Health Sciences Review
G12 T2
(2023-2022)

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Unit5

Diseases

- **Communicable CD**
  - **Germs + parasites**
- **Non-communicable NCD**
  - **Non-modifiable NM**
  - **Modifiable M =** negative behavior

HOW TO STOP DISEASES?

Disease prevention

- **Positive behavior:**
  1) Eat healthy
  2) Sleep enough
  3) Keep hydrated
  4) Good hygiene
  5) Physical activity

- **Medical care:**
  1) Vaccination (immunization)
  2) Screening

1
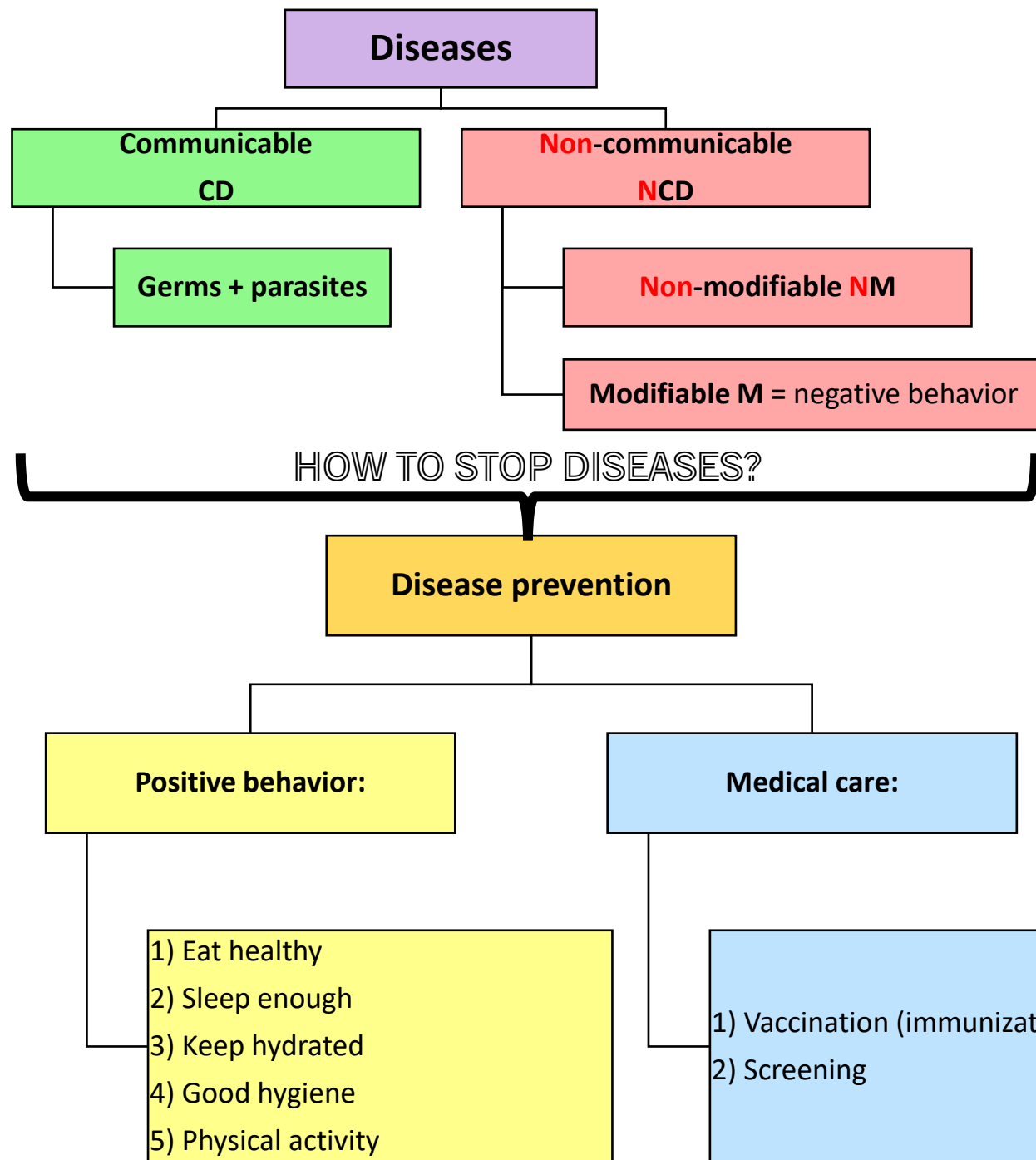
Sedentary = Sit down

الكسل

The more you sit down the more sedentary you are!

Dis-ease/ illness
(condition that stops the body from working normally)

Communicable disease (CD)/ infectious:

can be spread/ passed

Examples: COVID-19 (caused by corona virus)

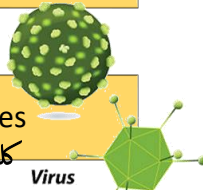ethni**CITY**: Which **city** "origin" you belong to can put you at risk of developing NCDs

Non-communicable disease (NCD)/

non-infectious:

cannot be spread/ passed

Examples: cardiovascular (heart) disease/ cancer/ respiratory diseases/ diabetes

What are the causes?
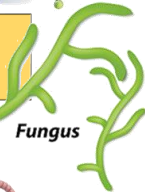Pathogens/ germs/ microbes:
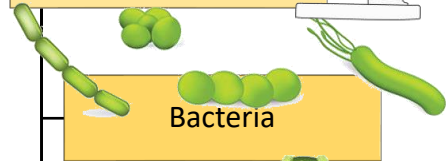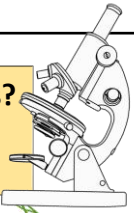
Bacteria

Viruses

كله تاكل من "برع" م تعتمد على نفسها وتسبب أذى

Para**sites** & طفيليات **f**ungi فطريات
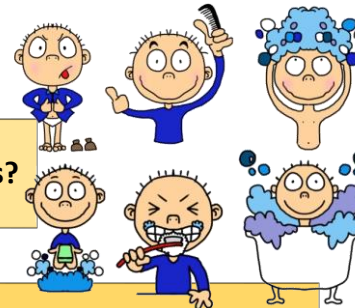
Virus

Fungus

i'm a

Fun guy fungi

How infection happens?

1) Person-to-person (contact with an infected person)

2) Consume contaminated foods & drinks

3) Insect bites

4) Air (airborne particles & droplets)

How to prevent CDs?

1) Practicing good personal hygiene.

2) Cleaning & disinfecting shared areas.

3) Social distancing from sick people.

4) Strengthen the immune system by living a healthy lifestyle (eating healthy/ exercising/ getting enough sleep).

Caused by:
Risk factors
(something that may cause a bad thing to happen)

Modifiable (M) قابل للتعديل
Can be changed/ controlled

Non-modifiable (NM) غير قابل للتعديل

Can**not** be changed/ controlled

Unhealthy lifestyle (negative behaviors):

Sedentary lifestyle (lack of physical activity) نمط الحياة الكسول

Overweight/ obesity

Unhealthy diet

High blood pressure

High cholesterol

Type2 diabetes

Smoking

Stress

Environmental factors

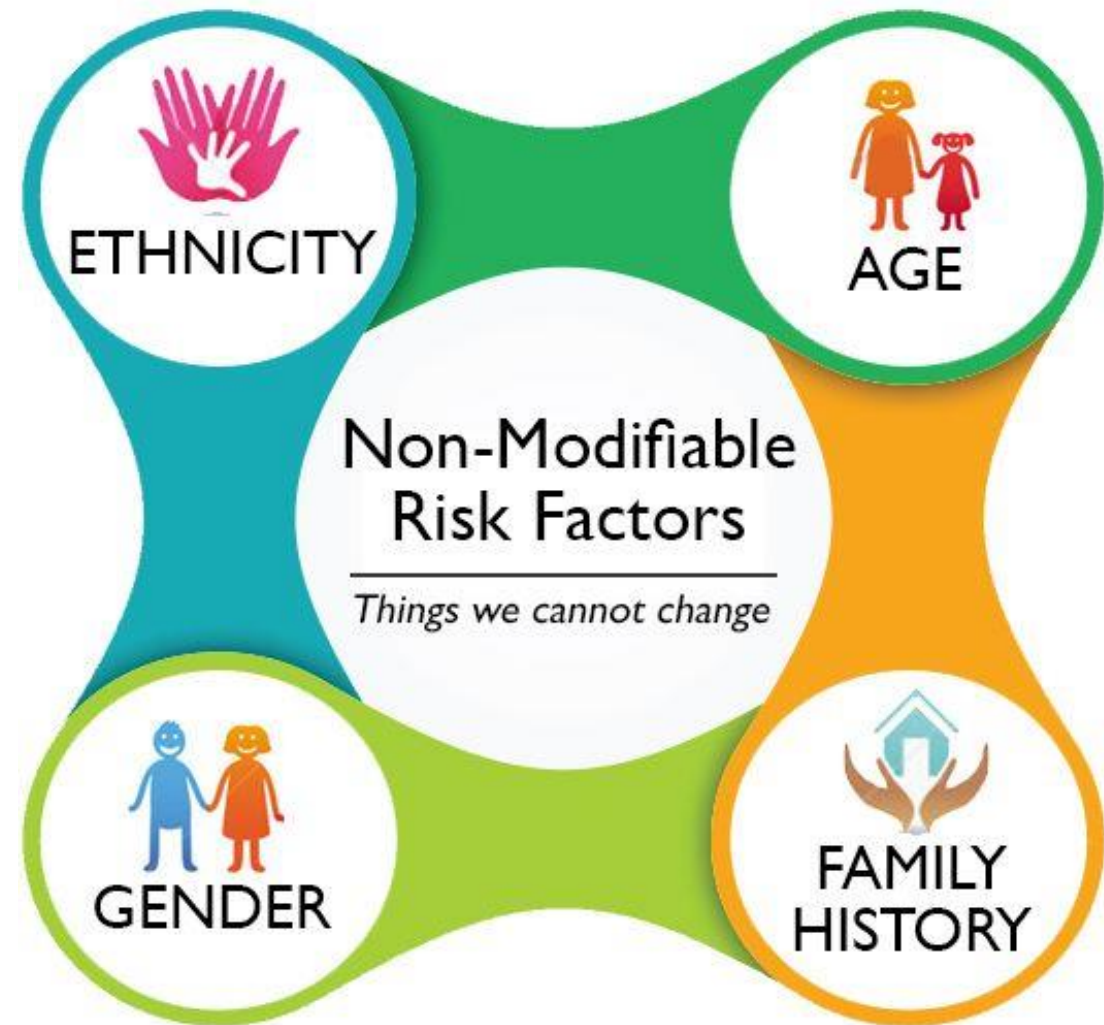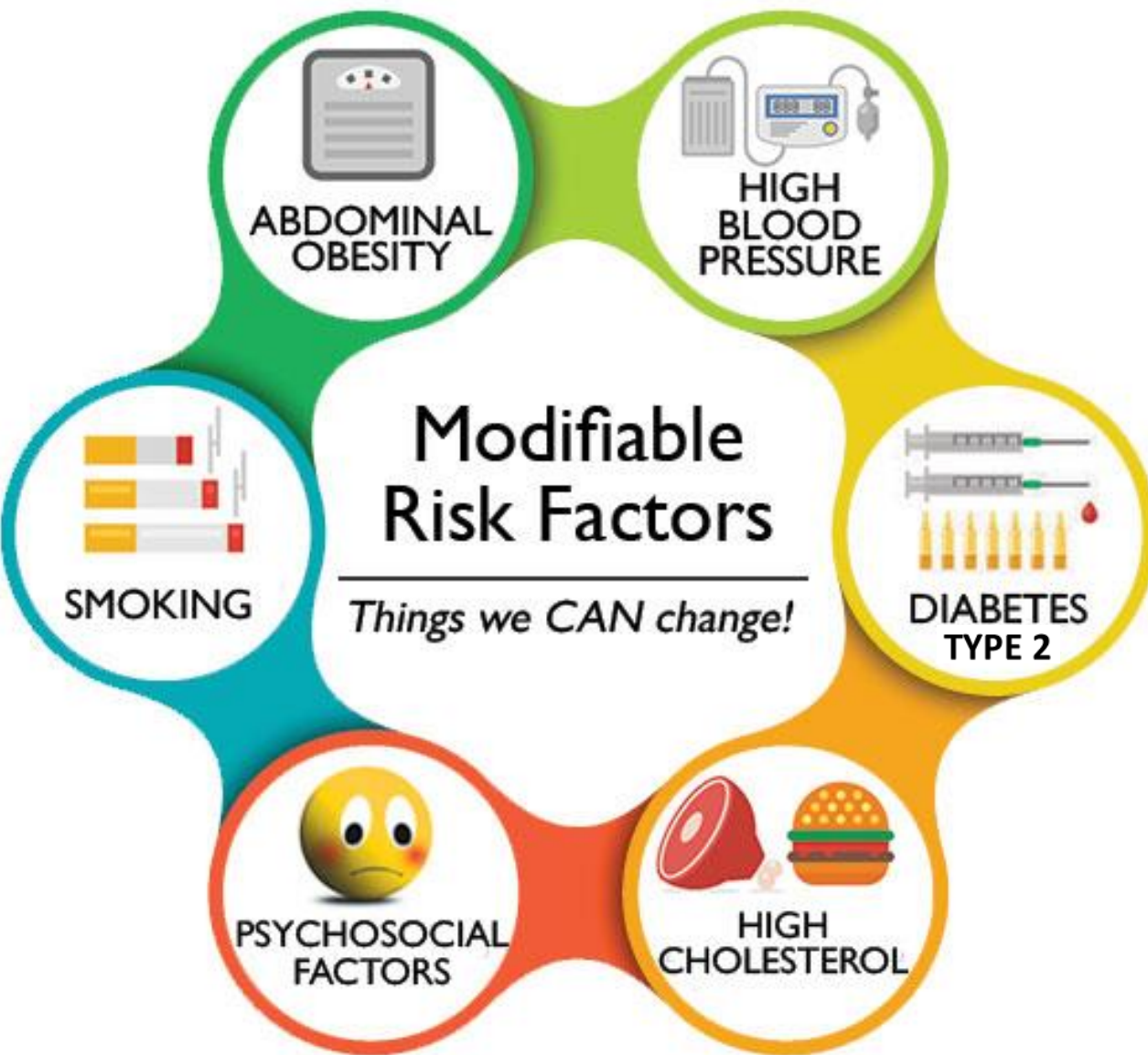**Family history** (genetics)

Gender (male/ female)

Ethnicity/ race (الأصل/ العرق): a large group of people with the same customs or origin

Age (the older someone gets, the more chances of developing NCDs)

Prevent: to **stop** something from happening. يعوق/ يمنع

KEEP YOUR DISTANCE

habit = behavior = lifestyle = routine = عادة/ سلوك

2

Modifiable Risk Factors

Things we CAN change!

- ABDOMINAL OBESITY
- HIGH BLOOD PRESSURE
- SMOKING
- DIABETES TYPE 2
- PSYCHOSOCIAL FACTORS
- HIGH CHOLESTEROL

Non-Modifiable Risk Factors

Things we cannot change

- ETHNICITY
- AGE
- GENDER
- FAMILY HISTORY

3

**How to stop diseases from happening?
(disease prevention)**

Personal health behaviors

Medical care

A healthy diet & mental health:
Improving your diet may:
1- improve mood
2- lower stress levels
3- help you to think clearly

Positive behaviors/ healthy
(positively affect health)

Immunization التحصين/
(vaccination) التطعيم

Eat healthy balanced diet
(Why?)

Drink enough water
(keep hydrated)

Get enough sleep
(How?)

Being physically active

Good personal hygiene
(brushing teeth/ taking a shower/ wearing clean clothes/ combing hair/ washing hands etc.)

فحوصات المسح/ Screening
الدورية/ الأولية

1) Selecting healthy food maintain healthy weight & reduce the chances of developing NCDs

2) Consuming enough nutrients (protein/ carbs/ healthy fats/ vitamins & minerals) protect you
(e.g., Ca^{2+} prevents osteoporosis & helps to build strong bones)

3) Controlling cholesterol protects against heart diseases (cut down fast food/ unhealthy snacks/ processed foods)

For healthy sleep:
1) Sleep 7-9 hours a night
2) Go to bed at the same time each night
3) Don't eat heavy food before bed
4) Avoid drinking caffeine before bed
5) Don't use TV, laptops or phones in the bedroom

Definition

Benefits (health dimensions)

How much is enough?

Types

It is important! Why?
Because it protects you from CDs through:
1) Killing germs (bacteria/ viruses)
2) Keeping body clean & healthy
3) Stopping the spread of infection

WARNING

Over time; getting no enough sleep can lead to:
Type2 diabetes
Obesity
Hypertension
Heart diseases
Poor mental health

4

TIPS FOR HEALTHY SLEEP

NO
- HEAVY FOOD
- BLUE LIGHT
- ALCOHOL, SMOKING
- CAFFEINE
- HARD TRAINING
- STRESS

YES
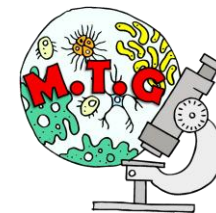- GET UP AT THE SAME TIME
- EVENING WALKS
- COMFORTABLE BED
- COOL AND DARK ROOM
- BEDTIME ROUTINE
- RELAXING BATH

Wash Your Hands After...

① Playing with pets

② Using the bathroom

③ Sneezing, blowing your nose & coughing

④ AND Before... Touching a cut or open sore

⑤ Playing outside

⑥ AND Before... Eating

Developed by University of Nebraska–Lincoln Extension in Lancaster County and Lincoln-Lancaster County Health Department

When to wash your hands?

✓ Before, during & after preparing food

✓ Before eating

✓ After using a bathroom

✓ After blowing your nose, coughing, or sneezing

✓ After touching someone who is sick

✓ Before & after giving first aid

✓ After touching animals

Physical activity

WHO definition: "any bodily movement produced by the skeletal muscles that requires energy expenditure"

The **benefits** of physical activity (why is it important?):

How much is enough? (according to WHO **recommendations**)

Exercise intensity/ type (**intensity**: how hard the body works while doing exercises)

Conditions:
1) Movement
2) Increases heart rate (faster heart beats)

Physical health:

Strengthen heart muscles & reduce the risk of heart disease & stroke

Reduce cholesterol.

