

Fundamentals of fluids detection and secretions

Body fluids (Amniotic, cerebrospinal, Peritoneal)



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رقم المحاضرة 8

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Amniotic fluid

Amniotic fluid is a water-like substance surrounding the fetus in uterus. Amniotic fluid contains nutrients, hormones, antibodies and other fluids to help keep the fetus healthy and protected. Amniotic fluid is mostly clear but can be a pale yellow, odorless.

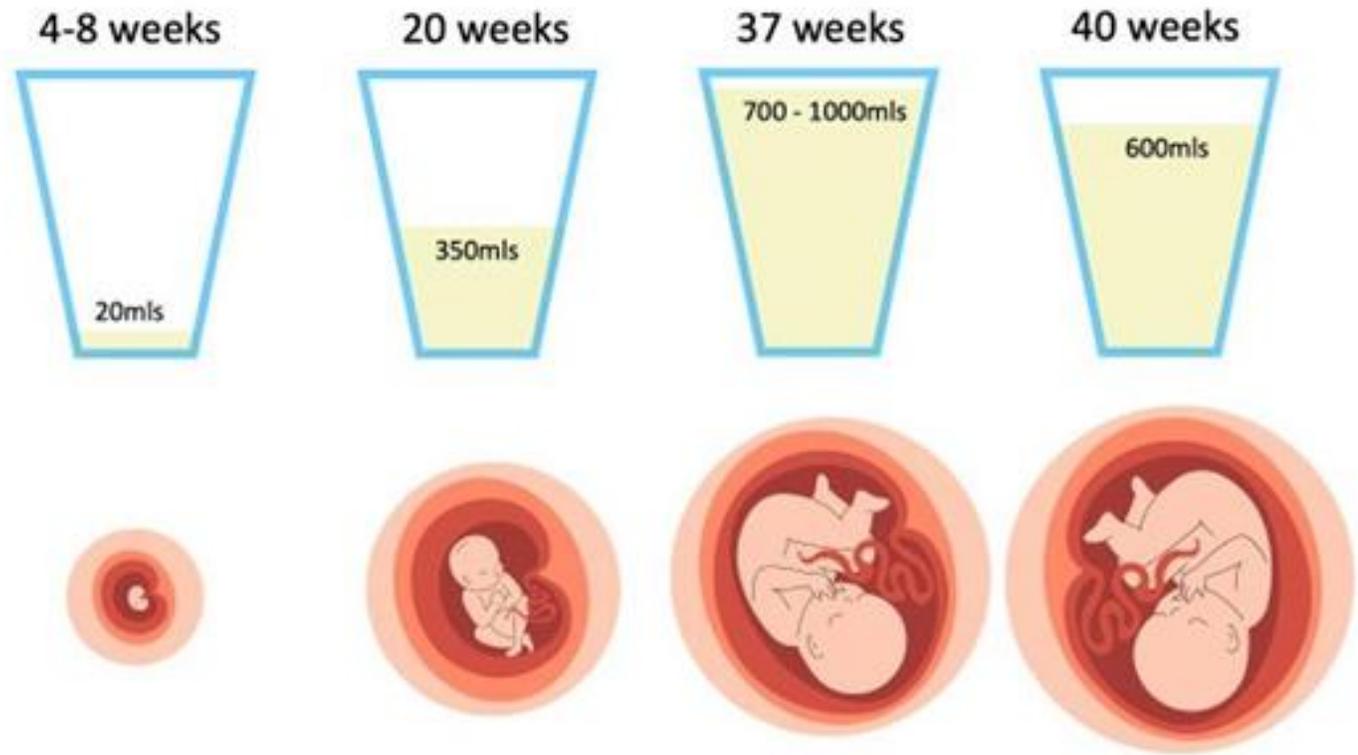


Figure (2): Amniotic fluid

What does amniotic fluid do (function)?

Amniotic fluid has an important role in the uterus. It helps with fetal growth and development. Among other things, it:

- *Protects the fetus from infection.*
- *Cushions the fetus's movements and helps it move.*
- *Helps the fetus's muscles and bones develop.*
- *Helps the fetus's digestive and respiratory systems develop.*
- *Regulates fetal body temperature.*
- *Protects it from movements (like a fall or sudden blow).*

Amniotic fluid composition

The composition of amniotic fluid

- proteins (albumins & globulins),
- lipids (phospholipids, cholesterol and lecithin),
- carbohydrates (predominantly glucose),
- inorganic salts,

The cerebrospinal fluid [CSF]

The cerebrospinal fluid [CSF] is a clear, colorless transparent, tissue fluid that is present in the cerebral ventricles, spinal canal and subarachnoid spaces. It is an ultrafiltration of blood plasma, normally CSF does not contain red blood cells and at most 4 white blood cells/ μl may be present.

