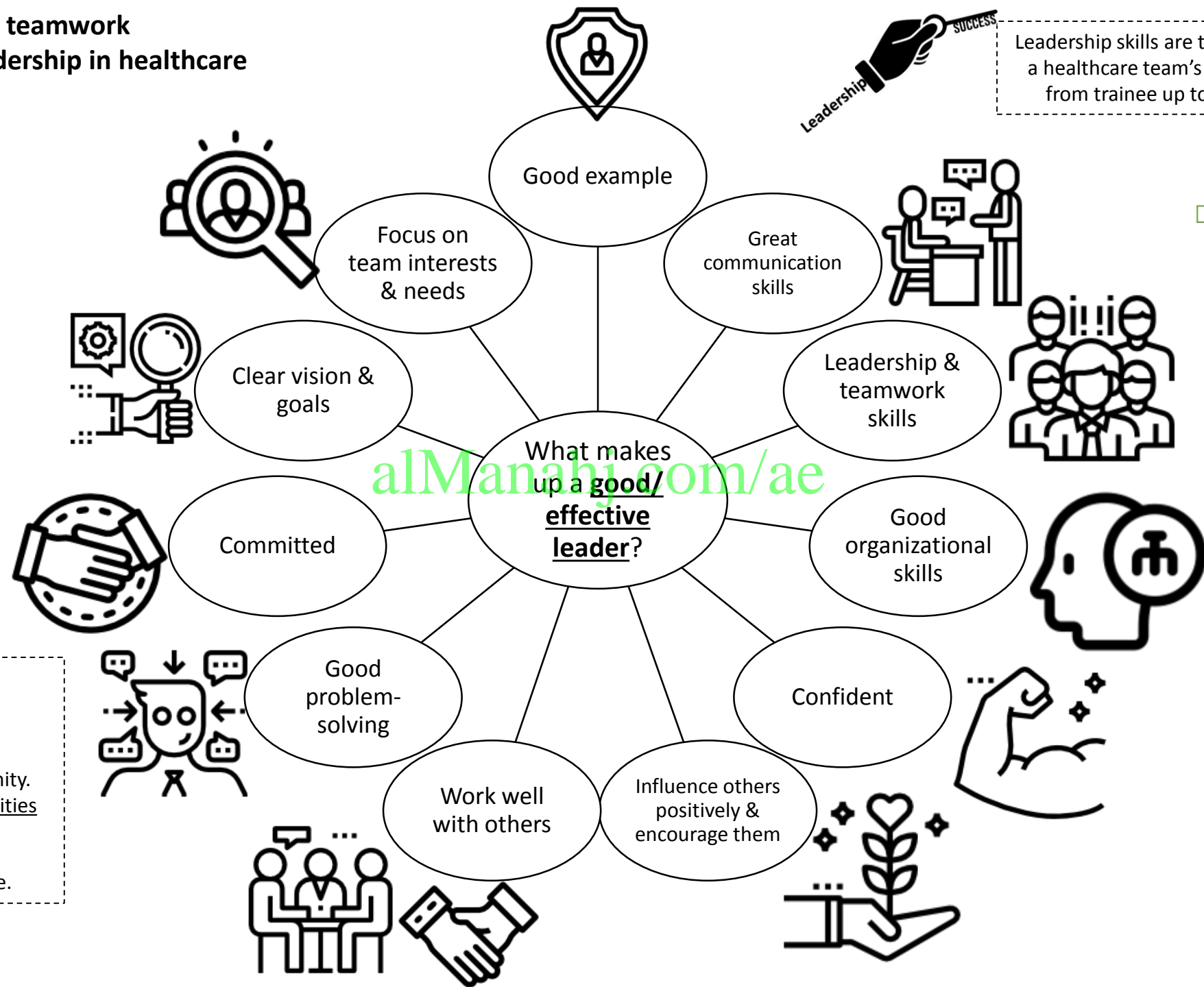
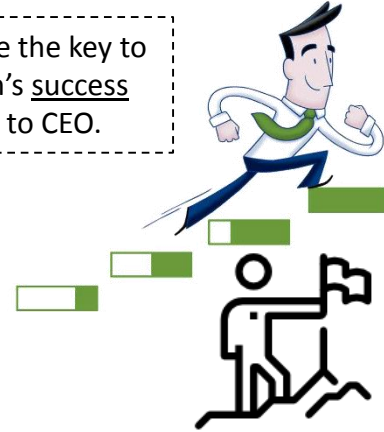


**Unit8: Leadership and teamwork**  
**Lesson1: Effective leadership in healthcare**

Leadership skills are the key to a healthcare team's success from trainee up to CEO.

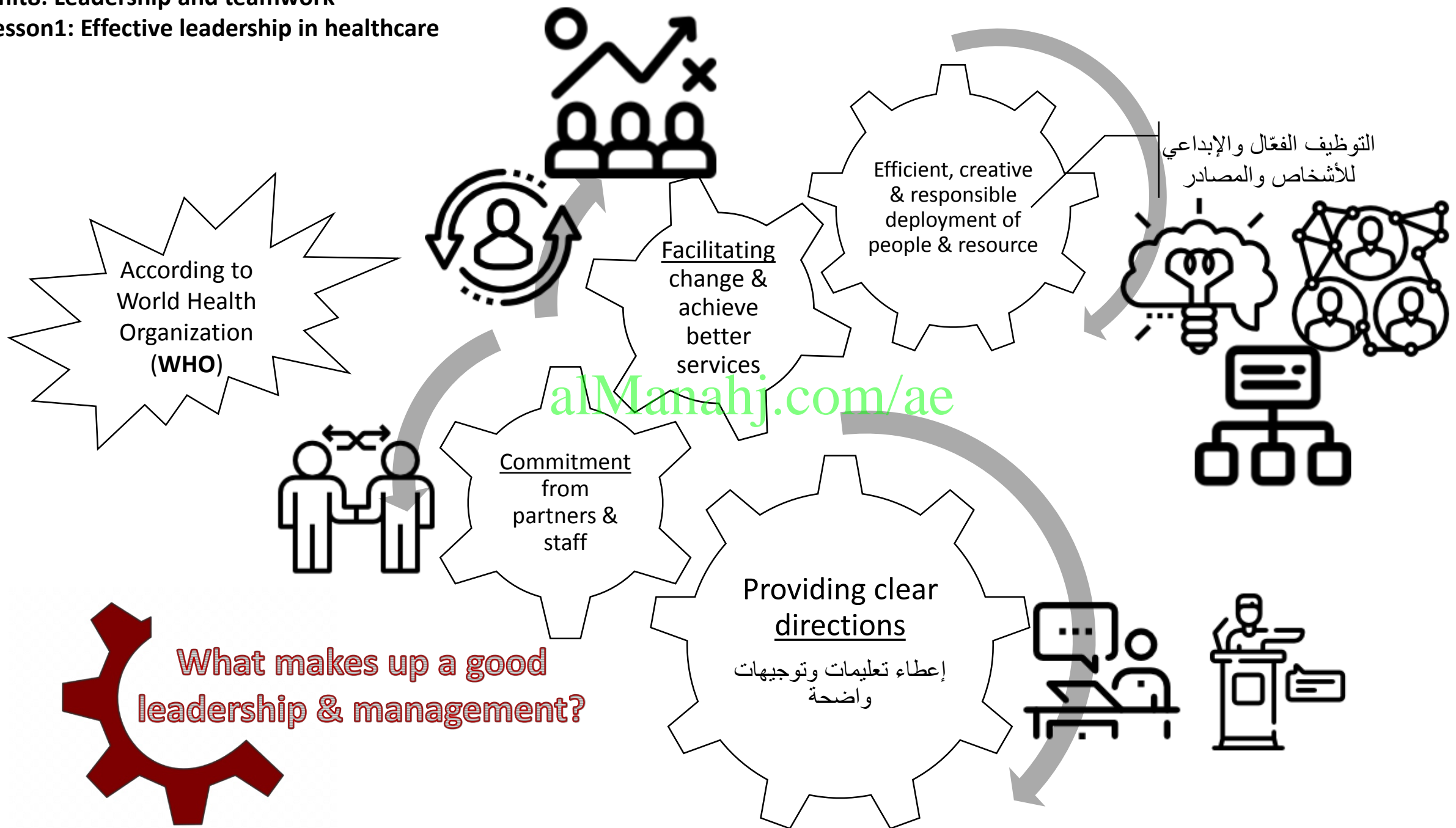


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- What to do to improve leadership skills?**
1. Attend school on time.
  2. Volunteer in the community.
  3. Take on more responsibilities at school or home.
  4. Read about leadership.
  5. Do not be afraid of failure.

Unit8: Leadership and teamwork  
Lesson1: Effective leadership in healthcare



**BOSS**

Take advantage

**LEADER**

Empower

**BOSS**

GO !!

**LEADER**

Let's Go !!

**BOSS**

Intimidate

**LEADER**

Rely

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**BOSS**

Blame

**LEADER**

Fix

**BOSS**

Says, "I"

**LEADER**

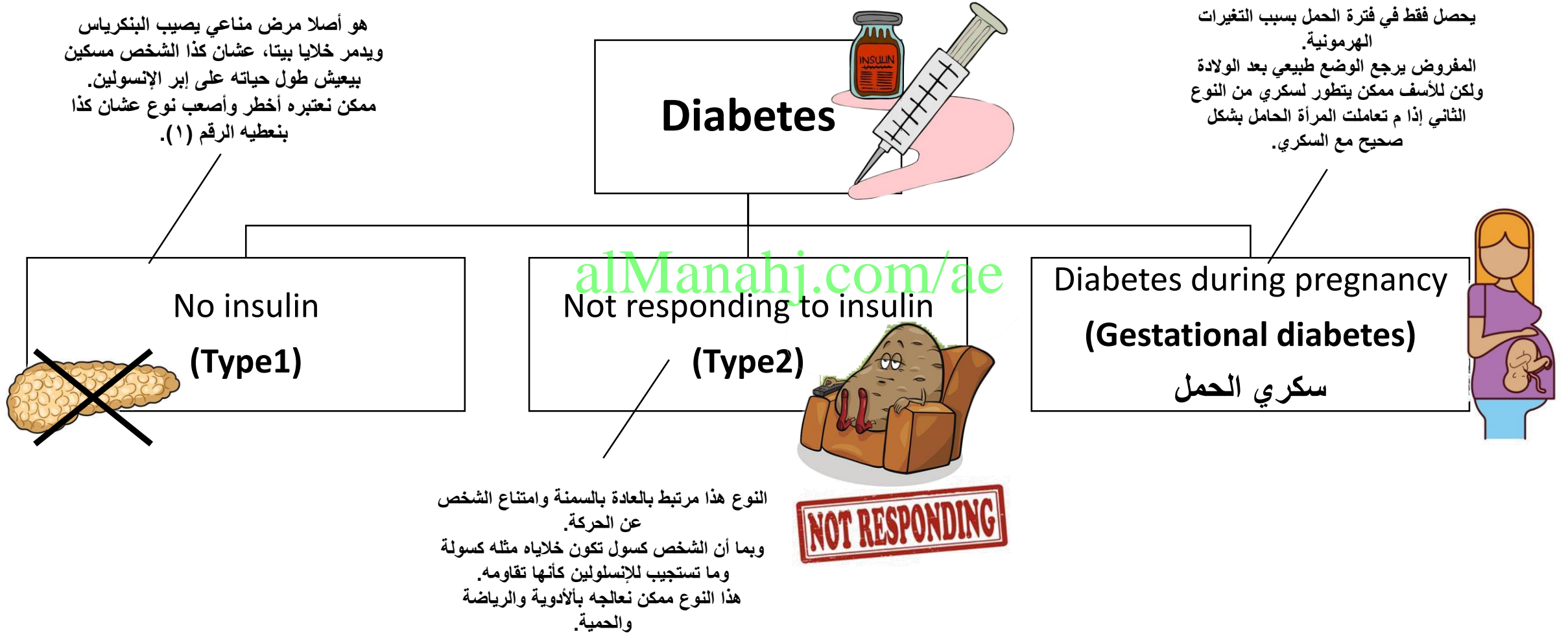
Says, "We"

**BOSS**

Command

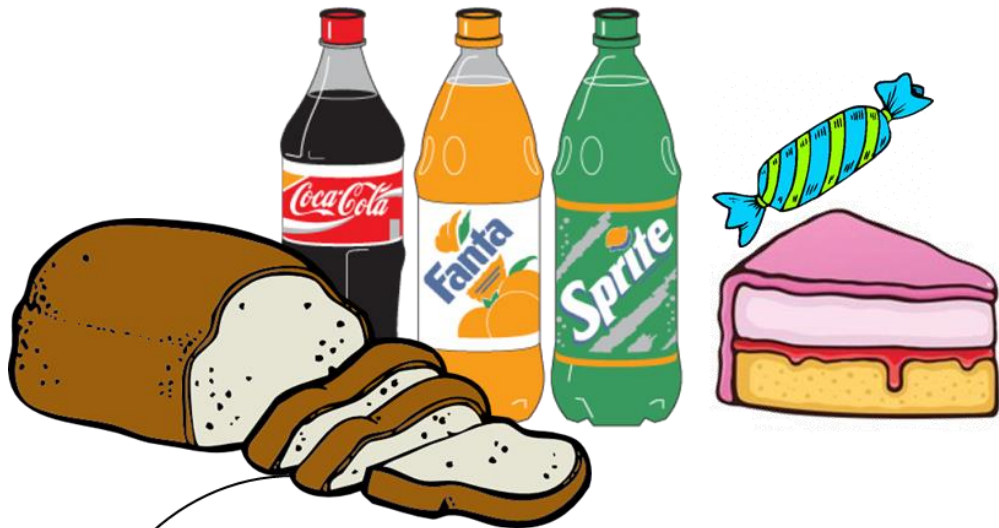
**LEADER**

Asks



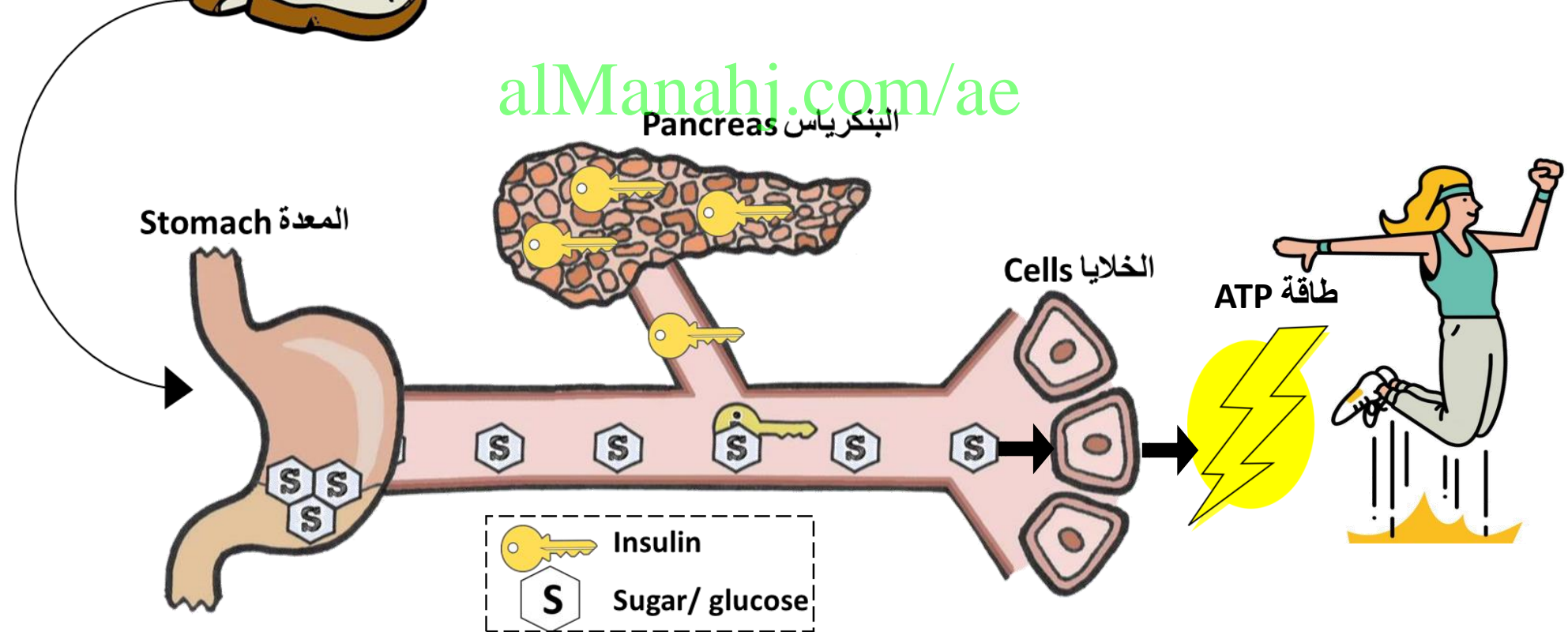


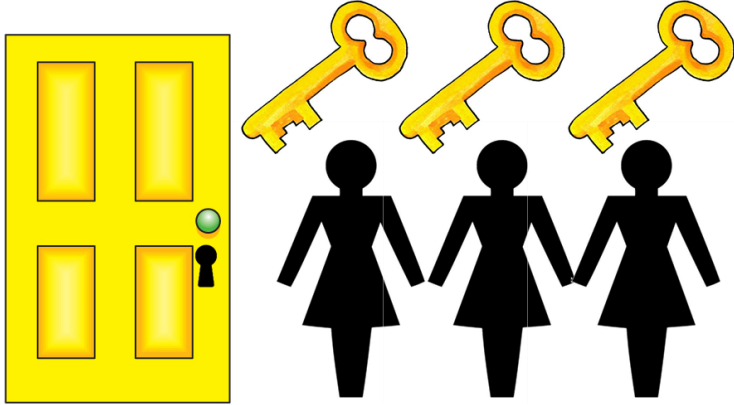
Carbohydrates سكريات



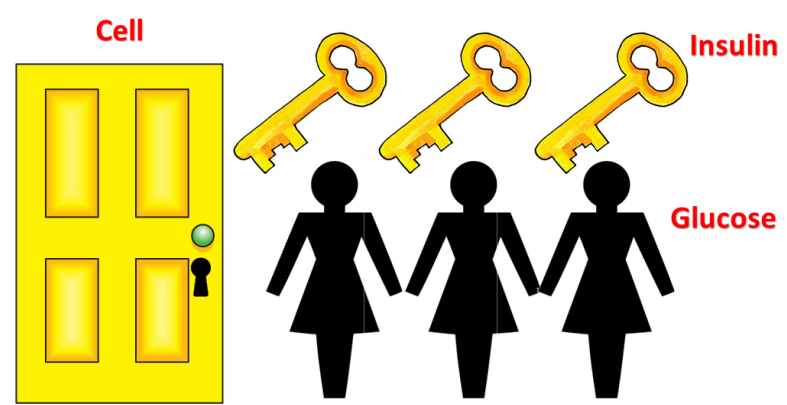
What happens to carbs inside our bodies?

