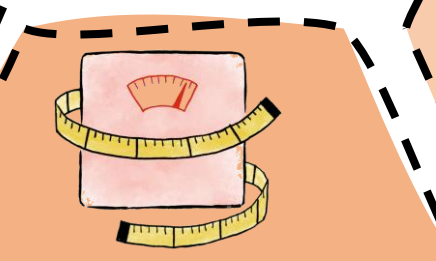
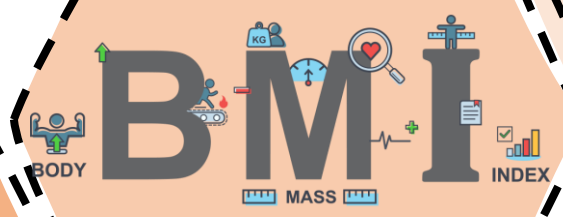
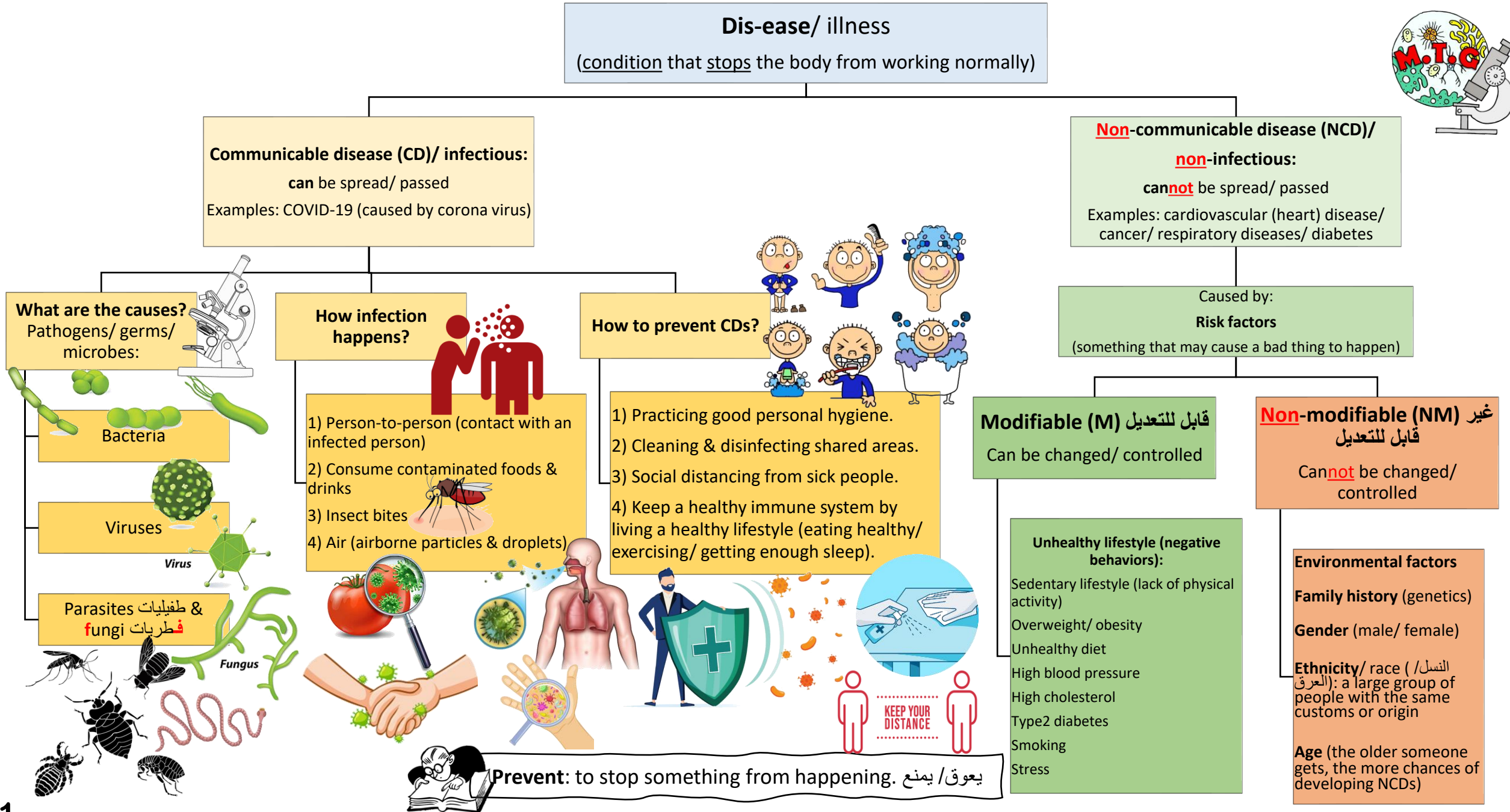
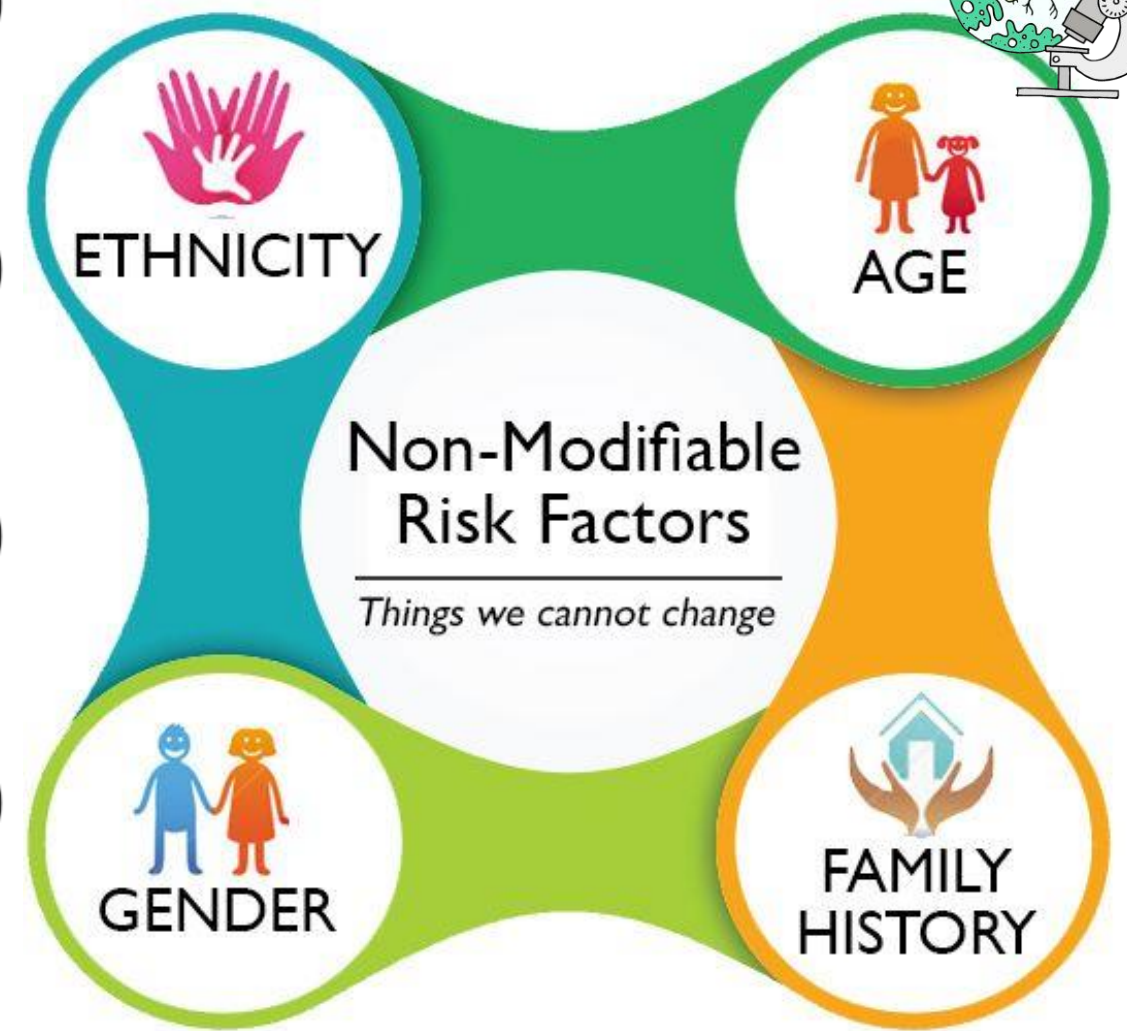
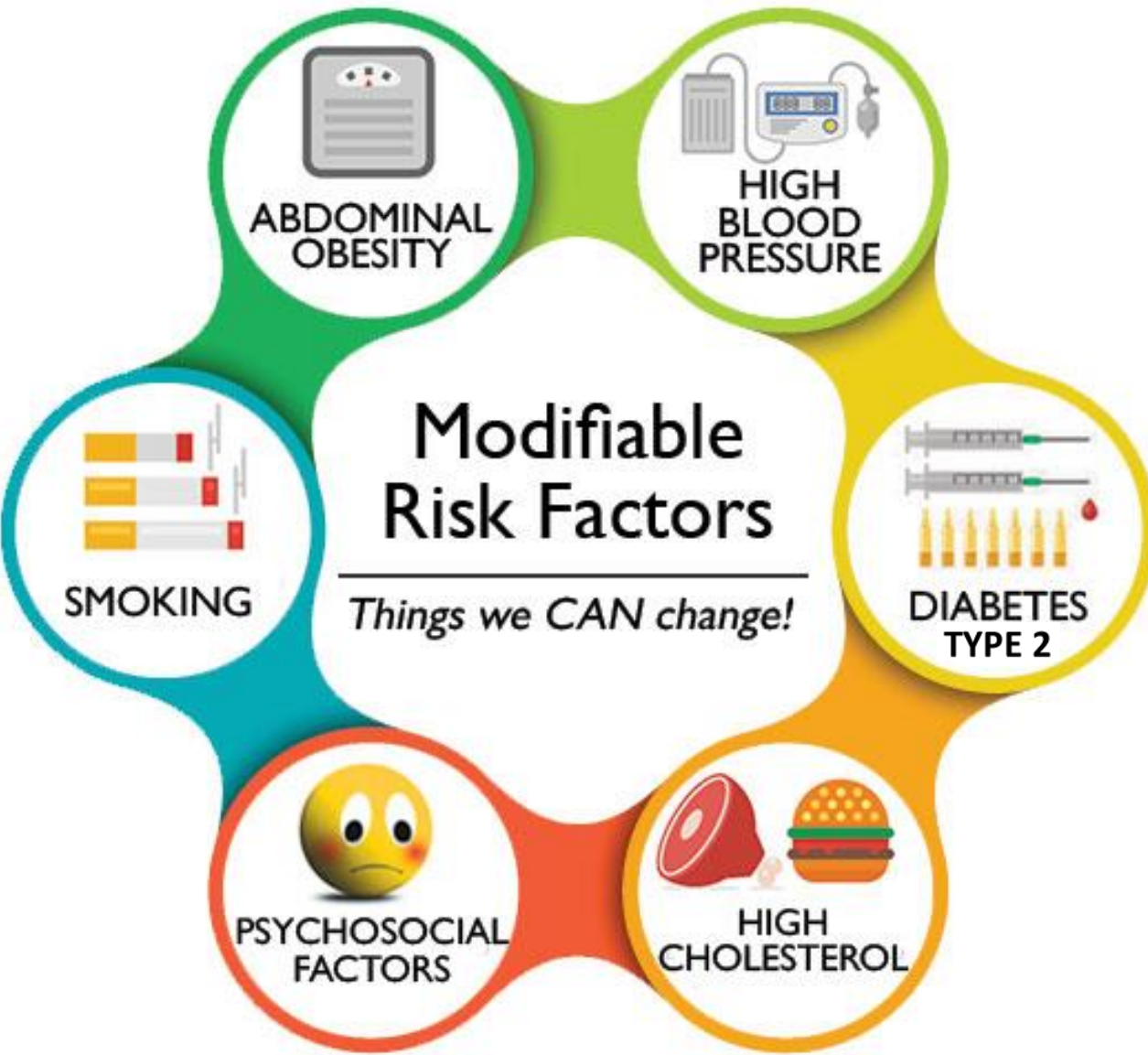