Increase lung capacity.

Control weight.

Increase bone density

Stop being a couch potato & start moving!
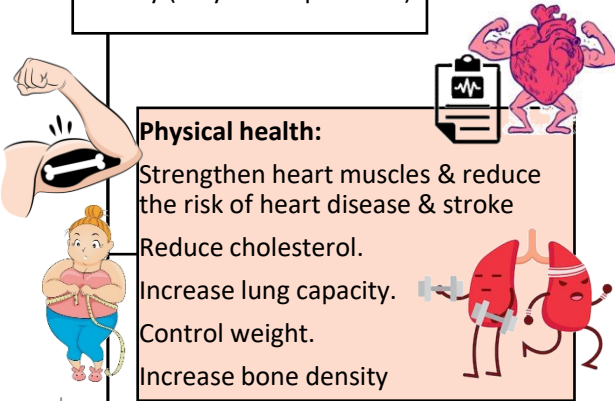
Mental & emotional health:

Endorphins hormones improve mood & reduce stress & work as a pain killer.

Improve energy levels.

Improve emotional well-being & make you calmer and better.

Raise brain function, problem solving & increase attention.
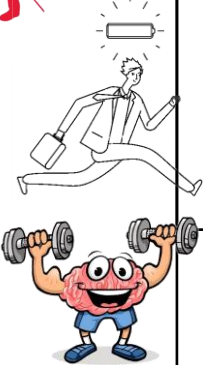
Social health: (exercising in a group)

Make new friends.

Improve self-confidence.

Learn leadership skills.

Get motivated to exercise.

Recommendations for exercise		
Category	Children & teenagers	Adults
Age range	(5-17 years old)	(18-64 years old)
Minimum amount	Moderate to high-intensity activity (60 mins/ day)	Moderate-intensity activity (150 mins/ week) High-intensity activity (75 mins/ week)
For further benefits		300 mins of moderate-intensity physical activity or more
Recommended exercises	Activities that strengthen muscles (3 times/ week)	✓ Aerobic activities (running/ swimming) 10 mins at a time ✓ Weight training (2 times/ week)

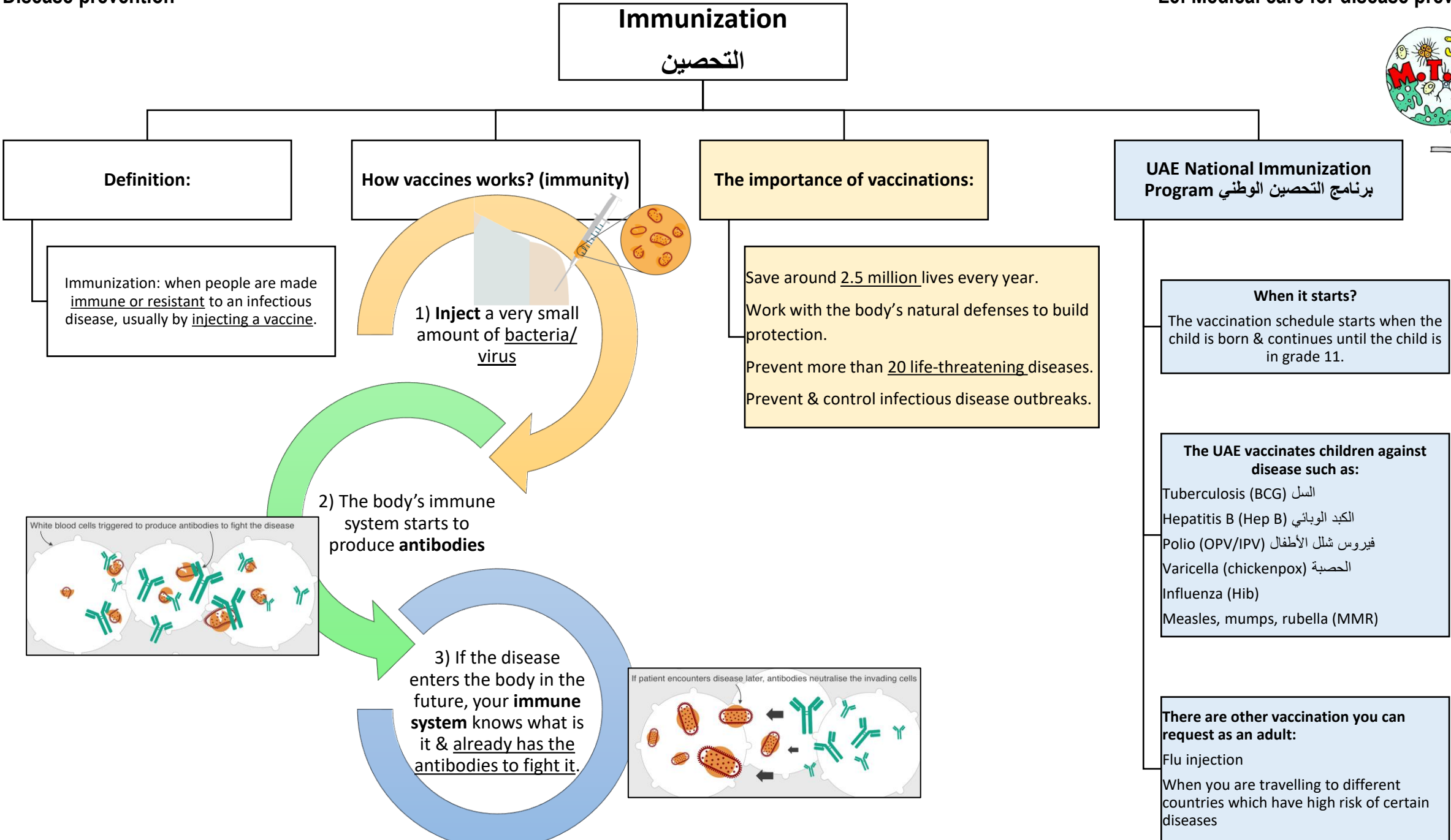عشان نعزز الصحة نبدل الوقت بدل مثلاً نص ساعة مشي (150د) خمس أيام بالأسبوع نزيدها لساعة (300د)

Able to carry on a conversation (can talk but not sing)!

You cannot hold a conversation (only few words)

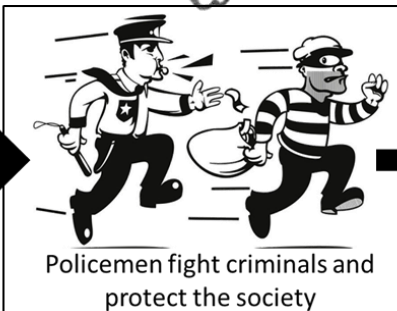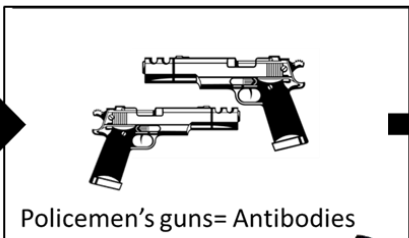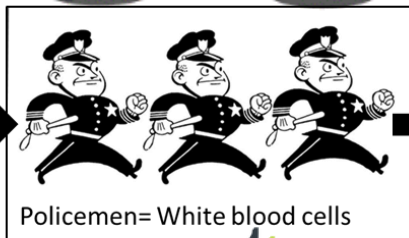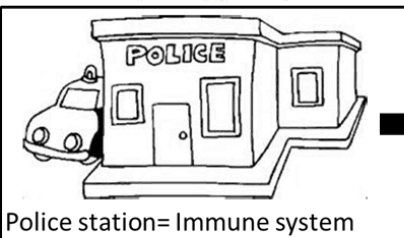| **Moderate-intensity activities** (working at 70-80% of MHR)	**High-intensity activities** (working at 80-85% of MHR)
✓ Brisk walking (5 km/ hour) ✓ Cycling leisurely (less than 16 km/ hour) ✓ Swimming leisurely ✓ Dancing ✓ Heavy housework ✓ Gardening	✓ Running ✓ Skipping ✓ Cycling (over 16 km/ hour) ✓ Swimming laps ✓ Sports ✓ Hiking ✓ Rollerblading

MHR: Maximum Heart Rate سرعة القلب القصوى

Immunization

التحصين

Definition:

Immunization: when people are made immune or resistant to an infectious disease, usually by injecting a vaccine.

How vaccines works? (immunity)

1) **Inject** a very small amount of bacteria/ virus

White blood cells triggered to produce antibodies to fight the disease

2) The body's immune system starts to produce **antibodies**

3) If the disease enters the body in the future, your **immune system** knows what is it & already has the antibodies to fight it.

If patient encounters disease later, antibodies neutralise the invading cells

The importance of vaccinations:

Save around 2.5 million lives every year.

Work with the body's natural defenses to build protection.

Prevent more than 20 life-threatening diseases.

Prevent & control infectious disease outbreaks.

UAE National Immunization Program برنامج التحصين الوطني

When it starts?
The vaccination schedule starts when the child is born & continues until the child is in grade 11.

The UAE vaccinates children against disease such as:
Tuberculosis (BCG) السل
Hepatitis B (Hep B) الكبد الوبائي
Polio (OPV/IPV) فيروس شلل الأطفال
Varicella (chickenpox) الحصبة
Influenza (Hib)
Measles, mumps, rubella (MMR)

There are other vaccination you can request as an adult:
Flu injection
When you are travelling to different countries which have high risk of certain diseases
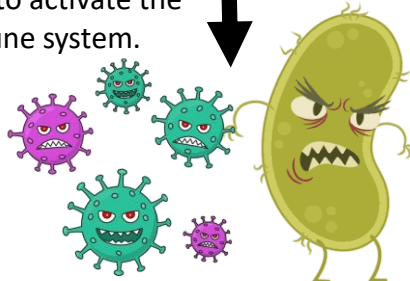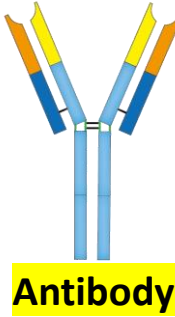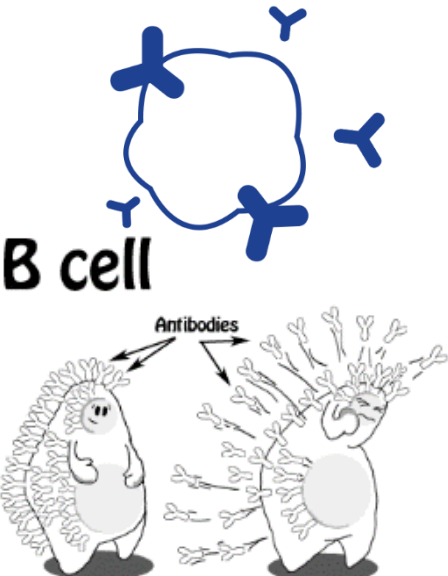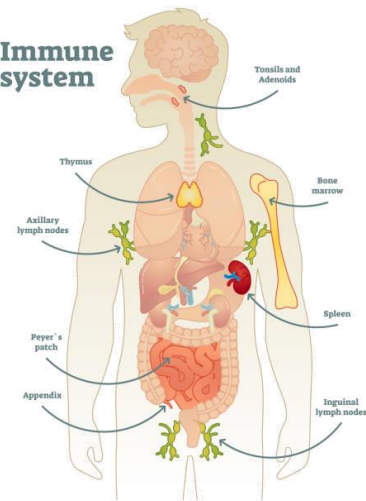
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https://youtu.be/Keaa4hOWnzU

Active immunity

Immunization = vaccination = vaccine = dose

How vaccines activate the immune system & strengthen it?

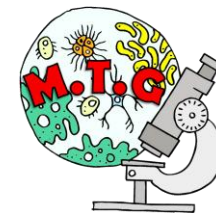**Vaccine** = injecting weakened or dead bacteria/ virus in small amount to activate the immune system.

Immune system

B cell

Antibodies

Antibody

HEY! I REMEMBER YOU!

Bacteria   White blood cell

Police station= Immune system | Policemen= White blood cells | Policemen's guns= Antibodies | Criminals= Pathogens | Policemen fight criminals and protect the society | The police keeps a criminal record for each criminal

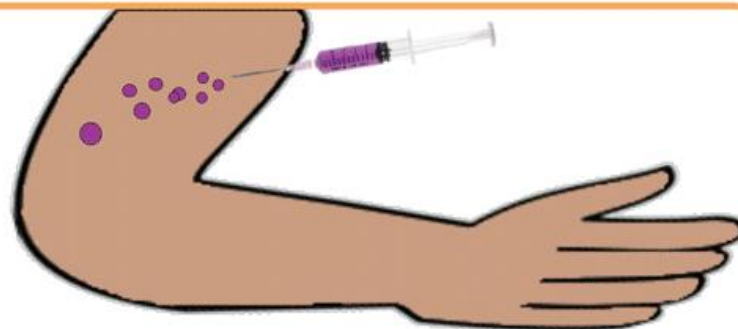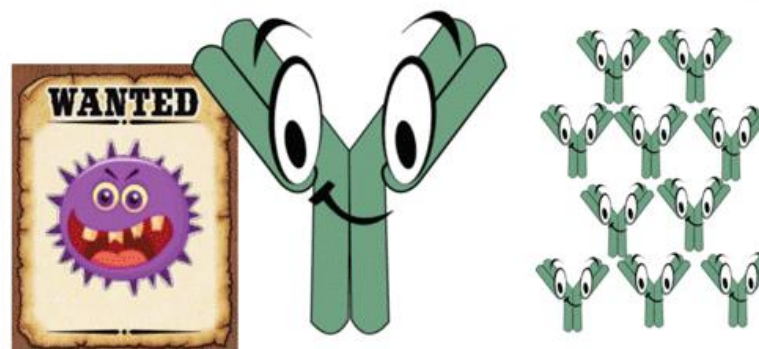**How the immune system works?**

M.I.G

HOW DO VACCINES WORK?

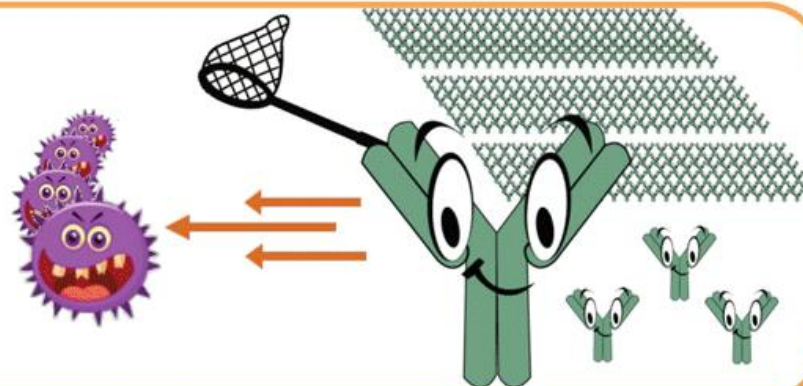Often a weakened form of the disease is injected into the body.

(Some vaccines are not injected but inhaled, such as some types of the flu vaccine)

The body thinks the weak virus is a threat. It builds up lots of antibodies (or teams of ninjas).
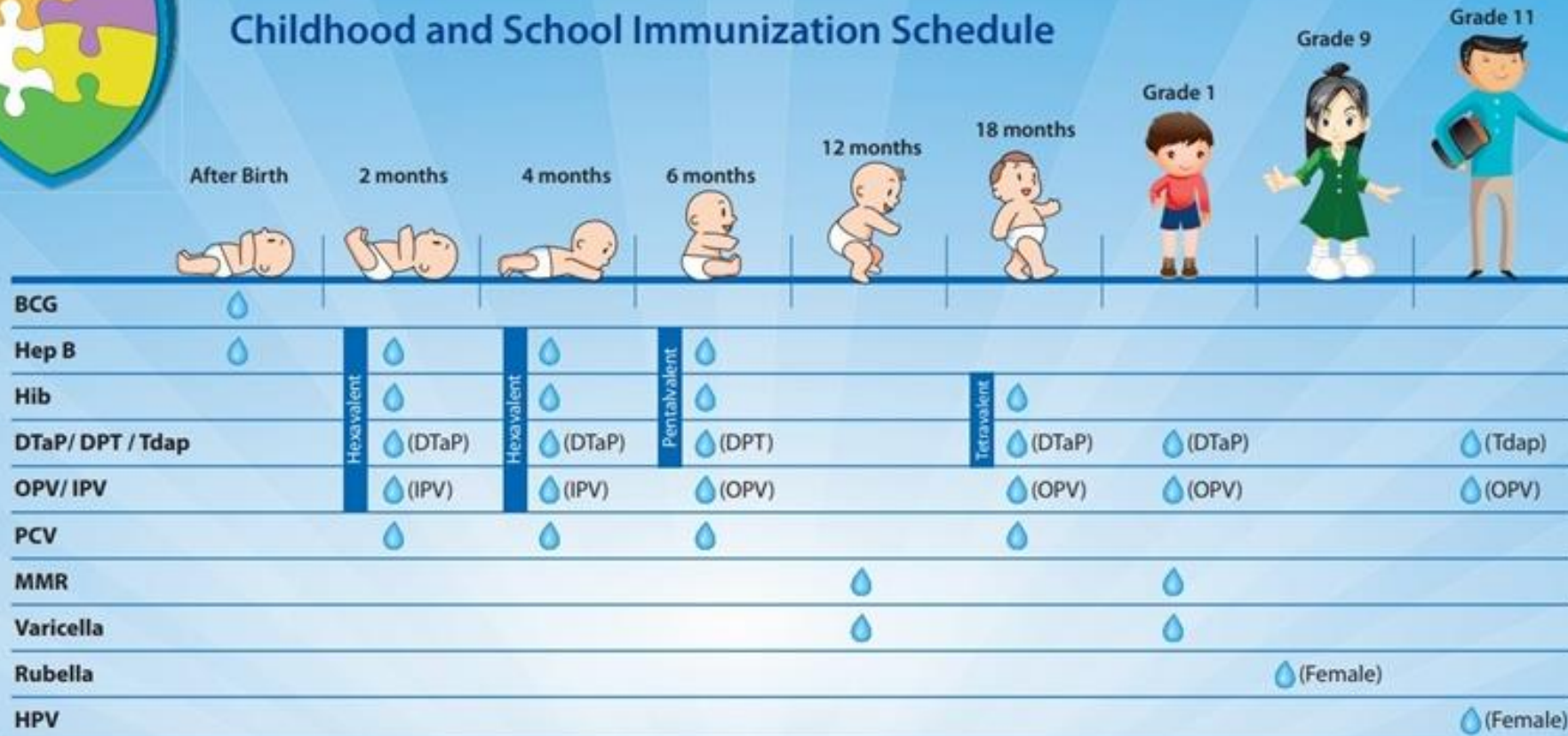
WANTED

If the disease attacks the body, the antibodies are ready to catch and destroy them.

