

-body water is very bulky(ضخم)

-intracellular fluid inside the cell membrane of the body cell.

↳ it's the major compartment.

-inside the joint there is synovial fluid.

-brain and spinal cord is surrounded by meninges(inside it there is a fluid called cerebrospinal fluid(CSF))

-interstitial fluid  contain 1-CSF. 2-synovial fluid. 3-intraocular fluid(في العين).

-the knee joint has 2ml of synovial fluid.

-intravascular fluid present also in lymph fluid.

↳ lymph fluid is milky white ; because its rich of fat.

-baby from 1day → 1month called (new born),after 1month we called him infant.

2-3 years (young child). 8-9(young child). 50's(old age). +60(senile)

-who have less water content?

-infant.      -adult.      -obese → because having high content of fat.

-in female there is less water ; because they have more content of fat.

-infant are more sensitive to vomiting and diarrhea(may cause dehydration).

-Na,Cl is together outside of the cell.

- $\text{HCO}^{-3}$ : it's the major buffer in the ECF.

↳ substances that resist change in PH incase of acidosis.

-our GIT secret 8L of fluid → we excrete 150ml only , and the rest is reabsorbed.

-we are urinating 1-1.5 L per day.

-sweat is very efficient in body temperature regulation : when the sweat evaporates , it decrease our temperature to normal.

-nephron will filtrate all contents of blood except red blood cell and plasma protein.

-albuminuria: albumin in urine → normally we don't have albumin in urine.

\*cases of albuminuria: 1-nephritis. 2-pregnancy. 3-muscle exercises.

- When Na-K pump is pumping the ion should be dissolved in fluid.

- Any chemical reaction need fluid(water) such as enzymatic in liver.

- Exchange gases through alveolar needs fluids to dissolve the gas on them

- Normal PH: 7-7.8

\*acidosis if the PH less than normal. \*alkalosis if the PH is more than normal.

Renal failure cause severe acidosis.

-hemostasis automatically blood clotting.

-mouth breathing: (its lead to dryness in mouth + lose the function of nose)

1-acidosis. 2-nasal palyps.

-around the eyes we have fluid called tears.

-high temperature vaporate the tears so eye dryness will occurs(therapy : artificial tears)

-regulation of body temperature by thermoregulatory mechanism.

المطلوب في:

(Measurement of body water compartments)

اسم المادة المستخدمة في القياس + المبدأ.

-mechanical buffer : special for baby , amniotic fluid surrounds him(protect the fetus from the shocks)

-fluids in the eye make a shock absorbtion + support the retina.

-RS(respiratory system):\*when acidosis increase , hyperventilation occurs.

\*when alkalosis increase , apnea occurs.

\*apnea : temporary stoppage of breathing.