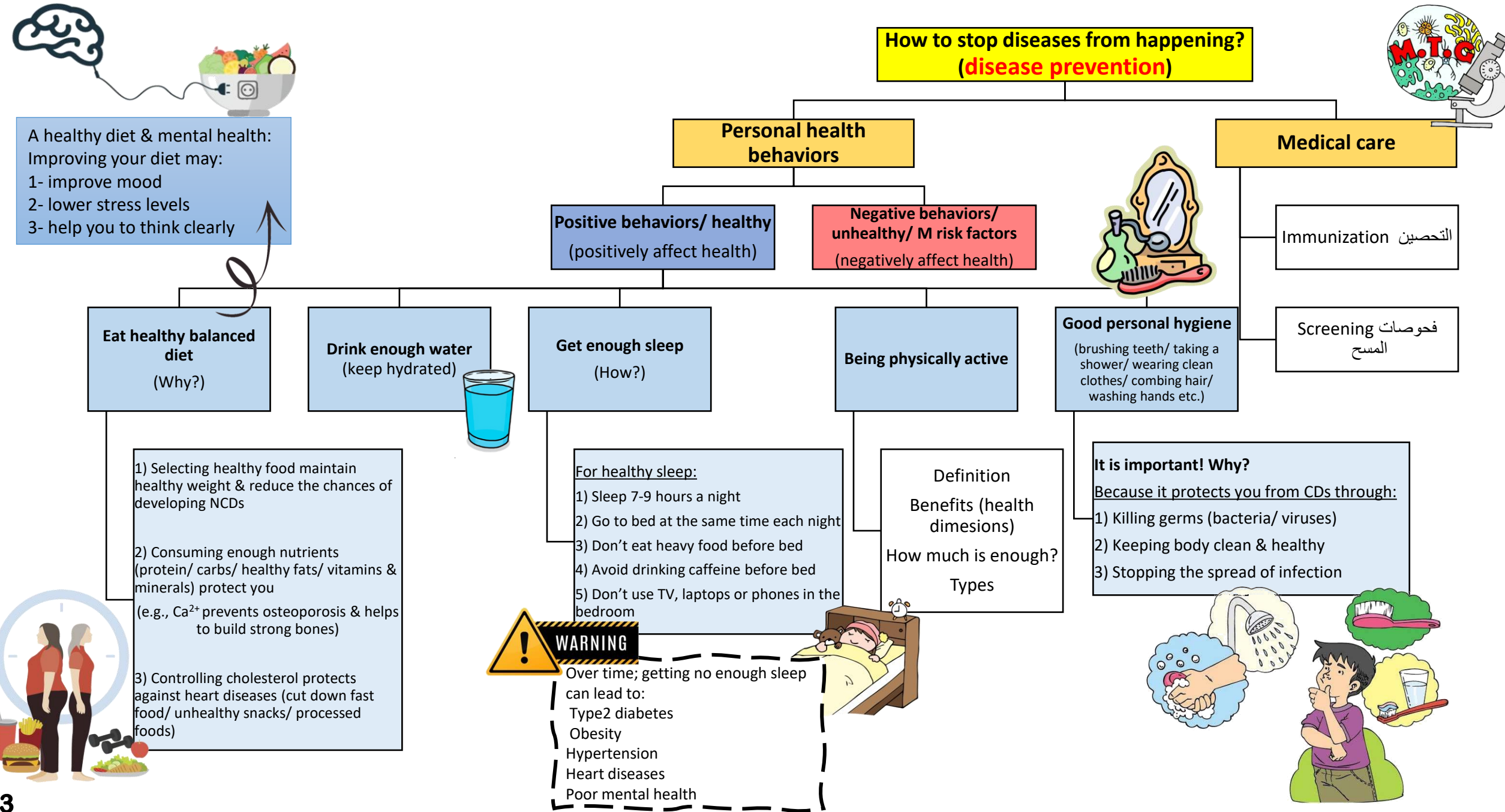
Health Sciences G12 T2 Summary (2022 - 2021)

Maitha Taleb Gareeb
(M.T.G)











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



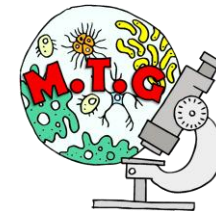
COOL AND DARK ROOM



BEDTIME ROUTINE



RELAXING BATH



After touching
an animal or
pet food



After
touching
garbage



After
using the
bathroom



Before & After
cleaning a
wound



After
touching raw
fish, meat,
or poultry



After coughing,
blowing your
nose, or
sneezing



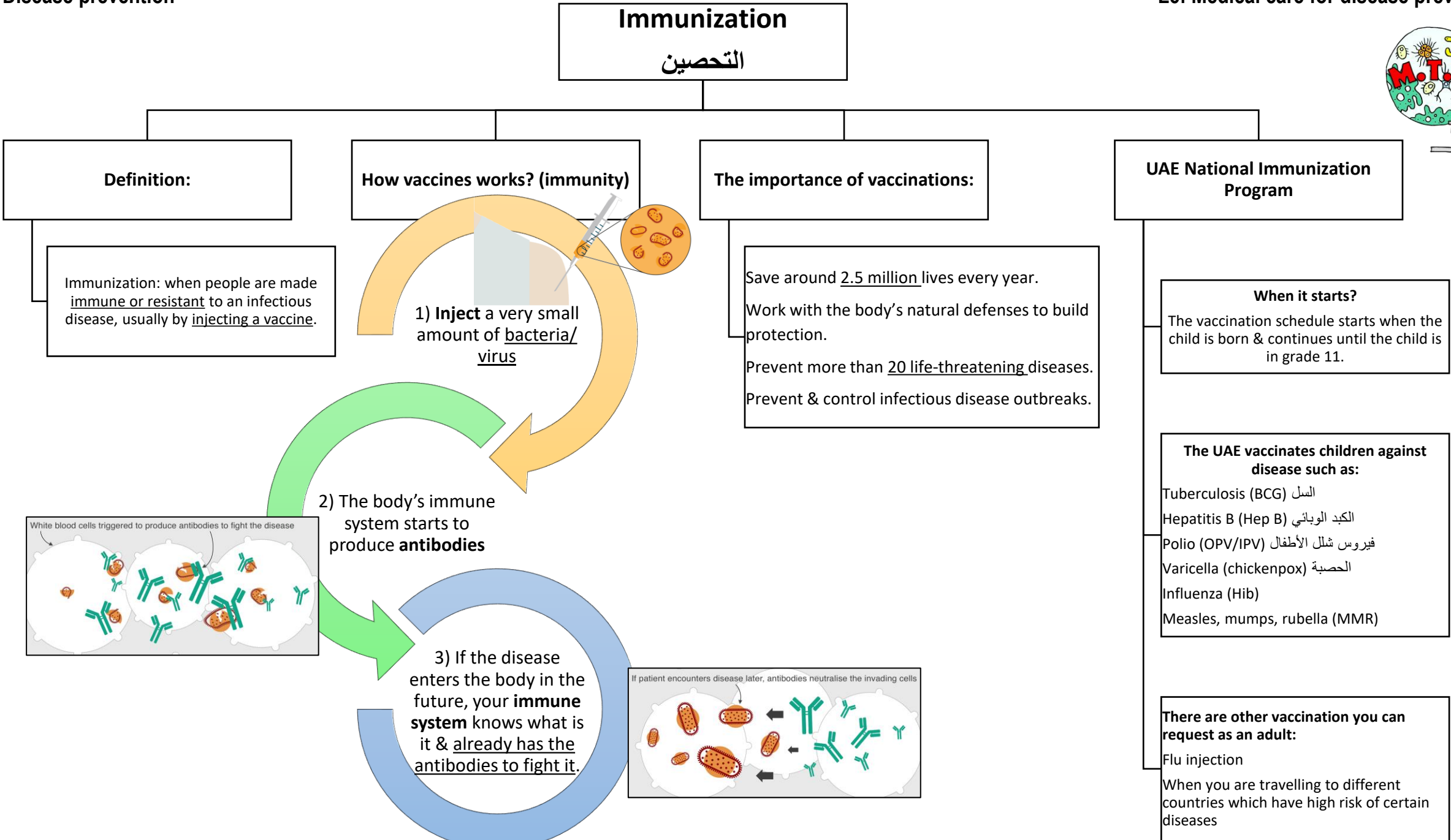
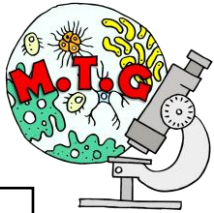
Before
preparing or
eating food



Before
inserting &
removing
contacts

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 any animals



<https://youtu.be/Keaa4hOWnzU>

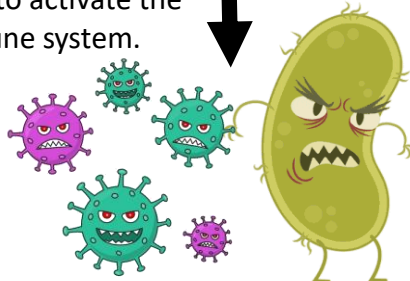
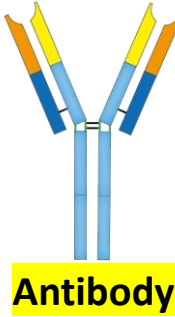
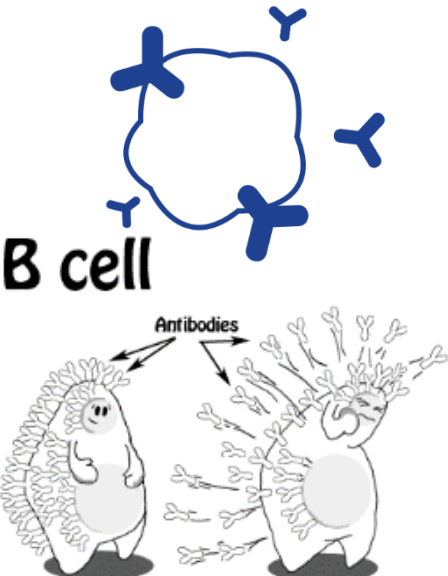
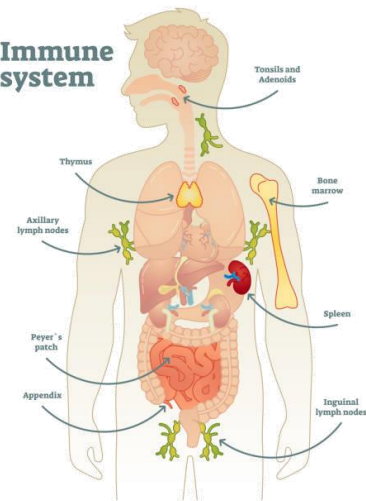
Active immunity

Immunization = vaccination = vaccine = dose

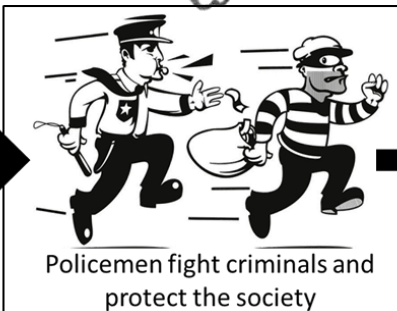
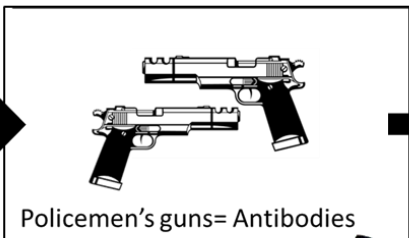
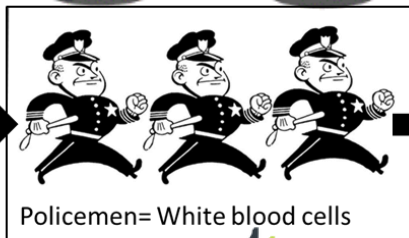
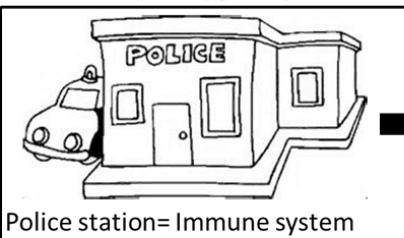
How vaccines activate the immune system & strengthen it?

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

Immune system

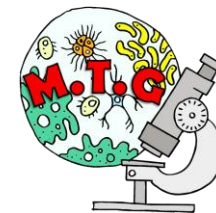


HEY! I REMEMBER YOU!



How the immune system works?

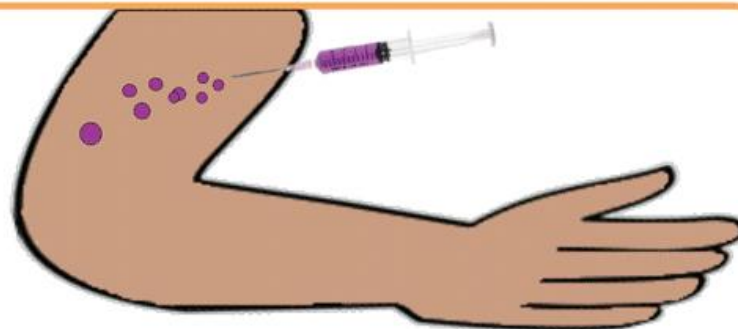




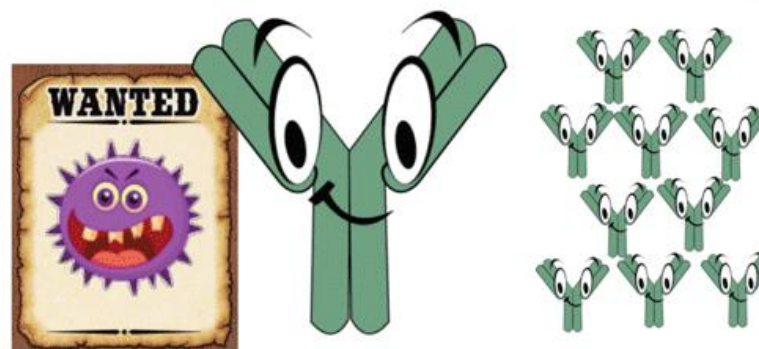
HOW DO VACCINES WORK?