UAE National Immunization Program

Screening (routinely check up) "e.g., PCR test"

Negative result (there is nothing wrong! Normal result! Healthy!)
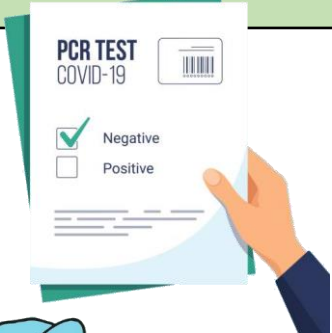
Positive result (possibility of a disease)

Further check ups
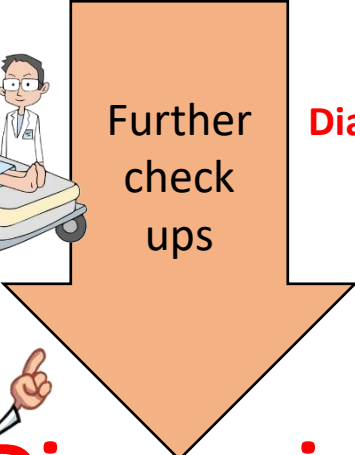
Diagnostic tests

Diagnosis

(determine the causes of symptoms "exact disease")

Screening test	Diagnostic test
Carried out on healthy people	Carried out on someone who has symptoms
Applied to a group of individuals	Applied to a single person
Results are not conclusive (positive/ negative)	Results conclusive and final
Less accurate	More accurate
Less expensive	More expensive
Not a basis of treatment	Basis for treatment

VS

تذكري فحوصات المسح screening tests ليست نهائية وليست دقيقة وتكون نتيجتها إما "إيجابية" أو "سلبية".
نتيجة المسح الإيجابية تدل على وجود مشكلة واحتمال وجود مرض.
لكي نتأكد من وجود المرض بالفعل يجب أن نقوم بعمل فحوصات إضافية (فحوصات تشخيصية diagnostic tests).
مثال: يمكن أن يدل اختبار المسح على وجود نقص في مستوى الحديد، ولكن لا يأكد وجود فقر دم "أنيميا".

The difference between screening & diagnosis tests

نحتاجه عشان نطمن ع الصحة بشكل عام ولا نستطيع الاعتماد عليه لتشخيص الأمراض

نتيجته نهائية ويستخدم لتشخيص المرض.
من كلمة "diagnosis"

	Screening tests	Diagnostic tests
What is used for?	To check for <u>early signs</u> of a disease	To <u>confirm</u> the presence (or absence) of a disease
How many people?	For <u>large number</u> of people	For <u>1 person</u> who has signs or symptoms of a disease, or has had a positive screening result
Test nature?	<u>1 simple test</u>, such as a blood test	More in-depth testing which may include lots of <u>different tests</u>
Cost?	<u>Low cost</u>, to be able to afford testing for large numbers of people	<u>Higher costs</u>, because of the need for more accurate testing

General screening tests for adults

In your 50's & 60's

12) Osteoporosis risk assessment

13) Colorectal (القولون والمستقيم bowel cancer) screening

14) Sight & hearing impairment tests

منظار القولون
Colonoscopy

In your 40's

8) Cardiovascular risk assessment

9) Eye checks for glaucoma (a condition that can cause blindness)

10) Breast screening (females only)

11) Prostate screening (males only)

As you get older you will need more screening tests

كل م كبر الشخص بالعمر كل م زادت الفحوصات الطبية إللي لازم يخضع لها.
مثلاً في عمر الخمسين بتخضع لما يقارب للـ14 فحص طبي.

In your 20's & 30's

1) Blood pressure

2) Cholesterol & glucose levels

3) BMI, waist & hip measurements

4) Dental check & cleaning

5) Skin cancer checks

6) Cervical screening (females only)

7) Diabetes risk assessment

MAMMOGRAM

Mammo- = Mammals = ثدييات

Pap smear

Screening test name:	Checks for:
Pap smear (هنا نشيك على "**باب**" الرحم)	Cervix cancer سرطان عنق الرحم
Mammogram (تذكر "**ماما**" عندها ثدي)	Breast cancer سرطان الثدي
Colonoscopy (colon = قولون)	Bowel cancer سرطان القولون
Fasting glucose levels test صيام	Diabetes السكري

Bowel = intestine = colon = أمعاء

How often do we need screening tests?

الجدول يوضح: اسم الفحص الدوري / ليش نحتاجه/ وكم مرة نحتاج نكرر الفحص/ في فحوصات خاصة بالرجال وأخرى للنساء فقط

For	Types of test	To screen for	Screening frequency
People over 20 years old	Body mass index (BMI) & waist circumference	Obesity	Once a year (annual/ every year)
People over 20 years old	Blood pressure measurement	Hypertension (high blood pressure)	Every 2 years (more if high risk)
People over 20 years old	Fasting blood glucose/ lipids test	Diabetes High cholesterol	Every 3 years (more if high risk)
People over 50 years old	Test to find blood in stools or <u>colonoscopy</u>	Bowel cancer	Once a year
Women 25-65 years old	Pap smear test	Cervical cancer للنساء فقط!	Every 3 years
Women 40-69 years old	Mammogram	Breast cancer	Every 2 years
Men over 45 years old	Blood test or physical examination	Prostate cancer للرجال فقط!	Every 2-3 years

Infection
العدوى

Definition:

Infection happens when germs enter the body & multiply

Causes?

Bacteria/ viruses/ fungi/ parasites

How an infection spread?
3 things are needed:

1) A source: (where germs are found)
Includes:
Surfaces in public places/ home
Skin
Medical equipment

2) A person: with a way for the germs to enter their body

انتقال
3) Transmission: the way germs are moved to a person

Meningitis

Urinary tract infection
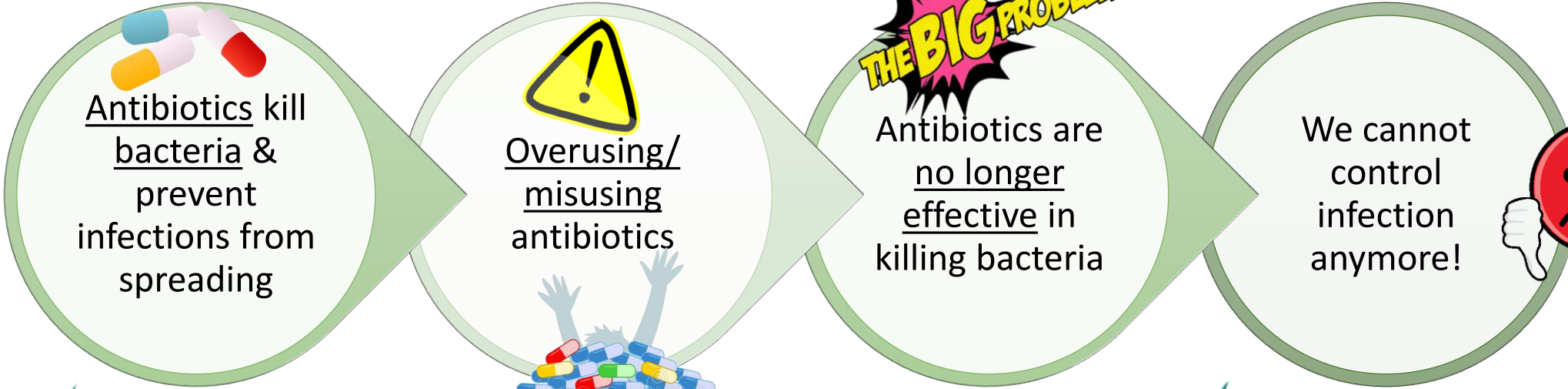
Spread through:
*Person-to-person contact (unclean hands)
*Airborne/ droplets
*Unclean medical equipment (needles)

Types of healthcare infections (hospital infections)

Surgical infection: an infection in the area of operation العدوى الجراحية

Bloodstream infection: an infection in the blood تسمم الدم

Pneumonia: an infection in one or both lungs الالتهاب الرئوي

Meningitis: an infection of the brain & spinal cord التهاب السحايا

Urinary tract infection (UTI): affects the kidneys & bladder عدوى مجاري المسالك البولية

STAY AT HOME
HOTEL QUARANTINE
STOP

How to prevent & control infection?

Preventing hospital infections:

Infection control **programs** (explaining how to identify & prevent infections)

Screening & **vaccination**

Hand-washing

Having good **hygiene** & proper cleaning of facilities & medical equipment

Quarantine (isolate the infected person until they are fully recovered) الحجر

Procedures for the **decontamination** of people & the environment

Personal protective equipment (**PPE**)

Infection control in day-to-day life:

Wash hands regularly & properly

Prepare & handle food properly

Clean & disinfect surfaces in the home

Cough or sneeze into a tissue

Don't share personal items with others

Stay home when you are sick

Avoid touching wild animals

Get vaccinated against CDs (e.g., COVID-19)

M.T.G
HOTEL
COVID 19 VACCINE

16

Personal protective equipment (PPE)

| Gloves | Masks | Gowns | Overall | Eye protection (goggles) |

Antibiotic resistance

THE **BIG** PROBLEM

Antibiotics kill bacteria & prevent infections from spreading

Overusing/ misusing antibiotics

Antibiotics are no longer effective in killing bacteria
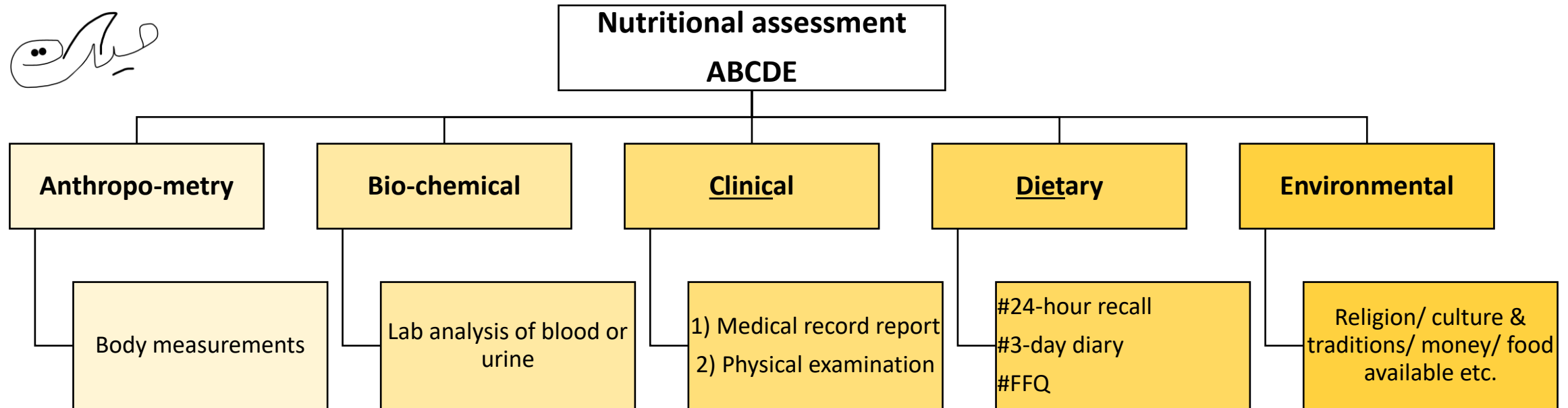
We cannot control infection anymore!

- **Antibiotic resistance مقاومة المضاد الحيوي**
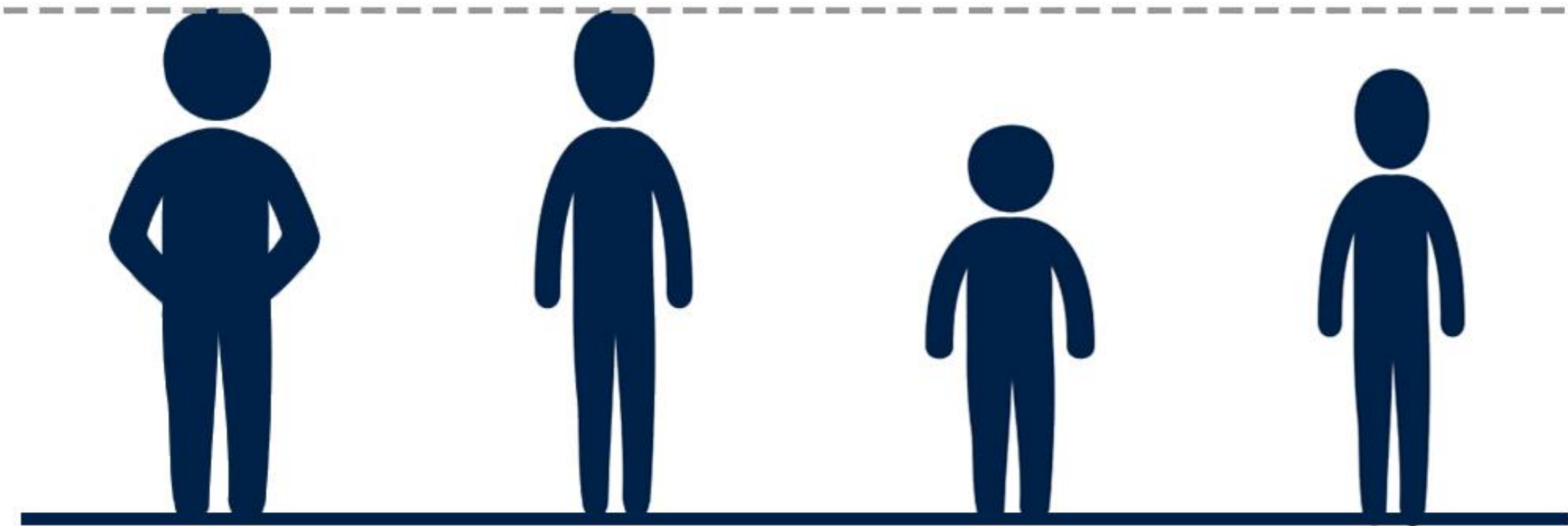
Free DNA Contain Antibiotic Resistance Genes (ARGs)

Ibuprofen

Diclofenac

ANTIBIOTIC

Mal-nutrition سوء التغذية
(poor nutritional status)

Over-nutrition

نقص **Under-nutrition** التغذية

نقص التغذية يؤثر على نمو الأطفال ويشمل نقص الطول أو الوزن.

الجوع
<u>Not eating enough</u> food or not getting enough nutrients

Overweight

أحياناً يكون الوزن "صحي" وطبيعي ولكن يمكن أن يعاني الشخص من نقص الفيتامينات أو المعادن

Lack of/ shortage of <u>vitamins</u> or <u>minerals</u>

Low **weight**:

Low **height (s**hort)

Obesity

Micronutrient deficiency نقص المواد الغذائية الدقيقة ☹ **d**own

فكرة الطالبة هنا الفخراني

Stunting التقزم "low height for age"

obesity

Low weight for **heigh**t

Low weight for **age**

تي تي تي
(فكرة الطالبة هاجر بلال)

نقص **Under**-weight الوزن

REMINDER!

Nutrients:
1) Macro-nutrients (carbs + protein + fats)
2) Micro-nutrients (vitamins + minerals)

Normal height for age

الهزال Was**t**ing

MTG

NORMAL

WASTING

UNDERWEIGHT

STUNTING

Different types of undernutrition

Normal height for age

NORMAL

WASTING
Low weight for height

STUNTING
Low height for age

UNDERWEIGHT
Low weight for age

Source: WorldVision (2015)

ABCDE techniques are useful WHY?

