

## ***Layered Palpation of Abdomen & Pelvis***

### **Above umbilicus**

1. **First structure you come to is skin**
  - a. Appreciate the resiliency of the skin. It has elasticity. It has electrical resistance. It has the role of protection.
2. **Deep to the skin is the adipose layer**
  - a. Warmer than skin, a layer of insulation.
3. **The next layer is the superficial fascial layer**
  - a. You are going to feel the connective tissue, fascial layer.
  - b. This is a continuous layer covering the entire body.
4. **Next layer is the upper end of the rectus sheath**
  - a. It is a flat surface and much thinner than the dermis.
5. **Beyond this is the rectus abdominus muscle**
  - a. Tone of the muscles. This layer has directional fibers and tonicity.
6. **Just behind the muscle we have the linea alba:**
  - a. Thicker with more of a ligamentous-feel than the sheath.
7. **Beyond the supportive layers of the muscles we meet the transversalis fascia:**
  - a. A large, flat layer of tissue.
8. **Directly juxtaposed with the transversalis fascia is the PP:**
  - a. Slightly thicker than the transversalis fascia.
  - b. Wraps around the entire visceral cavity.
  - c. A reciprocal tension membrane.
9. **Deep to the PP you come into the visceral cavity:**
  - a. Allow yourself to be invited into viscosity.
  - b. Feel the greater omentum.
10. **With your left hand, under your left fingers you can feel the liver, a very solid organ. Under your left palm you feel the bounce of the AC and the flexure of the colon.**
11. **With your right hand you will be on the stomach - the quality of perception is muscle:**
12. **Behind the stomach you find a space called the omental bursa:**
  - a. Serous fluid flows in and out of this space.
  - b. This space allows for the stomach to expand.
13. **Behind the omental bursa we meet the pancreas:**
  - a. The quality is softness, very soft.
  - b. You can also tune into the motility to identify the pancreas.
14. **And then with both palms tune into the organ of the kidneys:**
  - a. For the kidneys we sink to 75-80% depth.
15. **Tune into the thumb and thenar eminence of your right hand and you will be on the abdominal aorta:**
  - a. Feel the beating of the abdominal aorta coming into your right thumb and thenar eminence.
  - b. The aorta has tone and contour. It's a vertical structure. It has fluid flowing away from the heart.

16. **Focus on your left thumb and thenar eminence and you will be on the inferior vena cava:**
  - a. Also a vertical tube but it does not have the tone of the abdominal aorta.
  - b. It has softness, collapsibility, and a more fluid feel.
  - c. The fluid is flowing cephalad toward the heart.
17. **Focusing back on your right hand at the aorta see if you can pick up the celiac plexus just anterior of the aorta:**
  - a. It has a lighter, more electric feel.
18. **Sink slightly posterior to this with your palms. Can you feel the upper end of the psoas?**
19. **With both hands sink posterior to the boney matrix of the anterior surface of the vertebral bodies**

### Below the Umbilicus

1. **Differentiate the 9 layers anterior to the PP:**
  - a. **#1 The first layer we meet is the dermis.**
    - i. Highly resilient, elastic, and has the ability to protect us.
    - ii. As you sink through the dermis it is a little bit thicker on the lower abdominal wall than it is in the epigastric region.
  - a. **#2 Beyond the skin we have the subcutaneous tissue surrounded by fascia and lymph.**
  - b. **#3 Beyond the lymph we have the adipose layer:**
    - i. This layer helps to insulate as well as provide information to the body.
  - c. **#4 Sink one layer deeper and we come to the layer of the fascia coming off of the external oblique muscle:**
    - i. Its fibers are on an inferior, medial, oblique angle.
  - d. **#5 Then you find yourself migrating deeper... do you get a sense of the internal obliques under your finger pads?**
    - i. These fibers are on an inferior, lateral, oblique angle.
    - ii. You might also get a sense of the anterior cutaneous nerves coming through this location and is more of an electrical feel.
  - e. **Contiguous from the fascia of the external obliques you feel the fascial sheath surrounding the rectus abdominis muscle:**
    - i. What is the difference between what this feels like under your thenar (thumb) region as the rectus sheath gets a bit thicker as it goes down to the pubes versus the external obliques under your finger pads?
    - ii. Is there a difference between the tone quality of the right side and the left side?
  - f. **#6 Deep to this fascia you feel the horizontal fibers of the transversus abdominis muscle:**
    - i. At the location of your thumbs you are sinking into the tone of the rectus muscle where you will find the inferior epigastric vessels.