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

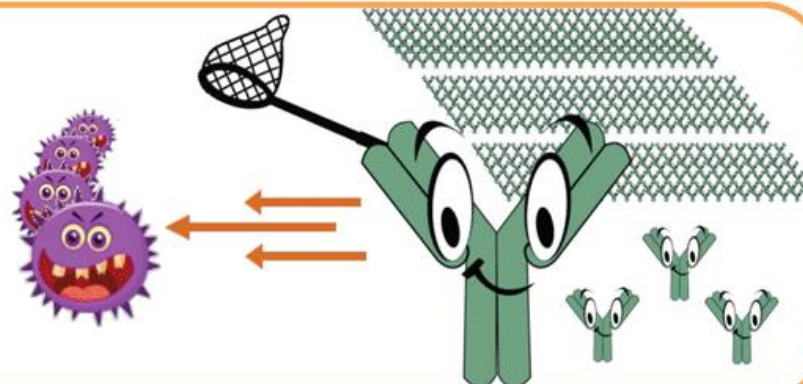
(Some vaccines are not injected but inhaled, such as some types of the flu vaccine)



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



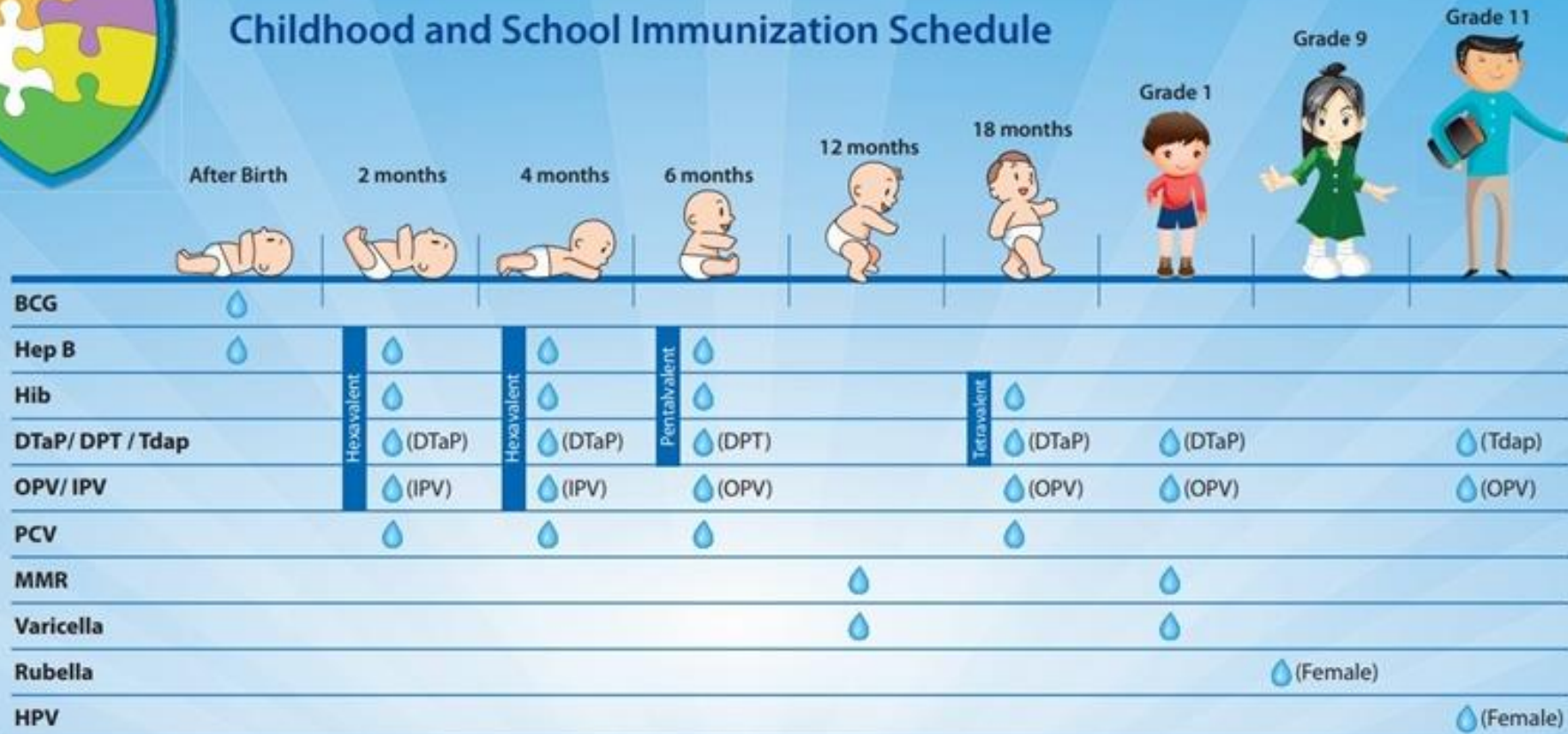
If the disease attacks the body, the antibodies are ready to catch and destroy them.





Protect Your Health with **Vaccination**

Childhood and School Immunization Schedule



Legend:

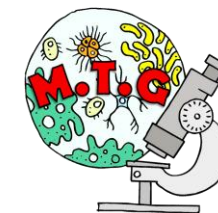
BCG: Bacillus, Calmette-Guerin (against tuberculosis)
DPT: Diphtheria, Pertussis and Tetanus
DTaP: Diphtheria, Tetanus, and acellular Pertussis
Hep B: Hepatitis B

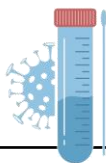
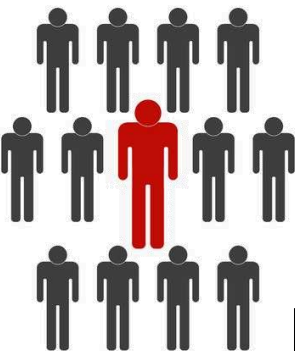
Hexavalent:

DTaP, Hib, Hep B and IPV
Hib: Haemophilus Influenzae Type B
HPV: Human Papillomavirus
IPV: Inactivated Poliovirus Vaccine
MMR: Measles, Mumps and Rubella

OPV:

Oral Poliovirus Vaccine
PCV: Pneumococcal Conjugate Vaccine
Pentavalent: DPT, Hib and Hep B
Tdap: Tetanus, reduced Diphtheria and reduced Pertussis
Tetavalent: DTaP and Hib





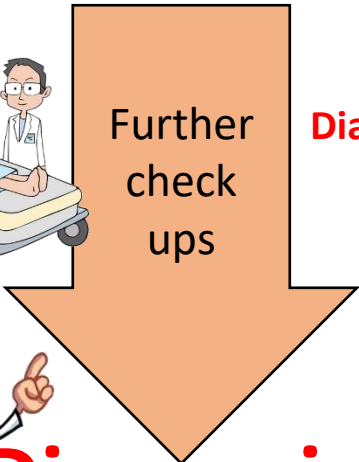
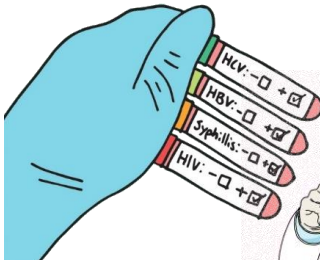
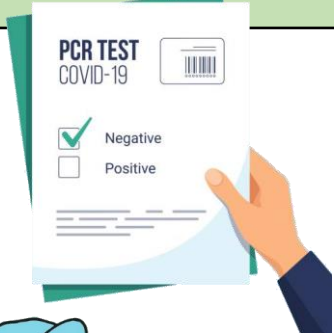
PCR TEST
COVID-19



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

Negative result (there is nothing wrong! Normal result! Healthy!)

Positive result (possibility of a disease)



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





تذكرى فحوصات المسح screening tests ليست نهائية وليست دقيقة وتكون نتائجها 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 يؤكد وجود فقر دم "أنيميا".

The difference between screening & diagnosis tests

Screening tests	Diagnostic tests
To check for early signs of a disease	To confirm the presence (or absence) of a disease
For large numbers of people	For one person who has signs or symptoms of a disease, or has had a positive screening result
One simple test, such as a blood test	More in-depth testing which may include lots of different tests
Low cost, to be able to afford testing for large numbers of people	Higher costs, because of the need for more accurate testing

نحتاجه عشان
نطمئن ع الصحة
بشكل عام وم نقدر
نعتمد عليه
لتشخيص الأمراض

نتيجته نهائية
ويستخدم لتشخيص
المرض.
من كلمة
"diagnosis"



General screening tests for adults

In your 40's

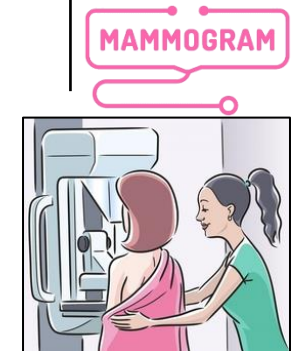
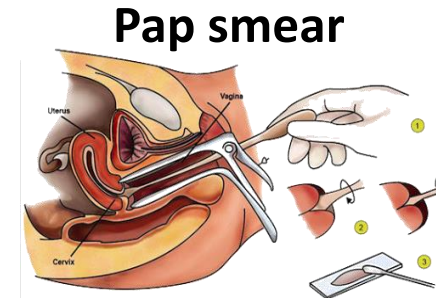
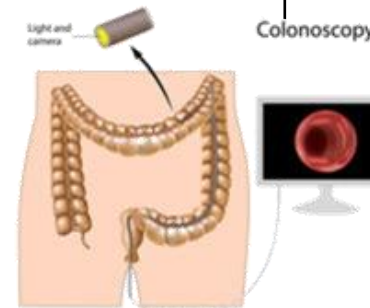
In your 50's & 60's

- 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)

- 12) Osteoporosis risk assessment
- 13) Colorectal (bowel cancer) screening
- 14) Sight & hearing impairment tests

As you get older
you will need
more screening
tests

كل م كبير الشخص بالعمر كل م زادت الفحوصات الطبية الي لازم يخضع لها.
مثلاً في عمر الخمسين بتخضع لما يقارب لل14 فحص طبي.

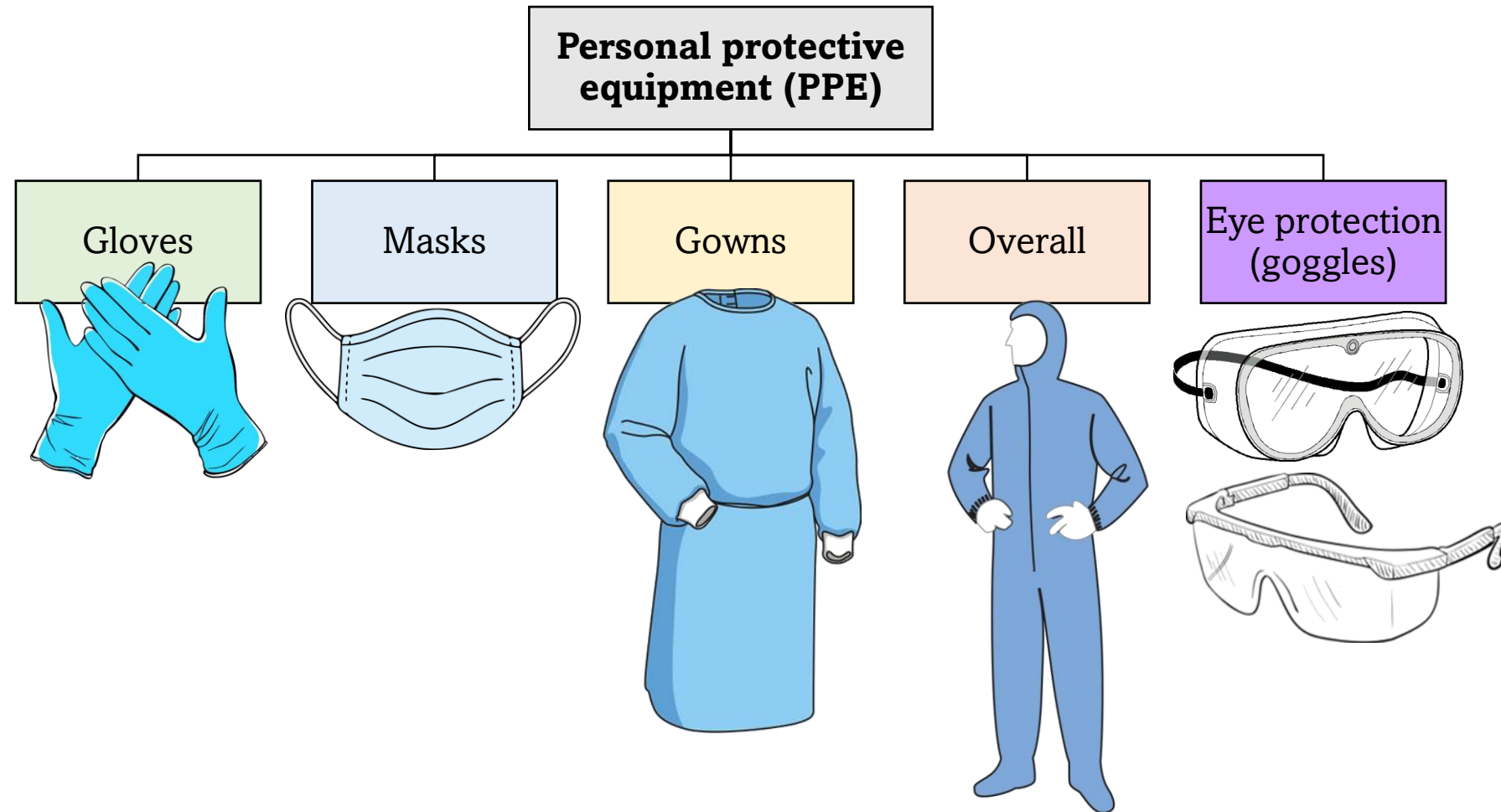


Screening test name	Checks:
Pap smear	Cervix cancer سرطان عنق الرحم
Mammogram	Breast cancer سرطان الثدي
Colonoscopy	Bowel cancer سرطان القولون
Fasting glucose levels test	Diabetes السكري