Identify people with malnourishment
سوء التغذية
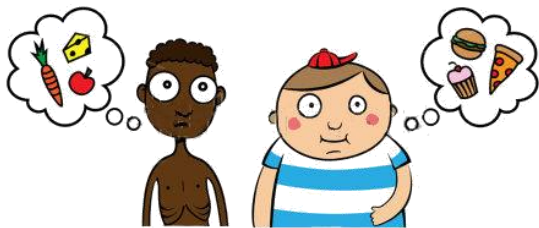
مب شرط يكون الشخص شديد النحافة عشان يكون عنده سوء تغذية ممكن الشخص اللي معظم أكله أكلات سريعة وحلويات يكون عنده سوء تغذية
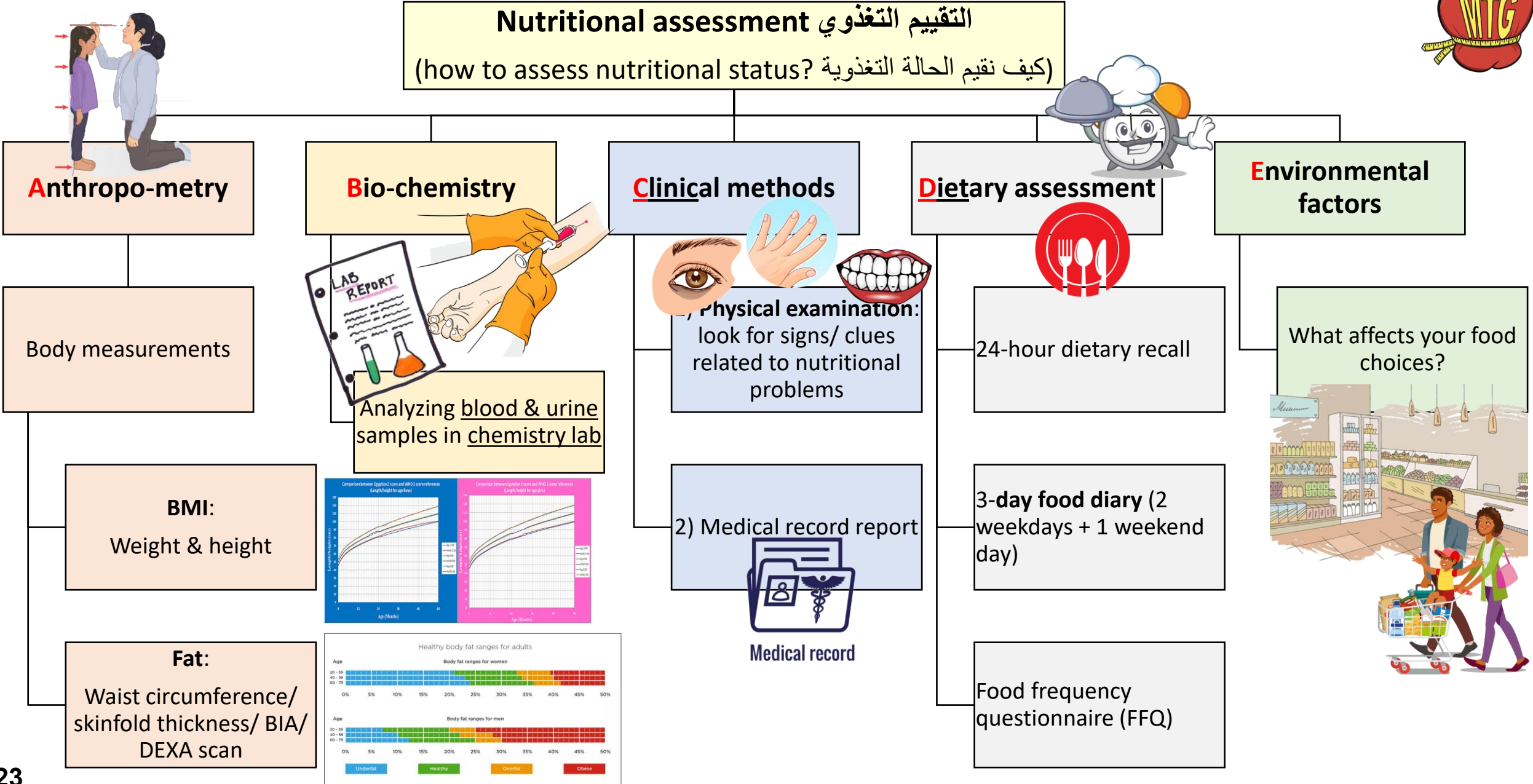
Measure the effectiveness of the nutritional program

The purpose of nutritional assessment

Identify issues or diseases

Put a suitable healthcare program according to patient's needs

Nutritional assessment التقييم التغذوي

(how to assess nutritional status? كيف نقيم الحالة التغذوية)

Anthropo-metry

Body measurements

BMI:

Weight & height

Fat:

Waist circumference/ skinfold thickness/ BIA/ DEXA scan

Bio-chemistry

Analyzing blood & urine samples in chemistry lab

Clinical methods

1) **Physical examination**: look for signs/ clues related to nutritional problems

2) Medical record report

Medical record

Dietary assessment

24-hour dietary recall

3-**day food diary** (2 weekdays + 1 weekend day)

Food frequency questionnaire (FFQ)

Environmental factors

What affects your food choices?

Nutritional Assessment (how to assess nutritional status?)

لازم أول شي نجري الفحص الاكلينيكي قبل م
نسحب عينة الدم أو ناخذ عينة البول، عشان
نعرف بالضبط نشيك على أي معدن أو فيتامين،
وبعد لازم نشوف لو الشخص ياخذ أدوية أو
مكملات غذائية عشان كله بيظهر في التحليل فما
يكون الموضوع مفاجئ

Anthropometry
قياسات الجسم
Anthropo = human
-metry = measurement

Bio-chemical methods
التقنية الكيميائية الحيوية
تشمل أخذ عينات من الكائن الحي
(المريض) وإرسالها للتحليل في المختبر

يقين

Clinical methods
الفحص الاكلينيكي (السريري)
يشمل الفحص الجسدي للكشف عن
المشاكل التغذوية (إذا فيه سوء تغذية)،
ومراجعة السجل الطبي

شك

Dietary intake
النمط الغذائي
هدفه معرفه روتين الأكل وله
ثلاث وسائل: التذكر/ التسجيل/
الاستبانات

Environmental factors
العوامل البيئية
شو الأشياء اللي تأثر على خياراتنا في
الأكل والشرب؟

Anthropometric measurements

(physical measurements of the body)

It includes measuring:
Height & weight
Hips/ waist/ legs/ arms & skinfold

https://www.youtube.com/watch?v=4MajPk-vp8M

نفس الكلمة العربية **وسط** Waist
الخصر = وسط جذع الجسم

Waist circumference محيط الخصر
(Total distance around the waist)
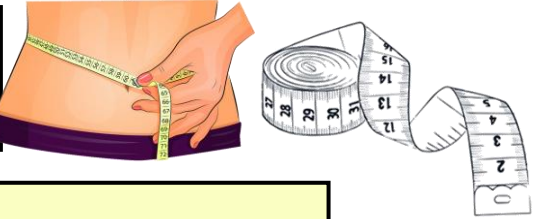
Important notes:

-High levels of **abdominal fat** الكرش are linked with NCDs such as:

☺cardiovascular disease أمراض القلب والأوعية الدموية

☺cancer السرطان

☺diabetes السكري

-**Age**, **gender**, and **ethnicity** will affect the measurement
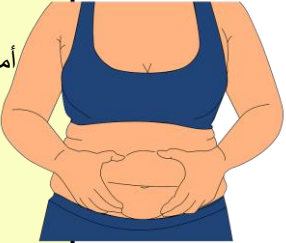
How to measure waist circumference?

1) Place the tape at the mid-point between the top of the hipbone & the lower ribs. (can be measured over thin cloths)

2) Hold the tape not too tight or too loose.

3) Relax your abdominal muscles.

4) Take the measurement after breathing out.

Measuring weight

1) Make sure the weighing scale is reliable.

2) The person should remove heavy items from pockets such as mobile phones.

3) The person should stand still with their arms by their sides.
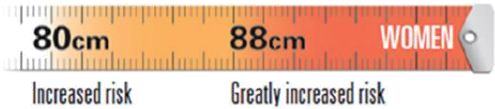
4) Measure weight in kilograms (kg).

https://www.youtube.com/watch?v=YWKOMlz_RCE

Remember: look straight ahead, don't look down!
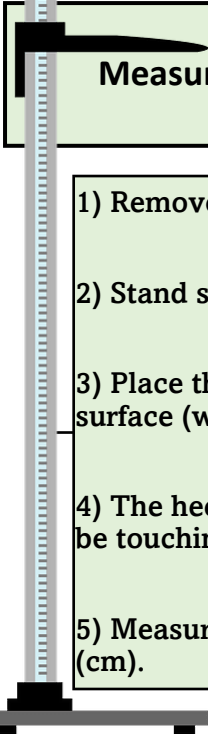
Measuring height

1) Remove shoes.

2) Stand straight & look ahead.

3) Place the measure against a flat surface (wall).

4) The heels, back and head should be touching the measure.

5) Measure height in centimeters (cm).

Waist circumference - Males	Waist circumference - Females	Classification
Less than 94cm	Less than 80cm	**Desirable**
94-102cm	80-88cm	**High risk**
More than 102cm	More than 88cm	Very high risk

80cm **88cm** WOMEN
Increased risk   Greatly increased risk

25

Growth charts:

What are they used for?

1) Compare height & weight against people of the same age & gender.

2) Identify medical problems at early age. (growth stops after 19 years of age)

What do you need to know if you want check height?

1) Gender

2) Age

3) Height (cm)

Interpreting the results: التفسير

There are curves of different colors on growth charts (percentiles)

Example:

<u>For 16-year-old males:</u>

The height on the 50th percentile is 173cm. This means that the average height is 173cm tall.

The height on the 97th percentile is 187.5 cm. This means that only 3% are this height or taller.

<u>For 16-year-old females:</u>

The height on the 50th percentile is 162.5cm. This means that the average height is 162.5cm tall.

The height on the 3rd percentile is 150cm. This means that only 97% are this height or taller.

Height-for-age GIRLS
5 to 19 years (percentiles)

World Health Organization

البنات الطوال — 97th

وسط Average — 50th

البنات القصار — 3rd
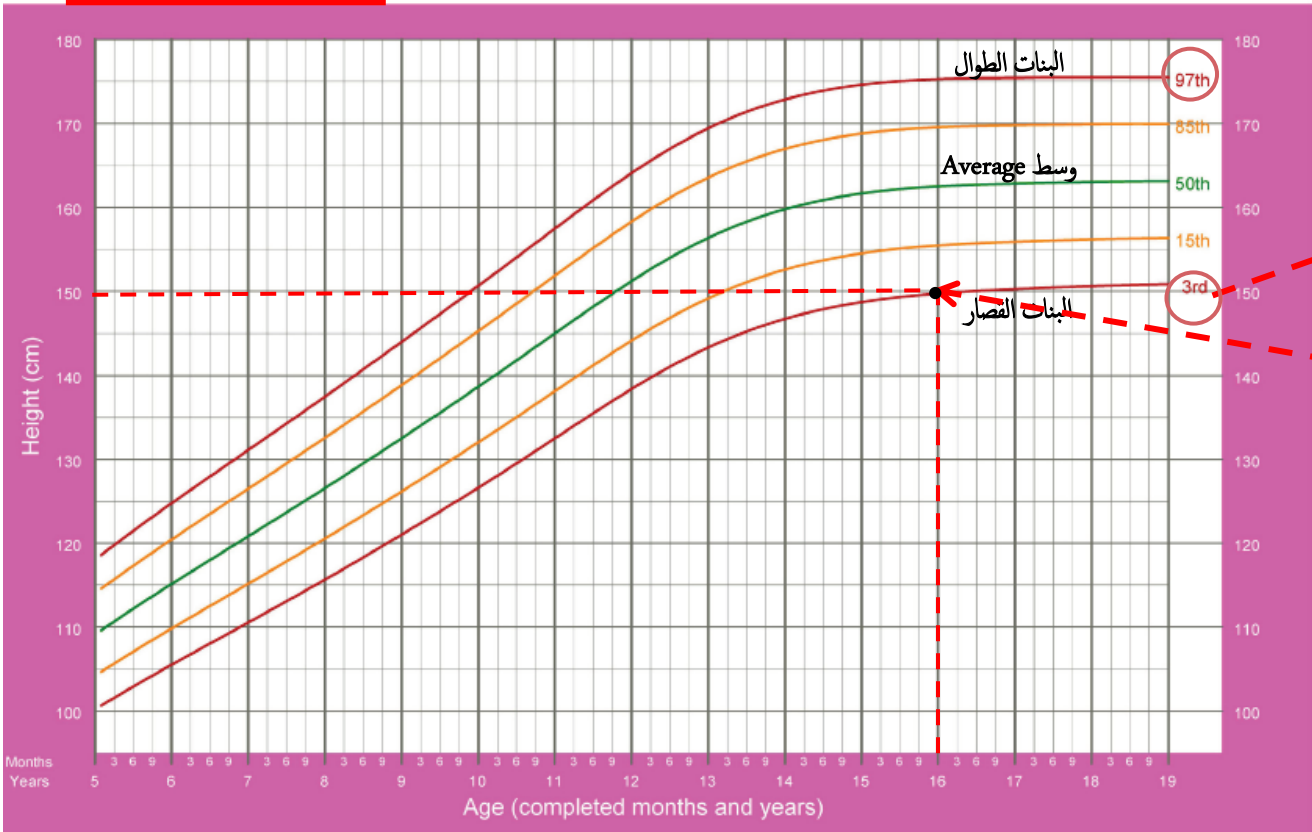
عشان نعرف نسبة البنات اللي طولهم على هذا المنحنى:

(100 - percentile)

$100 - 3 = 97\%$

وبهذا الشكل يكون 97% فقط بنفس الطول أو أطول.

مثال: البنات اللي بعمر الـ16 يكون طولهم 150 ويكون 97% نفس طولهم أو أطول!

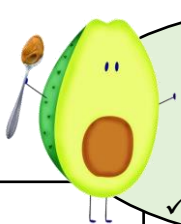<u>Percentiles المنحنيات المئوية</u> show how many other people are taller, shorter & the same height.

If you use the WHO growth charts; then you are comparing your growth to American children.

Anthropometry

How to confirm you are having a healthy weight?

Fat is not a bad thing!
***Why is fat important?**
- ✓ Protect organs.
- ✓ Provide energy.
- ✓ Stay warm.
- ✓ Helps to absorb vitamins.

BUT

***Too much fat is bad, why? It may cause:**
- ✓ Cancer.
- ✓ Diabetes.
- ✓ Heart disease.
- ✓ Stroke.

Measuring body fat

Body Mass Index (BMI):

measurement of a person's weight for their height which is used to identify weight status.

Weight

Height

$$BMI = \frac{weight\,(kg)}{height^2\,(m^2)}$$

DEXA scanner

Dual-Energy X-ray Absorptiometry

قياس امتصاص الجسم للطاقة المزدوجة لأشعة X

An **X**-ray that shows an exact breakdown of:

*Fat mass
*Bone density
*Muscle mass

The most accurate way to measure body fat.
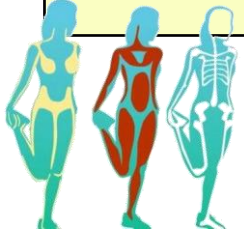
FAT
MUSCLE
BONE

BIA

Bio-electrical Impedance Analysis

تحليل مقاومة الجسم للكهرباء

A weak electrical current is sent through the body.

The person does not feel the electrical current.

Body fat (adipose tissue) causes greater resistance (impedance) than fat-free mass and slows electrical current.
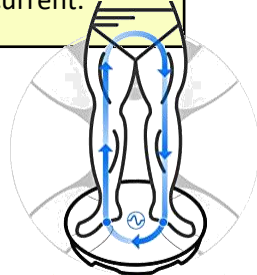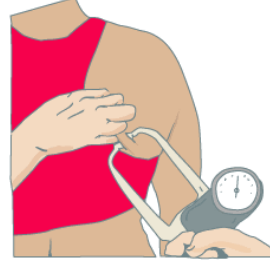
Bioelectrical Impedance Analysis

Skin-fold thickness

قياس سمك ثنية الجلد

1) Grab and pinch the skin along with the fat underneath

2) Use a "**caliper**" to measure the thickness of the skin fold

Note: it can be measured at different parts of the body.

©topendsports.com

$$BMI = \frac{weight\,(kg)}{height^2\,(m^2)}$$

Example:

Sultan weighs 71kg and his height is 1.77m.

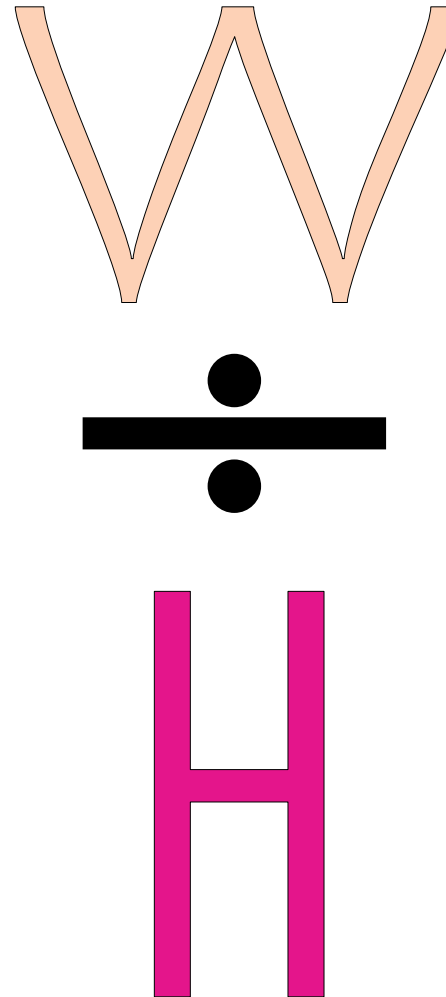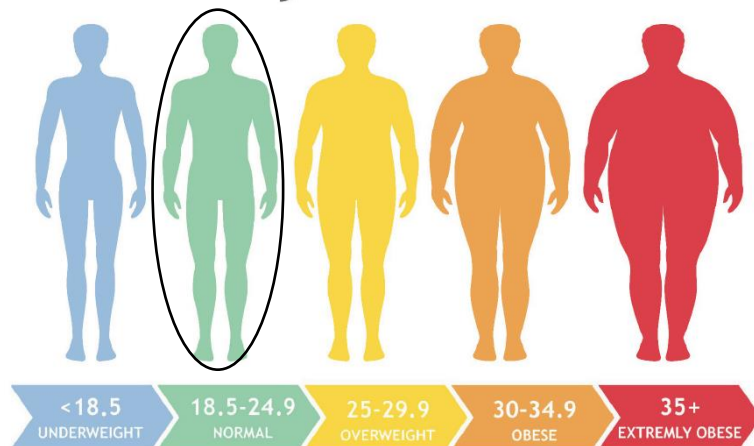To calculate Sultan's BMI, first, we must work out his height$_2$.

