>• Attachment to deeper structure more difficult to determine ,</li> <li>• Attached or a raised from vessel or nerve ma move from side to side across the length ,but not up and down along their length</li> <li>• Lumps in the abdomen are freely mobile usually arise from intestine → its mesentery , or the omentum</li> </ul>
Resonance	<p><b><i>Percussion</i></b></p> <ul style="list-style-type: none"> <li>• Dull→ solid / fluid-filled lump</li> <li>• Hollow and resonant → gas- filled lump</li> </ul>
<b>Special Maneuvers</b>	
Fluctuation	<p>press on one side of fluid-filled cavity it makes all other surface protrude</p> <p>Solid lump it may or may not bulge out in another direction</p> <p>Fluctuation can only elicit by feeling <u>at least two other areas</u></p>
Fluid thrill	percussion wave easily conducted cross in fluid but not in solid mass
Transillumination	light will pass through clear fluid but not like solid
Pulsatility	near to the adjacent artery → ( transmitted or expansion )
Bruits	<ul style="list-style-type: none"> <li>• vascular lump ( arteriovenous fistula systolic bruit )</li> <li>• hernia ( bowel sound )</li> </ul>
Sate of regional lymph node	palpate the lymph glands that would normally receive lymph from the region occupied by the lump
State of the local tissue	examine the overlying and nearby skin , tendon , circulation , nerve supply ...etc.

Theory about hernia		Risk factors
<b>Inguinal</b>	<p>Inguinal hernias: protrusion part of the content abdomen through the inguinal region of the abdominal wall .</p> <p>can be classified as "direct" or "indirect"</p> <p>An <u>indirect</u> inguinal hernia occurs through the natural weakness in the internal inguinal ring.</p> <p>A <u>direct</u> inguinal hernia is a result of weakness in the floor of the inguinal canal</p>	<p><b>Male , Family history , chronic cough , Chronic constipation , Excess weight , Pregnancy , heavy physical labor , Premature birth , History of hernias</b></p>
<b>Femoral</b>	<p>is a protrusion of abdominal contents through the femoral canal</p>	<p><b>Chronic constipation , Chronic cough , Heavy lifting , Obesity , Straining to urinate because of an enlarged prostate</b></p>
<b>Umbilical</b>	<p>Occur near the umbilicus, which has a natural weakness from the blood vessels of the umbilical cord.</p> <p>These hernias may occur in infants at or just after birth.</p>	<p>In adults, umbilical hernias are more often acquired and are associated with <b><u>increased intraabdominal pressure</u></b> due to <b>obesity, abdominal distension, ascites, and pregnancy.</b></p>
<b>Epigastric</b>	<p>Is a protrusion of abdominal content through a defect in the linea alba</p>	<p>Epigastric hernias are likely the result of multiple factors, including <b><u>congenitally weakened linea alba from a lack of decussating midline fibers, increases in intraabdominal pressure, muscle weakness, or chronic abdominal wall strain</u></b></p>
<b>Incisional</b>	<p>Hernia through an acquired scar in the abdominal wall, caused by previous surgical operation</p>	<p>Conditions that increase the risk for incisional hernia include <b><u>surgical site infection, obesity, smoking, malnutrition, immunosuppressive therapy, and connective tissue disorders</u></b></p>



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