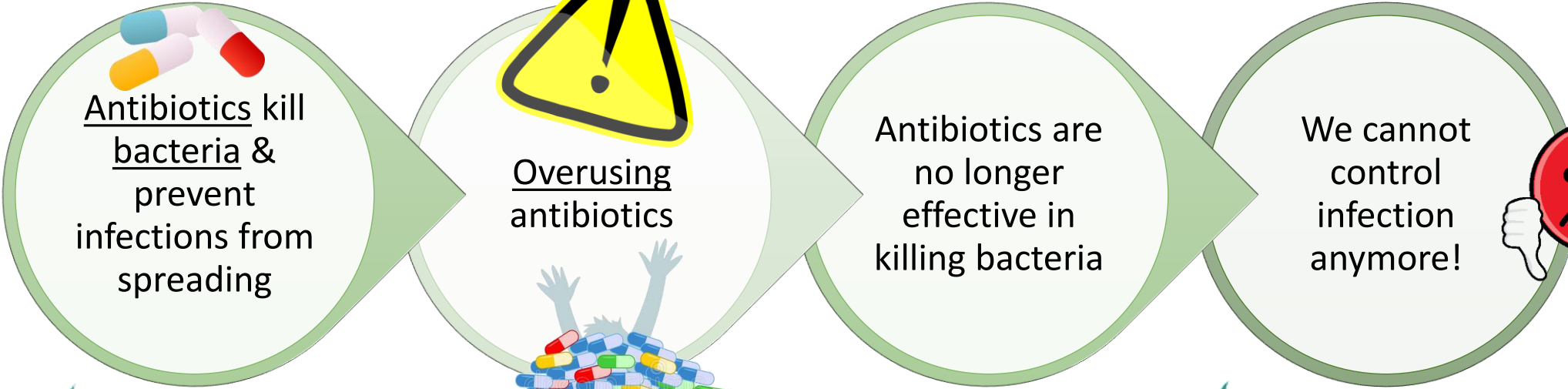


For	To screen for	Types of test	Screening frequency
People over 20 years old	Obesity	Body mass index (BMI) & waist circumference	Once a year
People over 20 years old	Hypertension (high blood pressure)	Blood pressure measurement	Every 2 years (more if high risk)
People over 20 years old	Diabetes High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



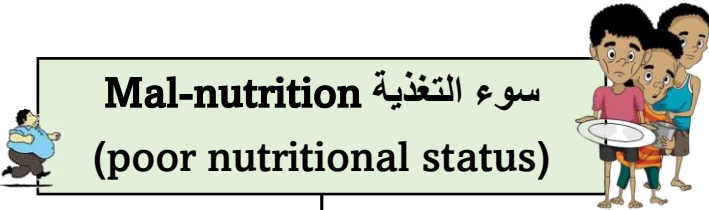


Antibiotic resistance



• Antibiotic resistance
مقاومة المضاد الحيوي





Mal-nutrition سوء التغذية
(poor nutritional status)



الجوع



Over- nutrition

Under-nutrition نقص التغذية

Not eating enough food or get enough nutrients

Overweight

Micro-nutrient deficiency نقص فيتامينات/ معادن

Under-weight نقص الوزن

Wasting الهزال

Stunting (Short) التقزم

Obese

A lack of/ shortage of a micronutrient (vitamin or mineral)

Low weight for age

Low weight for height

Low height for age



Normal height for age



NORMAL



UNDERWEIGHT



WASTING

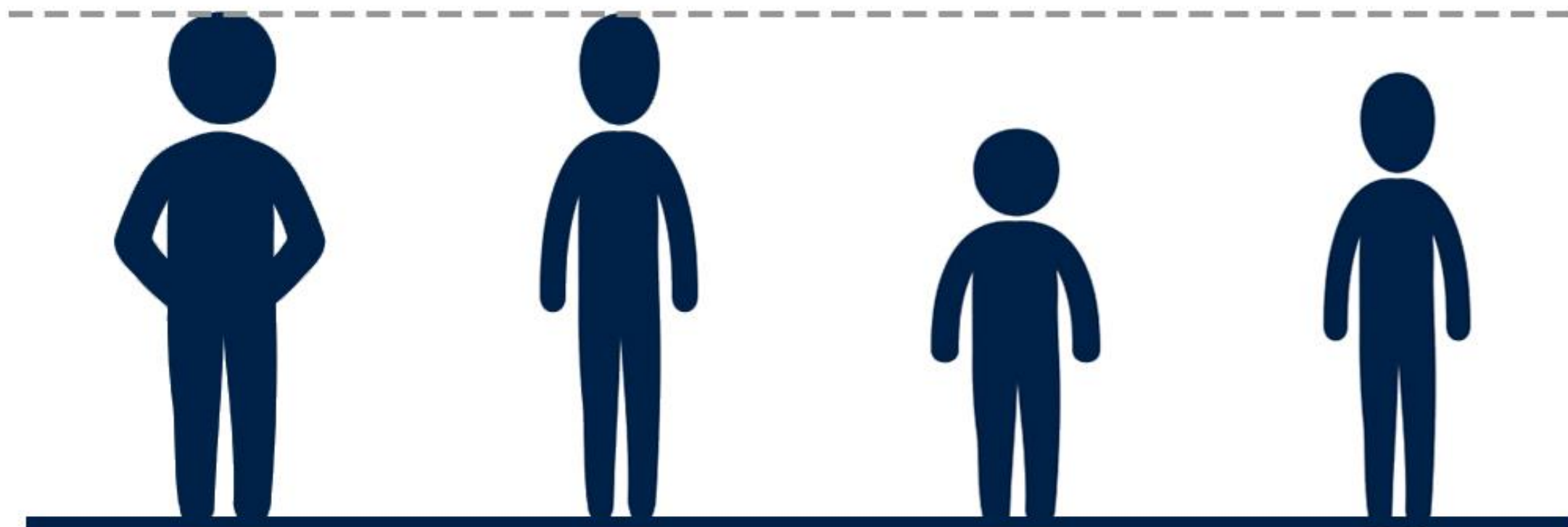


STUNTING



Different types of undernutrition

Normal height for age



NORMAL

WASTING

*Low weight
for height*

STUNTING

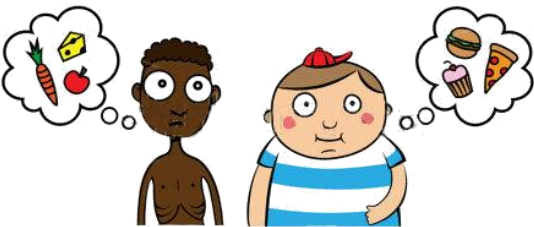
*Low height
for age*

UNDERWEIGHT

*Low weight
for age*



ABCDE techniques are useful **WHY?**



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



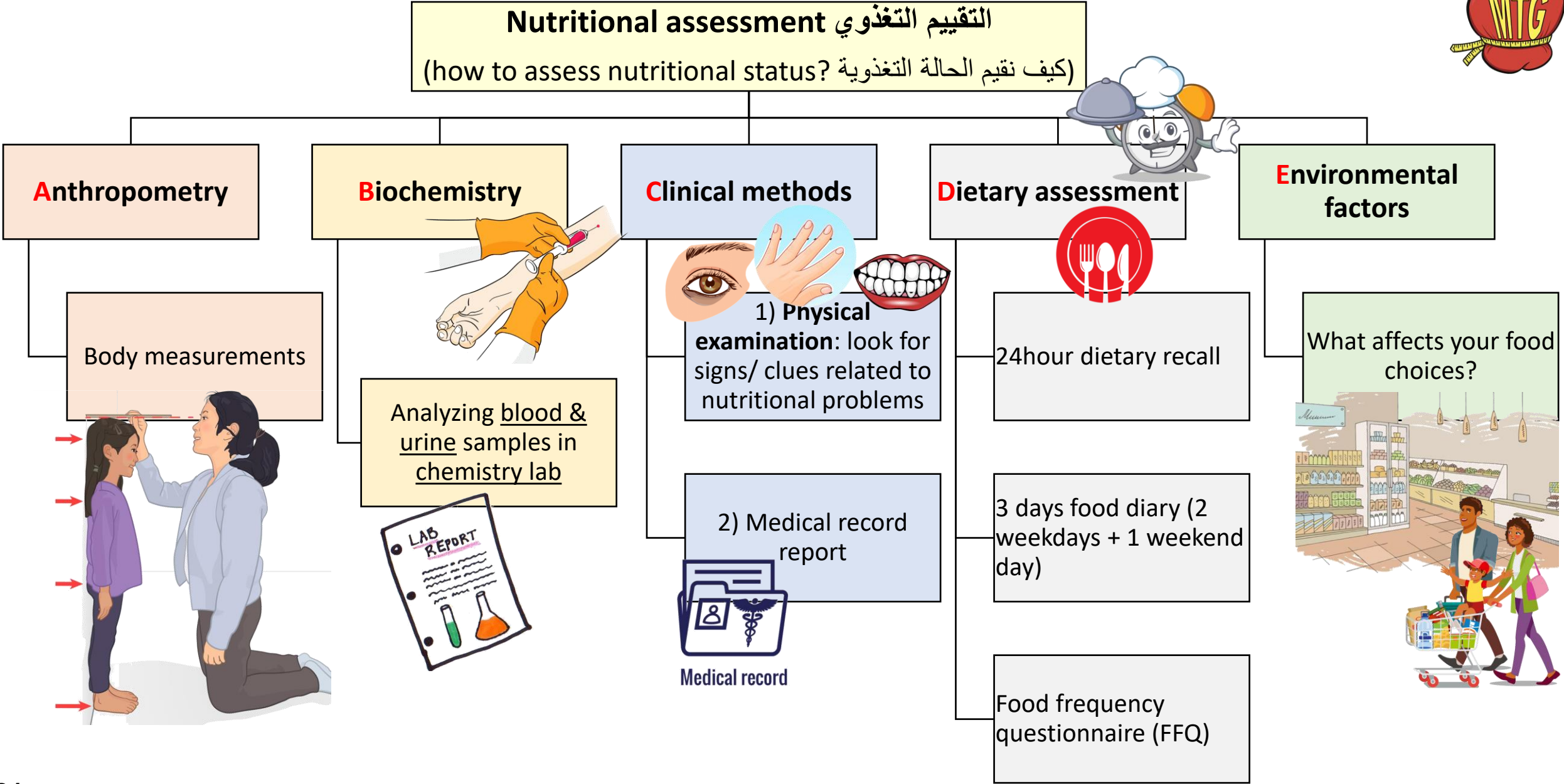
The purpose
of nutritional
assessment

Identify issues or
diseases



Put a suitable
healthcare program
according to
patient's needs







Nutritional Assessment (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

Clinical methods

الفحص الاكلينيكي (السريري)

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

Dietary intake

النمط الغذائي

هدفه معرفه روتين الأكل وله
ثلاث وسائل: التذكر / التسجيل /
الاستبانات

Environmental factors

العوامل البيئية

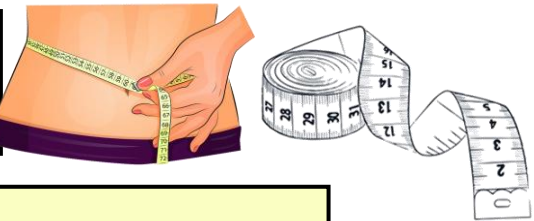
شو الأشياء اللي تأثر على خياراتنا في
الأكل والشرب؟

Anthropometric measurements
(physical measurements of the body)

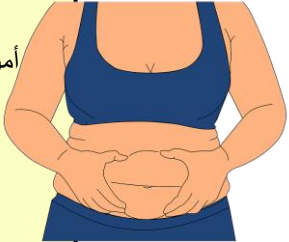
It includes measuring:
Height & weight
Hips/ waist/ legs/ arms & skinfold

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

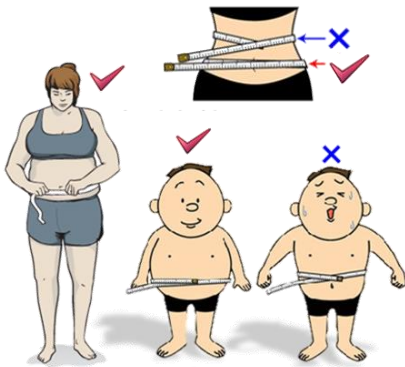
Waist circumference **محيط الخصر**
(Total distance around the waist)



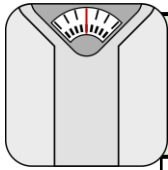
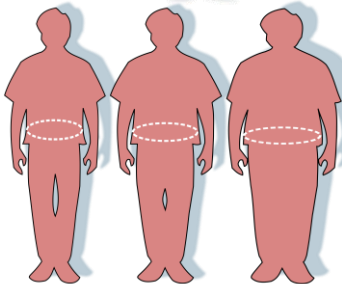
Important notes:
-High levels of **abdominal fat** **الكرش** are linked with NCDs such as:
⊗ cardiovascular disease **أمراض القلب والأوعية الدموية**
⊗ cancer **السرطان**
⊗ diabetes **السكري**
-**Age, gender, and ethnicity** will affect the measurement



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.