1.77 x 1.77 = 3.1329 (height^2)

Then we can calculate his BMI

 71 ÷ 3.1329 = 22.7

Sultan's BMI is 22.7 (healthy/ normal weight)

Body Mass Index

| <18.5 UNDERWEIGHT | 18.5-24.9 NORMAL | 25-29.9 OVERWEIGHT | 30-34.9 OBESE | 35+ EXTREMELY OBESE |

WHAT IS YOU BMI?

$$BMI = \frac{weight\ in\ kg}{(height\ in\ m)^2}$$

<18,5	18,5- 24,9	25 - 29,9	30 - 34,9	35<
UNDERWEIGHT	NORMAL	OVERWEIGHT	OBESE	EXTREMELY OBESE

29

Caliper sounds like clip

Fat
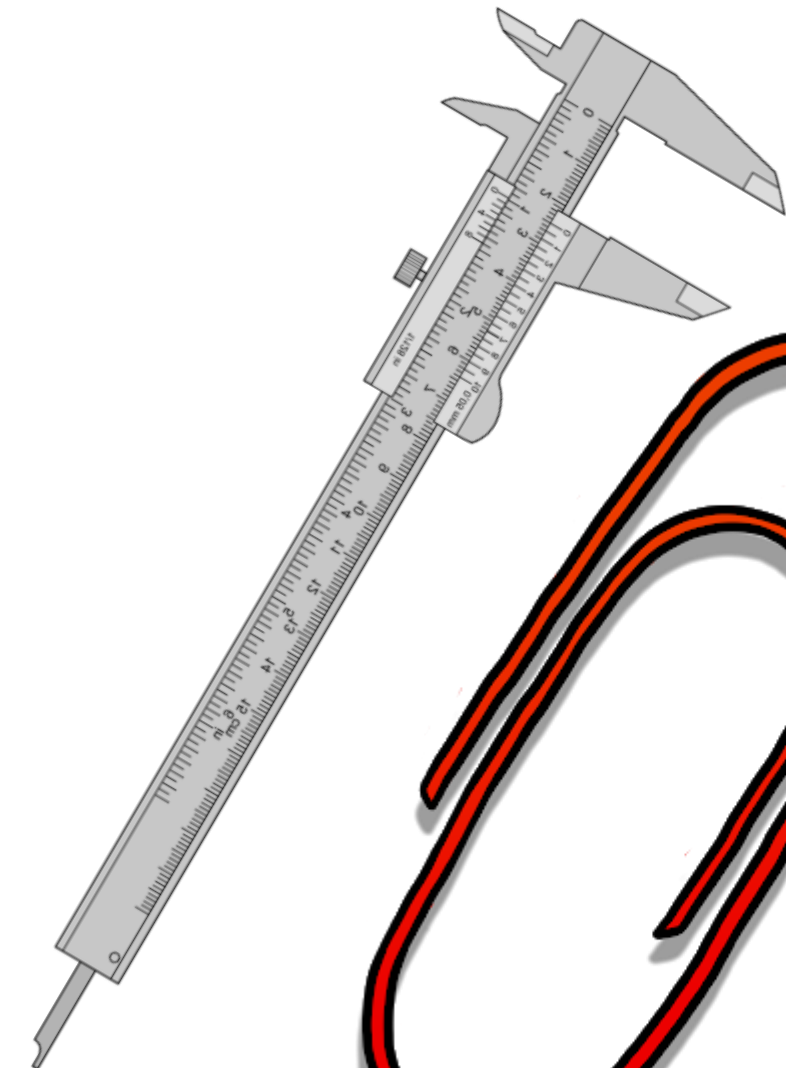
Skin
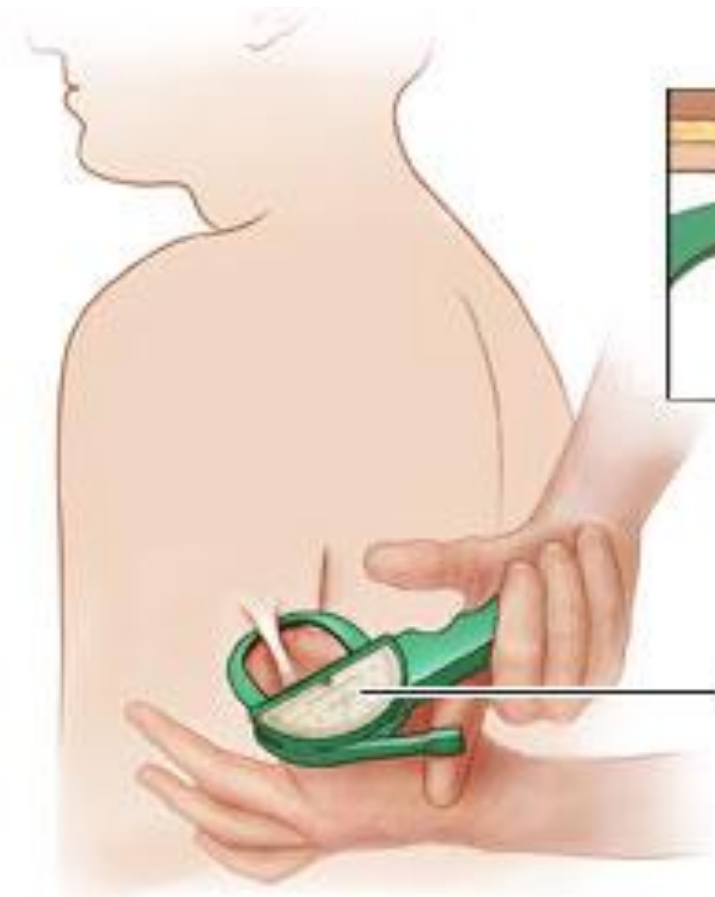
Caliper

Pinch skinfold
between fingers.

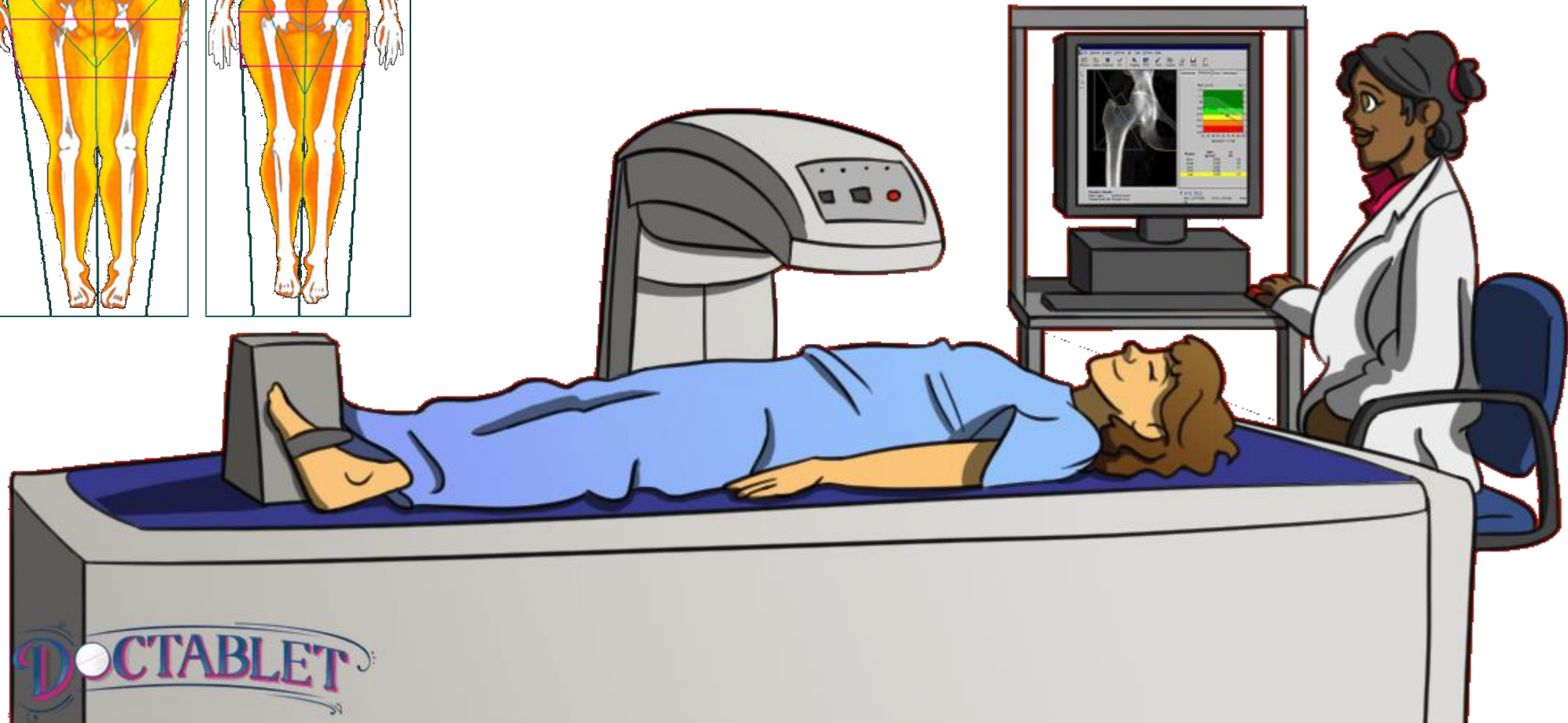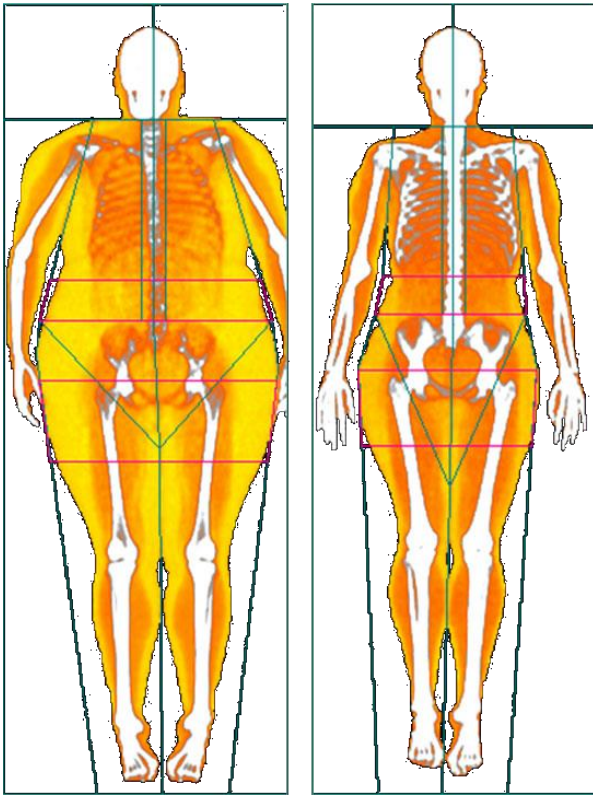Place caliper on skinfold
to measure fat percentage.

© Healthwise, Incorporated
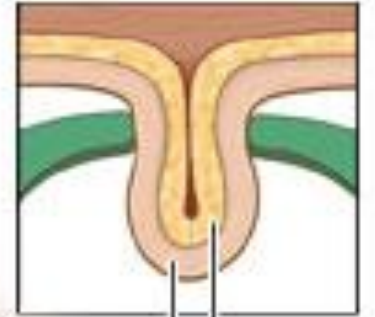
DEXA scanner

How to specify body fat category?

$$\text{Body fat percentage} = \frac{\text{Body fat (kg)}}{\text{Total body weight (TBW)}} \times 100$$

Example:
Hamad's body fat is 45kg and his total body weight (TBW) is 100kg.
He is 30 years old.
(45 ÷ 100) X 100
0.45 x100 = 45%
Hamad's body fat percentage is 45%

+

Age

+
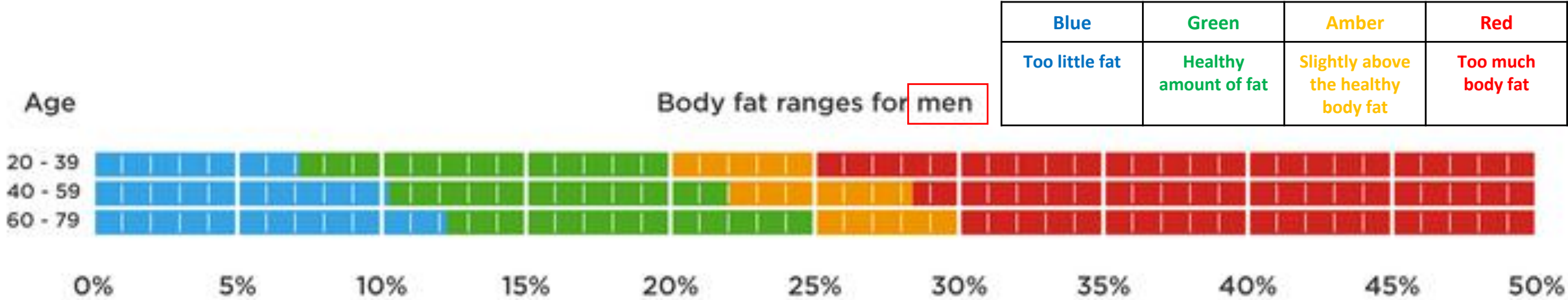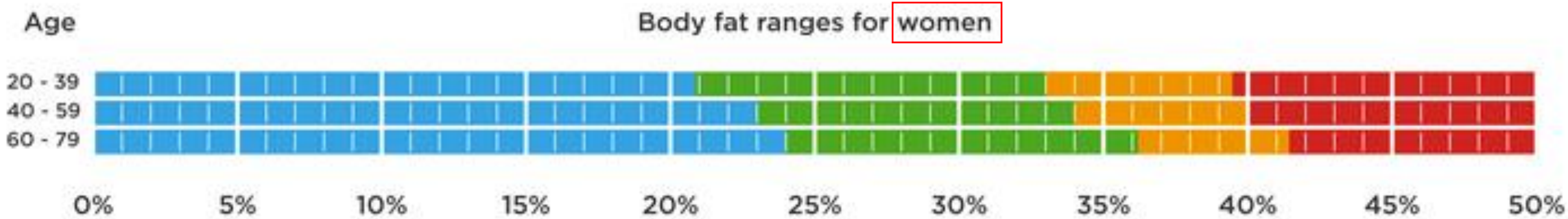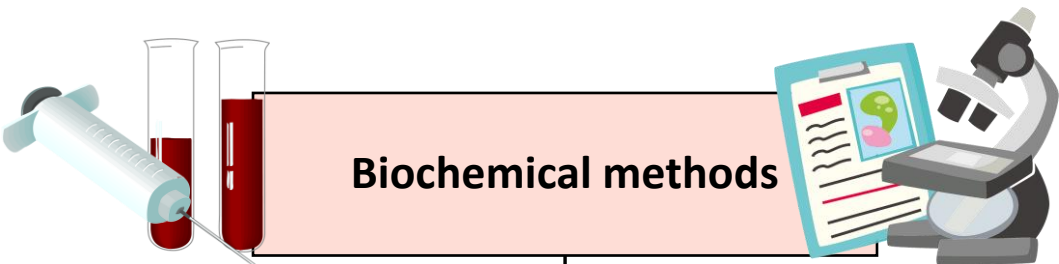
Gender

Healthy body fat ranges for adults

	Blue	Green	Amber	Red
	Too little fat	Healthy amount of fat	Slightly above the healthy body fat	Too much body fat

Biochemical methods

Definition:

Laboratory measurements of items in blood or urine

Information needed before running the test:

Clinical methods should be done first to know:
-Previous medical history.
-Current medications
-A clinical examination report

What are the benefits of using this method?

-Reliable/ accurate (shows the exact amounts of a certain nutrient or enzyme)

-Early detection of deficiencies

-The patient is not asked to recall food intake
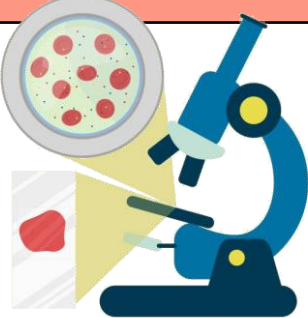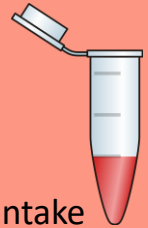
Biochemistry: a science that explores the chemistry of living things. الكيمياء الحيوية
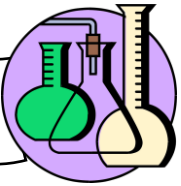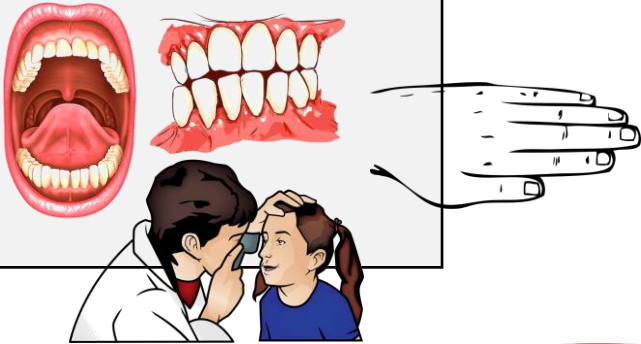
Clinical methods

Physical examination:

The dietitian/ nutritionist looks for clues/ signs of nutrient-related health problems.

Tissues of the body that can show nutrient deficiencies include:

-Skin

-Eyes

-Gums

-Hair

-Nails

-Mouth

Examples:

Sore mouth & bleeding gums, could suggest vitamins & minerals deficiency.

Hair pulled easily, could indicate low protein level.

Thin indented nails, could suggest iron deficiency.

Vitamin D and calcium "Ca" deficiency, can cause children's bones to be soft & won't grow or develop properly (rickets الكساح).