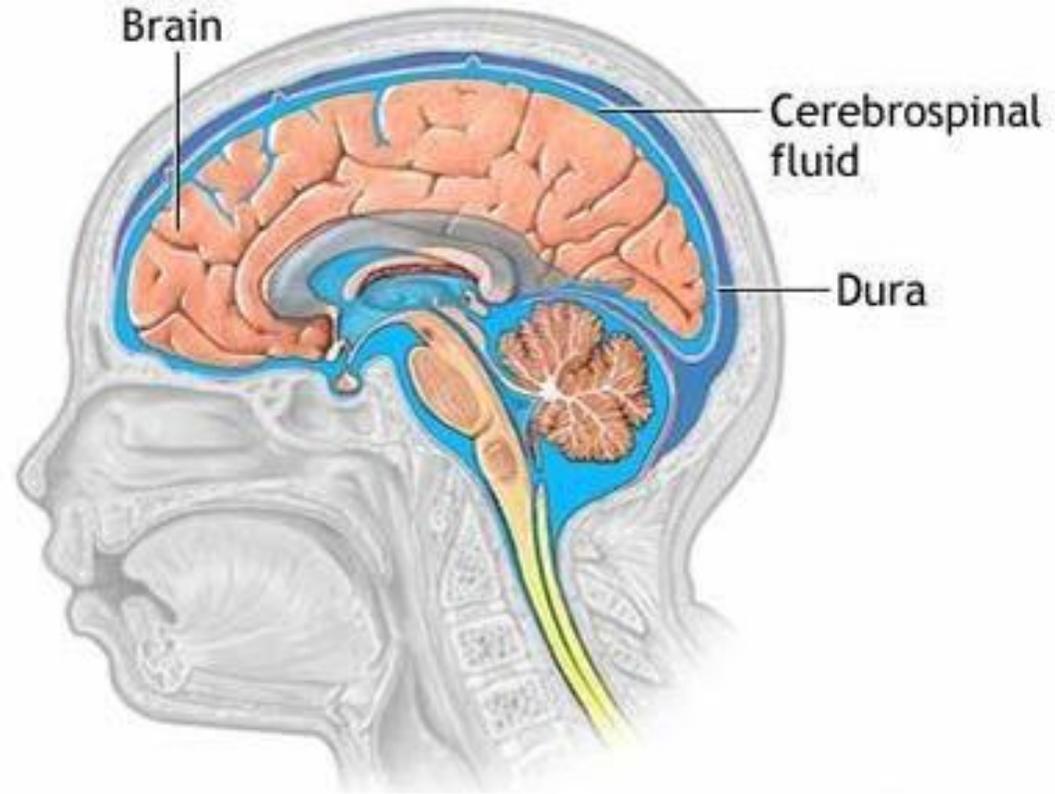


Figure (3): The cerebrospinal fluid

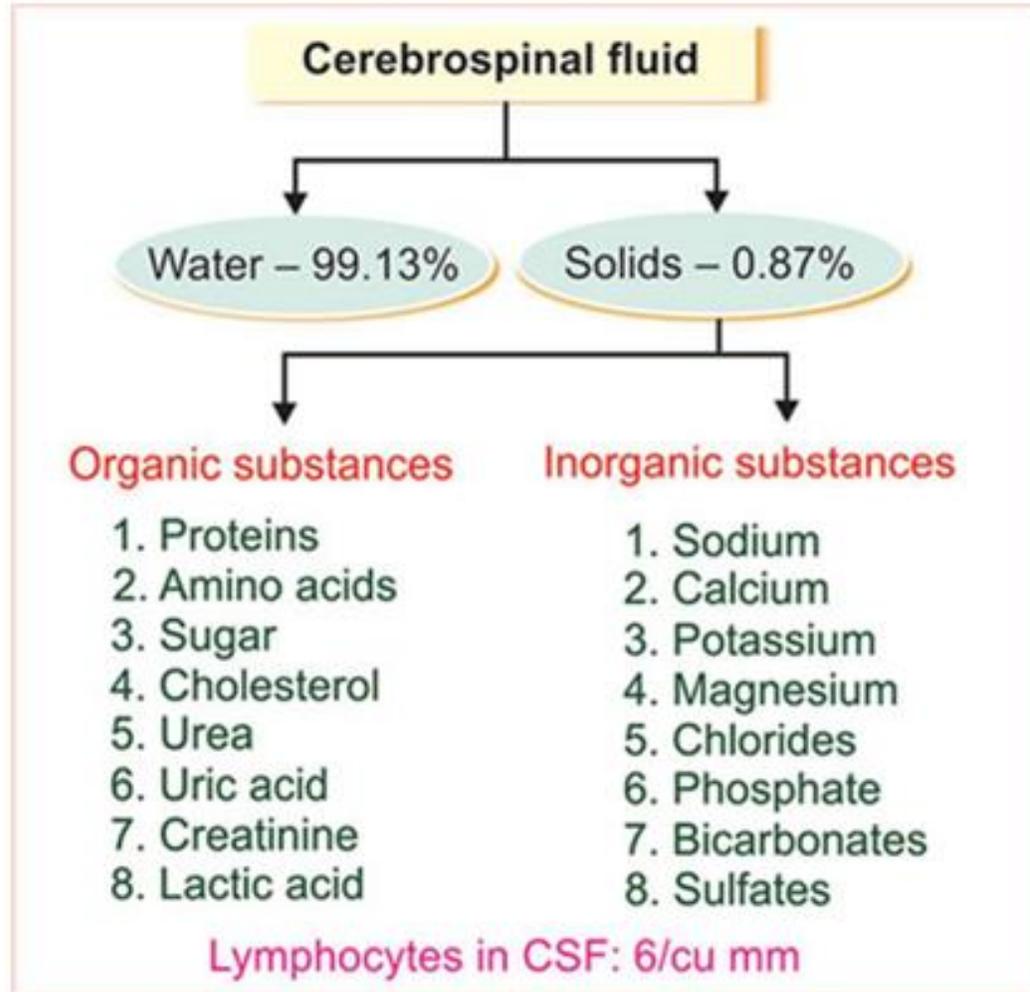
Functions of CSF

What are the functions of CSF?