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



Measuring weight

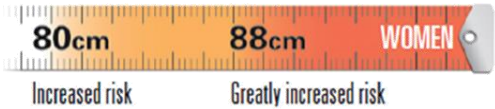
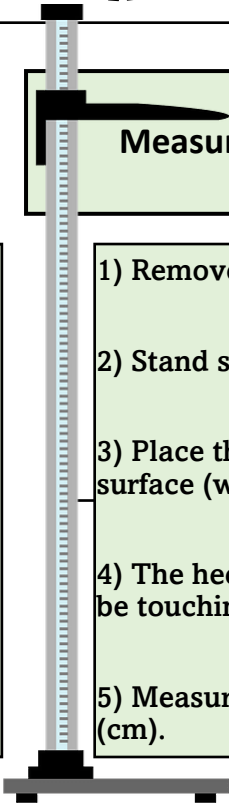
- 1) Make sure the weighing scale is reliable.
- 2) The person should remove heavy items from pockets such as mobile phones.
- 3) The person should stand still with their arms by their sides.
- 4) Measure weight in kilograms (kg).



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).



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)

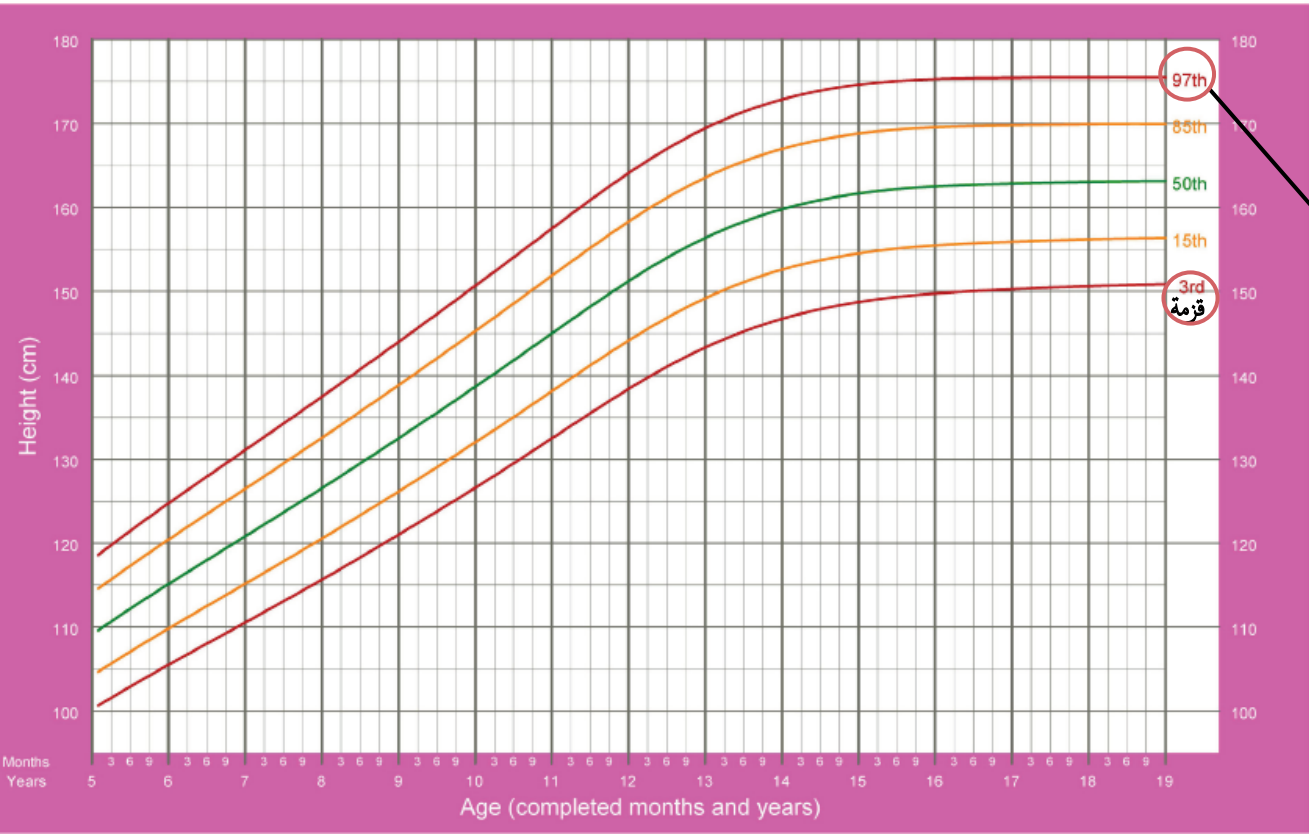
Examples:

The height for 16-year-old females on the 50th percentile is 162 cm. This means that the average (50-50) height for 16-year-old females is 162cm. طول متوسط.

The height on the 97th percentile is 175cm. This means that only 3% of 16-year-old females are this height or taller. طوووويلة.

Height-for-age GIRLS

5 to 19 years (percentiles)



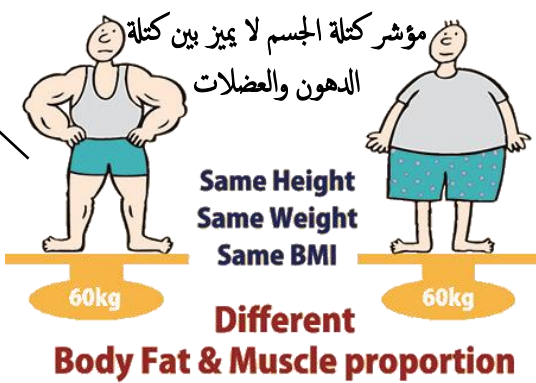
هذي النسبة المتوية تشير إلى أن الفتاة أطول من 97% من فتيات العالم. وبذلك تكون من القلة الطويلة، حيث تكون 3% فقط بنفس الطول أو أطول.





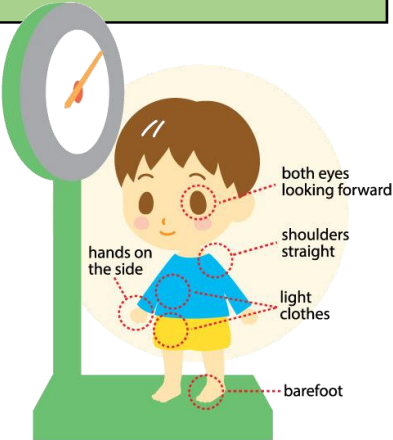
Anthropometry

Depending on BMI only is not enough you should measure fat% as well to get accurate results.

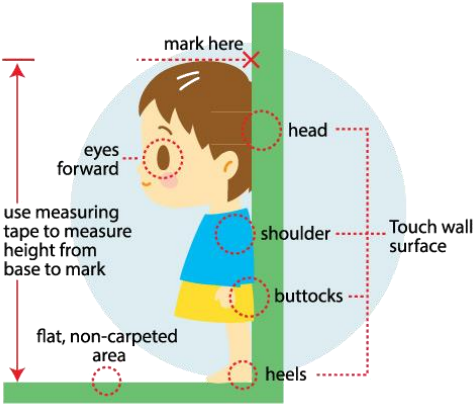


BMI Body mass index

Weight

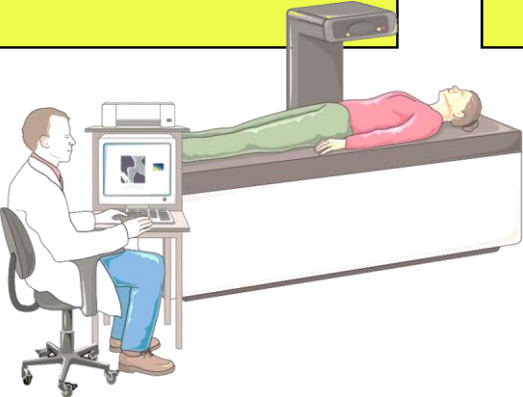


Height

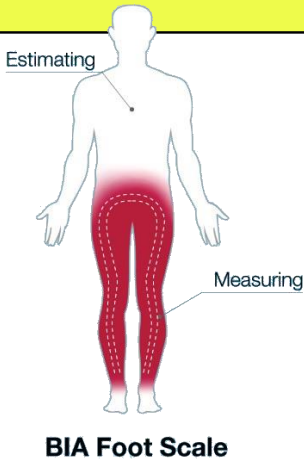


Measuring body fat

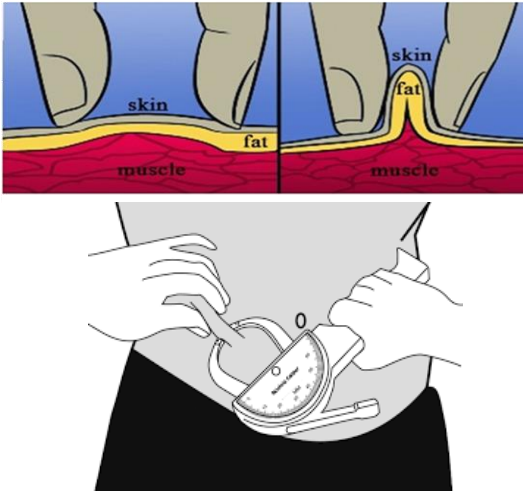
DEXA scanner



BIA



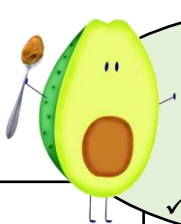
Measuring skin thickness





Anthropometry
How to confirm you are having a healthy weight?

Measuring body fat



- 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.



Body Mass Index (BMI):

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

Weight

Height

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

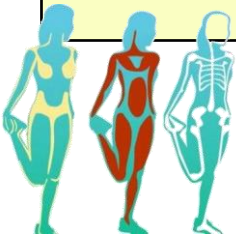
DEXA scanner

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.

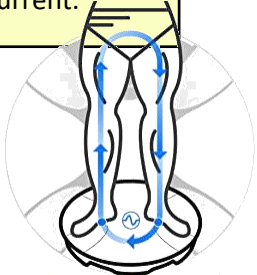


FAT
MUSCLE
BONE

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.

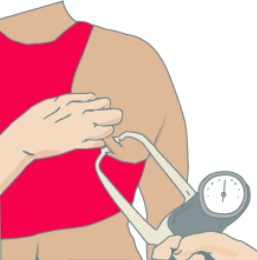


Bioelectrical Impedance Analysis

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

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

Example:

Sultan weighs 71kg and his height is 1.77m.
To calculate Sultan's BMI, first, we must work out his height².

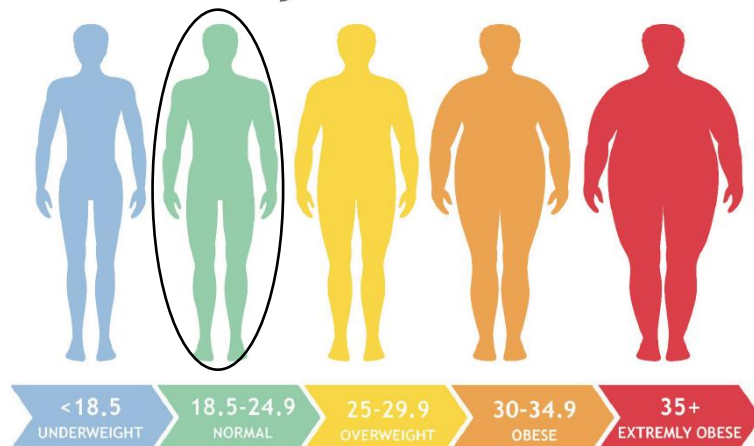
$$1.77 \times 1.77 = 3.1329 (\text{height}^2)$$

Then we can calculate his BMI

$$1.77 \div 3.1329 = 22.7$$

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

Body Mass Index



WH



WHAT IS YOUR BMI?