Review medical history:

The following will be checked:

Diarrhea and other digestive issues

-Medications

-Previous or current medical conditions

-Physical appearance

-Signs of infection

-Nutritional supplement use

Rickets sounds like **rocket**

فكرة الطالبة: شيخة سيف

VITAMIN C VITAMIN B12
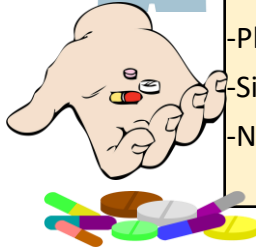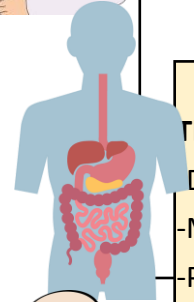
VITAMIN D

How to measure dietary intakes?
(how to know eating patterns?)

YESTERDAY

Um...?

24-hour dietary recall
Open-ended

The patient should remember what they ate within a 24-hour period. (what did you eat/ drink yesterday?)
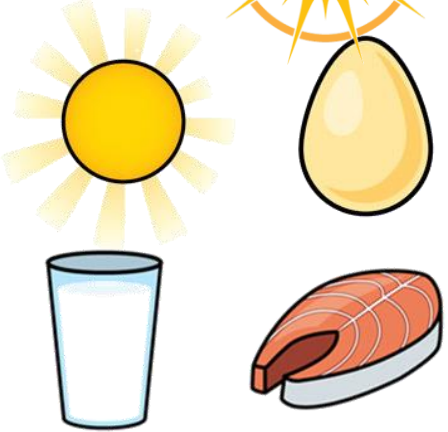
Information provided must include:

1) the ingredients, 2) cooking method, 3)time of day, 4) amount eaten, 5) and leftovers.

3 DAYS

3-day food diary
Open-ended

Patients must record their food intake for three days (2 weekdays + 1 weekend day) from real-time and not memory.

Weights of food should be measured using scales.

Food frequency questionnaire (FFQ)
Closed-ended ✓

FFQ has a set number of questions with multiple choice answers.

The questions are about:

the portion size + how often the food/ drink is consumed.

Advantages:	Disadvantages:
1) Easy collection of information.	1) This method relies on memory only.
2) It is easy to recall from the previous day.	2) If you're at a restaurant, you might not know the ingredients or cooking method used.
3) It does not take a large amount of time.	3) The patient could be dishonest.

Advantages:	Disadvantages:
1) The level of detail provided.	1) A high level of commitment and effort is required.
2) Diary entries are done in real-time and do not rely on memory.	2) People may change their normal eating habits because they are recording all of their food.

Advantages:	Disadvantages:
1) It can be used on large groups of people.	1) Specific foods are listed. 2) Sometimes a food could be forgotten or missed out.
2) It is quick and easy to complete.	3) Sometimes people's eating patterns are not consistent.
	4) It requires a good level of memory, especially for longer timeframe.

Breakfast   Lunch   Dinner

HOW MANY TIMES

36
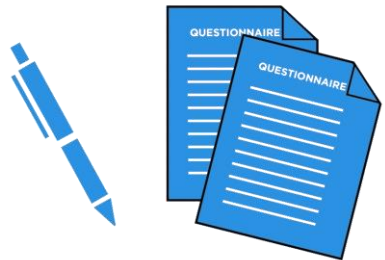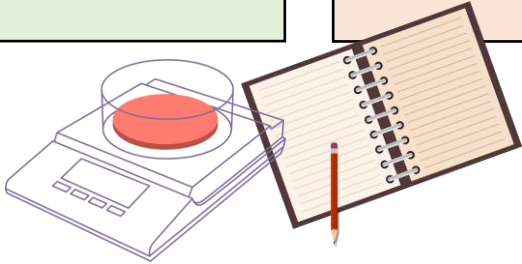
FFQ
Food Frequency Questionnaire

FOODS AND AMOUNTS	AVERAGE USE LAST YEAR								
BREAD AND SAVOURY BISCUITS (one slice or biscuit)	Never or less than once/month	1-3 per month	Once a week	2-4 per week	5-6 per week	Once a day	2-3 per day	4-5 per day	6+ per day
White bread and rolls						✓			
Brown bread and rolls				✓					
Wholemeal bread and rolls	✓								
Cream crackers, cheese biscuits		✓							
Crispbread, eg. Ryvita		✓							
CEREALS (one bowl)									
Porridge, Readybrek				✓					
Breakfast cereal such as cornflakes, muesli etc.					✓				

Portion size

Portion size

How often the food is eaten?

The patient needs only to tick their answer!
That's why it's **closed-ended**

37

Meal	Time	Food/ drink	Ingredients	Portion size	Cooking method
Breakfast					
Lunch					
Dinner					
Snacks					

You can use this form for 24-hr dietary recall or 3-day food diary

Supermarket

How can environmental factors affect nutritional status?

VEGAN

Socioeconomical status:

Nutrients available:

Dietary restrictions:

Cultural factors:

Vegan (plant-based diet) and vegetarian diet:

Income/ budget/ money:

Where someone lives can affect ability to cook.

Food availability will depend on:
-Weather
-Seasons
-War
-Natural disasters

Food allergy:
e.g., gluten allergy

GLUTEN FREE

Why this diet?
- Animal welfare
- Environmental reasons

Healthier food is more expensive than unhealthy food.

Examples:
Not having a suitable place to cook.
No access to healthy affordable food near home.

People from different cultures consume different types of food, due to traditions or religion.

Limited income = no much money for food

Result: cannot afford healthy food!

Food deserts are areas where people don't have easy access to affordable, healthy food options.

This is usually because there is no grocery store within convenient traveling distance.

Food intolerance:
e.g., lactose intolerance

LACTOSE FREE.

Some traditional food may not be very healthy, so it is important to consider the types of foods that people may be eating when assessing nutritional status.

Religious practices may restrict certain foods.

Although a vegan diet **can be very healthy, as it is low in saturated fat**, it is also important to ensure that someone following a vegan diet is **getting enough of certain nutrients.**

A vegan diet may be lower in protein, iron and B12 than a traditional diet so it is important to consider this when assessing someone's nutritional status.

NEXT GROCERY STORE 15 km

Burger
$0.99

Salad
$4.99

Example:
When Muslims move to non-Muslim counters, they struggle searching for Halal food options & this result in changing their diet.

Halal food

Socioeconomic: relating to people's background or social status and income الاقتصادي الاجتماعي

MTG

Plants + animal products + animals

Omnivorous

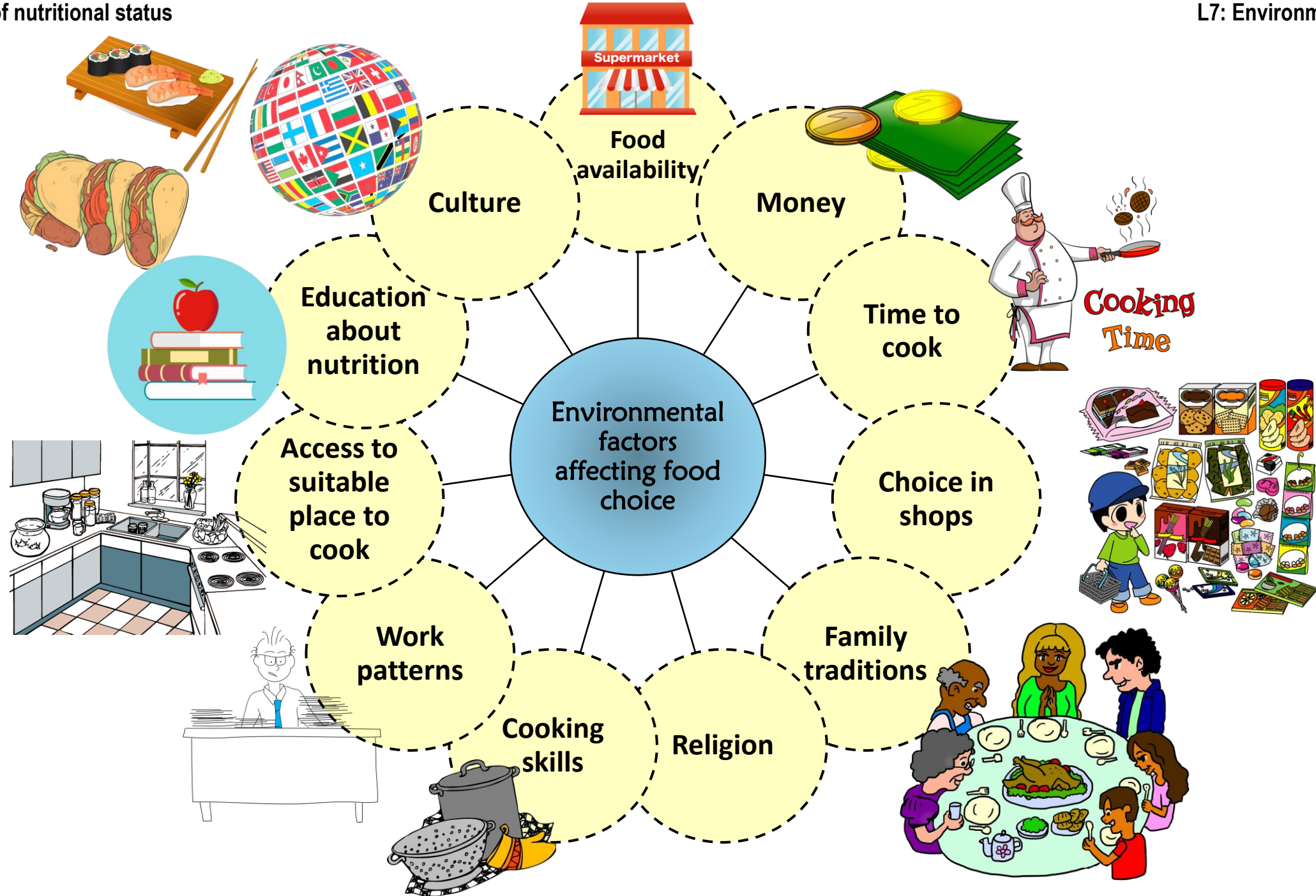Plants + animal products

Vegetarian

Plant-based diet only

Vegan

كلمة "vegan" أقصر من "vegetarian".
في حمية الـvegan فقط يسمح بأكل النباتات!
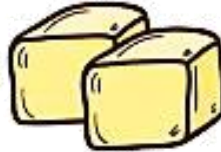كلمة أقصر = طعام أقل مسموح به

فكرة الطالبة: يارا كانجو

Environmental factors affecting food choice

- Culture
- Food availability
- Money
- Time to cook
- Choice in shops
- Family traditions
- Religion
- Cooking skills
- Work patterns
- Access to suitable place to cook
- Education about nutrition

Cauliflower   Soy milk   Tofu   Broccoli

Asparagus   Peas   Vegan protein   Oat   Spinach

Lentil   Quinoa   Chick-pea   Soya beans
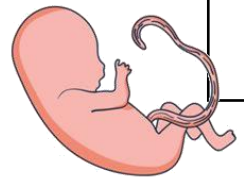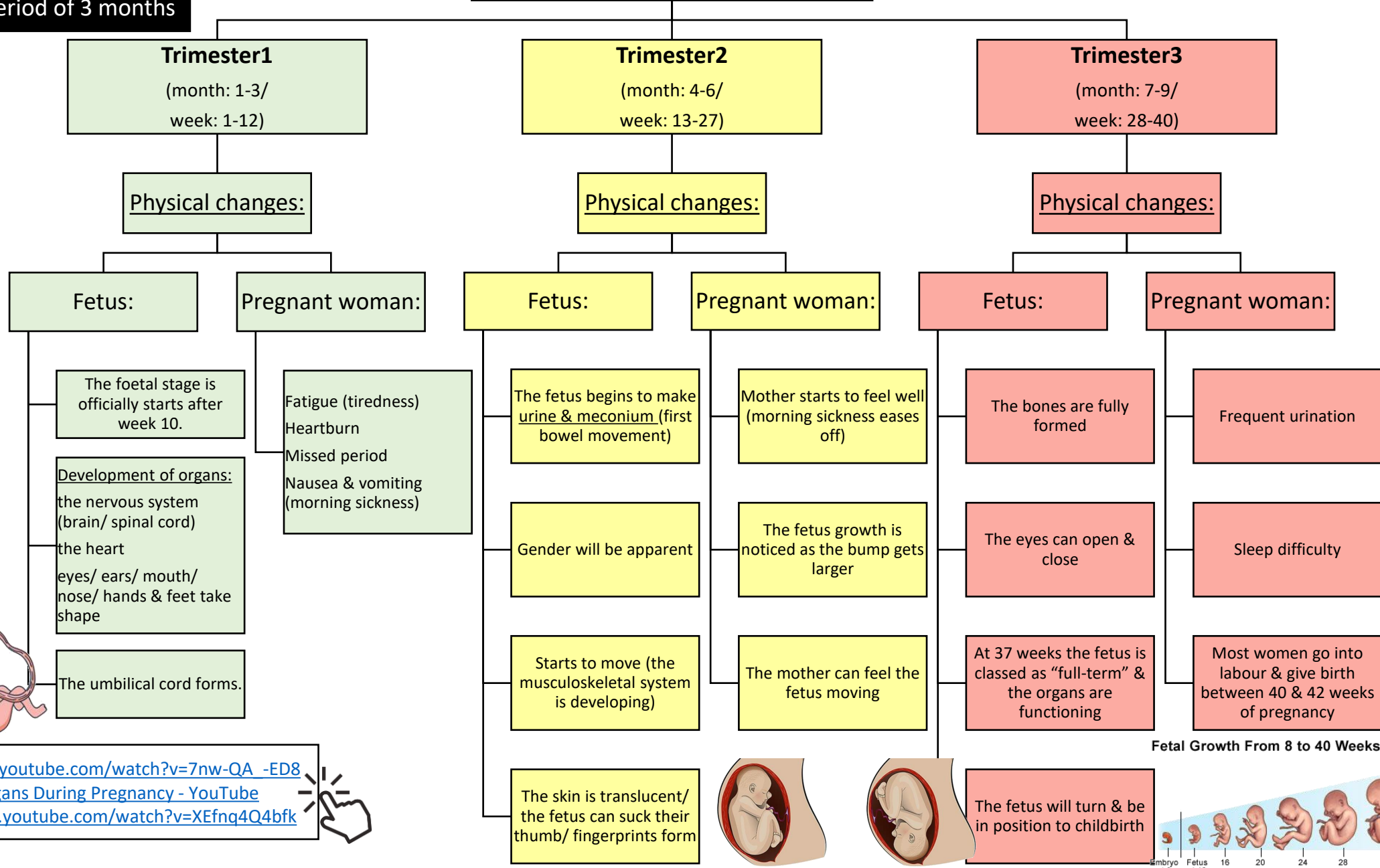
Mushroom   Chia   Avocado   Almond

Unit 7

Pregnancy (Gestation)

9months

Changes:

- **Pregnant woman**
  - **1st trimester**: morning sickness
  - **2nd trimester**: feel the fetus move
  - **3rd trimester**: difficulty sleeping + frequent urination

- **Fetus**
  - **1st trimester**: umbilical cord + organs
  - **2nd trimester**: start to move + gender + fingerprints + meconium
  - **3rd trimester**: childbirth position (face down)

Pregnant woman needs/ requirements/ care

- **Nutritional**
- **Exercises**
- **Medical**

Newborn needs/ care

- **Breastfeeding**

Postnatal mental health

- **The baby blues** (temporary sadness)
- **Postnatal depression** (extreme sadness)
- **Postnatal anxiety** (worrying & overthinking)

44

Pregnancy/ gestation stages:

Trimester: a period of 3 months

MTG

Trimester1
(month: 1-3/
week: 1-12)

Physical changes:

Fetus:

The foetal stage is officially starts after week 10.

Development of organs:
the nervous system (brain/ spinal cord)
the heart
eyes/ ears/ mouth/ nose/ hands & feet take shape

The umbilical cord forms.

Pregnant woman:

Fatigue (tiredness)
Heartburn
Missed period
Nausea & vomiting (morning sickness)

Trimester2
(month: 4-6/
week: 13-27)

Physical changes:

Fetus:

The fetus begins to make urine & meconium (first bowel movement)

Gender will be apparent

Starts to move (the musculoskeletal system is developing)

The skin is translucent/ the fetus can suck their thumb/ fingerprints form

Pregnant woman:

Mother starts to feel well (morning sickness eases off)

The fetus growth is noticed as the bump gets larger

The mother can feel the fetus moving

pelvic presentation

fetal presentation head down

Trimester3
(month: 7-9/
week: 28-40)

Physical changes:

Fetus:

The bones are fully formed

The eyes can open & close

At 37 weeks the fetus is classed as "full-term" & the organs are functioning

The fetus will turn & be in position to childbirth

Pregnant woman:

Frequent urination

Sleep difficulty

Most women go into labour & give birth between 40 & 42 weeks of pregnancy

Fetal Growth From 8 to 40 Weeks

Embryo at 8 Weeks   Fetus at 12 Weeks   16   20   24   28   32   36   40
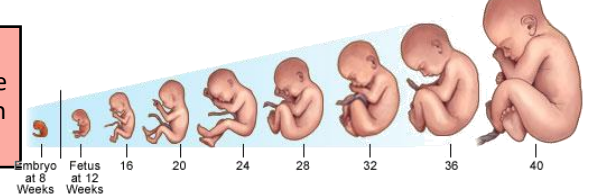
Terms you won't forget!

Pre **G** nancy estation

PreGnancy = Gestation = حمل
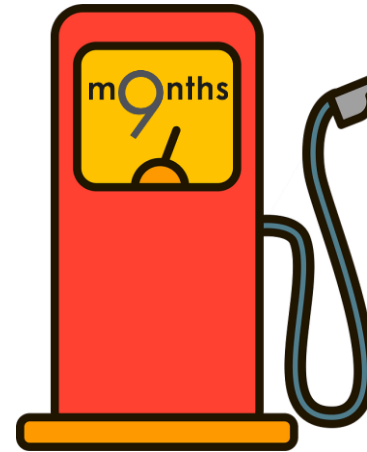
"Gestation" sounds like "Gas station"

فكرة الطالبة: مريم هلال

natal = birth = ولادة

Beautiful baby girl **natalia** was **born** smoothly.

