

تم تحميل هذا الملف من موقع المناهج الإماراتية



الملف ملخص درس الجهاز الإخراجي System Excretory

[موقع المناهج](#) ← [المناهج الإماراتية](#) ← [الصف التاسع المتقدم](#) ← [علوم](#) ← [الفصل الثاني](#)

روابط مواقع التواصل الاجتماعي بحسب الصف التاسع المتقدم



روابط مواد الصف التاسع المتقدم على تلغرام

[الرياضيات](#)

[اللغة الانجليزية](#)

[اللغة العربية](#)

[التربية الاسلامية](#)

المزيد من الملفات بحسب الصف التاسع المتقدم والمادة علوم في الفصل الثاني

كل ما يخص الاختبار التكويني لمادة العلوم للصف التاسع يوم الثلاثاء 11/2/2020	1
وحدة 4 الجهاز الغشائي	2
علوم دليل المعلم الوحدة 22 الجهاز الطلائي والهيكلي والعضلي	3
دليل العلوم الجهاز الغشائي	4
وحدة 5 الجهاز الدوري	5

28-2-2022

Biology G9 A11

Unit (2) Lesson (3)

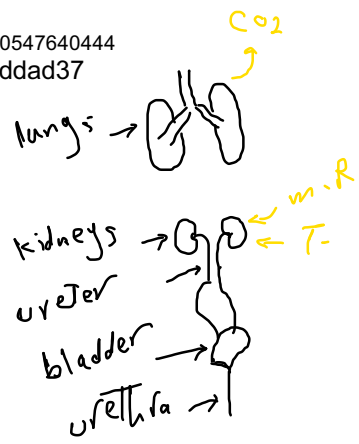
بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

Excretory system الجزء الإفرازي

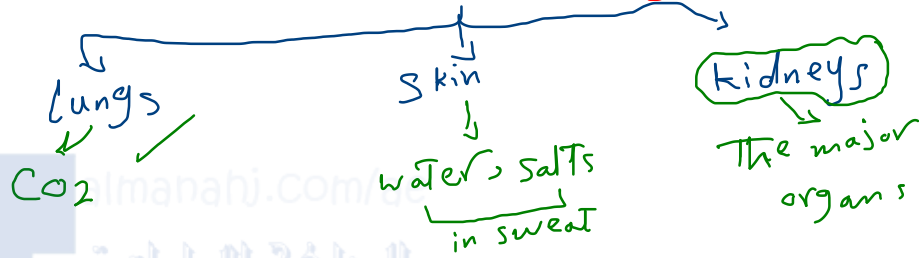
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Functions:-

1. collects wastes such as:
toxins, waste products, carbon dioxide (CO₂)
& metabolic result.
2. Regulates the amount of fluid and salts in body.
3. maintains the pH of the blood.



Components of E.S.



The major excretory system organs in body.

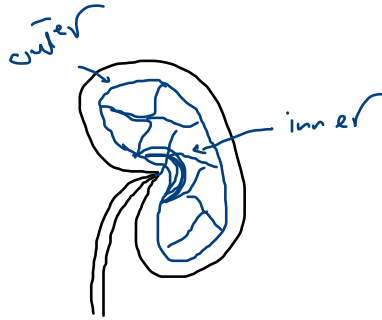


kidneys

- Beans shaped organs.
- filter out wastes, water, toxins.

outer renal cortex

inner renal medulla



outer } contains microscopic tubs and
inner } blood vessels.

→ in the center of each kidney a region called the renal pelvis where urine collection.

① Nephron filtration:-

2 kidneys = 2 m.w

→ filtering units number 1 million in each kidney.

→ Blood enters through the glomerulus

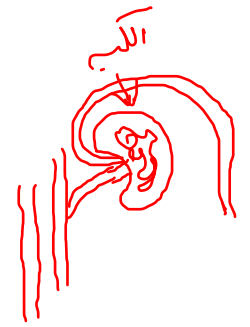
- Long tube surrounding by capillaries.

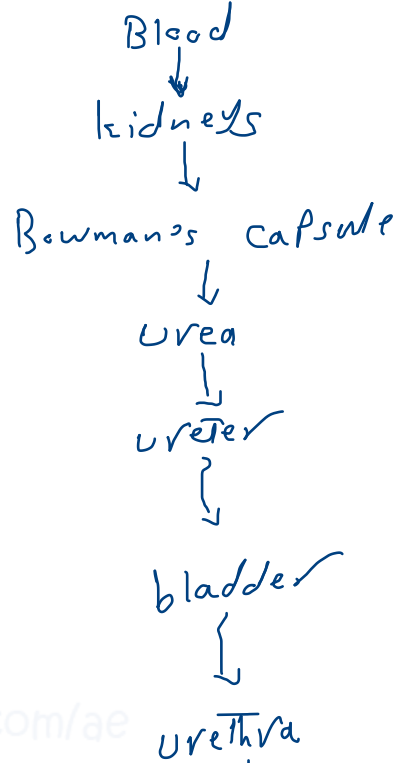
surrounded by Bowman's capsule.

+ The renal artery transports nutrients and wastes to kidneys.

+ The wall of capillaries are very thin (thin) so:
water and substances dissolved in the water such as urea

nitrogenous waste product-





- protein not filtering in nephron?

↳ Can not filtering protein.

urethra → out of body.