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



<18,5

UNDERWEIGHT



18,5 - 24,9

NORMAL



25 - 29,9

OVERWEIGHT



30 - 34,9

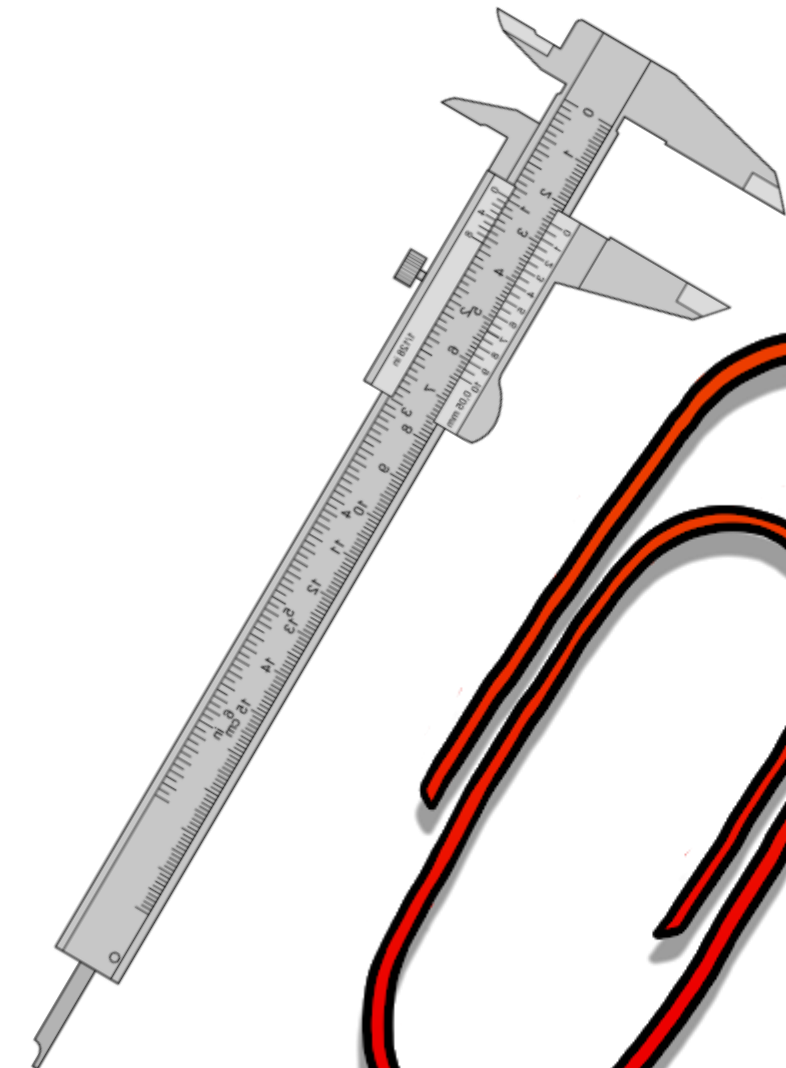
OBESE



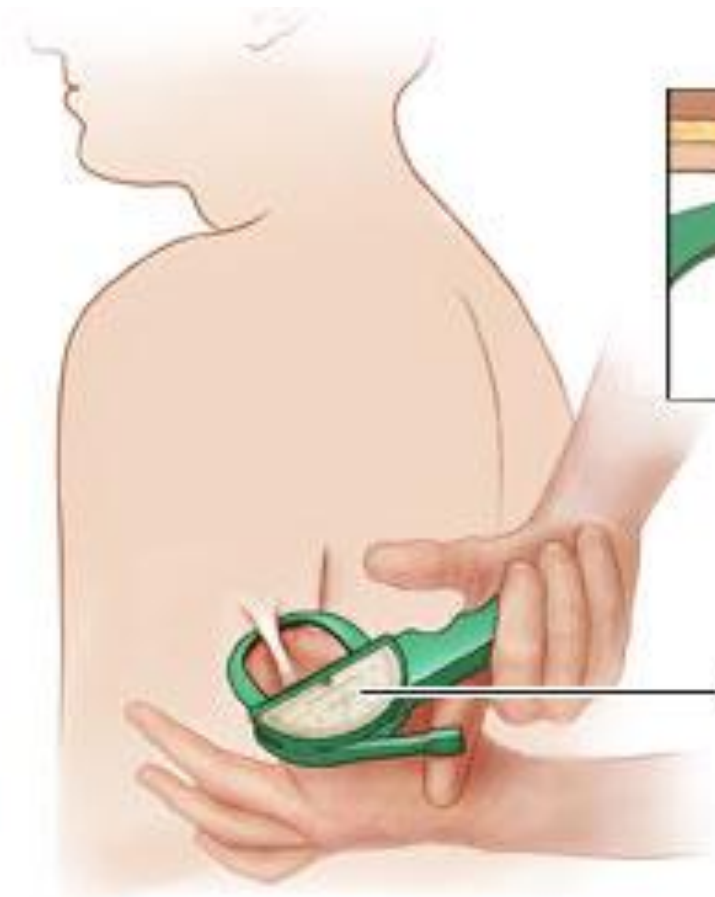
35 <

EXTREMELY OBESE

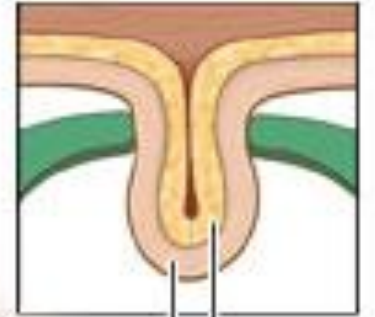
Caliper sounds like clip



Pinch skinfold
between fingers.



Place caliper on skinfold
to measure fat percentage.

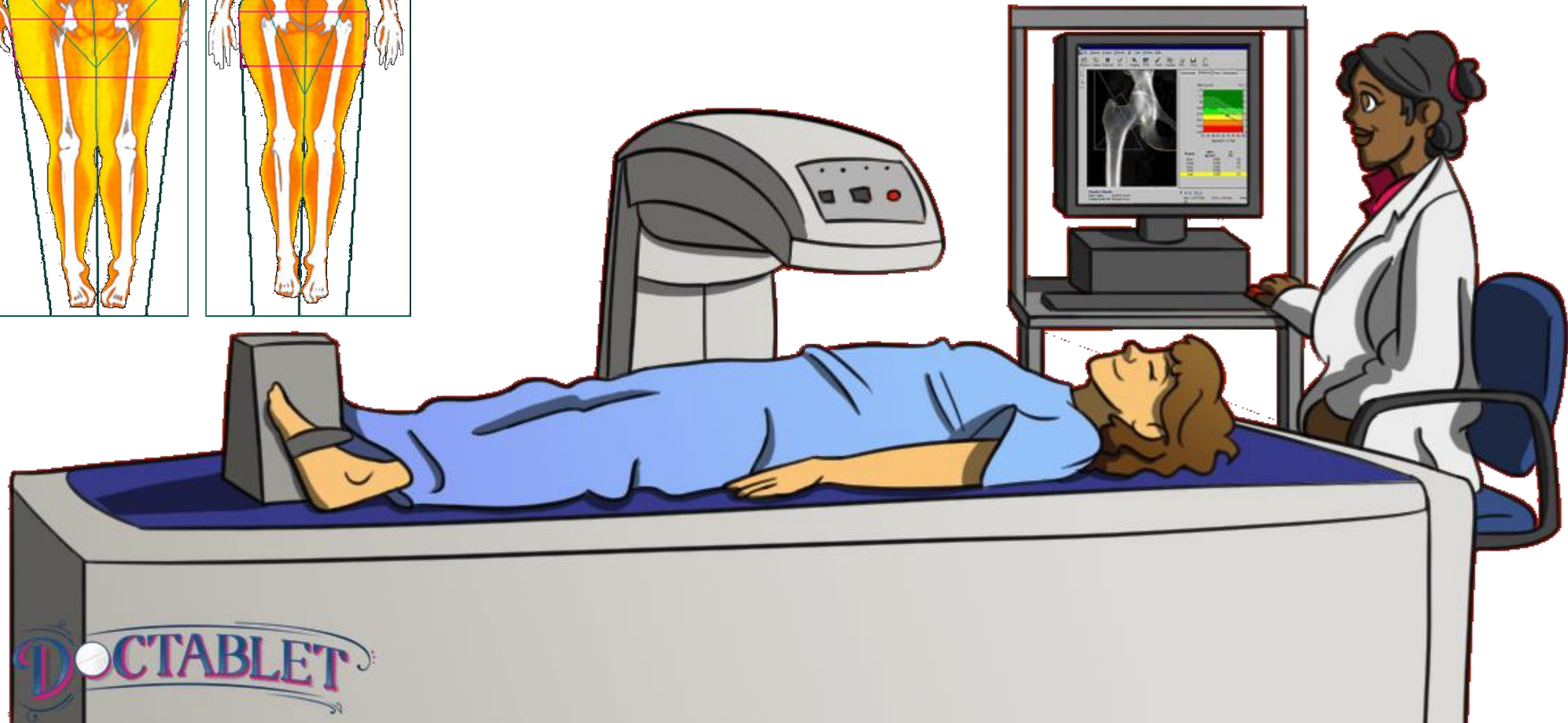
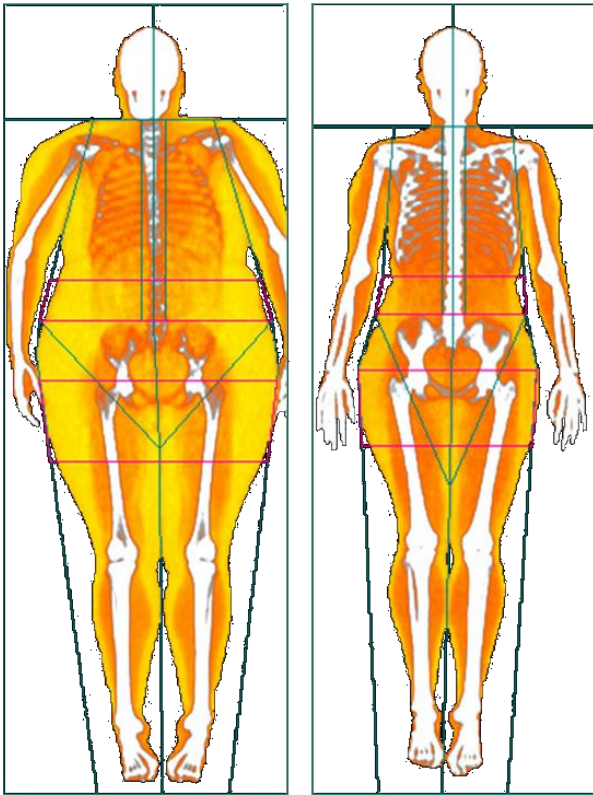


Fat
Skin

Caliper



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.

$(45 \div 100) \times 100$

$0.45 \times 100 = 45\%$

Hamad's body fat percentage is 45%

+

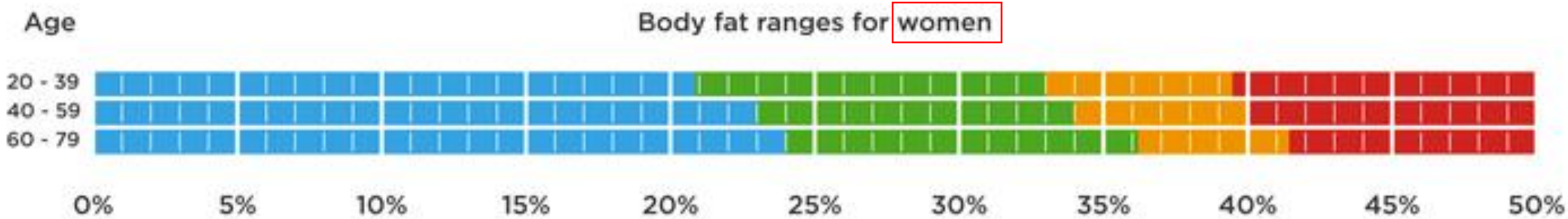
Age

+

Gender



Healthy body fat ranges for adults

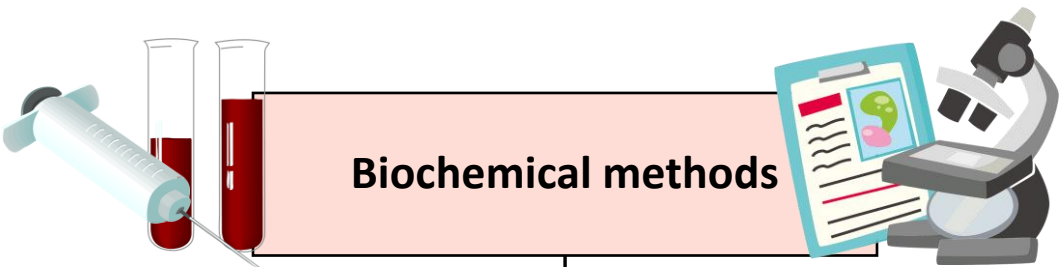


Underfat

Healthy

Overfat

Obese



Biochemical methods

Definition:

Laboratory measurements of items in blood or urine

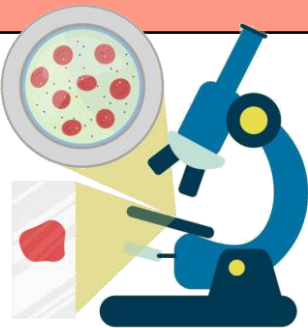
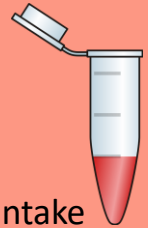
Information needed before running the test:

Clinical methods should be done first to know:

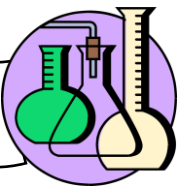
- Previous medical history.
- Current medications
- A clinical examination report

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 of nutrient-related health problems.