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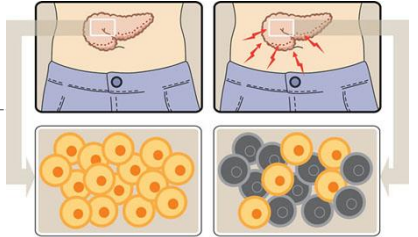


Everything is **normal** the **girls** can enter easily since they have the **keys** to the **room**.

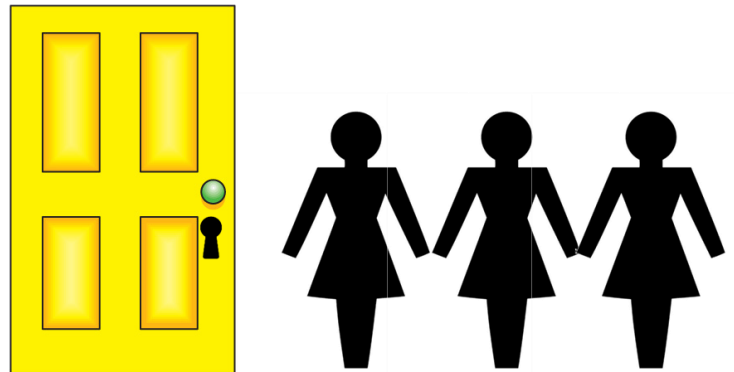


Everything is **normal** **glucose** can enter easily since they have **hormone insulin** that open the **cell**.

هذا ما يحصل في الوضع الطبيعي. يدخل الجلوكوز الخلايا بمساعدة الإنسولين، ويتم إطلاق الطاقة فيها.

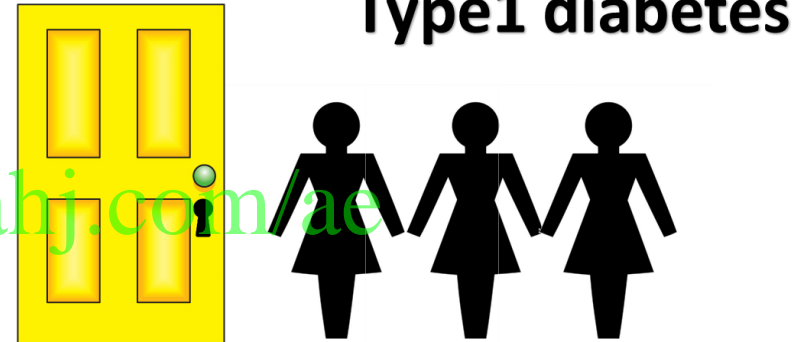


في السكري النوع الأول يقوم جهاز المناعة بمهاجمة البنكرياس وتدمير خلايا بيتا التي تنتج الإنسولين. نتيجة لذلك يبقى ويتراكم السكر في الدم.



1

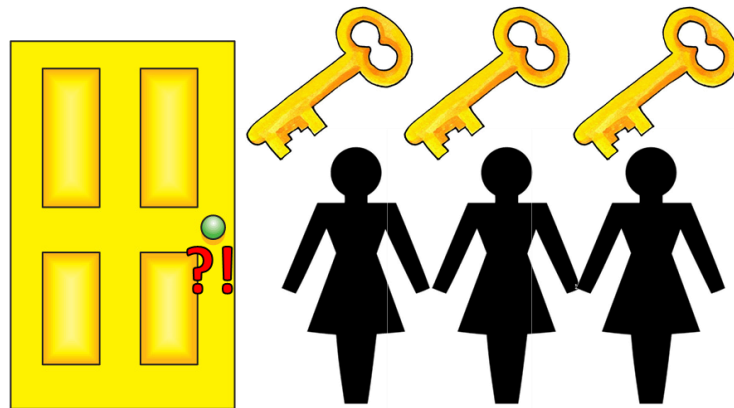
In case **number1** the girls cannot enter the room because they do not have any key.



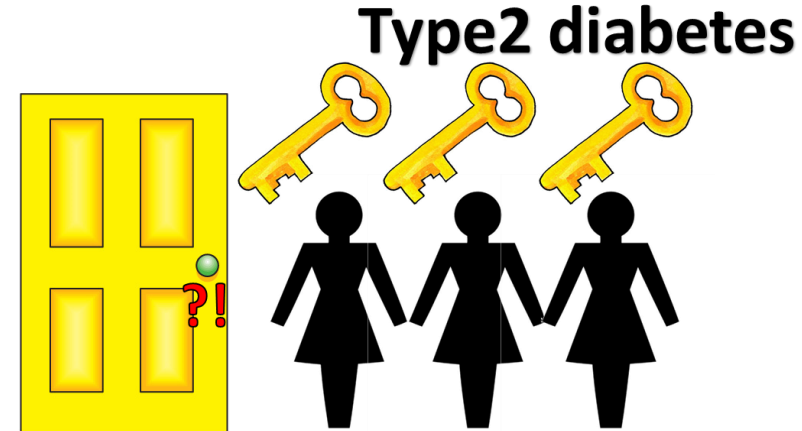
In **type1 diabetes** there is no insulin (beta cells of the pancreas are destroyed by the immune system) so glucose will stay in blood.

**Type1 diabetes**

2



In case **number2** the girls cannot enter as well because they door is without a lock and the keys are useless since there is no place for them to enter.

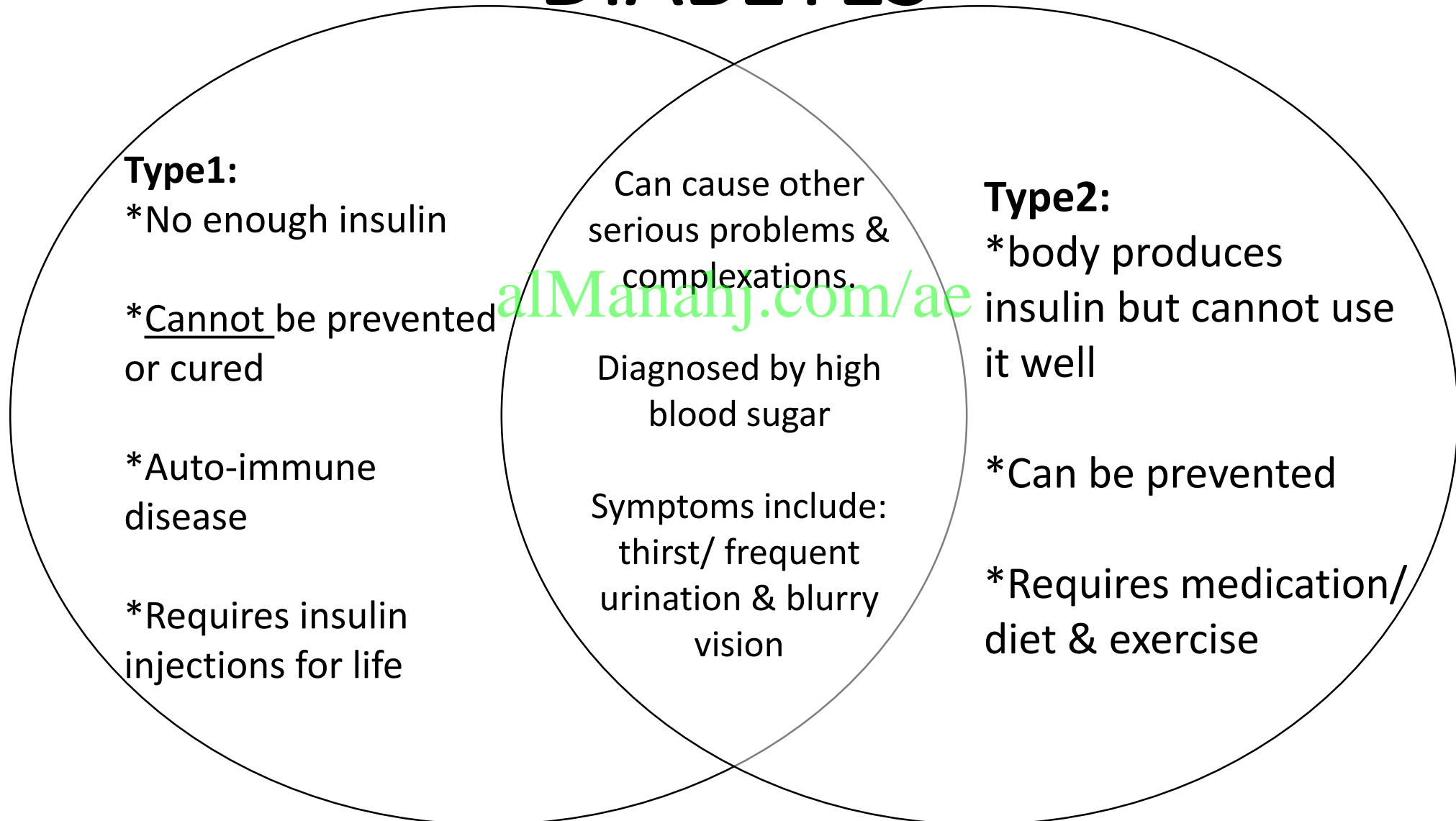




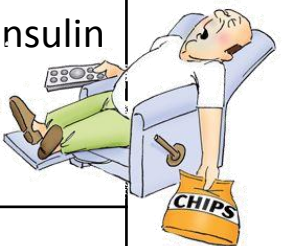




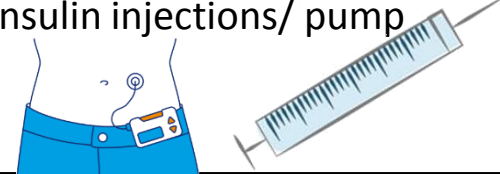

In **type2 diabetes** the person is living sedentary lifestyle and this will cause their cells to be insensitive to insulin and cannot respond properly to it.

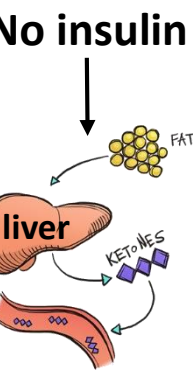
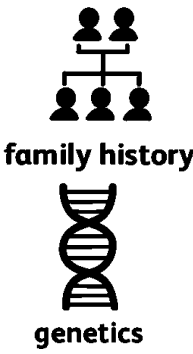
**Type2 diabetes**

في السكري النوع الثاني البنكرياس سليم ويقوم بعمله ولكن الخلايا لا تستجيب بشكل فعال للإنسولين. يتراكم السكر في الدم.

# TYPE1 vs TYPE2 DIABETES

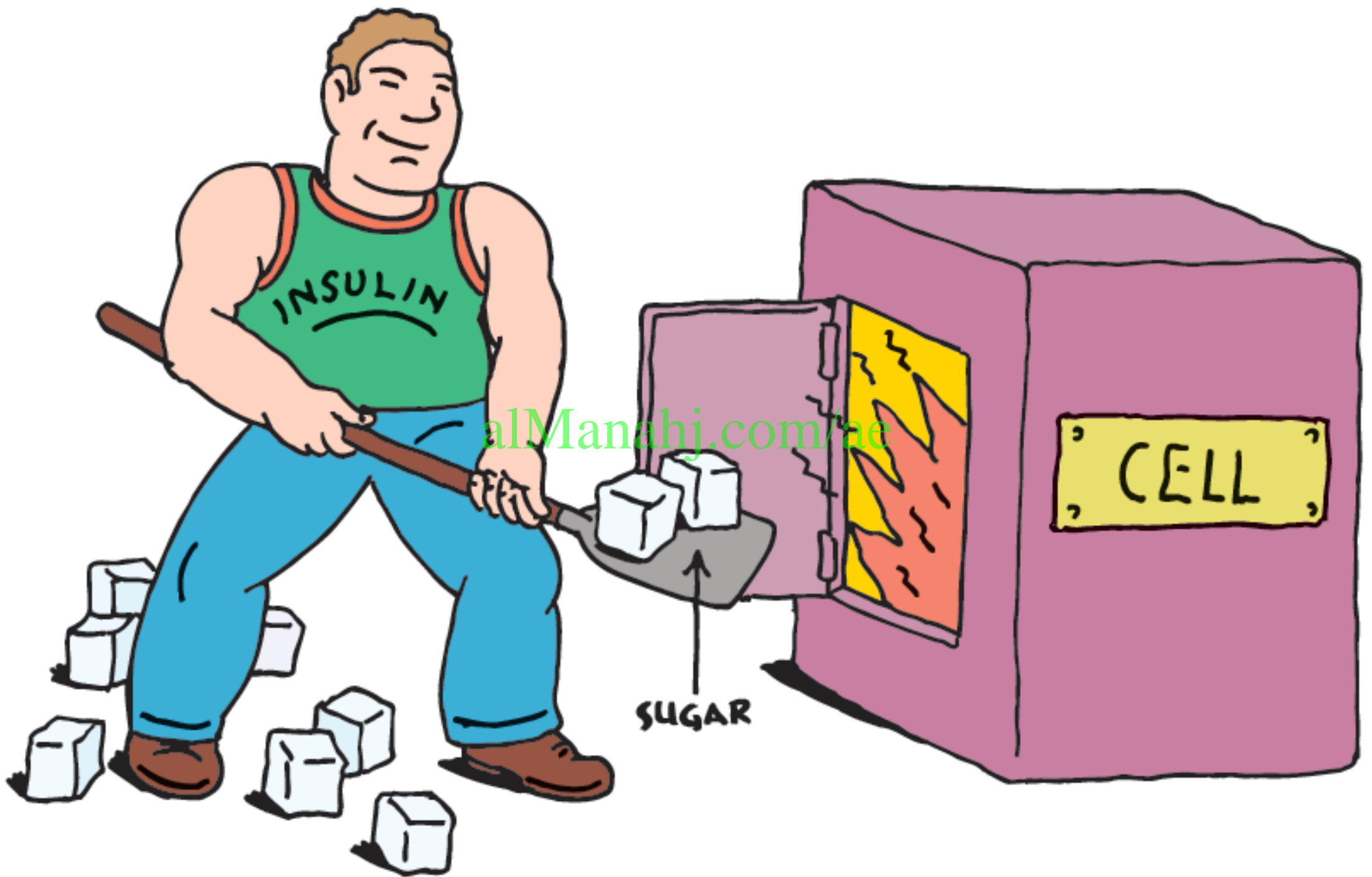


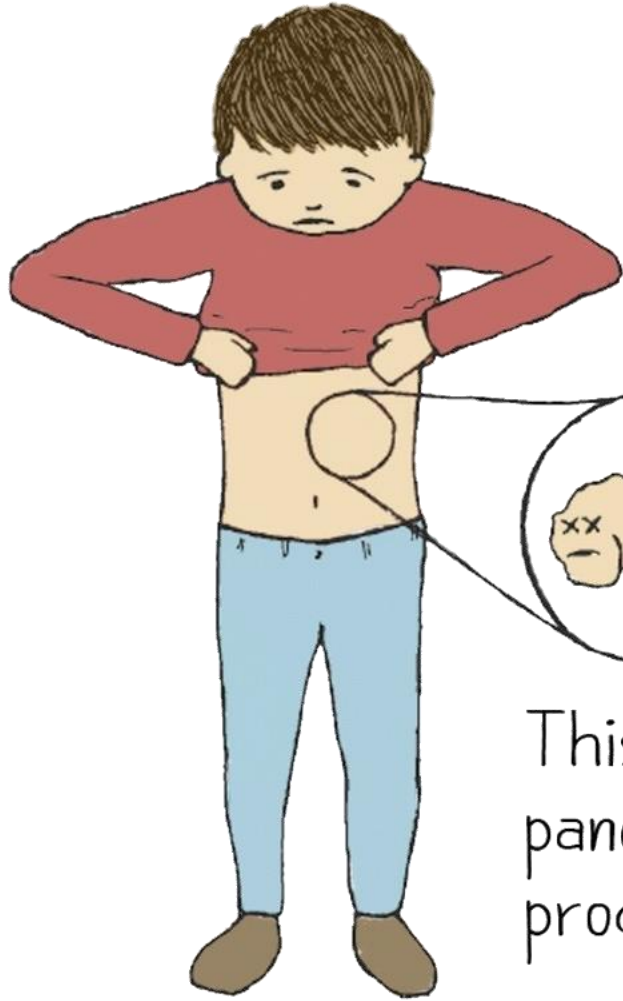
| Diabetes type  | Type 1   | Type2   |
|--|--|---|
| <b>Definition/ causes</b>  | No enough insulin <u>produced</u> (due to loss of pancreatic $\beta$ cells)  | Cells do not <u>respond</u> properly to insulin<br>  |
| <b>Affected by genetics/ family history?</b>   | Yes  | Yes   |
| <b>Age of onset</b>  | Usually starts in childhood<br>                     | Usually starts in adulthood<br>  |
| <b>Affected by lifestyle?</b>  | No   | Yes   |
| <b>Symptoms</b>  | Develop quickly (appear suddenly)<br>               | Develop gradually over several years<br>   |
| <b>Ketoacidosis risk</b> عملية تكسير الدهون للحصول على الطاقة بدل السكر                                    | Common   | Very rare   |
| <b>Treatment</b>   | Lifelong insulin injections/ pump<br>             | Medication/ diet/ sports<br>   |
| <b>Other names</b>   | <ol style="list-style-type: none"> <li>1. Auto-immune disease</li> <li>2. Insulin-dependent</li> <li>3. Cannot be prevented</li> </ol> | <ol style="list-style-type: none"> <li>1. Insulin resistance/ tolerance</li> <li>2. Non-insulin-dependent</li> <li>3. Can be prevented</li> </ol>   |



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Some people have type 1 diabetes.