CSF has both physical and metabolic function It is:

- A shock absorber.
- A mechanical buffer.
- Act as cushion between the brain and cranium.
- Act as a reservoir and regulates the contents of the cranium.
- Serves as a medium for nutritional exchange in CNS.
- Transport hormones and hormone releasing factors.
- Removes the metabolic waste products through absorption.

Composition of CSF



Peritoneal fluid

Peritoneal fluid is a serous fluid made by the peritoneum in the abdominal cavity which lubricates the surface of tissue that lines the abdominal wall and pelvic cavity. The primary function of peritoneal fluid is to reduce friction between the abdominal organs as they move around during digestion.

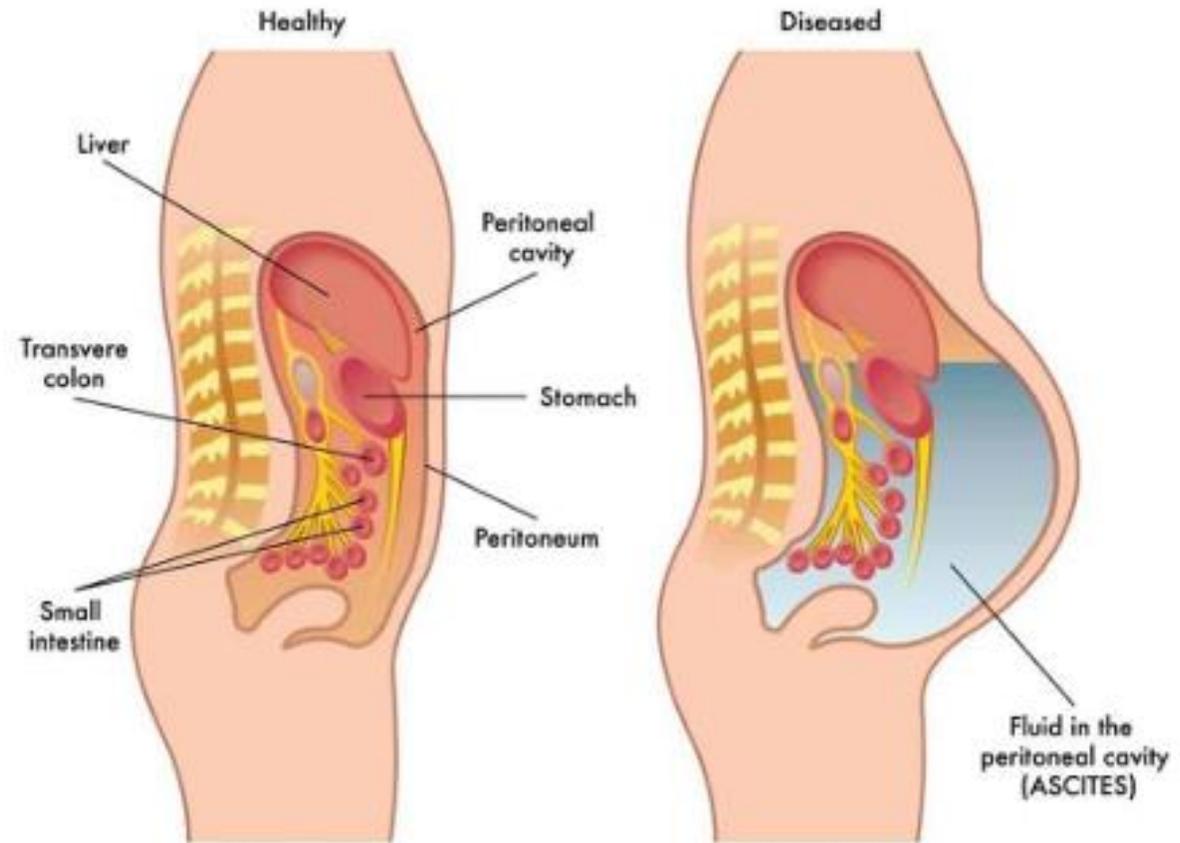


Figure (4): The peritoneal fluid and ascites

- **Function of Peritoneal fluid:**
- Protection: It helps to protect the abdominal organ from the sudden injury n damaged.
- *Also acts as a medium for the transfer of substances from the abdominal organ tissue to blood .*
- Nutrition :
- Removal of waste :
- Lubrication :

Any questions?

*Thank
You*