Tissues of the body that can show nutrient deficiencies include:

- Skin
- Eyes
- Gums
- Hair
- Nails
- Mouth

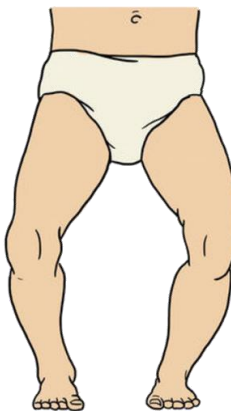
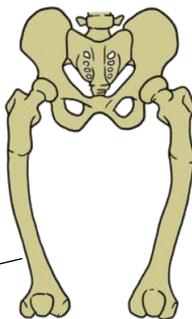
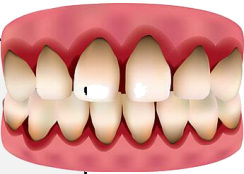


Examples:

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

Thin indented nails, could suggest iron deficiency.

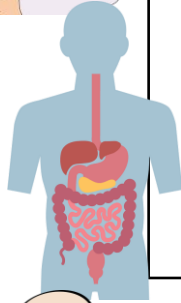
Vitamin D and calcium deficiency, can cause children's bones to be soft & won't grow or develop properly (rickets الكساح).



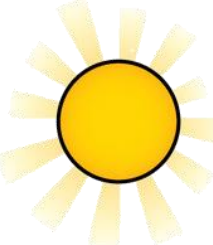
Review medical history:

The following will be checked:

- Diarrhea and other digestive issues
- Medications
- Previous or current medical conditions
- Physical appearance
- Signs of infection
- Nutritional supplement use



VITAMIN D

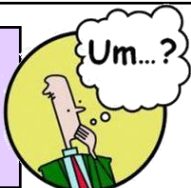




How to measure dietary intakes?
(how to know eating patterns?)

YESTERDAY

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-days 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:

- 1) Easy collection of information.
- 2) It is easy to recall from the previous day.
- 3) It does not take a large amount of time.

Disadvantages:

- 1) This method relies on memory only.
- 2) If you're at a restaurant, you might not know the ingredients or cooking method used.
- 3) The patient could be dishonest.

Advantages:

- 1) The level of detail provided.
- 2) Diary entries are done in real-time and do not rely on memory.

Disadvantages:

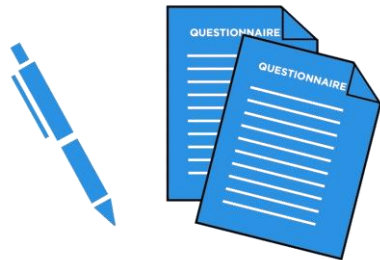
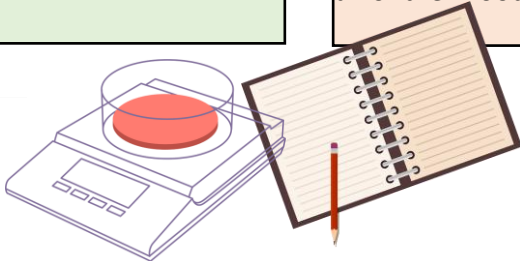
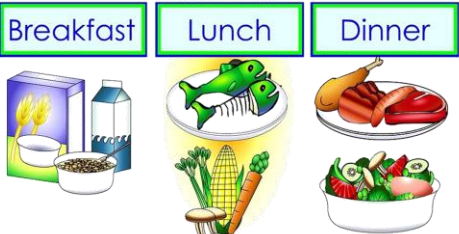
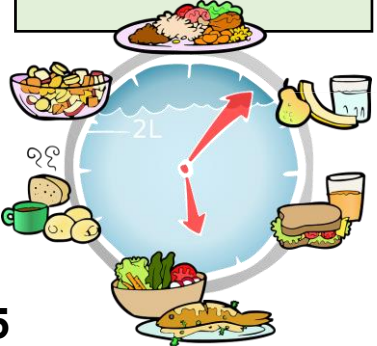
- 1) A high level of commitment and effort is required.
- 2) People may change their normal eating habits because they are recording all of their food.

Advantages:

- 1) It can be used on large groups of people.
- 2) It is quick and easy to complete.

Disadvantages:

- 1) Specific foods are listed. 2) Sometimes a food could be forgotten or missed out.
- 3) Sometimes people's eating patterns are not consistent.
- 4) It requires a good level of memory, especially for longer timeframe.



FFQ

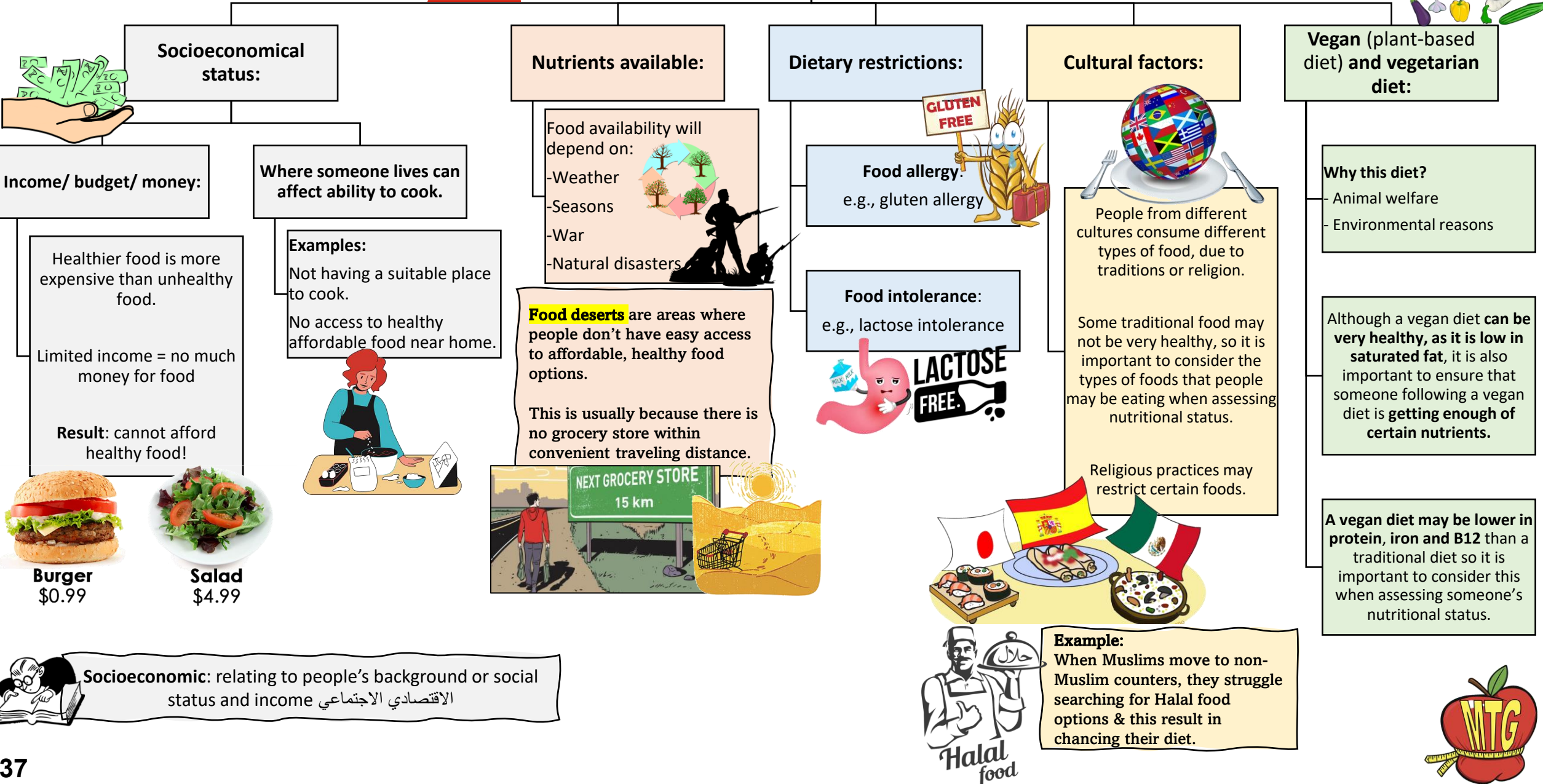
FOODS AND AMOUNTS		AVERAGE USE LAST YEAR								
BREAD AND SAVOURY BISCUITS (one slice or biscuit)		Never or less than once/month	1-3 per month	Once a week	2-4 per week	5-6 per week	Once a day	2-3 per day	4-5 per day	6+ per day
e	White bread and rolls						✓			
	Brown bread and rolls				✓					
	Wholemeal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

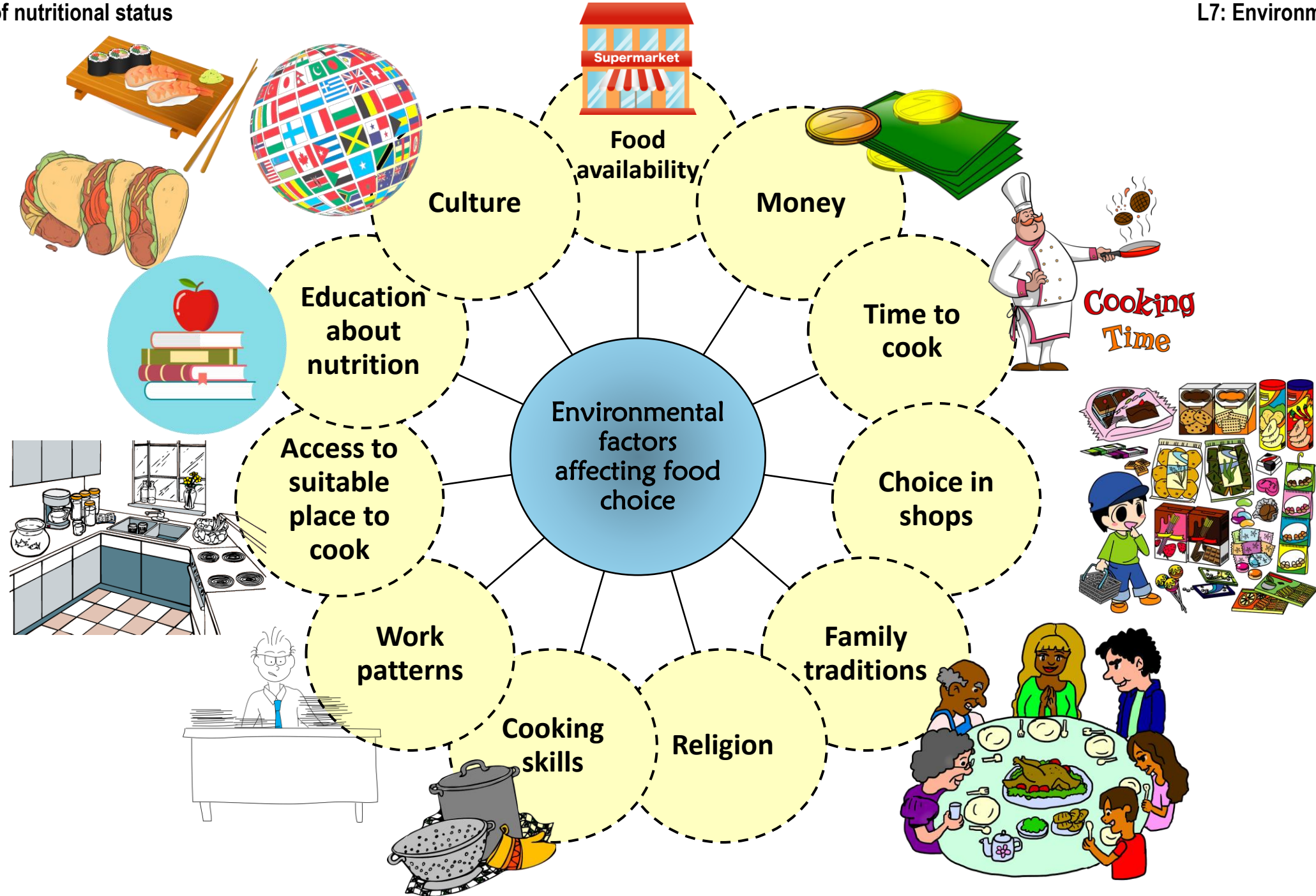
How often the
food is eaten?