- ii. The blood supply running through these small channels runs vertically bilateral to midline.
- g. **#7 Deep to the muscles we feel the resiliency and tensile strength of the posterior rectus abdominis sheath**
  - i. With the thenar eminence of your palms at the superior edge of the pubic bone, just lateral to the pubic symphysis, feel the tonicity of the small pyramidalis muscles.
    - 1. Feel the tone of a muscle just above the pubic bone.
    - 2. Tune into the more vertical direction of the pyramidalis muscle.
- h. **#8 Now we sink one layer deeper to the transversalis fascia:**
  - i. The quality of perception of the transversalis fascia is one of spreading, our hands will spread out.
- i. **#9 Now, migrate one layer deeper, beyond the urachus, and get a sense of the parietal peritoneum:**
  - i. How does it feel when you are on this layer, which is a “reciprocal tension membrane”?
  - ii. This is the global tissue that is encasing the entire digestive system except for the kidneys.
  - iii. It’s very intelligent and strong.
- 3. **And now you are being invited into the lower abdominal and pelvic cavity:**
- 4. **Appreciate the feel of the Greater Omentum - much wetter, squishier.**
  - a. There is a lot of lymph and adipose.
  - b. The GO is a buffer for trauma.
  - c. It has migratory properties.
  - d. It is part of the immune system with its T-cells that can migrate to areas of infection or cancer.
- 5. **Feel the most superficial organ just underneath the GO, which is the small intestines:**
  - a. With your index and middle finger just under the umbilicus feel the loops of the small intestines. The quality of a soft, velvety hollow organ that also has some quality of tone to these tubes. Do you get a sense of the tone?
- 6. **With your ring and little finger differentiate the large intestines on the lateral boarder of the abdomen.**
  - a. It has a different contour and size than what you feel under your middle and index finger.
- 7. **Sink through the loops of the small intestines to meet the root of the mesentery:**
  - a. You can feel something a little bit tougher due to the elastin and collagen, which give it a tensile strength compared with the loops.
  - b. It has to support the weight of all these small intestine loops.
- 8. **Now, I challenge you to feel the superior mesenteric artery and vein that is in between the superior and inferior leaf of the mesenteric root:**
  - a. What does this feel like?
- 9. **Beyond the root of the mesentery we are at the Posterior parietal peritoneum:**
  - a. We are beyond the level of viscosity and we feel something flat that has resiliency.

10. **As you migrate, under your palms, can you sense when you are at the bifurcation of the aorta and the bifurcation of the inferior vena cava:**
  - a. Can you feel as it turns into the common iliac vessels?
  - b. Feel the beat. What's going to give you the information? Feel the pulse and where the pulse starts to divide?
11. **As you travel lateral from this bifurcation, at the lateral part of your palms you will feel a hollow tube that is traveling vertically over this common iliac vessel on the right and left, which is the ureter:**
  - a. Can you identify, underneath this posterior peritoneum, where the ureter is traveling over these vessels?
  - b. Feel these vertical tubes of the ureters.
  - c. The quality of perception is that of a collapsible tube, small in diameter.
12. **Now, under your thenar and lower palms travel down the ureters to the posterior and inferior aspect of the bladder:**
  - a. Get a sense of the bladder. A muscular, membranous, hollow, flexible sack comprised of smooth muscle and has extensibility that should be able to fill and empty.
  - b. It is thinner than the uterus.
13. **With a female, as you migrate through this hollowness of the bladder travel posterior. The bladder might be about 10% of the depth. Travel to 20 - 25% and feel if she has her uterus:**
  - a. The quality of perception is "thickness".
  - b. Notice the thickness of this tissue and what it feels like compared to the thinness of the bladder.
14. **Extending off of the uterus are the fallopian tubes:**
  - a. You feel these horizontal tubes extending lateral off the uterus.
15. **Follow the fallopian tubes lateral and posterior to meet the ovaries:**
  - a. What is going to guide you to the location of the ovaries?
  - b. I want you to tune into the motility of the ovaries.
16. **Travel inferior and let the uterus take you to the cervix:**
  - a. What depth is that person's cervix? Should be about 50% of the depth.
17. **And at that same location, with a male, from the bladder travel inferior and posterior down the neck of the bladder to the prostate:**
  - a. Feel the difference as the urethra travels through the prostate.
  - b. Get a sense of the size and energy of their prostate.
18. **From the ovaries and the prostate travel a bit superior and to the lateral walls and you are going to be meeting the sigmoid colon under your right hand and the cecum and ascending colon under your left hand:**
  - a. Notice there is a difference between the energy that is happening in the pelvic cavity and what is happening in the colon.
  - b. A tube that functions in absorption and exchange of water and fluids.
  - c. Remember, at this stage of the digestive tract there is not a lot of muscle.
  - d. It is more of a pouch-like feeling, a holding system.

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19. **With your right hand thenar eminence, as you migrate through the midline, gently compress the rectum, intentionally or physically, if you need to do that, and get a sense of the anterior surface of the sacrum:**
  - a. At that anterior sacrum, before you even meet the density of the bone, it's very busy.
  - b. You have the **hypogastric plexi**, the **lumbar plexi**, the **sacral plexi**, and you have the foramina through which the **pubic nerve** is coming out.
20. **Migrate just a little deeper get a sense of the sacral bone structure:**
  - a. Feel the density that gets you there.
  - b. Now feel inside the bone.