This means their pancreas doesn't produce insulin.

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People with Type 1 diabetes need to take insulin several times a day via injection.

Diagnosing diabetes

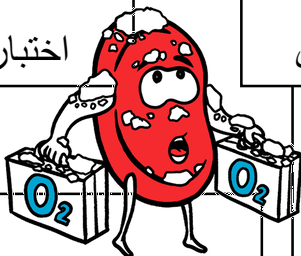
تشخيص مرض السكر

في حياة خلية الدم الحمراء القصيرة التي يمكن أن تمتد لـ 3 أشهر يرتبط معها الجلوكوز وفي حالة السكري تزيد هذه النسبة.

الهيموجلوبين صبغة حمراء اللون موجودة في خلايا الدم الحمراء

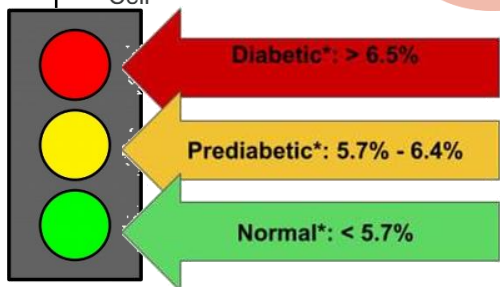
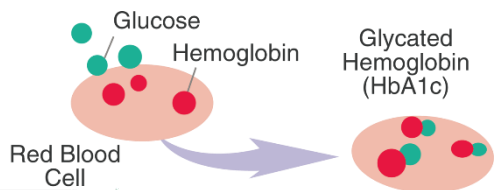
Glycated hemoglobin (HbA1c) test

اختبار الهيموجلوبين السكري



Measures the average blood glucose from the past 3 months (the lifespan of a red blood cell)

Glucose + hemoglobin = glycated red blood cell



Oral glucose tolerance test (OGTT)

اختبار تحمل الجلوكوز الفموي

1. Fasting blood sugar level is measured (normal less than 6 mmol/L)



2. Drink specific amount of glucose



3. After every 2 hours blood glucose is measured (normal 7.7 mmol/L)



Urine test

اختبار البول

No insulin (type1 diabetes)

Alternative energy source (fats)

Breakdown of fats = ketone bodies = diabetic ketoacidosis DKA

Ketone bodies in blood and urine

Random blood glucose test

اختبار السكر العشوائي للدم

A random blood glucose test taken at a random time





# A1c Test Results

**Diabetes**  
6.5% or higher

**Prediabetes**  
5.7 to 6.4%

**Normal**  
Below 5.7%



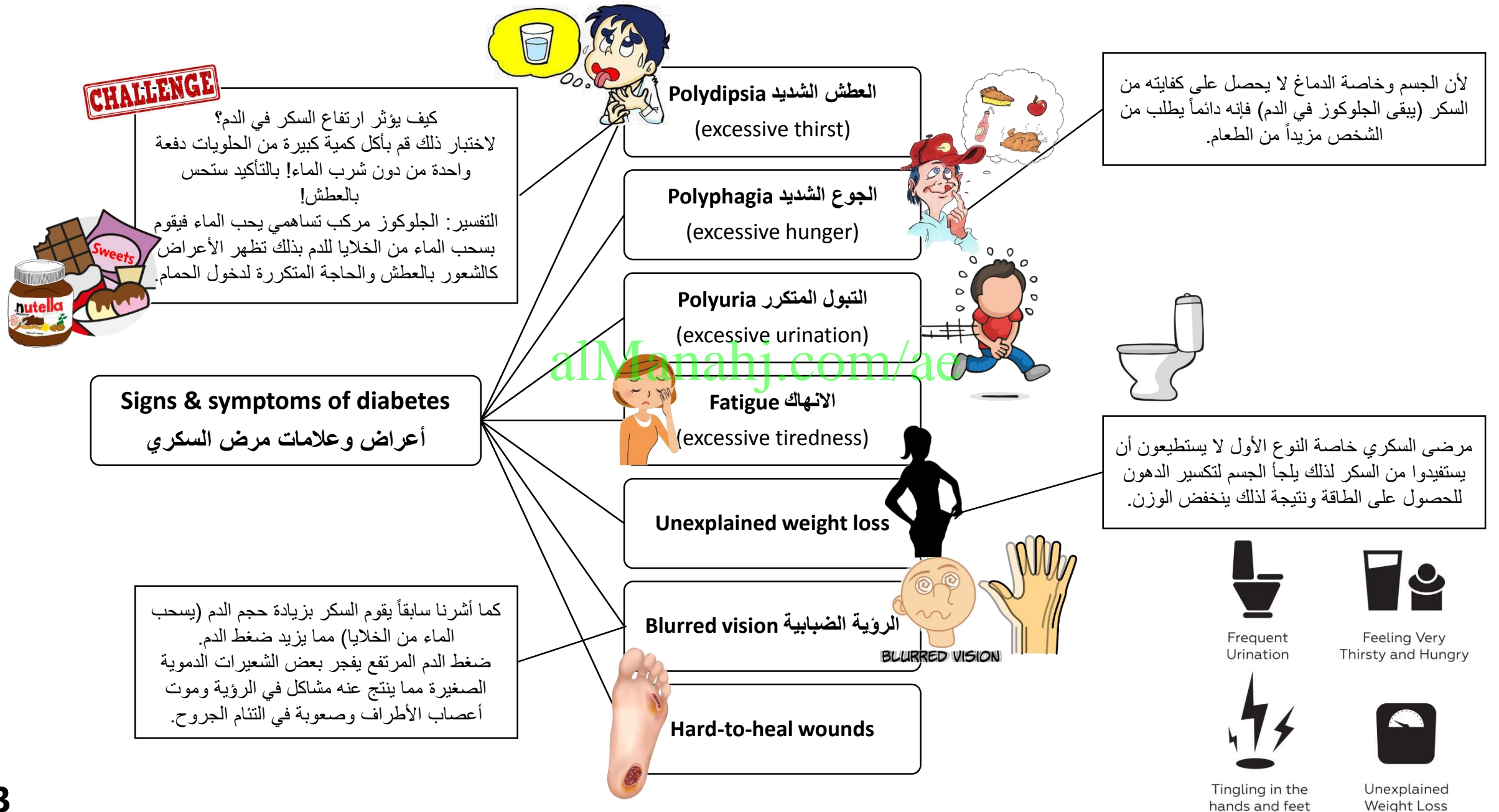
## HbA1c      MEAN BLOOD GLUCOSE

test score      mg/dL      mmol/L

|      |     |      |
|------|-----|------|
| 14.0 | 380 | 21.1 |
| 13.0 | 350 | 19.3 |
| 12.0 | 315 | 17.4 |
| 11.0 | 280 | 15.6 |
| 10.0 | 250 | 13.7 |
| 9.0  | 215 | 11.9 |
| 8.0  | 180 | 10.0 |
| 7.0  | 150 | 8.2  |
| 6.0  | 115 | 6.3  |
| 5.0  | 80  | 4.7  |
| 4.0  | 50  | 2.6  |

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# Steps to measure blood glucose:

1.



1. Wash your hands.

2.



2. Insert a test strip into your meter.

3.



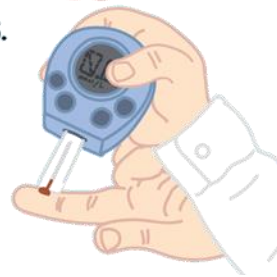
3. Use your lancing device on the side of your fingertip to get a drop of blood.

4.



4. Squeeze your finger.

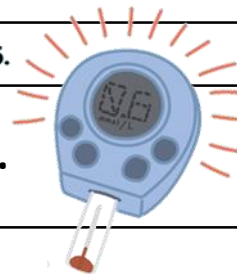
5.



5. Touch and hold the edge of the test strip to the drop of blood, and wait for the result.

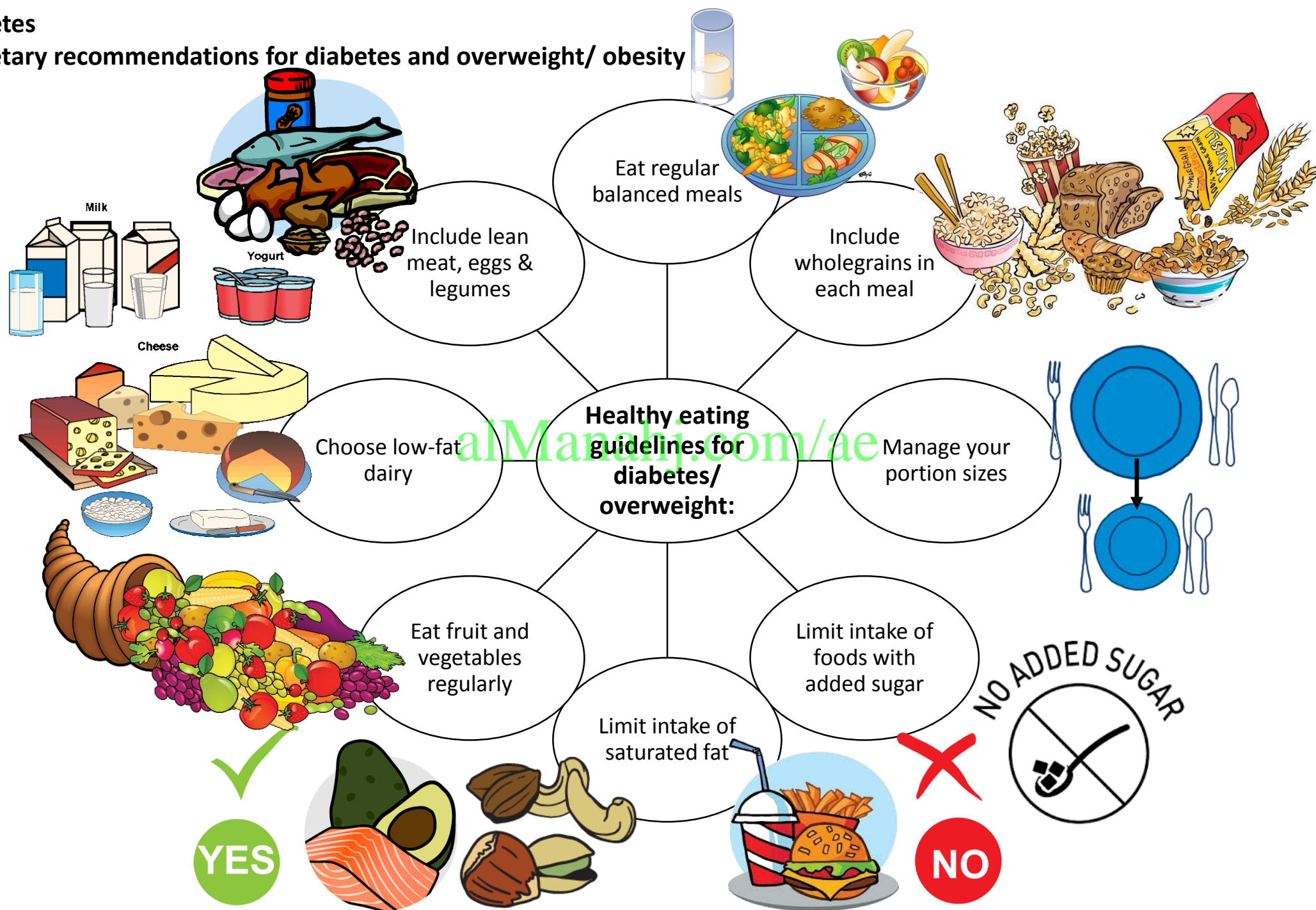
6.

6. Your blood glucose level will appear on the meter's display.

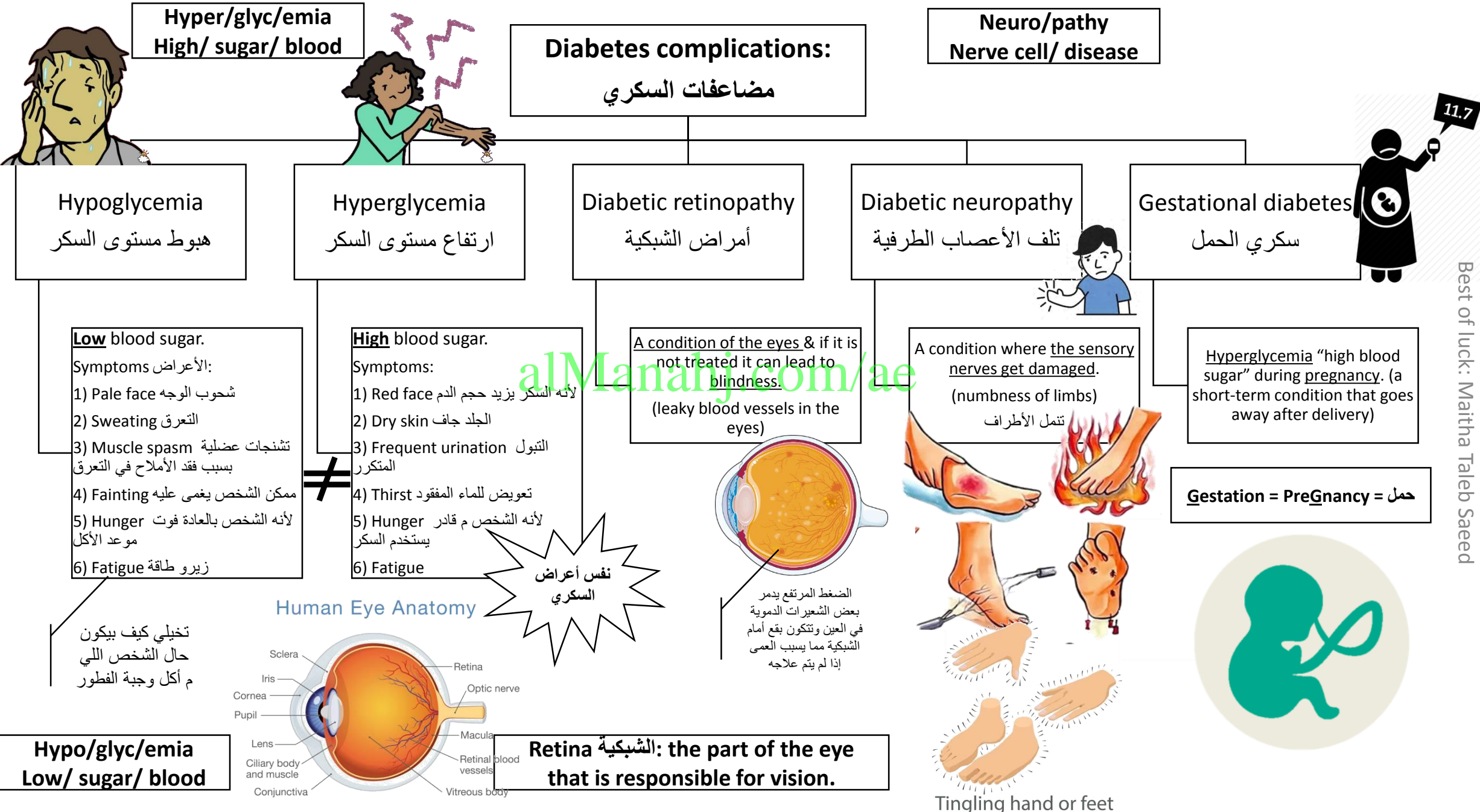


## When to measure glucose?

1. When the patient is fasting.
2. Before & after a meal.
3. After a physical activity.









# THE GLUCOSE LEVEL



**HYPOGLYCEMIA**  
(low blood sugar)



**NORMAL LEVEL**



**HYPERGLYCEMIA**  
(high blood sugar)

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# HYPOGLYCEMIA

(Low Blood Glucose)



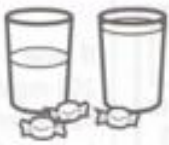
**Causes:** Too little food, too much insulin or diabetes medicine, or extra activity.


**Onset:** Sudden, may progress to insulin shock.

## SYMPTOMS

|   |  |  |   |
|---|--|--|---|
| <br><b>SWEATING</b>        | <br><b>DIZZINESS</b>        | <br><b>ANXIOUS</b>  | <br><b>HUNGER</b>    |
| <br><b>IMPAIRED VISION</b> | <br><b>WEAKNESS FATIGUE</b> | <br><b>HEADACHE</b> | <br><b>IRRITABLE</b> |

## WHAT CAN YOU DO?

  
Drink 1/2 glass of juice or regular soft drink, or 1 glass of milk, or eat some soft candies (not chocolate).

  
Within 20 minutes after treatment **TEST BLOOD GLUCOSE**. If symptoms don't stop, call your doctor.

  
Then, eat a light snack (1/2 peanut butter or meat sandwich and 1/2 glass of milk).

Treatment may vary with different medications.