② Re absorption and formation of urine :-

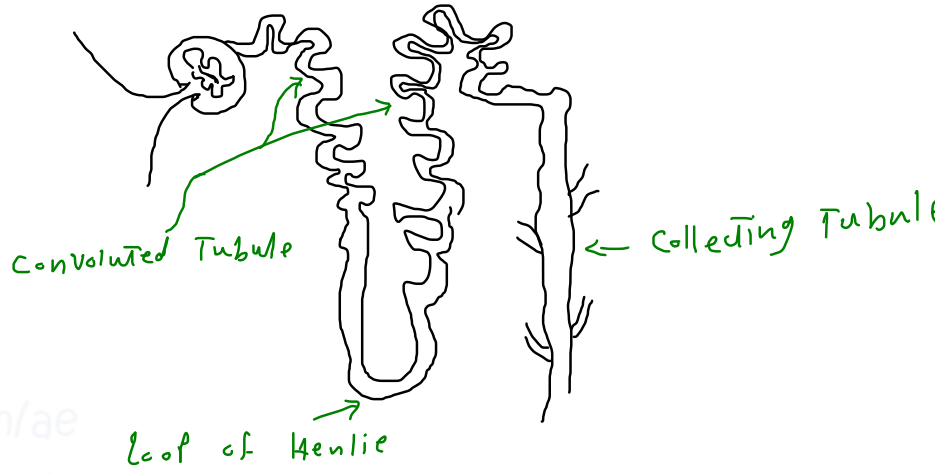
→ The Filtrate collected in Bowman's capsule flows through
The renal tubule

consists of:

- Convulated Tube
- Loop of Henle
- collecting Tubule

→ what is reabsorbed from
The renal tube?
lost water, glucose, minerals

Called: reabsorption



* leading viscous fluid and urine in blood vessels move to convoluted tube.

* Urine move to ureter and stored in bladder and out of body by urethra.

* Body have 5L of blood

* kidneys filter 180L from blood daily and produce 1.5 L of urine.

| kidney \rightarrow 90L \rightarrow 0.75 L of urine

* The blood filtering 36 times/day.
يشق

* kidneys account 1% only of body weight and use 20-25% of body O₂?
↳ Because filtration and reabsorption require large amount of energy.

الخلايا البطانية

Kidneys for pH

pH Too low



Must To up

• kidneys increase pH level.

• excreting H^+ ions and ammonia.

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pH Too high



• must To down.

• kidneys decrease pH level.

• by reabsorbing buffers such as:

- bicarbonate (HCO_3^-)
- sodium (Na^+)

Normal pH: 7.35 - 7.45

المنهج الطباعة

‡ When kidneys functions is impaired, equilibrium is impaired?

Because the body cannot get rid of its wastes.

‡ Kidneys disorders ‡

‡ By illnesses such as
diabetes, Hypertension.

‡ Use of over counter and
illegal drugs.

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	السبب Cause	الأعراض Symptoms	الأضرار damage	2. الحل Treatment
nephritis	. in glomeruli	- blood in urine	- lead to kidney failure.	- Diet - prescription drugs -

stones	- deposits of (Ca).	- pain when passing urine.	- possible infection.	- small:- with urine. - big:- block into pieces by ultrasound.
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- Hard deposits from calcium compounds.

- bigger:- surgery.

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* Kidney Disorders:-

① Urinary Tract blockage:- انسداد المسالك البولية
→ * due to birth defects.

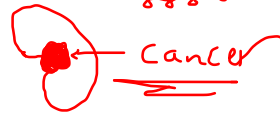
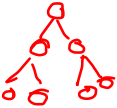
② Polycystic :- التلييس الكلي
→ * genetic disorder with the growth of large number of fluid bags.

③ Kidney Cancer :- سرطان الكلى
→ * Cancer: uncontrolled cells growth.

→ * Lead to blood in urine.

→ * Cause kidneys to enlarge.

→ * Leads to death.

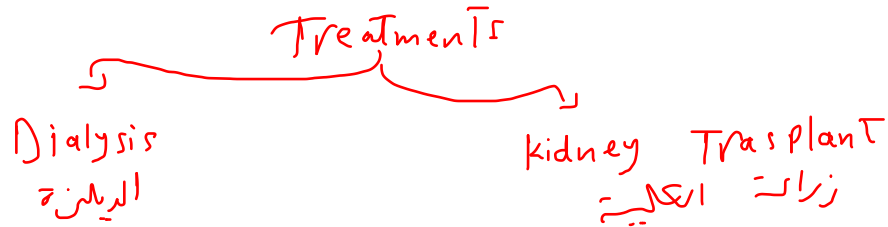


kidneys Treatment

علاجات الكلى

→ Large percentage of kidneys function lost before failure.

→ The build up of wastes products in the body can lead to:
seizures, Comatose state, death.



✚ Dialysis:-

↳ procedure which artificial kidney machine filters out waste and toxins from patient's body.

Type ① → Blood passed through a machine that temporarily filters and cleans the blood.

→ 3 or 4 hours

→ 3 sessions per week

3h / 3 in week.
4h

Type ② → membrane lining the abdomen acts as kidney.
→ the abdominal cavity is injected with special fluid.

→ daily 30-40 min.

الكلية الطبية

* Kidney Transplant:

- - The surgical placement of a healthy kidney from another person called donor in patient's body.
- - The number of patients waiting for kidney far exceeds the organs available for transplant.
- - The major complication is rejection of the donated organ.

→ medication: steroids و cyclosporine
مركبات السيكلوسبورين

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→ Cyclosporine is a drug given to transplant recipients to help prevent organ rejection.