نانسي ونتاليا توأم وبنفس المعنى

natal =
nancy =
birth

Pre-**g**-nancy

Before **g**iving birth

Gestation is the period for the awaited **"Guest"** to arrive!

فكرة الطالبة: هنا الفخراني

Pregnancy Week By Week

I TRIMESTER
1-12 weeks

II TRIMESTER
13 - 27 weeks

III TRIMESTER
28 - 42 weeks

BIRTH

المشيمة (هي اللي تزود الجنين بالأكسجين والغذاء وتخلصه من الفضلات عن طريق الحبل السري)

رأس Head

يد Arm

جسم Body

رجل Leg

Umbilical cord
الحبل السري

الحبل السري
Umbilical cord

المشيمة
Placenta

الجنين
Fetus

الرحم
Uterus

عنق الرحم
Cervix

Cleveland Clinic ©2021
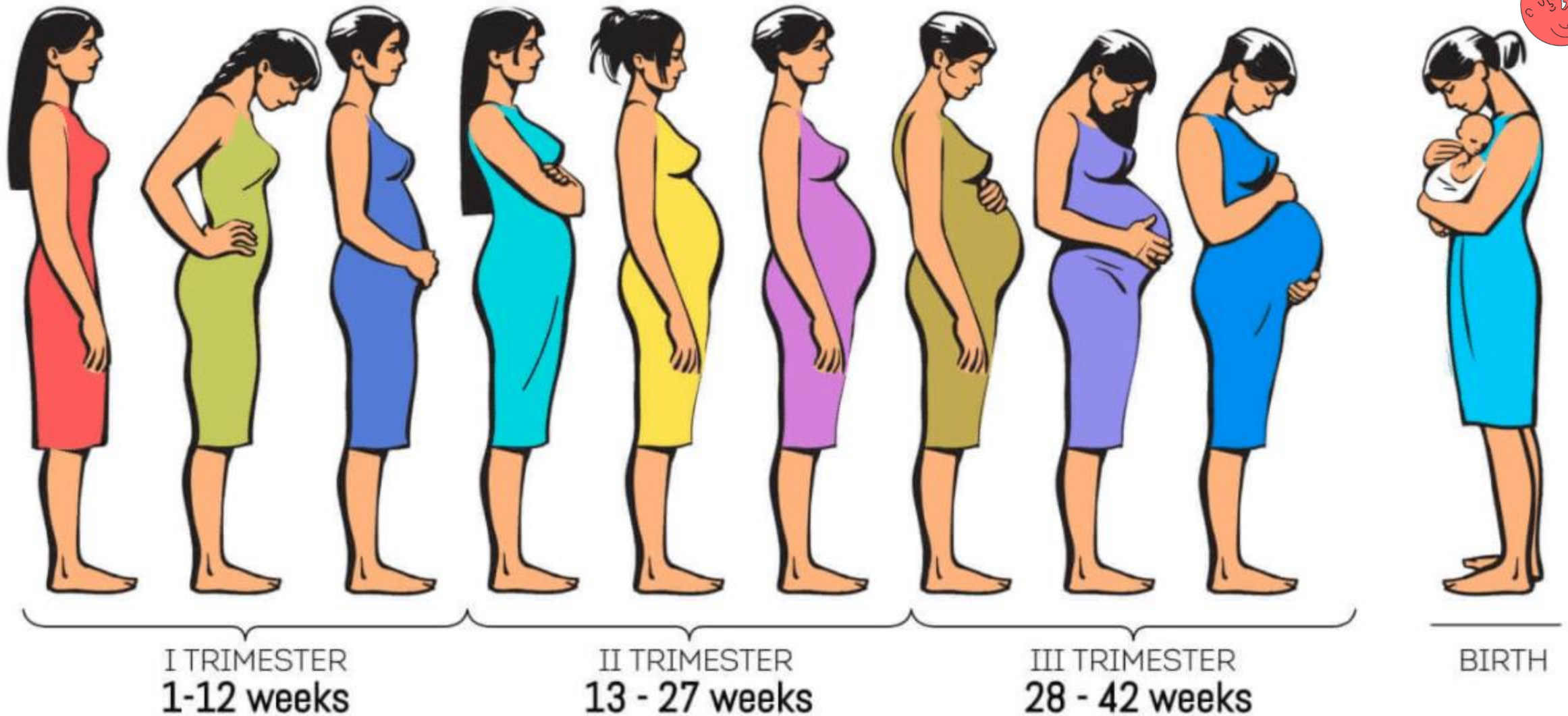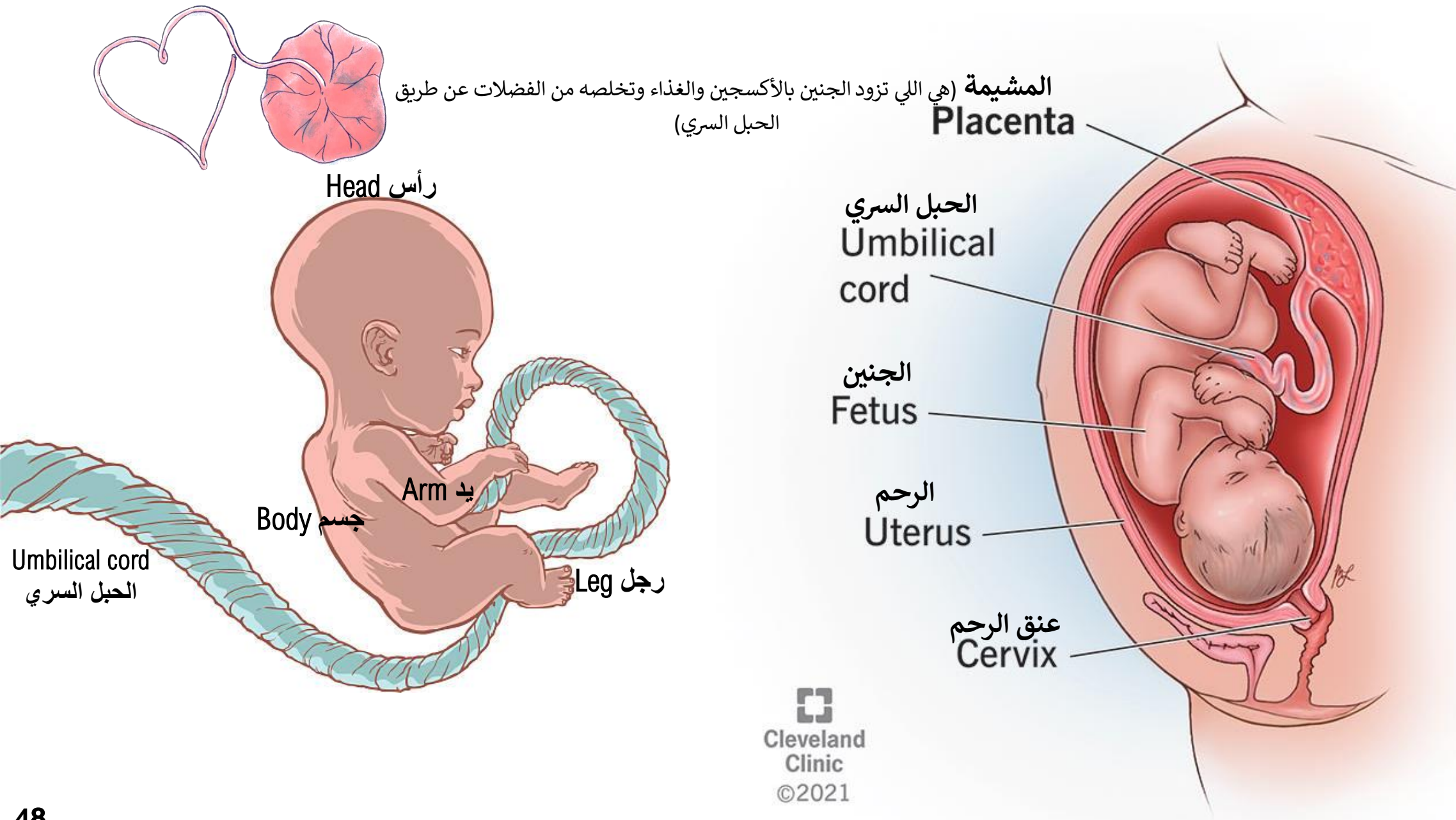
«وَلَقَدْ خَلَقْنَا الْإِنسَانَ مِن سُلَالَةٍ مِّن طِينٍ {12} ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ {13} ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ **مُضْغَةً** فَخَلَقْنَا الْمُضْغَةَ **عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنشَأْنَاهُ خَلْقًا آخَرَ** فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ {14}».

Fetal development

Trimester1 مضغة	Trimester2 عظام ولحم	Trimester3

Trimester 1:
الحبل السري يغذي الجنين
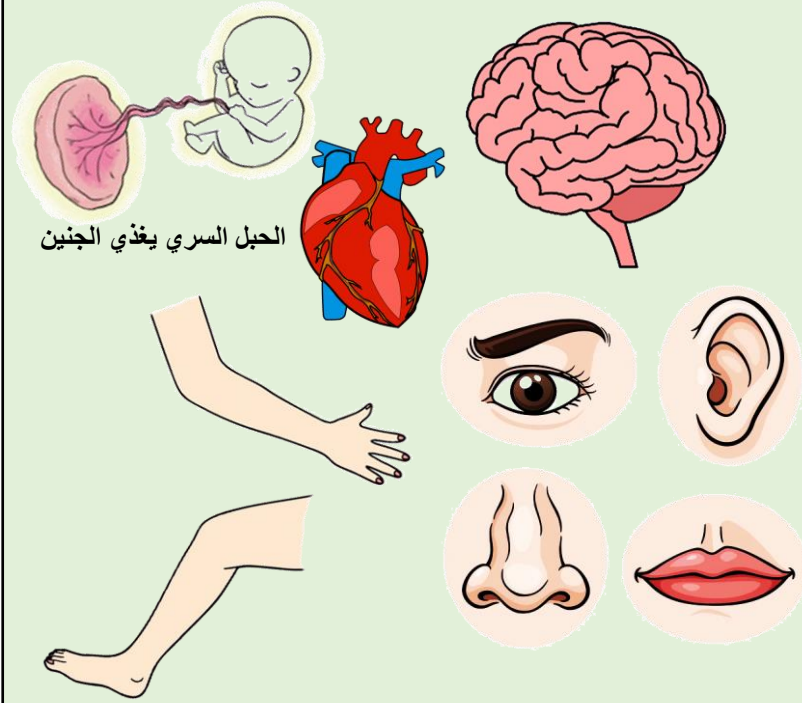
تكون البداية الرسمية للتطور الجنيني بعد الأسبوع الـ10 وتبدأ الأعضاء بالتشكل بحيث يكون الجنين يشبه البشر على نهاية الفصل الأول من الحمل.

Trimester 2:
بصمات الأصابع

يتكون المكونيوم ويتخزن في أمعاء الجنين
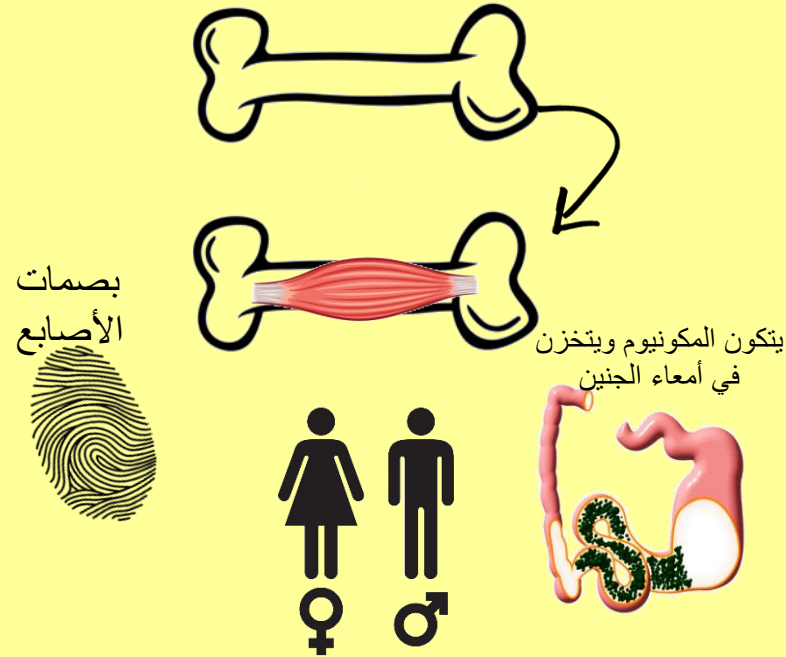
الجنين في هالمرحلة يبدأ يتحرك بسبب تكون العظام والعضلات وخلال هذه المرحلة يتمايز جنس الجنين.

Trimester 3:
full-term fetus at week 37
جنين مكتمل النمو
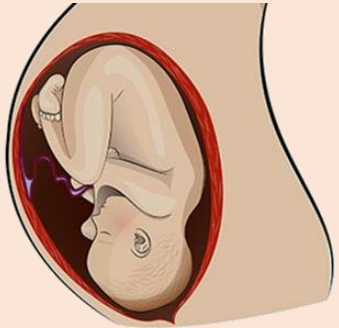
pelvic presentation   fetal presentation head down

Nutritional requirements

Fruit & vegetables (5 servings)

Provide: vitamins + minerals + fiber

How it can be included in the diet:
- ✓ Added to breakfast cereals or yoghurt.
- ✓ Smoothies/ juices/ soup.
- ✓ Salad/ snack.
- ✓ Added to main meals.

Cereals & their products (5-8 servings)

Simple carbohydrates

Complex carbohydrates: Wholegrain bread & cereals

SIMPLE CARBS
- SUGAR, SWEETS
- CEREALS, PASTRIES
- REFINED BREADS

COMPLEX CARBS
- VEGETABLES, FRUITS
- NUTS, LEGUMES
- WHOLE GRAINS

How it can be included in the diet:
- ✓ Wholegrain cereals.
- ✓ Wholegrain rice & pasta.
- ✓ Potato-based meals.
- ✓ Wholegrain crackers as a snack.

Milk & dairy products (3 servings)

Provide pregnant women & fetus with Ca^{2+} needed for healthy bone development.

Low-fat dairy products are recommended over full-fat version.

Non-dairy alternatives: soya/ rice/ almonds can be chosen.

SOY ALMOND OAT RICE COCONUT

How it can be included in the diet:
- ✓ Adde to breakfast cereals/ fruit.
- ✓ Used in cooking.
- ✓ Eaten as a snack.
- ✓ Added to salad & sandwiches.

Meat, eggs & legumes (2-3 servings)

A source of protein & iron.

Meat sources

Non-meat sources

Red meat/ poultry/ fish/ egg

Nuts/ legumes or pulses
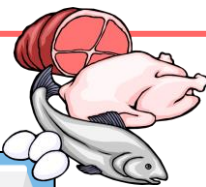
How it can be included in the diet:
- ✓ Lean meat (without fat).
- ✓ Grilled/ baked meat (avoid frying).
- ✓ Fresh meat & fish.
- ✓ Make sure the meat is cooked thour to kill any bacteria.

Fats

Give the body energy & help to absorb vitamins.

Unhealthy: **Saturated & trans-fat** دهون مشبعة ومتحولة (limit them)

Healthy: **Un-saturated fats** دهون غير مشبعة

Nuts
Seeds
Olive oil
Rapeseed oil
Avocados
Oily fish (e.g., salmon & trout)

Unsaturated fats

CANOLA

During pregnancy calories intake (the amount of food) will increase

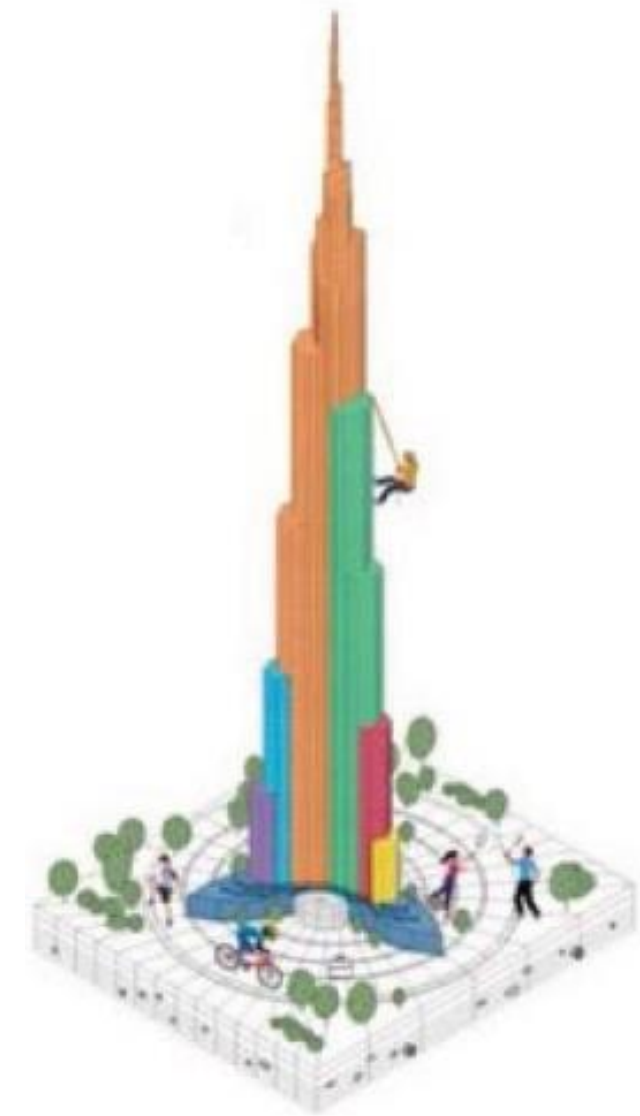**Trimester1:** 2000 cal → **Trimester2:** 2360 cal → **Trimester3:** 2475 cal

Extra 360 calories

Extra 475 calories

MTG

50

National Nutrition Guide

🟢 Vegetables

🔴 Fruits

🟡 Fats

🔵 Water

🟠 Cereals and their products

🔵 Milk and dairy foods

🟣 Meat, eggs and legumes

- In the UAE, the model which is used to represent food groups is shaped like Burj Khalifa

- It is divided into 6 food groups & the 7th group is water at the base of the tower.