# HYPERGLYCEMIA







(High Blood Glucose)

**Causes:** Too much food, too little insulin or diabetes pills, illness, or stress.


**Onset:** Often starts slowly. May lead to a medical emergency if not treated.



## SYMPTOMS:

|   |  |   |
|---|--|---|
| <br><b>NEED TO URINATE OFTEN</b> | <br><b>DRY SKIN</b> | <br><b>HUNGRY</b>              |
| <br><b>BLURRY VISION</b>         | <br><b>DROWSY</b>   | <br><b>SLOW-HEALING WOUNDS</b> |

## WHAT CAN YOU DO?

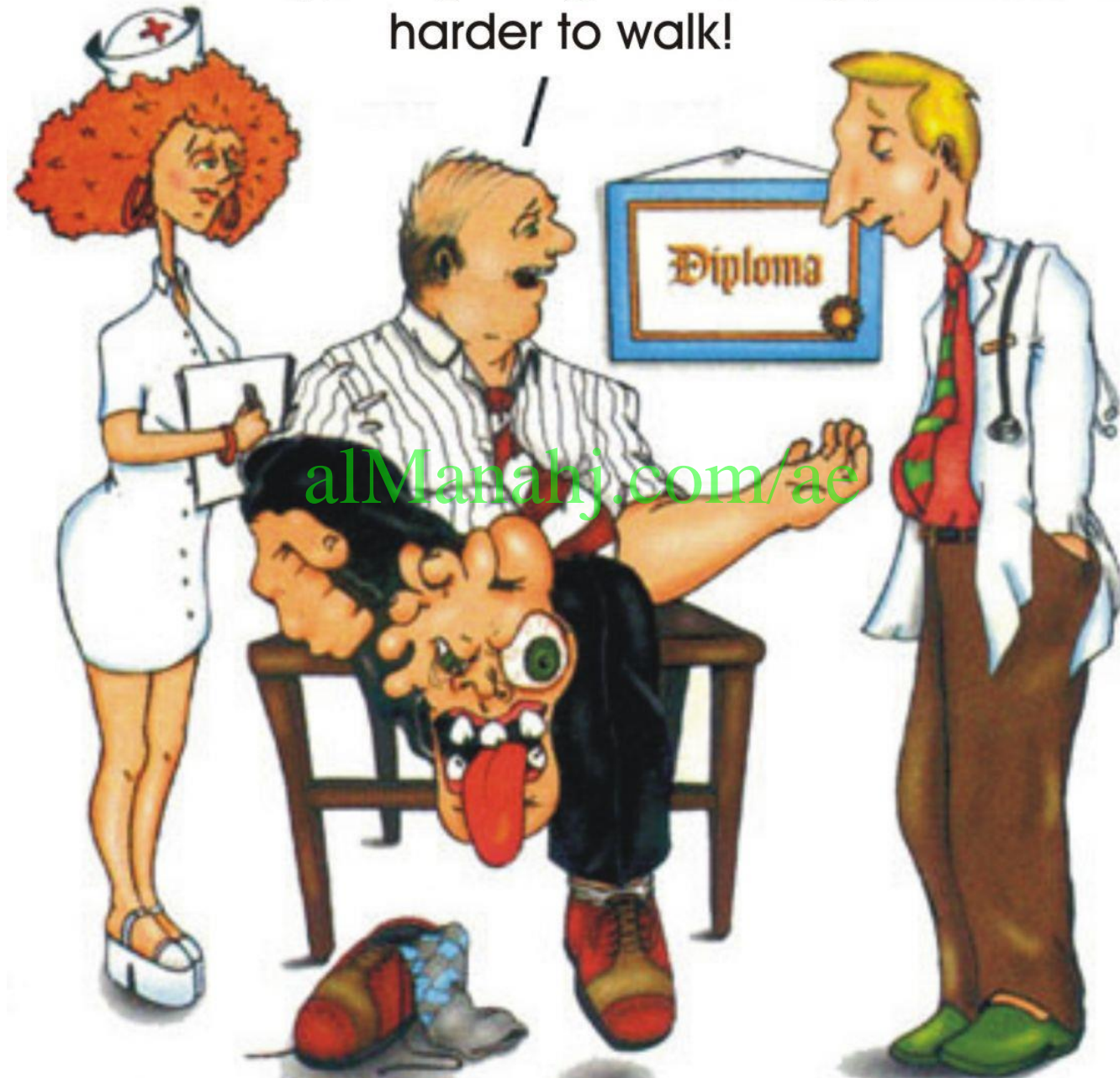
  
**CHECK BLOOD GLUCOSE**

  
**CALL YOUR HEALTHCARE PROVIDER**

Call your healthcare provider if your blood glucose levels are higher than normal for 3 days and you don't know why.



Hey, it is getting increasingly  
harder to walk!





**Phagia** sounds like **فجعة**  
 الشخص المفجوع يأكل كميات رهيبه من الأكل ودائماً يشعر بالجوع  
**Phagia = Hunger = جوع**



**Fatigue** sounds like **فتك**  
 فتك فلان بفلان وتركه بدون طاقة  
**Fatigue = Weakness = التعب الشديد**



**Pregnancy = Gestation = حمل**



**Dipsia** sounds like **دبس**  
 لو أكلت كمية كبيرة من الدبس ستشعر بالعطش  
**Dipsia = Thirst = عطش**

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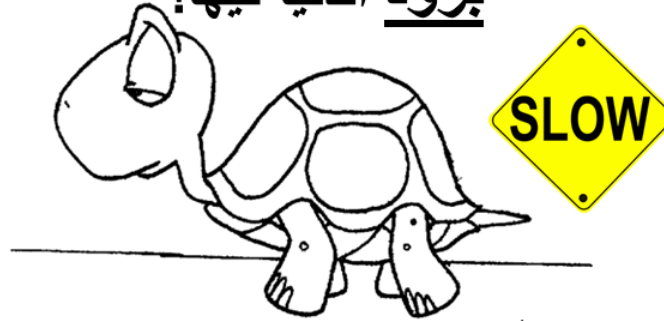


Tachy = Fast = سريع

Tic! Tic!  
Tic!



برود الدنيا فيها!



Brady = Slow = بطيء

Larynx الحنجرة

هي اللي تخليك تغني وتقول: «أيل ياعين»



Cardio sounds like cards



Cardio = Heart = قلب

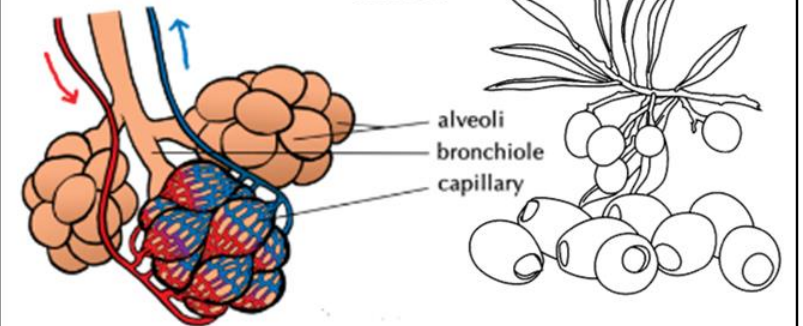
Glucose

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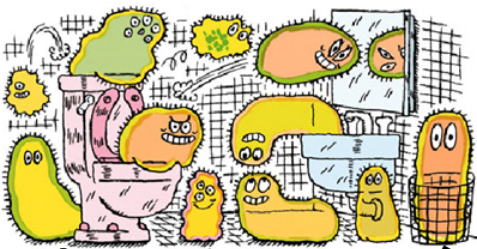
Glyc = Sugar

Alveoli sounds like olives they even look alike.



A bathroom is full of germs that cause diseases.

Bath sounds like pathy



-pathy = Disease = مرض



Homeostasis sounds like "Home Stay"

Wherever you go you will return eventually home and stay in there we can apply the same concept to "homeostasis" as it is the original point

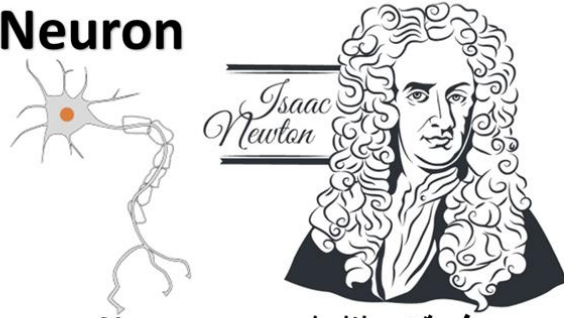
Homeostasis = عملية الاتزان

Hyperactive boy



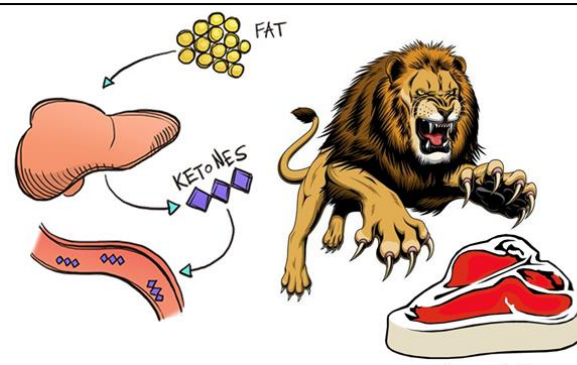
Hyper = Over = زيادة

## Neuron



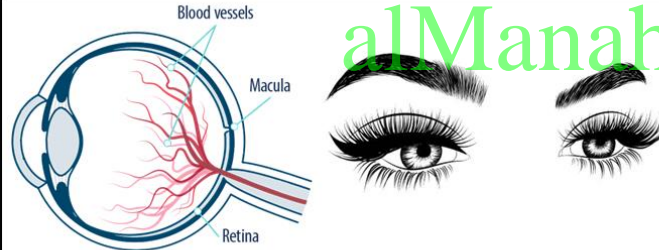
**Neuron** sounds like **نيوتن**

عرف نيوتن بالذكاء  
الذكاء له علاقة بالمخ  
المخ مكون من خلايا عصبية  
نسمي الخلية العصبية الواحدة «نيورون»  
**Nuron = Nerve cell = خلية عصبية**



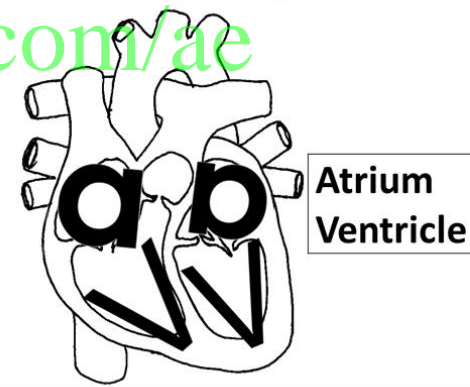
**Ketoacidosis** sounds like **قطاو وأسود**

تخيل لو تأكل ما تأكله الأسود والبروتينات فقط!  
سيبدأ جسمك بتكسير الدهون بدل السكر لأنه بكل بساطة  
حميتك لا تحتوي على الكربوهيدرات أو أنك مريض سكر  
لا تستفيد من الجلوكوز، في هذه الحالة سيكسر جسمك  
الدهون في الكبد مما ينتج أجسام كيتونية تطرح في البول  
**Ketoacidosis = الحمض الكيتوني**

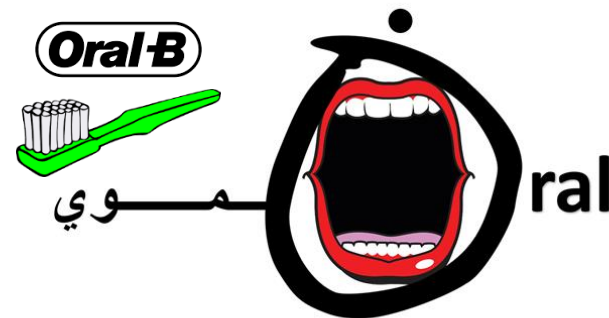


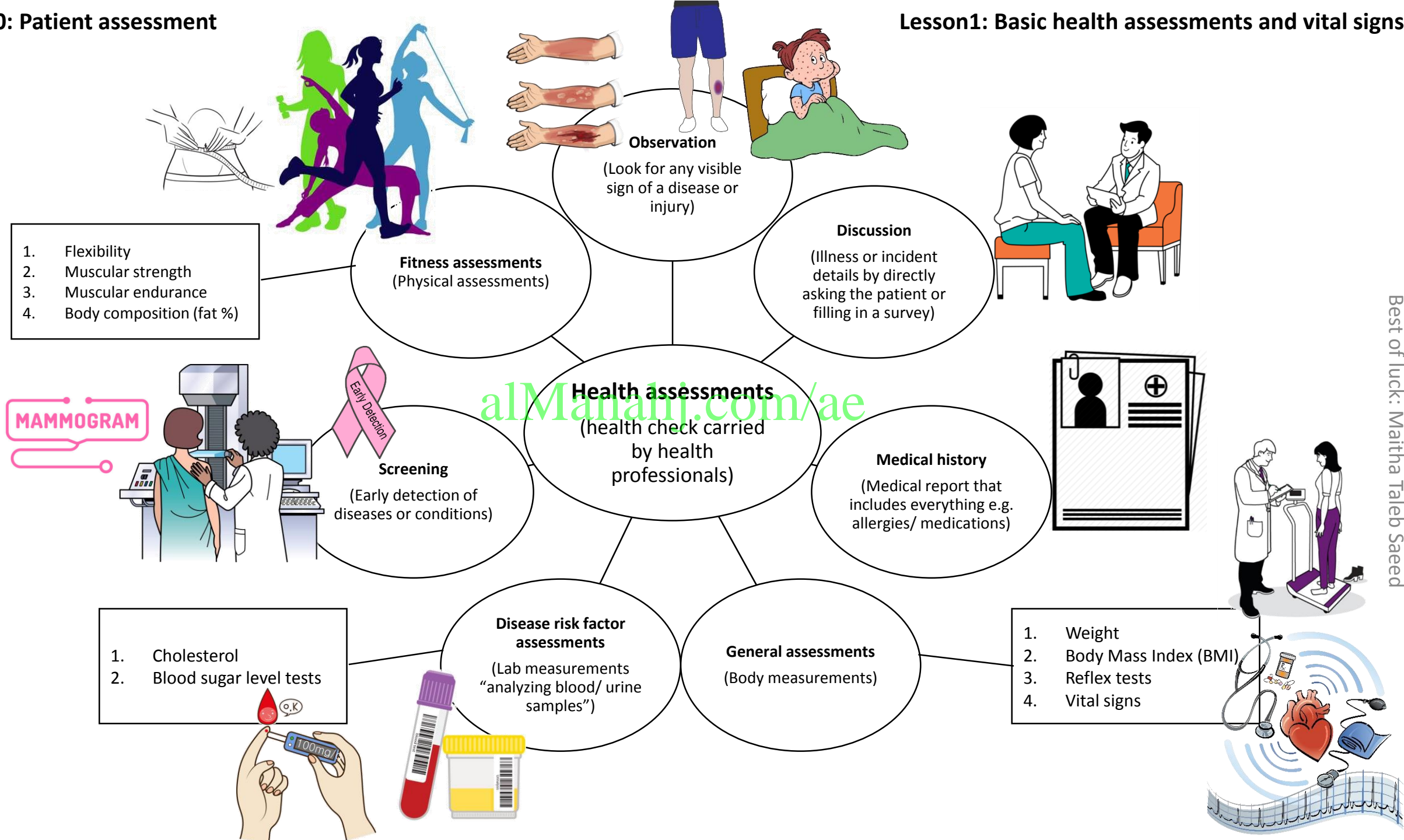
**Retina** sounds like **ريتينا** «من الرؤية»

Retina is the part of the eye that helps us to see

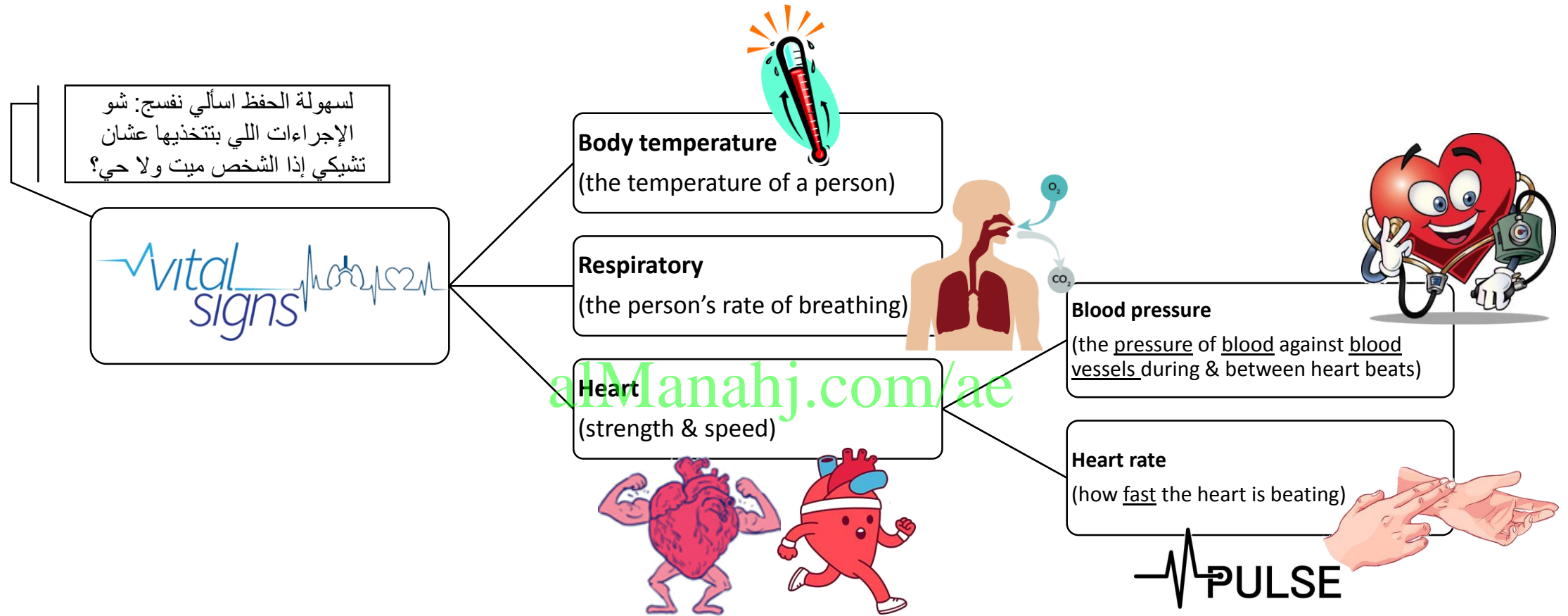


Only one player will dominate other players.  
**Mono = one**      **Poly = more than one**







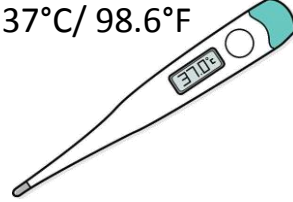
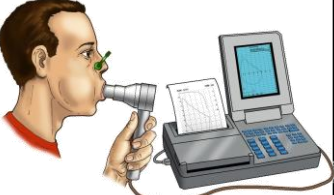

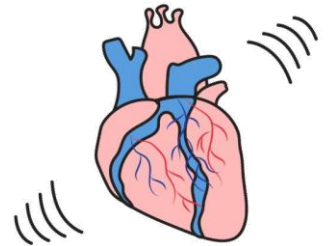


لسهولة الحفظ اسألني نفسج: شو الإجراءات اللي بتتخذونها عشان تشيكوا إذا الشخص ميت ولا حي؟

- Vital signs help to identify:**
1. If there is an illness
  2. How well the patient managing the illness
  3. Illness progress (better/ worsen)
  4. If the patient has a chronic disease

**المؤشرات الحيوية:**  
patient's basic body functions.

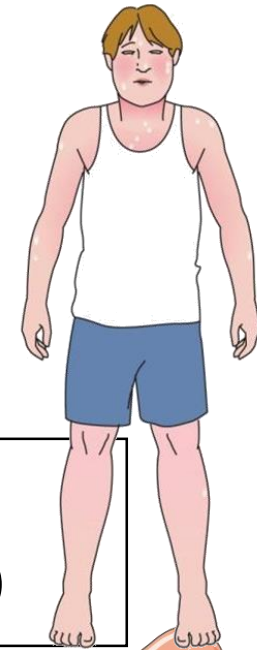


| Vital sign  | Definition  | How to measure it?   | Normal readings   | Important notes  |
|---|---|--|---|--|
| <b>Body temperature</b>   | The <u>heat</u> of a person's body  | Using <b>thermometer</b> :<br>1. Under the armpit<br>2. Under the tongue (oral)<br>3. In the ear<br>4. On the skin | 37°C/ 98.6°F<br>                             | <b>Armpit</b> temperature check <u>lower</u> than <b>oral</b> or <b>ear</b> check.<br>For example a high fever reading will be like the following:<br>Oral/ ear: 38-39.9°C<br>Armpit: 37.4-39.4°C<br><b>Homeostasis</b> عملية الاتزان is responsible for <u>regulating</u> body temperature. |
| <b>Respiration</b>  | The act of <u>breathing</u><br>    | Count the number of breaths in one minute (breaths per minute)<br>Or<br><b>Respirometer</b>                        | Newborn: 30-40<br>Adolescent: 16-19<br>Adults: 12-20<br>كل ما كبر الشخص قل التنفس عنده لأنه الرئة تكبر وتزيد سعتها              | Changes in breathing rate may be a sign of an illness such as: asthma الربو/ pneumonia رئوي التهاب/ heart failure.<br><b>Bradypnea</b> : slow breathing<br><b>Tachypnea</b> : fast breathing   |
| <b>Blood pressure</b>   | the <u>pressure</u> of <u>blood</u> against <u>blood vessels</u> during & between heart beats (systolic/ diastolic) | <b>Sphygmomanometer</b> :<br>-Digital monitor رقمي<br>-Manually monitor يدوي                                       | $\frac{120}{80}$ mmHg <u>systolic</u> /<br><u>diastolic</u>   | <b>Hypertension</b> : <u>high</u> blood pressure<br><b>Hypotension</b> : <u>low</u> blood pressure<br>  |
| <b>Heart rate</b><br><div style="border: 1px dashed black; padding: 5px; width: fit-content; margin: 5px 0;">1 min = 60 s</div> | The number of times the heart beats per minute ( <b>beats per minute BPM</b> )                                      | Measuring pulse (BPM)<br>      | <b>Healthy adults</b> :<br>60-100 BPM<br><br><b>Athletes</b> :<br>40-60 BPM<br>الرياضيين م يتعبون بسرعة وعضلات قلبهم قوية وتحمل | Heart rate may be affected by: hyperthermia/ standing/ emotions/ medication<br><b>Arrhythmia</b> (opposite of rhythm لحن): abnormal heart beats.<br><b>Tachycardia</b> : fast heart beats (more than 100 BPM)<br><b>Bradycardia</b> : slow heart beats (less than 60 BPM) "not in athletes"  |

# Body temperature



**Hypothermia**  
(Low body temperature)



**Hyperthermia**  
(High body temperature)

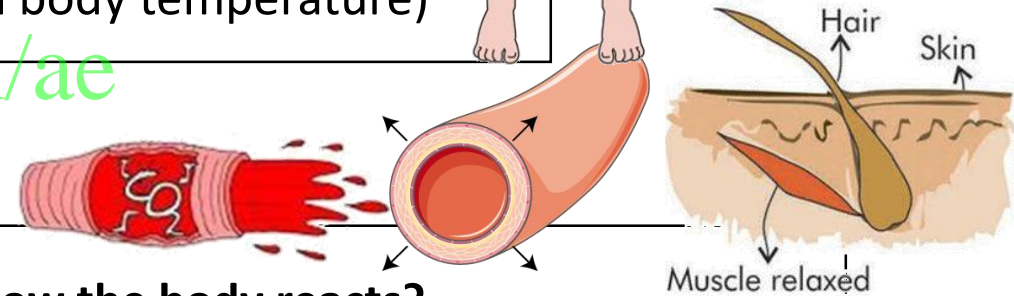
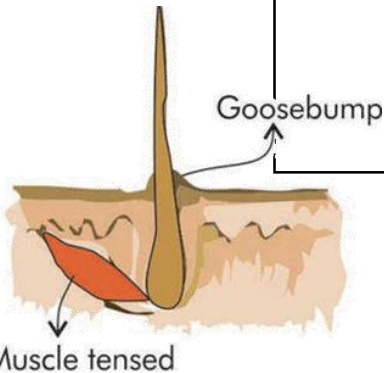
[alManahj.com/ae](http://alManahj.com/ae)

## How the body reacts?

- 1) **Shivering** (helps the body to make more heat).
- 2) **Vasoconstriction:** (narrowing of blood vessels to keep heat in).
- 3) Body's **hair stands** (goosebumps) to keep the heat closer to the body.

## How the body reacts?

- 1) **Sweating** (fluid from sweat glands to cool the body).
- 2) **Vasodilation** (the widening of blood vessels to release heat).
- 3) Body's **hair lies flat** to let heat escape.



**Vaso/dilation**

Vessel/ relaxation

انبساط/ تمدد الوعاء الدموي

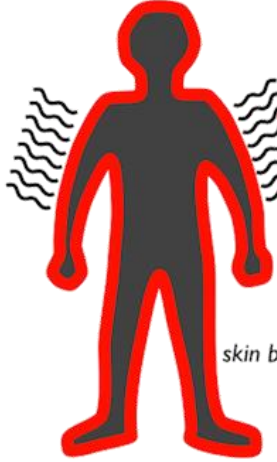
تذكرى القاتون:  
تتمدد الأشياء بالحرارة والعكس  
صحيح بما فيها الأوعية الدموية

**Vasodilation**

(causes redness of the face)

الصوت «د»

young



heat release

skin blood flow



Sweating

للتسهيل: كل  
شي أحمر هنا

HOT

**Hyperthermia**

ارتفاع درجة الحرارة

Causes

39°C

Setting under the sun

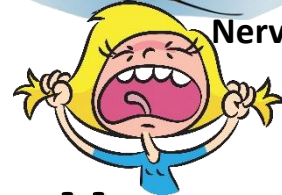
Exercise



Fever

Nervous

Shy



**Homeostasis**

الاتزان

37°C

**Vaso/constriction**

Vessel/ shrinking

انقباض/ انكماش الوعاء الدموي

الصوت «ك»

**Normal**

young



internal heat

insulation

الحرارة هنا تحبس



Shaking

COLD

**Hypothermia**

انخفاض درجة الحرارة

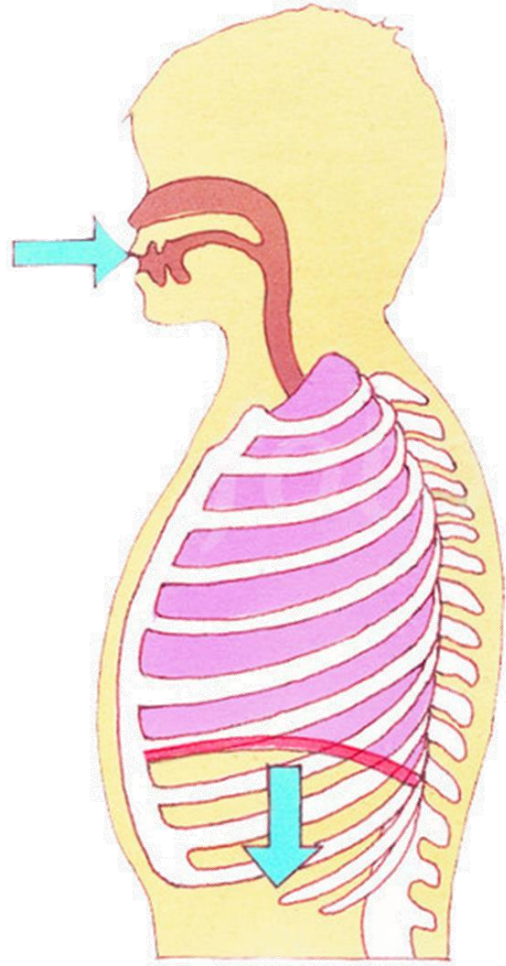
35°C



**Vasoconstriction**

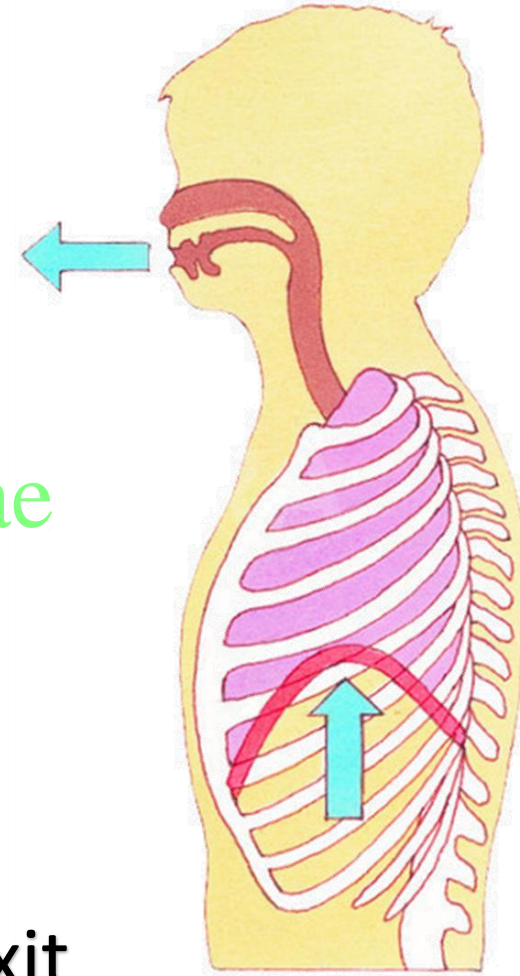


# Respiration/ halation/ breathing/ pnoea التنفس



Inhale شهيق  
Breathe in air

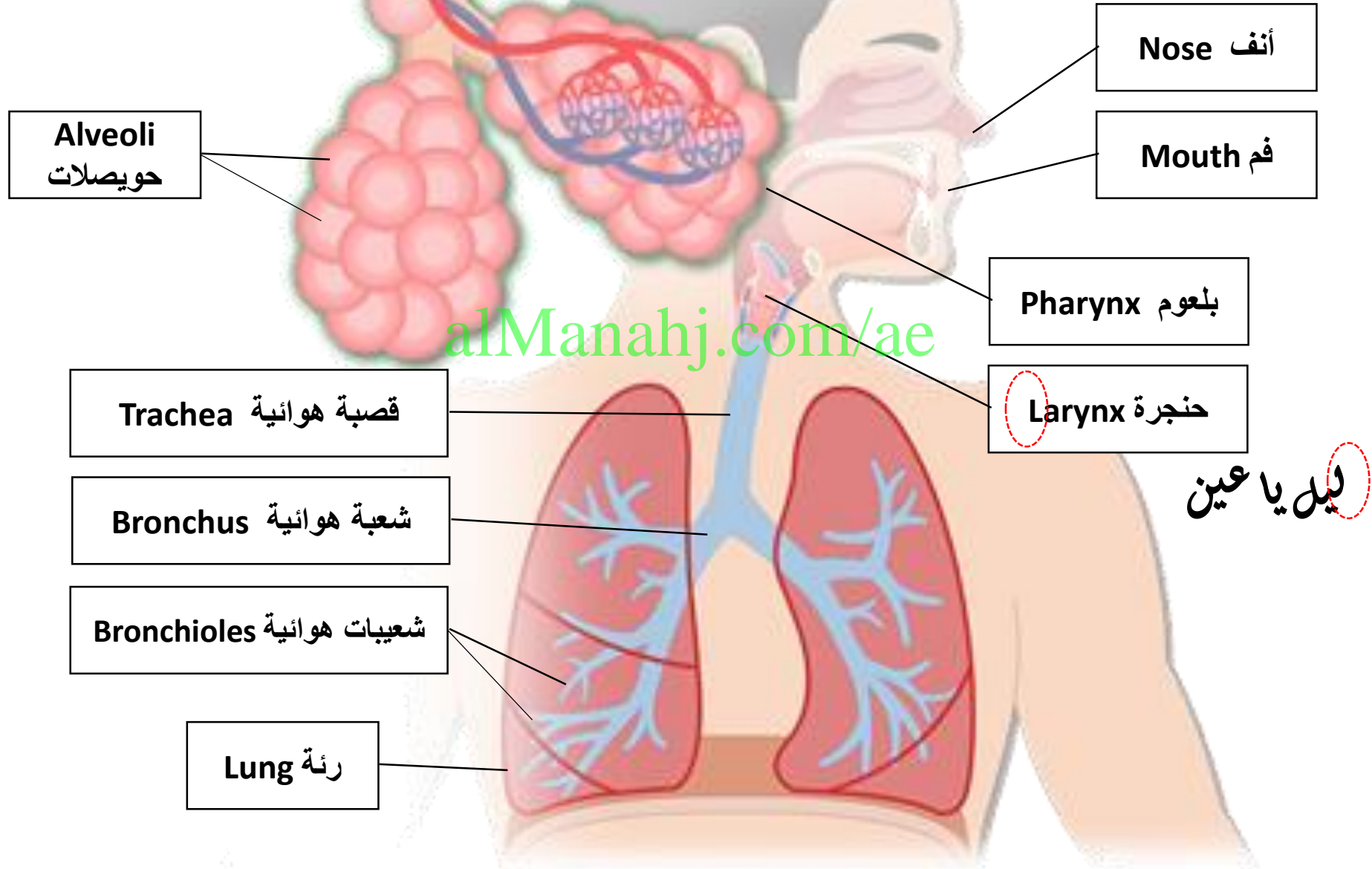
[alManahj.com/ae](http://alManahj.com/ae)



Exit → Exhale زفير  
Breathe air out



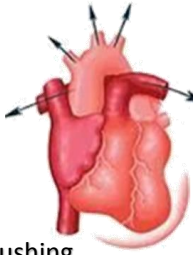
# Respiratory system



## Systolic pressure

### الضغط الانقباضي

من كلمة systems في هالعملية القلب يضخ الدم بقوة ليصل لكل أجهزة الجسم لذلك يكون الرقم/ الضغط كبير

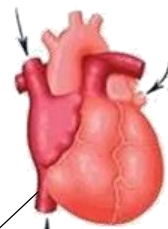


Contraction & pushing blood to all body systems

## Diastolic pressure

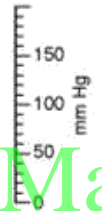
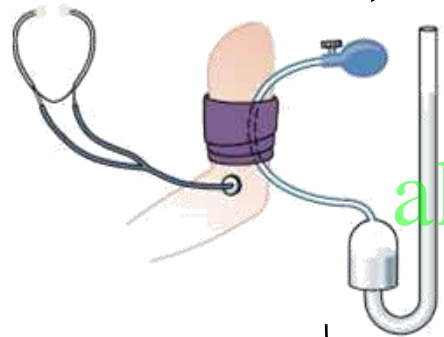
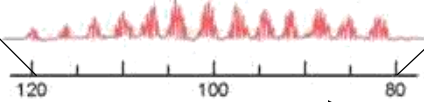
### الضغط الانبساطي

من كلمة dilation اللي اتفقنا إنها تمدد حيث يسترخي القلب في هالعملية فيكون الضغط هالمره صغير



Relaxation & refilling with blood again

## Korotkoff sounds

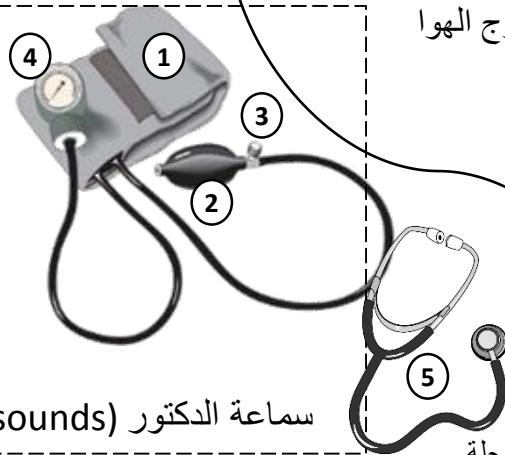


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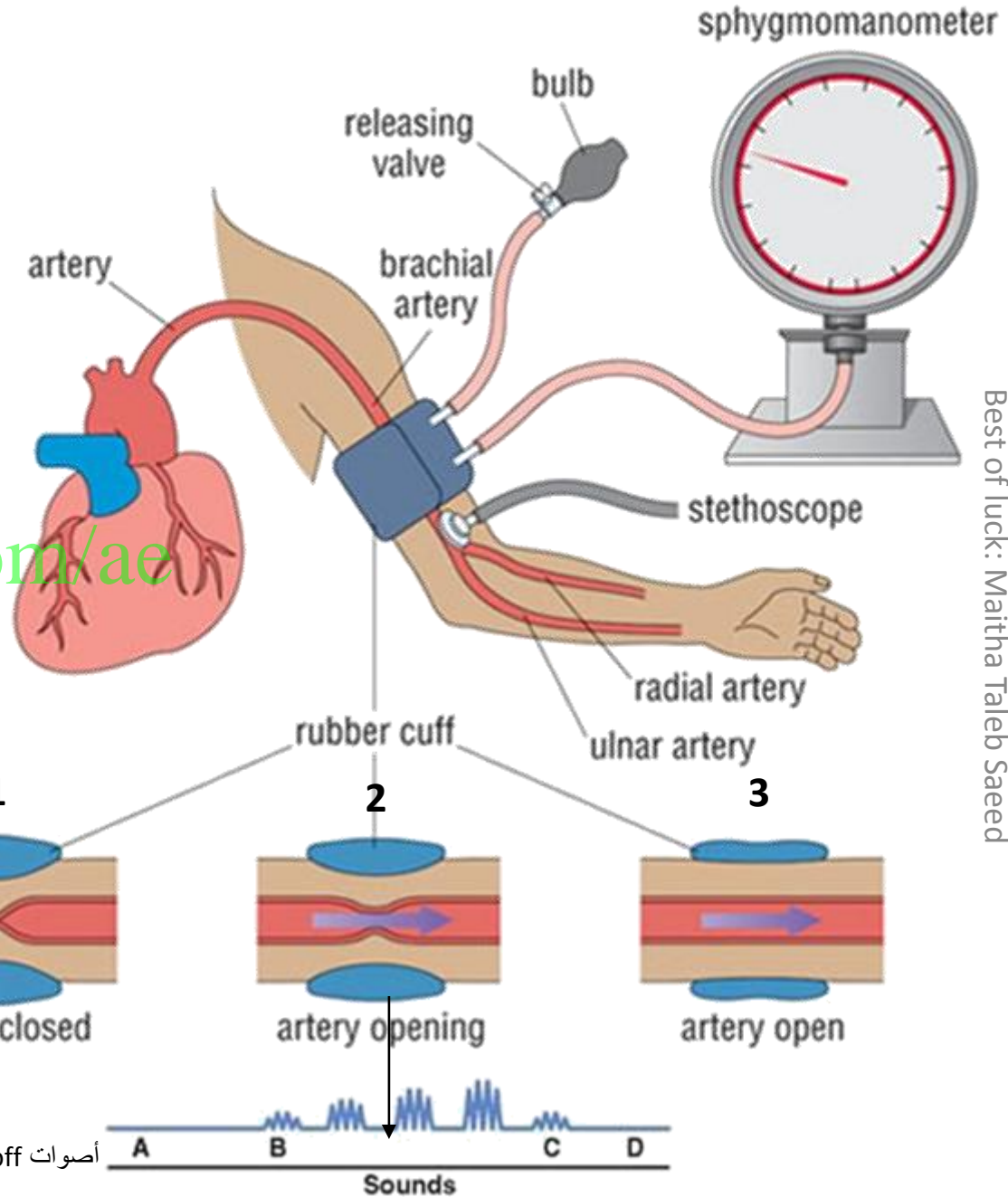
الكف يمتلئ بالهوا اللي بيضغط على الإيد لين م يقطع الدورة وبعدين شوي شوي يفك مع خروج الهوا