COMPLEX CARBS VS SIMPLE CARBS

Extra nutritional requirements:

Vitamin B9

مهم لرحلة الـ
أشهر من الحمل

صناعي (مكمل غذائي)

Man-maid/ synthetic version: folic acid

Supplement of 400 µg

FOLIC ACID
400 mcg

طبيعي من الطعام

Natural version from food: folate

^Broccoli

^Asparagus

^Green leafy vegetable (e.g., spinach)

^Fortified foods

أمثلة على العيوب الخلقية:

Vitamin B9 helps prevent the fetus developing defects of the brain, spine or spinal cord (**neural tube defects NTDs**)

Normal   Anencephaly   Spina bifida

Fortified foods: foods which have vitamins & minerals added to them (e.g., breakfast cereals & bread). أغذية مدعمة

Supplement: a liquid/ tablet that provides a nutrient & it can be added to a food/ drink. مكمل غذائي

Calcium (Ca^{2+})
Important to build strong bones

Milk & dairy products:
Milk/ cheese/ yogurt

Non-dairy foods:

^Dried fruit

^Sardines with the bones

^Non-dairy milk alternatives (e.g., soy, almond, oat milk)

^Green leafy vegetables

^Fortified foods

Calcium
Ca

Iron (Fe)
Important to produce blood

Important to build red blood cells &avoid developing "anemia"

Anemia:

Makes a pregnant woman to be tired & weak.

Can cause the baby to be a low birth weight or to be born early.

How it can be included in the diet:
- ✓ Red meat
- ✓ Eggs
- ✓ Pulses
- ✓ Seafood
- ✓ Green leafy vegetables
- ✓ Fortified foods

المصادر الغنية بالبروتين تكون غنية بالحديد كذلك!

Iron

Fe

Foods to avoid during pregnancy:

⚠ **BLACKLIST**

✗ **Caffeine:**	Soft drinks/ coffee/ tea
✗ **Fish high in mercury:**	Bigeye tuna/shark/ mackerel/ marline/ swordfish
✗ **High fat, salt & sugary foods** (too much can raise blood pressure & cause a pregnant woman to gain too much weight)	
✗ **Saturated & trans-fat:** (can lead to the build up of fatty layer in the arteries)	Butter/ crisps/ mayonnaise & meat with lard/ fried fast food/ cookies/ cakes
✗ **Processed meat:** (high in salt & saturated fat)	Hot dogs/ canned meats/ cured or salted meats/ takeaway foods
✗ **Bacteria & parasites:**	▪ Raw sprouts vegetables براعم النباتات ▪ Under-cooked or raw meat/ egg/ fish ▪ Processed meat ▪ Unpasteurized milk & dairy products (blue cheese) ▪ Unwashed fruit & vegetables

Instead:
Pregnant woman should choose seafood that are <u>low in mercury</u> such as:
<u>Canned light tuna</u>
<u>Salmon</u>
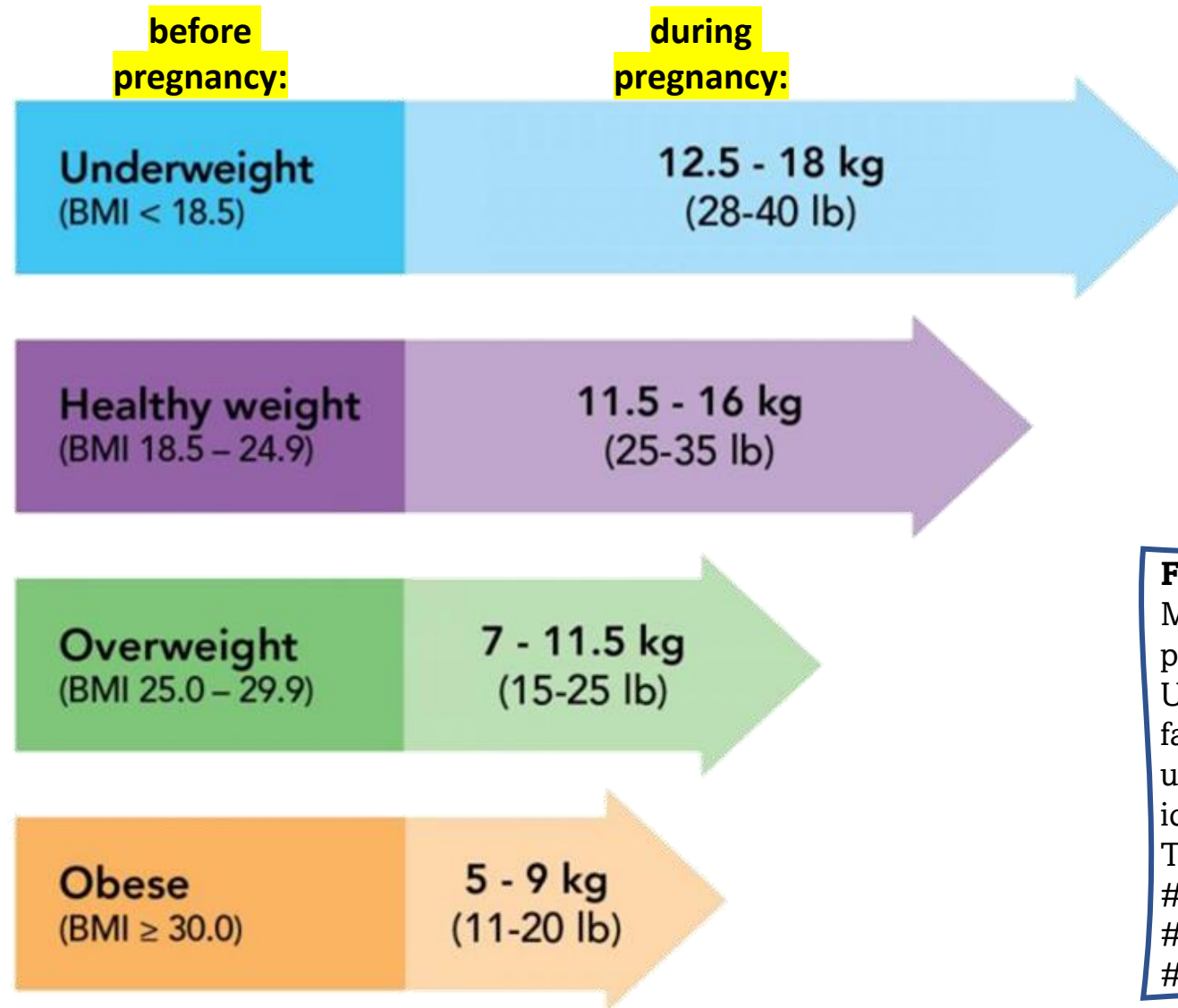<u>Anchovies</u>
<u>Sardine</u>

2-3 times a week!

Good!

chunk light tuna in water

MTG

Weight gain during pregnancy

MTG

العلاقة عكسية بين مؤشر كتلة الجسم ما قبل الحمل والوزن المكتسب أثناء فترة الحمل.

before pregnancy:

during pregnancy:

Underweight
(BMI < 18.5)

12.5 - 18 kg
(28-40 lb)

Healthy weight
(BMI 18.5 – 24.9)

11.5 - 16 kg
(25-35 lb)

Overweight
(BMI 25.0 – 29.9)

7 - 11.5 kg
(15-25 lb)

Obese
(BMI ≥ 30.0)

5 - 9 kg
(11-20 lb)

Example:

If a woman has a BMI of 22 before pregnancy, she is expected to gain between 11.5 and 16 Kg.

interesting

Food craving: الوحام
Many women "crave" certain foods during pregnancy.
Usually they crave for sweets, ice-cream or fast food, but sometimes they crave very unusual combinations such as pickles with ice-cream.
This might be because of:
Hormonal imbalance
Nutritional deficiencies
Need for comfort food

Exercise during pregnancy

STOP

BLACK LIST

Benefits of physical activity:

Improves self-esteem & mood. يحفز انتاج هرمون الإندورفين

Improves energy levels. ينشط الدورة الدموية

Reduces stress & anxiety.

Helps to gain healthy weight.

Reduces the risk of developing gestational diabetes.

Strengthens muscles & helps to prepare mother's body for childbirth.

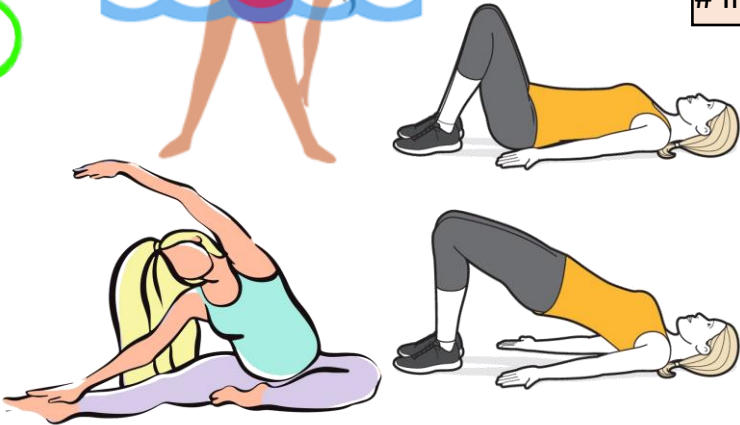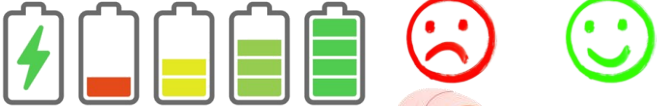# Faster recovery after giving birth.

Recommended exercises:

Moderate intensity activity for 150 mins a week or 30 mins 5 days a week.

For example:

Walking

Swimming leisurely

Low impact aerobics

Pelvic floor exercises

تمارين تقوية الحوض

When to stop physical activity?

Bleeding/ fluid loss

Chest pain

Decreased movement from the fetus

Dizziness

Difficulty breathing before exercise

Muscle weakness

Pain around the stomach or pelvis

Pre-term labour or contractions

Irregular heartbeat

Exercises to avoid:

Kickboxing or judo (there is a risk of being hit)

Horse-riding or rock climbing (there is a risk of falling)

Laying flat on back for a long period of time particularly after week 16 (she might feel faint or dizzy)

57

MTG

Medical care during pregnancy

Labor signs include:
1) Lower backpain & around the stomach
2) The release of amniotic fluid (water break)
3) Contractions

Medical needs:

Non-emergency medical care:
(common problems)

Emergency medical care:

المخاض والولادة Labour/ childbirth
(the process of the baby leaving the womb)

[9 week ultrasound - YouTube](#)

Ultrasound scans:
Check if the fetus is growing at a healthy rate.
2 things are recorded:
1) Heart rate
2) Breathing

Backpain
Low iron levels in the blood (anemia)
Constipation
Fatigue (tiredness)
Heartburn
Morning sickness
Swelling of the legs (edema)

No movement from the fetus
Excessive fatigue
Excessive thirst
Feeling of anxiety
Heavy bleeding
More than 3 contractions per hour
Sudden loss of fluid
Unexplained pains

Stage1:
Contractions start (uterus/ womb muscles tighten & relax)
#Regular contractions around 5 mins apart.

https://www.youtube.com/watch?v=duPxBXN4qMg

Stage2:
The urge to push.
The contractions become stronger & last longer.
The abdominal muscles help to deliver the baby. (the baby is finally out!)
# This stage lasts 1-2 hours

PUSH

Hypertension: ارتفاع ضغط الدم
Women can experience high blood pressure during pregnancy & this need monitoring.

Gestational diabetes: سكري الحمل
Cause: it happens because the body cannot produce enough insulin to meet the extra demands of the pregnancy.

Result: hyperglycemia (high blood glucose/ sugar)

Generally, it goes away after childbirth

Stage3:
The umbilical cord is clamped.
The placenta is delivered 5-20 mins after the delivery of the baby.

Cord Is Cut

Braxton hicks (irregular contractions) المخاض/ الطلق الكاذب can be mistaken for labour contraction

58

Nutritional needs of a newborn

(0-6 months: weight doubles + build immunity)

1 month later ➔ 1 week later ➔

Too big | Still big | Too small
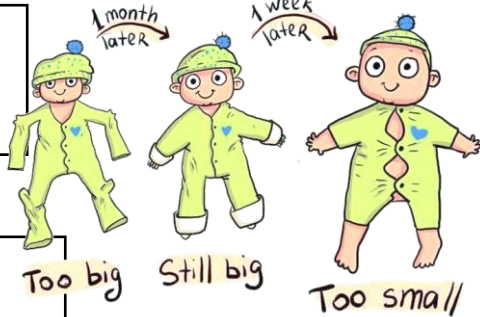
The WHO recommends to breastfeed exclusively for the first 6 months.

At the end of the 6 months the baby should be introduced to home-made food.

Breastfeeding should continue until 2 years of age or longer.

Breastfeeding

(the action of feeding a baby with milk from the breast)

MTG

Why breastfeeding is important?
☐ Encourages bonding
☐ Contains nutrients
☐ Free/ safe/ readily available
☐ Helps to develop the baby's immune system (contains antimicrobial factors)
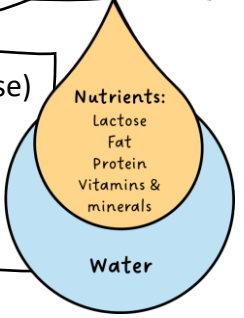☐ Environmentally friendly.

Milk

تشبه كلمة "**كلسترول**" وحتى لونه ذهبي نفس الدهن العداني.

The first milk produced during the first week.

Colostrum

(sticky yellowish substance)

Mature milk

حليب ناضج

✓ Carbohydrates (lactose)
✓ Digestive enzymes
✓ Fat
✓ Protein
✓ Vitamins & minerals

Nutrients:
Lactose
Fat
Protein
Vitamins & minerals

Water

When it starts?

Try to breastfeed the baby withing the 1st hour after birth.
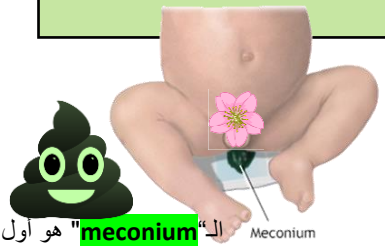
How much?

During the first days the baby can feed up to 15 times a day.

A baby should be fed as often as they want (they will stop when they are full)

Facts:

The more often the baby feeds, the more milk will be produced.

The amount of nutrients depends on the quality of the mother's diet.

Helps the baby to get rid of **meconium** "the baby's first stool after birth"

ينصح أثناء الجلسة الوحدة الرضاعة من جانب واحد لأن الحليب يكون في البداية خفيف حيث يكون معظمه ماء، وبعد ذلك يصبح غني وثقيل لتغذية الرضيع

Thin خفيف

(at the beginning of the feeding)
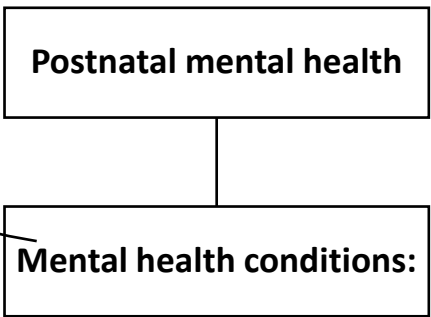
Mostly **water** to satisfy thirst.

Meconium

الـ"**meconium**" هو أول براز للمولود ينزل "**كم من يوم**" واللي تكون من بلع السائل الأمنيوسي واتخزن في أمعاء الجنين.

Creamy & rich ثقيل

(during the feeding)

Nutrients to satisfy hunger.

Postnatal mental health

There are different services & treatment methods in the UAE to support women to manage depression or anxiety.

Employee Assistance Program
Mental Support Line (8004673)
National Program for Happiness & Wellbeing
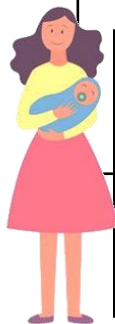The National Campaign for Mental Support

البرنامج الوطني للسعادة وجودة الحياة
National Program for Happiness & Wellbeing

خط الدعم النفسي
MENTAL SUPPORT LINE
800HOPE (8004673)

برنامج المساندة والدعم النفسي والمعنوي لموظفي الحكومة الاتحادية
Employee Assistance Program

Hormones & not getting enough sleep can affect mood.

Mental health conditions:

اكتئاب ما بعد الولادة

قلق ما بعد الولادة

كآبة الأمومة **The baby blues**

(affects up to 80% of mothers)

Postnatal depression

(extreme chronic sadness)

Postnatal anxiety

(worrying & over-thinking)

Only lasts for a few weeks.

Symptoms include:

#Feeling overwhelmed/ irritable/ anxious.

#Mood swings (feeling happy then sad)

#Poor eating habits & self-care

Lasts longer & need support to manage it!

Symptoms develop gradually to the worse:

Difficulty bonding with the baby.

Worrying not to be a good mother.

Struggling to eat/ sleep/ taking care of the baby

Low mood & lack of energy

Feeling sad/ worthless/ hopeless

Avoid speaking to friends or family

Loss of interest in things

Symptoms:

Emotional:

Overthinking things

Expecting something bad to happen

Feeling "on edge" (nervous + tense)

What to do/ how to manage?

Mindfulness

Exercise

Relaxing breathing exercises

Physical:

Panic attacks

Headaches

Muscle pains/ tension

Heart palpitations خفقان (heart suddenly beating fast for no reason)

What to do?

It is normal & will usually go away on their own.

Make sure to look after yourself not just the baby:

#Sleep as often as possible

#Eat good food

#Exercise (even light exercise count, e.g., walking outside with the baby)

MTG

COVID-19 may have impacted new mothers.

For example:

#Worrying to pass the disease to the baby.

#Not being able to get help & support from friends or family due to lockdown restrictions.

61