## Sphygmomanometer parts:

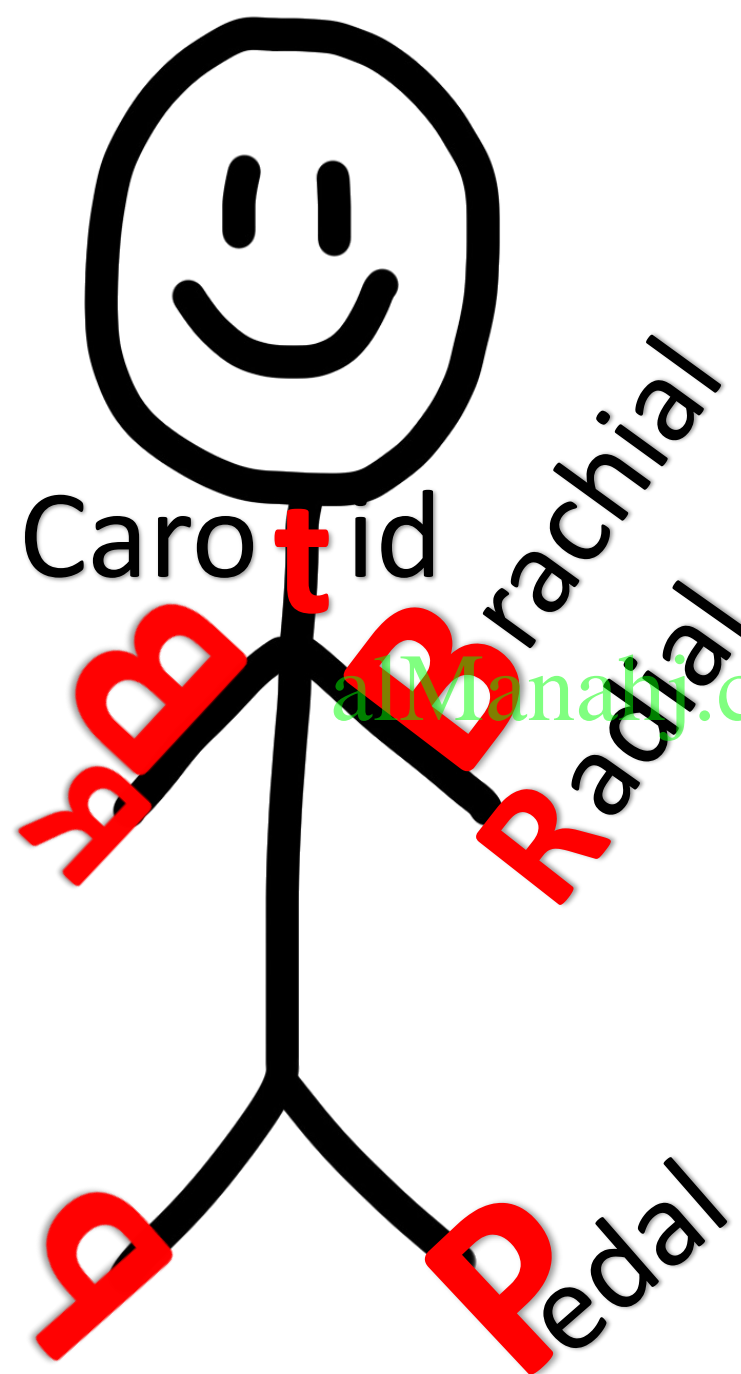
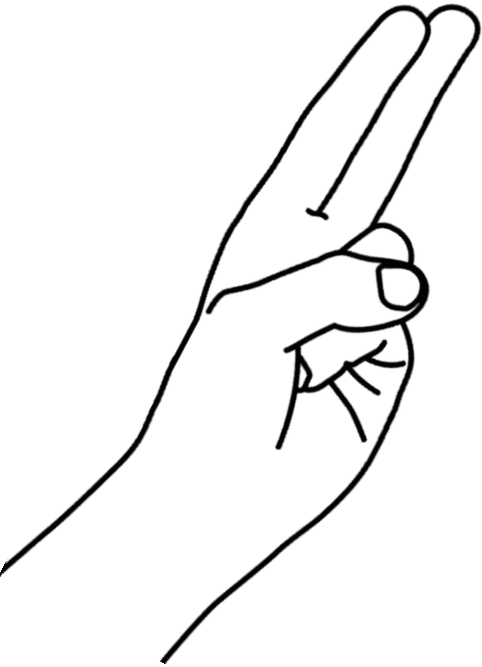
1. Cuff الكف
2. Bulb (inflate the cuff) منفاخ
3. Valve (deflate the cuff) صمام
4. Gauge (manometer) عداد
5. Stethoscope (to hear korotkoff sounds) سماعة الدكتور



أصوات korotkoff تظهر في هالمرحلة



Use your index & middle finger to measure pulse.

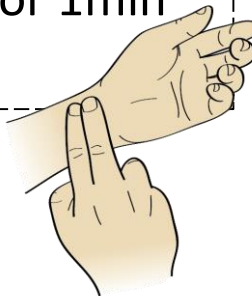


There are specific locations (major arteries) to measure heart rate:

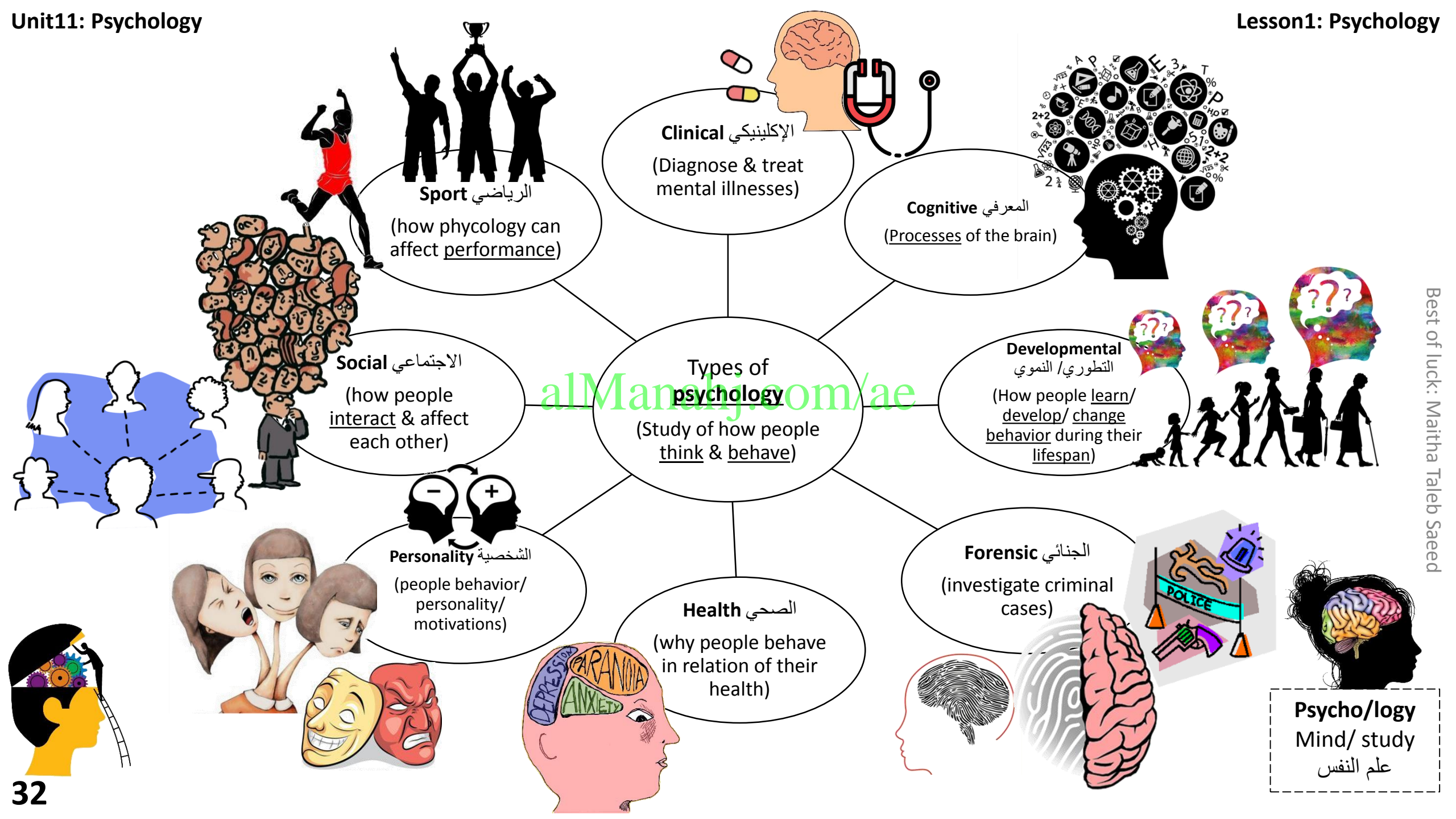
- 1) Carotid artery الشريان السباتي (inside the nick)
- 2) Brachial artery الشريان العضدي (inside the elbows)
- 3) Radial artery الشريان الكعبري (on the wrists)
- Pedal artery الشريان القدي (on the top of the feet)

Measuring heart rate steps:

- 1) Make sure that the patient is at rest
- 2) Get a watch/ timer
- 3) Locate their radial artery “or any other main artery”
- 4) Use your index and middle finger
- 5) Feel the pulse
- 6) Start timing the number of beats for 1min or 30s (then X2 to count **BPM**)







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Best of luck: Maitha Taleb Saeed

**Psycho/logy**  
Mind/ study  
علم النفس



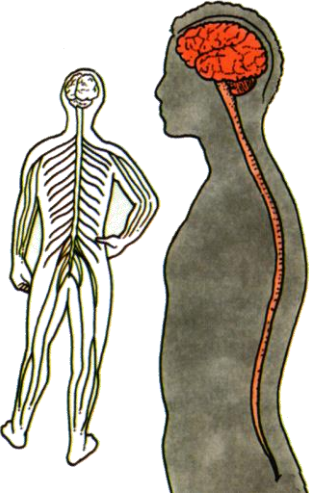
**Psychology**  
علم النفس

**Neuropsychology** علم النفس العصبي  
(the study of the nervous system)

**Cognitive psychology** علم النفس المعرفي  
(processes of the mind)

**Developmental psychology** علم النفس النموي / التطوري  
(as people get older, how they behave/ think/ learn changes)

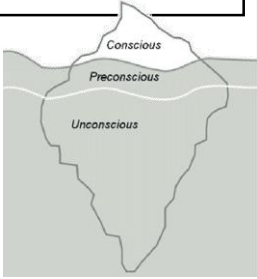
**Nervous system:**  
1) Central nervous system CNS  
2) Peripheral nervous system PNS



**Basic (lower) cognitive processes**  
VISION HEARING SMELL TASTE TOUCH

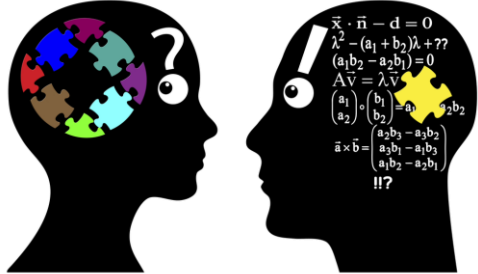


- 1) Sensation إحساس
- 2) Perception منظور
- 3) Consciousness الوعي

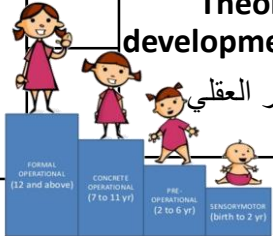


**Higher cognitive processes**

- 1) Learning التعلم
- 2) Memory الذاكرة
- 3) Language اللغة
- 4) Thinking التفكير
- 5) Intelligence الذكاء

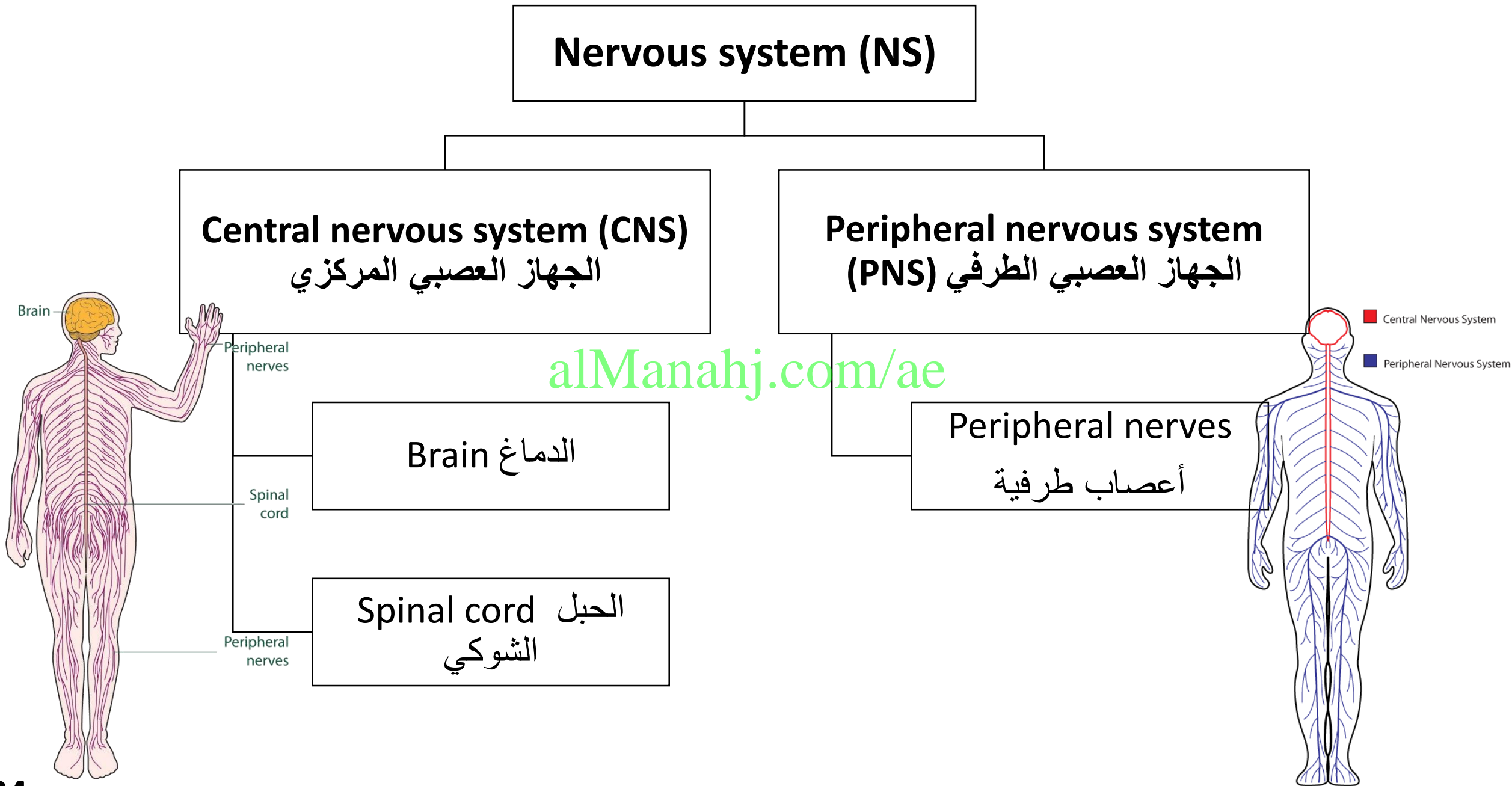


**Theory of cognitive development (Piaget's theory)**  
نظرية بياجيه للتطور العقلي

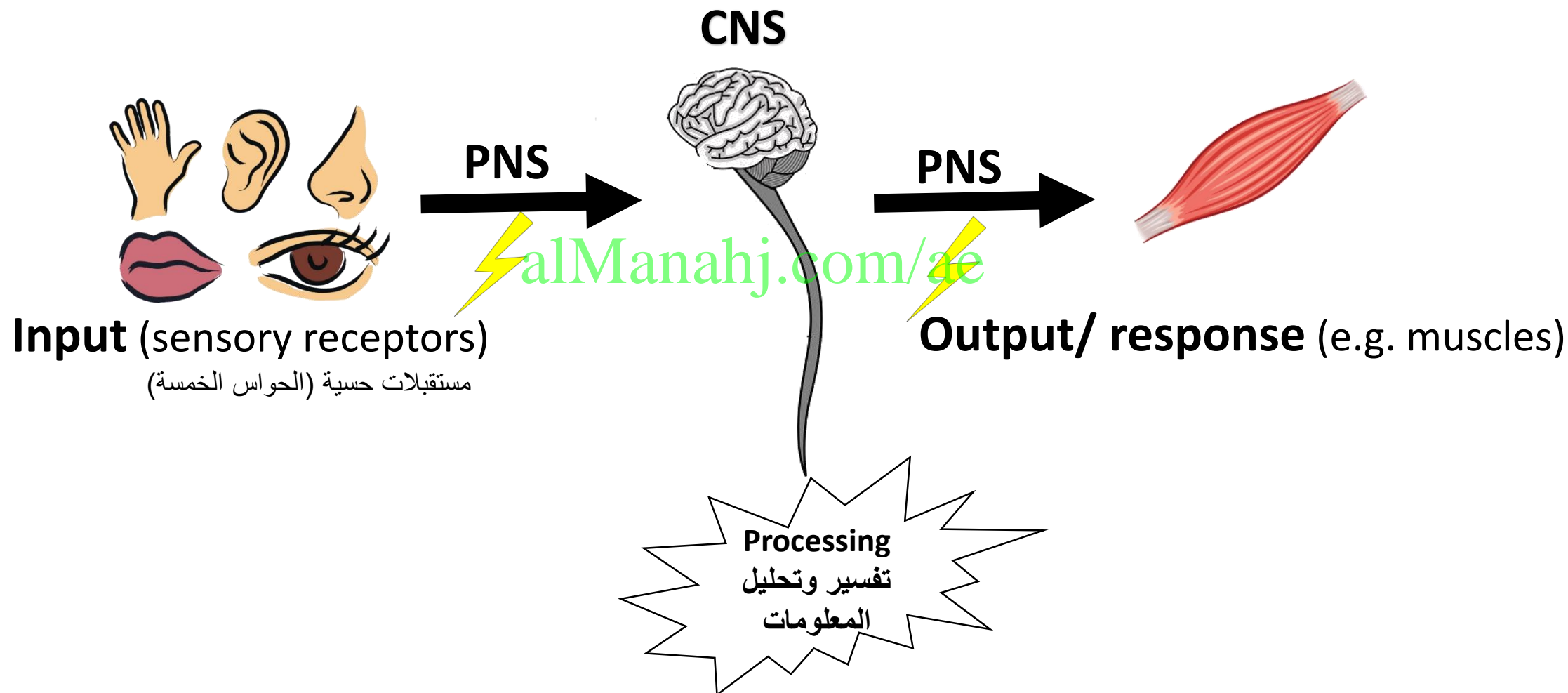


**Social cognitive theory (Bandura's social learning theory)**  
نظرية باندورة للتطور السلوكي





# How does the nervous system work?





## Cognitive processes

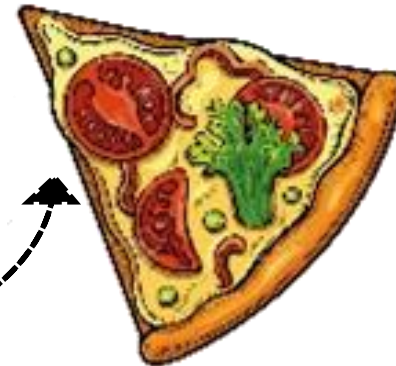
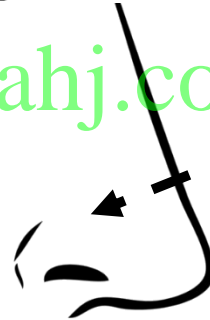
كيف نفهم ونحفظ العمليات المعرفية؟

تخيلي إنه هذا دماغ الإنسان،  
في البداية يكون فارغ مثل  
الورقة الفارغة

### Sensation

1. يستخدم الإنسان حواسه  
لاكتشاف الأشياء

كيف يتعامل الإنسان مع  
الأشياء؟



2. يبدأ يفهم مكنون الشيء  
ويكون وجهات نظر عنه

### Perception

يختلف من  
شخص لآخر

لونه أخضر  
شكله مثل الأشجار الصغيرة  
رائحته كريهة  
طعمه خايس



3. دماغك يخزن كل هذه  
المعلومات في الأرشيف

### Consciousness

4. ممكن أن يستخدم الإنسان هذي  
المعلومات المخزنة في التعلم والإبداع  
والابتكار (العمليات العليا)

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ممكن أن يتعلم وبيتكّر الإنسان  
طرق لجعل البروكلي ألذ

# Cognitive processes العمليات المعرفية

**Basic/ lower** اكتساب وتخزين المعلومات

**Higher** استخدام وتطبيق المعلومات المسبق تخزينها

Definition

- Processes involved in obtaining and storing knowledge.

- Processes that presuppose the availability of knowledge and put it to use.
- We have more control over them

processes

1) **Sensation:** sight= eyes/ hear= ears/ taste= mouth/ touch= skin/ smell= nose



1) **Learning:** depends on memorizing/ understanding language/ the ability to think & intelligence.  
التعليم يعتمد على بقية العمليات المعرفية العليا

2) **Memory:**

Sensory  
Short-term  
Long-term/ life-time

2) **Perception:** how a person interprets & understand the world. كيف تشوف العالم من منظورك



3) **Language:** how we communicate with others.

- a) Verbal
- b) Non-verbal

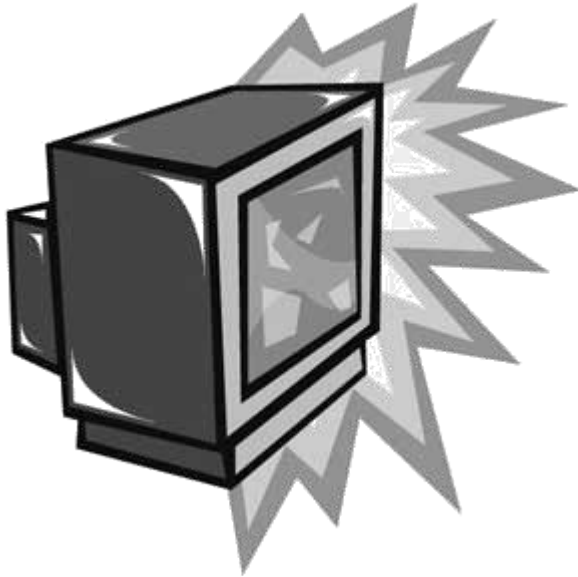
4) **Thinking:** helps in making decisions/ judgment/ distinguish positive or negative

3) Consciousness:  
Conscious/ pre-conscious/ unconscious

5) **Intelligence:** there are different types of intelligence.

## Sensory adaptation التكيف الحسي

(level of sensitivity decreases at certain times)



After listening to the television for 10min you fail to notice how loud the volume is.



After you initially get into a pool, it no longer feels cold



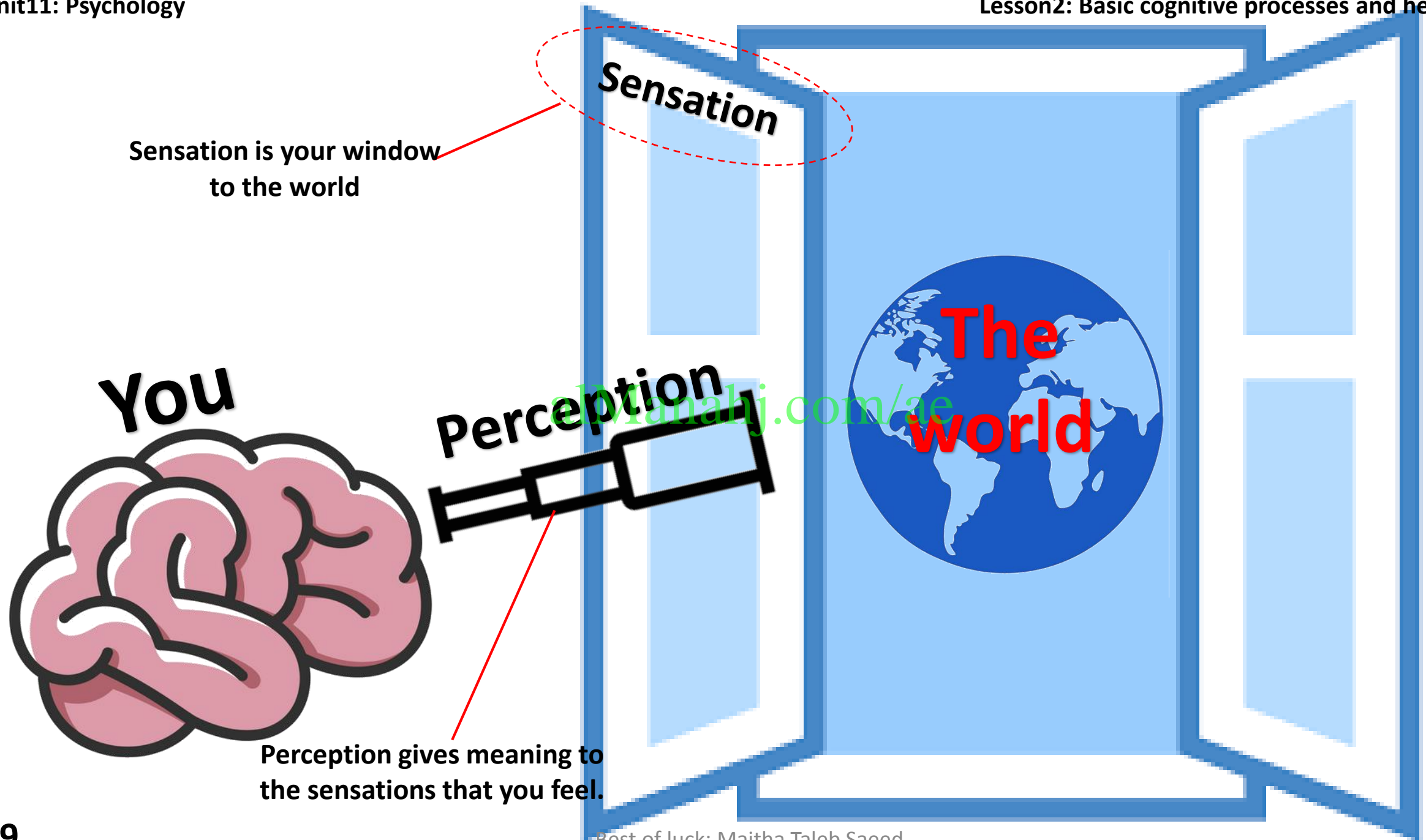
Put a plaster on your arm and after a while you do not sense it



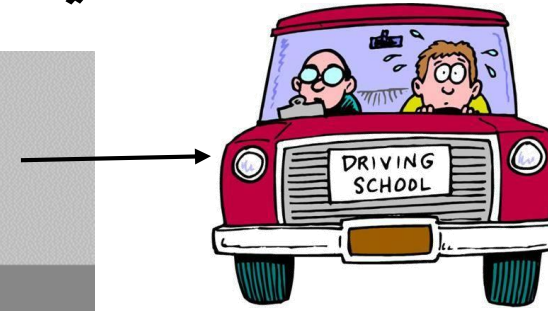
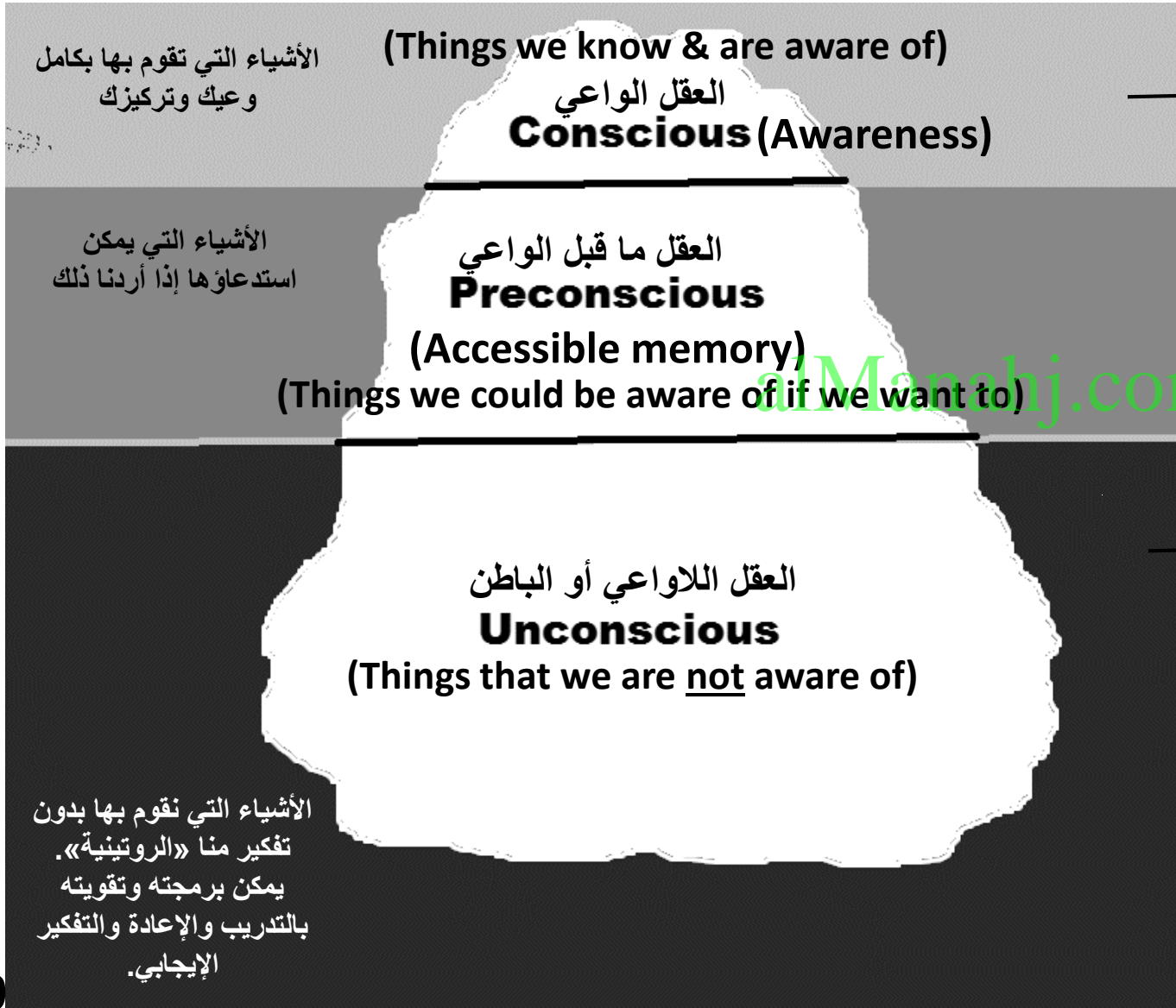
After sitting in a smelly place you will get used to the smell even if it stinks

After sensory adaptation you will feel nothing as a result of constant stimulation التحفيز المستمر





# مستويات الوعي: Consciousness levels



Driving for the first time would be a frightening experience for anyone. Imagine how nervous and focused you would be!



By time, driving will be something you do naturally without even realizing. This will give your brain the chance to focus on other things.

[aiManahj.com/ae](http://aiManahj.com/ae)

CoolClips.com



# Human memory

<1sec  
information coming in through sensation  
الذاكرة الحسية هي الأسرع حيث تستغرق أجزاء من الثانية فقط

<1sec



Short Term Memory

<1min

Life-time

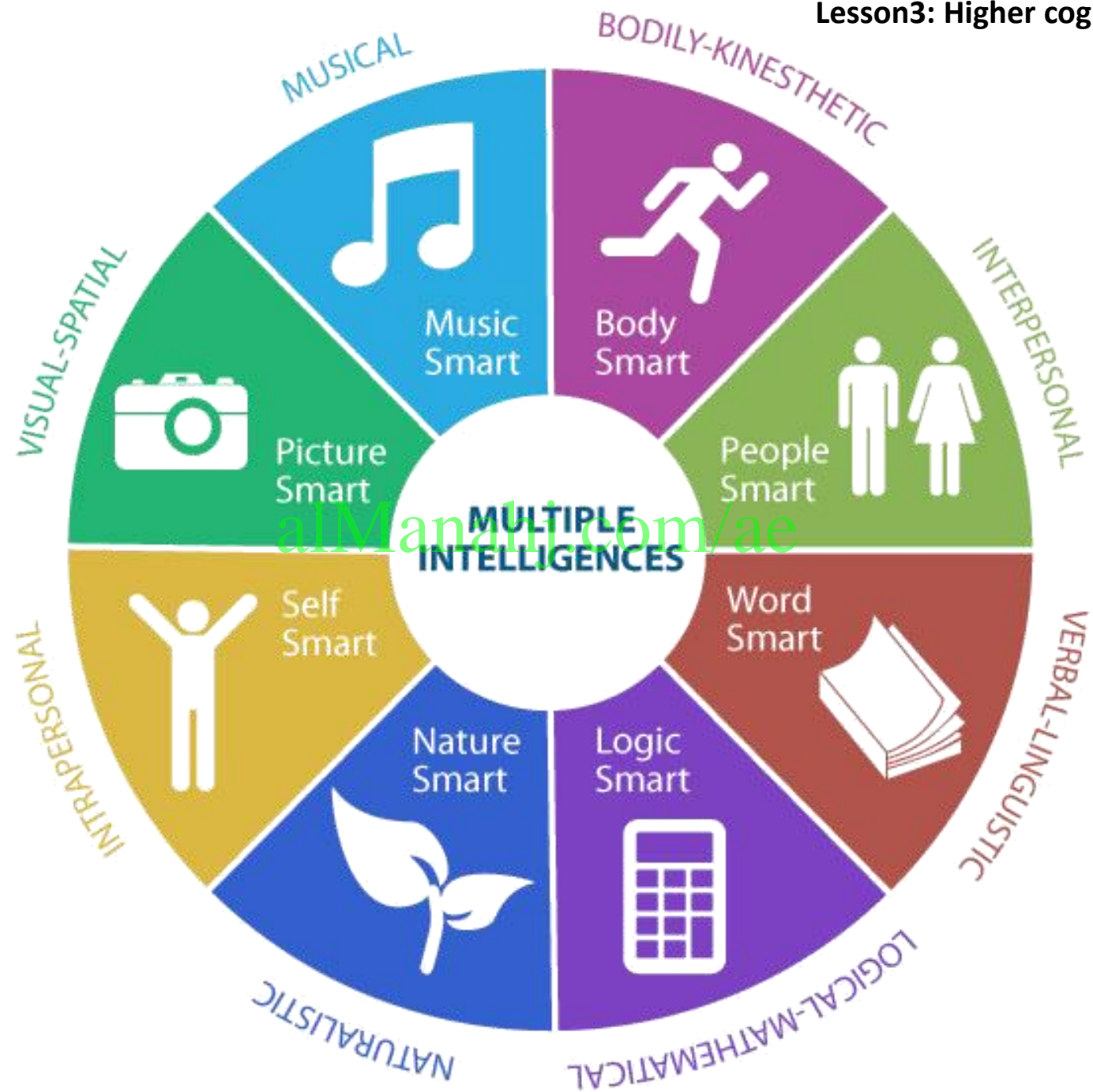
Long Term Memory

Explicit الواضحة  
(Consciousness)

Implicit المبهمة  
(Unconsciousness)

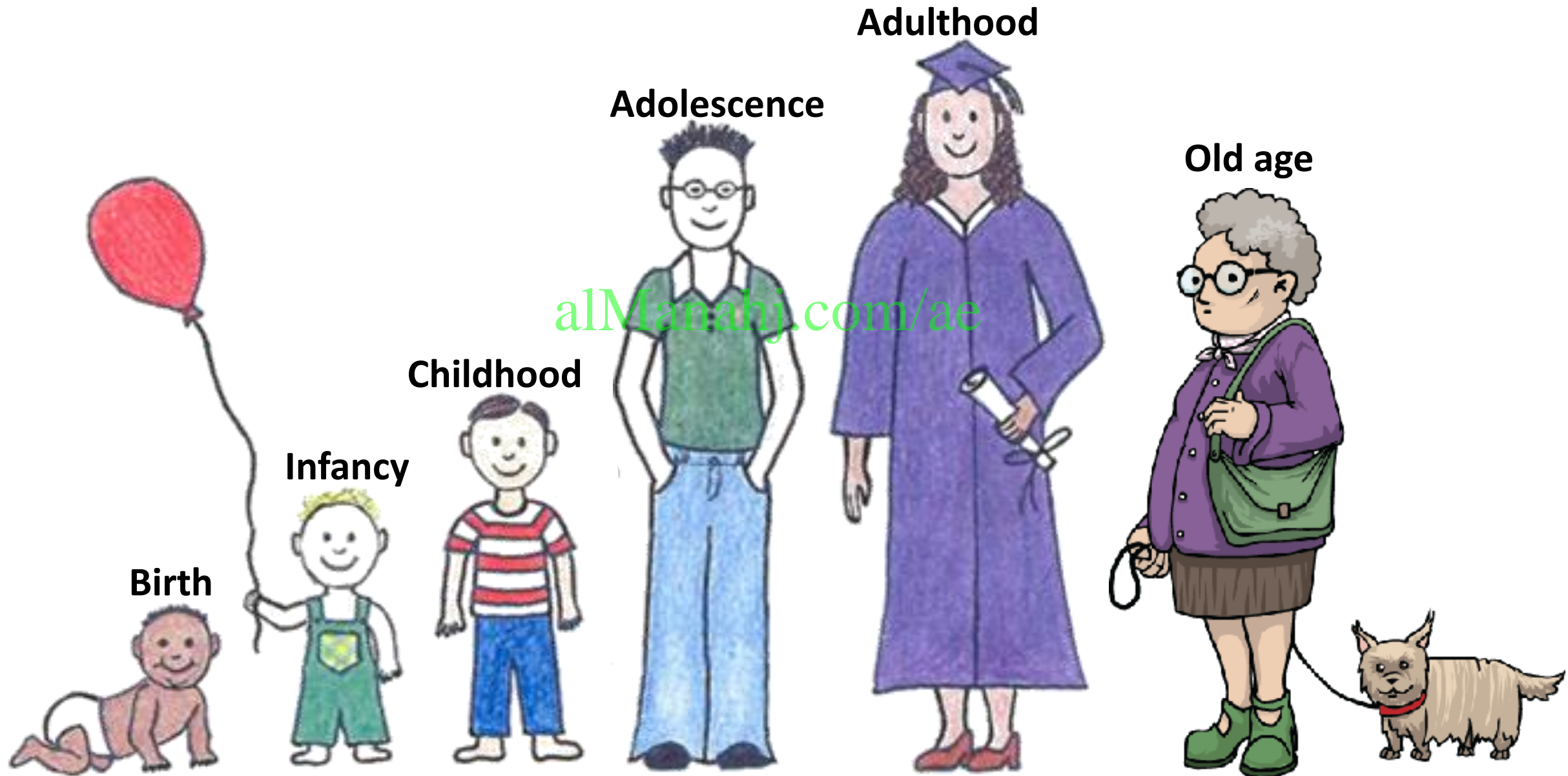
almanah.com/ae





alManali.com/ae

# Stages of human cycle



## Conservation test تذكري قانون الحفظ

The awareness that a quantity remains the same even though it looks different!



The boy in the picture failed to realize that the quantity of water still the same after transferring it into a graduated cylinder.

**But**

**You will not be fooled by the same test, why?**



# PIAGET'S THEORY

Full human intelligence



Concrete: واقعي  
Formal: منهجي

مرحلة العمليات المحسوسة/ المادية

3

Concrete operational

(7-12y)



Can understand conservation

مرحلة العمليات المجردة

Formal operational

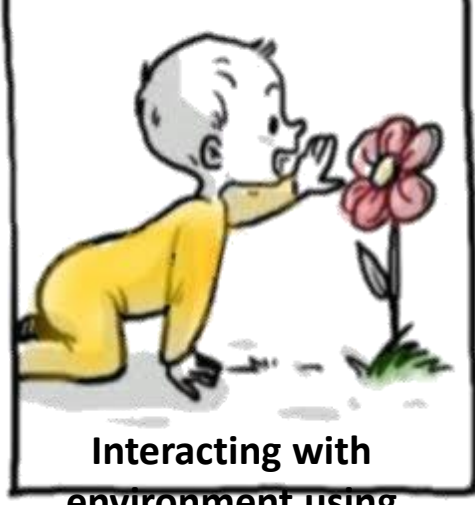
(12y & above)



Critically analyze situations/ think about consequences

1  
المرحلة الحس-حركية

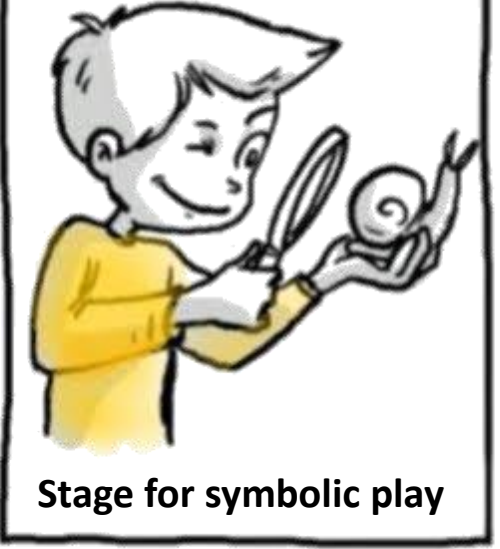
Sensorimotor (0-2y)



Interacting with environment using senses

2  
مرحلة ما قبل العمليات

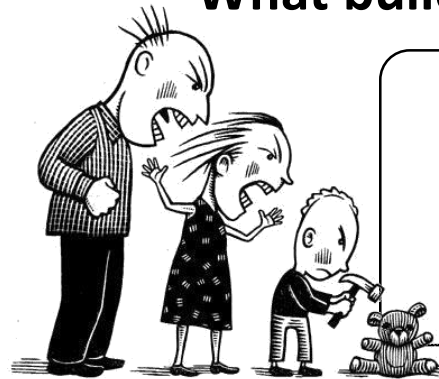
Pre-operational (2-7y)



Stage for symbolic play



# What builds up (forms) our behavior?



**Personal factors**  
(person's past experiences)

let's talk. **change**

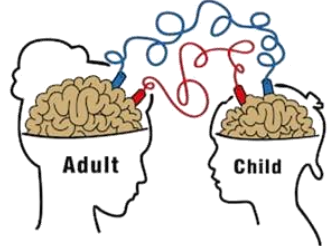
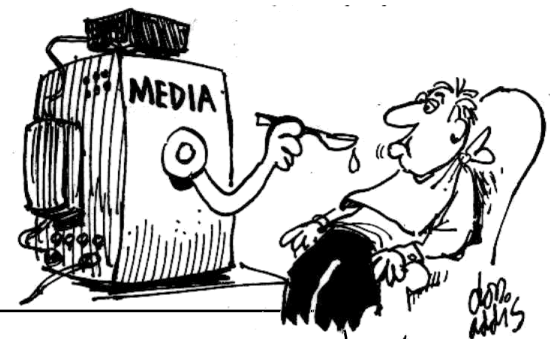
**Can we change behavior?**  
**Self-efficacy** helps changing behavior.  
**Self-efficacy** الإرادة: one's belief in their own ability to succeed.



Children are GREAT IMITATORS, So give them something great to IMITATE

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**Bandura's model**



**People's behavior**

**Environmental factors**



| Cognitive process type | Cognitive processes     | Why is it important for health professionals to understand them? شؤ أهمية العمليات المعرفية في الميدان الطبي؟  |
|------------------------|-------------------------|--|
| <b>Basic/ lower</b>    | <b>1. Sensation</b>     | <ul style="list-style-type: none"> <li>• Encourage patients to try new things</li> <li>• To identify diseases (e.g. cold الرشح make people lose their sense of smelling &amp; reduce their appetite)</li> <li>• What symptoms to look for (e.g. by getting old it is normal for senses to get weaker)</li> </ul>   |
|                        | <b>2. Perception</b>    | <ul style="list-style-type: none"> <li>• Help the patient to identify negative perceptions</li> <li>• Encourage patients to try new sports</li> <li>• Discuss patients achievable targets</li> </ul>   |
|                        | <b>3. Consciousness</b> | <ul style="list-style-type: none"> <li>• Better understand patient's current or past behavior</li> <li>• Help the patient set realistic goals</li> <li>• To understand what changes the person wants to make &amp; understand what motivates them</li> </ul>   |
| <b>Higher</b>          | <b>4. Learning</b>      | <ul style="list-style-type: none"> <li>• Educate people how to avoid getting diseases &amp; how to manage or reverse them</li> </ul>   |
|                        | <b>5. Memory</b>        | <ul style="list-style-type: none"> <li>• Encourage patient to remember any signs or symptoms they have experienced</li> <li>• Understand if patients have problems with their memory (e.g. Alzheimer's disease or dementia)</li> </ul>   |
|                        | <b>6. Language</b>      | <ul style="list-style-type: none"> <li>• Ability to communicate well with patients or other healthcare professionals using terminologies</li> <li>• Ability to read body language</li> </ul>   |
|                        | <b>7. Thinking</b>      | <ul style="list-style-type: none"> <li>• Discuss behavior change with patients</li> <li>• Understand why people act the way they do</li> <li>• Identify if the patient need a referral إحالة لدكتور ثاني</li> </ul>  |
|                        | <b>8. Intelligence</b>  | <ul style="list-style-type: none"> <li>• Health professionals must be: <ul style="list-style-type: none"> <li>✓ People smart: communicate &amp; build relationships with them</li> <li>✓ Verbal smart: to understand medical terms</li> <li>✓ Logic smart: ability to relate signs &amp; symptoms to illnesses</li> <li>✓ Language smart: to understand verbal &amp; non-verbal communication</li> </ul> </li> </ul> |



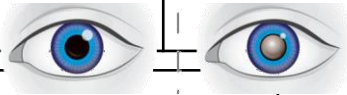
**Unit11: Environmental health**

**Lesson1: Environmental pollution and health**



| Pollution type        | Air (atmosphere)  | Water   | Land   |
|-----------------------|---|---|--|
| <b>Definition</b>     | <b>Indoor (household)/ outside (ambient)</b> contamination by any chemical, physical, or biological agents.   | The changes of water (sea/ lake/ river/ ocean/ groundwater) because of chemicals, physical, or biological agents.   | Land or soil on the earth's surface becomes contaminated with toxins   |
| <b>Types/ causes</b>  | <ul style="list-style-type: none"> <li>*Fumes from cars</li> <li>*Smoke from forest fire</li> <li>*Manufacturing factories</li> <li>*Burning fossil fuels (coal/ oil/ gas)</li> </ul>   | <ul style="list-style-type: none"> <li>*<b>Chemicals:</b> petrol products/ fertilizers/ antibiotics/ pesticides</li> <li>*<b>Bacteria, viruses &amp; parasites:</b> human waste “فضلات الإنسان”</li> <li>*<b>household pollution:</b> washing powder/ liquids/ plastic/ household chemicals</li> <li>*<b>Industry:</b> waste from factories (metals/ fertilizers/ plastic)</li> </ul> | <ul style="list-style-type: none"> <li><b>1) Natural:</b> Volcanoes/ Changes in wind/ Rainfall</li> <li><b>2) Human:</b> Sewage/ Rubbish/ Acid rain/ industry/ Deforestation (cut down trees)</li> </ul>   |
| <b>Health effects</b> | <ul style="list-style-type: none"> <li>*<b>Respiratory problems:</b> Asthma/ Lung cancer/ COPD/ Emphysema/ Pneumonia/ Tuberculosis</li> <li>*<b>Heart problems:</b> small particles can lead to a heart attack</li> <li>*<b>Skin &amp; eye damage</b></li> <li>*<b>Reduced immune function</b></li> </ul> | <ul style="list-style-type: none"> <li>*<b>Skin problems:</b> irritation/ rash</li> <li>*<b>Increased risk of developing cancer</b></li> <li>*<b>Nervous system damage:</b> heavy metals like mercury (Hg) can affect the fetus nervous system in his mother womb</li> <li>*<b>Bacterial and viral infection:</b> typhoid/ cholera/ malaria/ hepatitis A</li> </ul>                   | <ul style="list-style-type: none"> <li>*<b>Poor nutrition</b></li> <li>*<b>Spread of disease</b> (rubbish dumps are filled with mice and rats)</li> <li>*<b>Respiratory disease:</b> burning wastes in landfills</li> <li>*<b>Water pollution</b></li> </ul> |

Air pollution → thinner ozone (O<sub>3</sub>) layer → more harmful ultraviolet (UV) rays → skin cancer + cataracts



- UAE ecosystems:**
1. Desert
  2. Mountain
  3. Coastal & marine

# Climate change

التغير المناخي

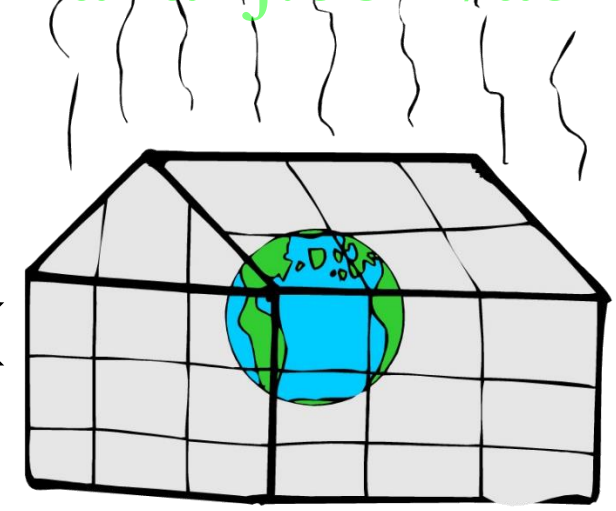


Carbon footprint increase  
CO<sup>2</sup> levels in air

Earth's heat increase dramatically because of greenhouse effect  
"global warming"

CO<sup>2</sup> has a similar effect of a greenhouse interrupting heat so we call CO<sup>2</sup> with some other gases "greenhouse gases"

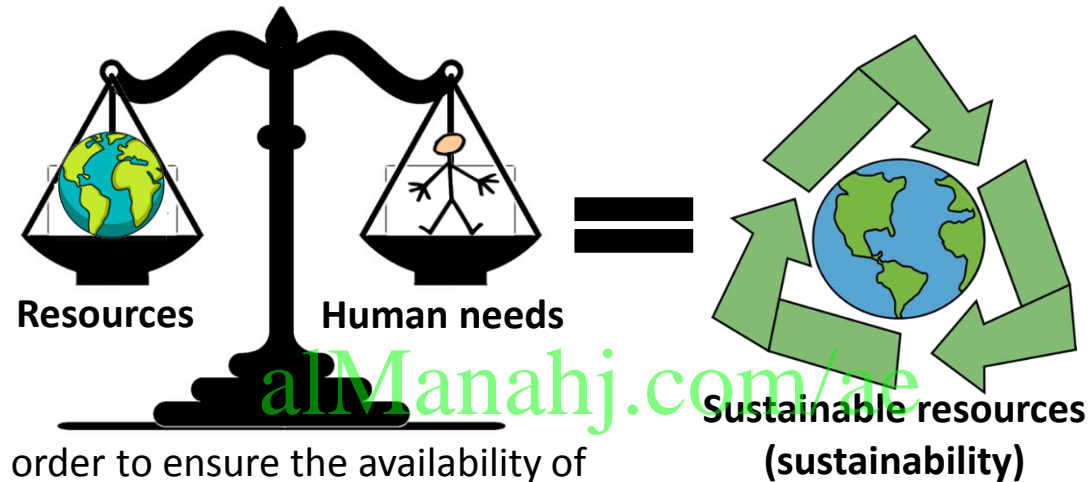
[alManahj.com/ae](http://alManahj.com/ae)





# Sustainability الاستدامة

(Ways to make sure the earth's resources are maintained and not destroyed)



in order to ensure the availability of resources forever we should use them wisely.

**Ways to practice sustainability:**

1. Use energy efficiently
2. Use renewable energy
3. Manage waste correctly
4. Recycling
5. Limit harmful emissions

Please turn off the light when not in use