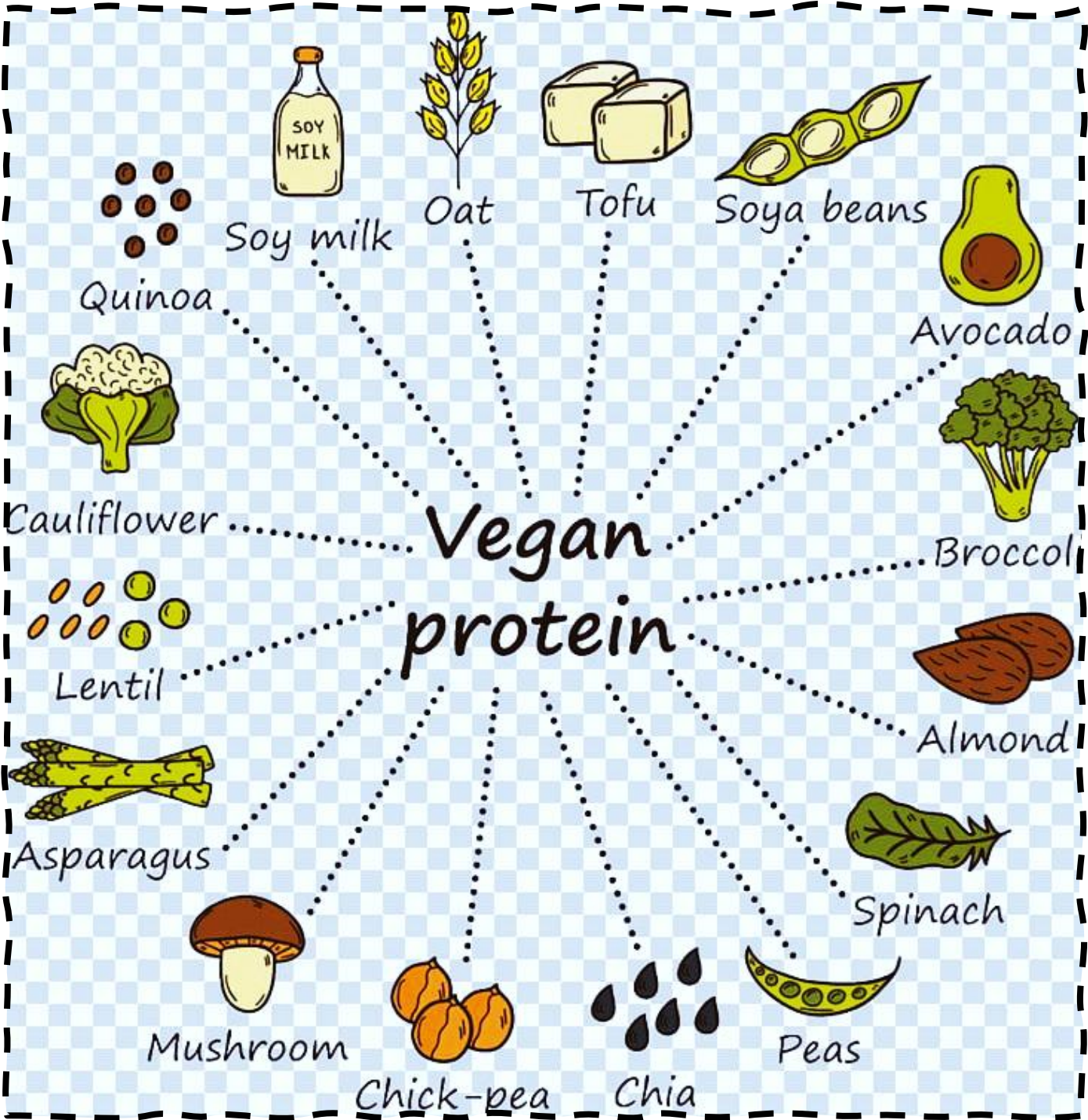
The patient needs only to tick their answer!
That's why it's **closed-ended**



How can environmental factors affect nutritional status?





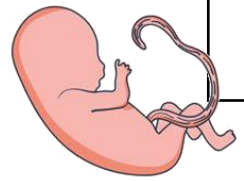
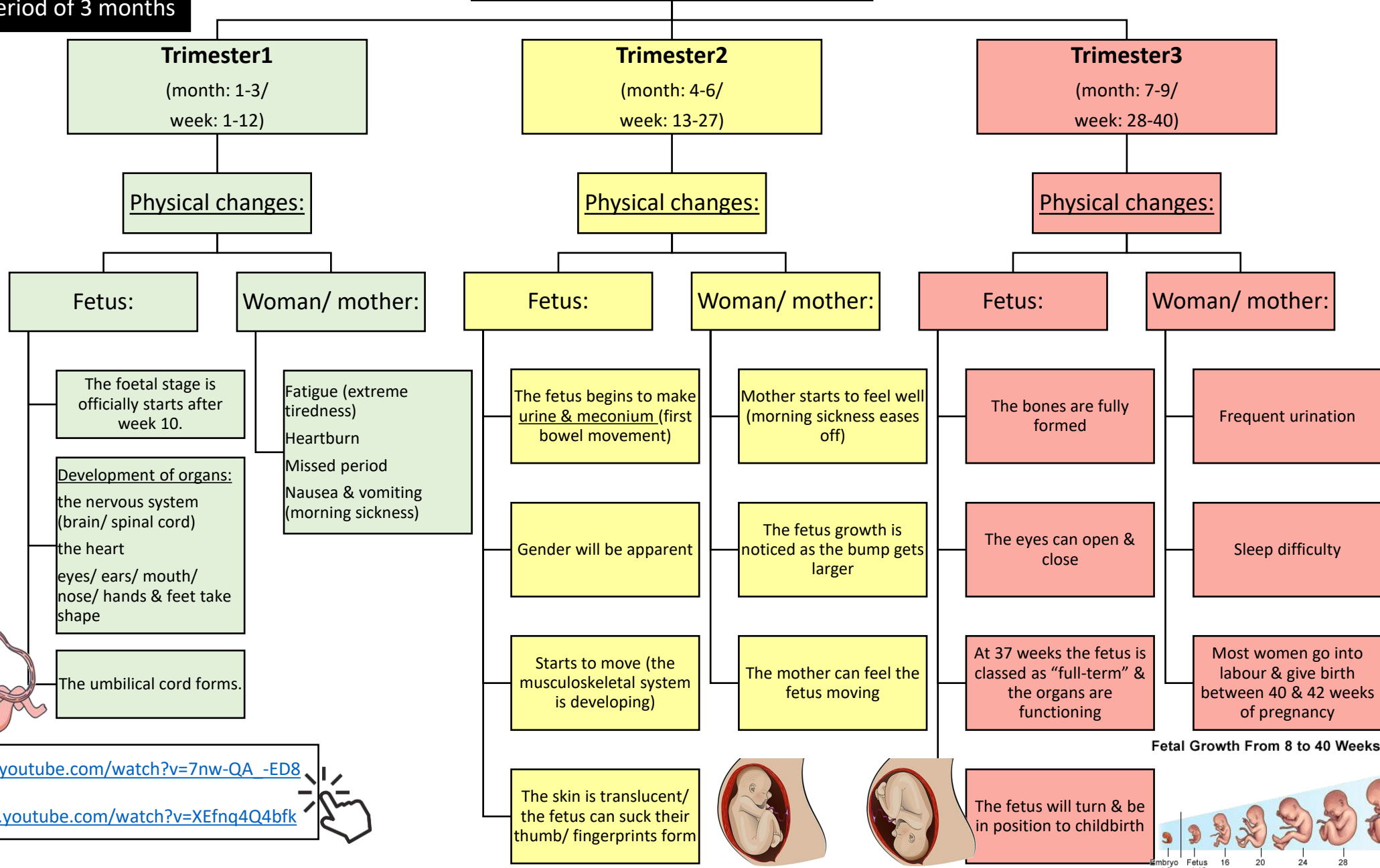






Trimester: a period of 3 months

Pregnancy/ gestation stages:

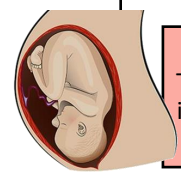


https://www.youtube.com/watch?v=7nw-QA_-ED8

<https://www.youtube.com/watch?v=XEfnq4Q4bfk>

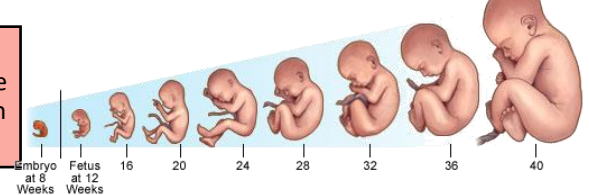


pelvic presentation



fetal presentation head down

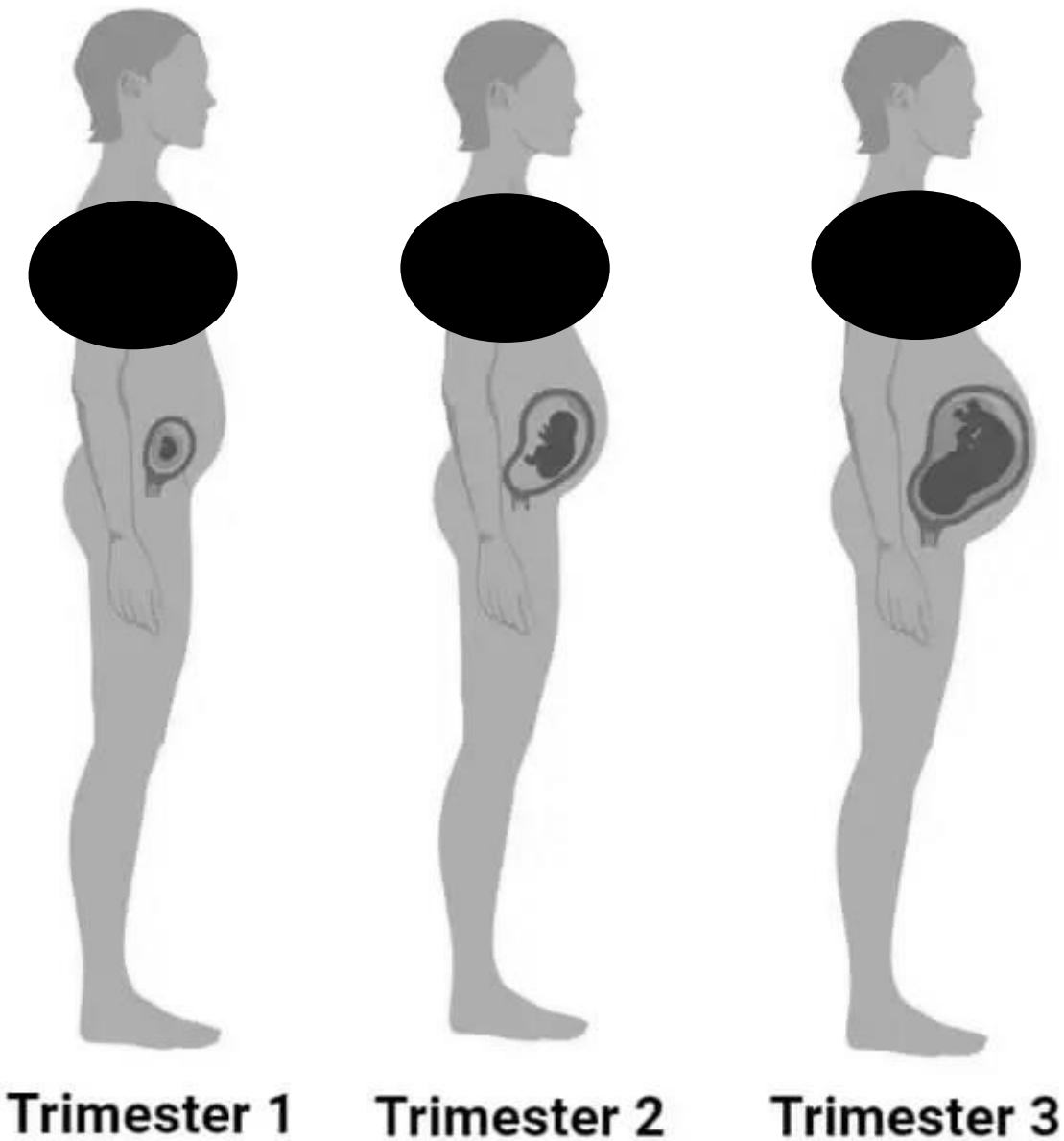
Fetal Growth From 8 to 40 Weeks



Pre-nancy estation



Pre**G**nancy = **G**estation = حمل

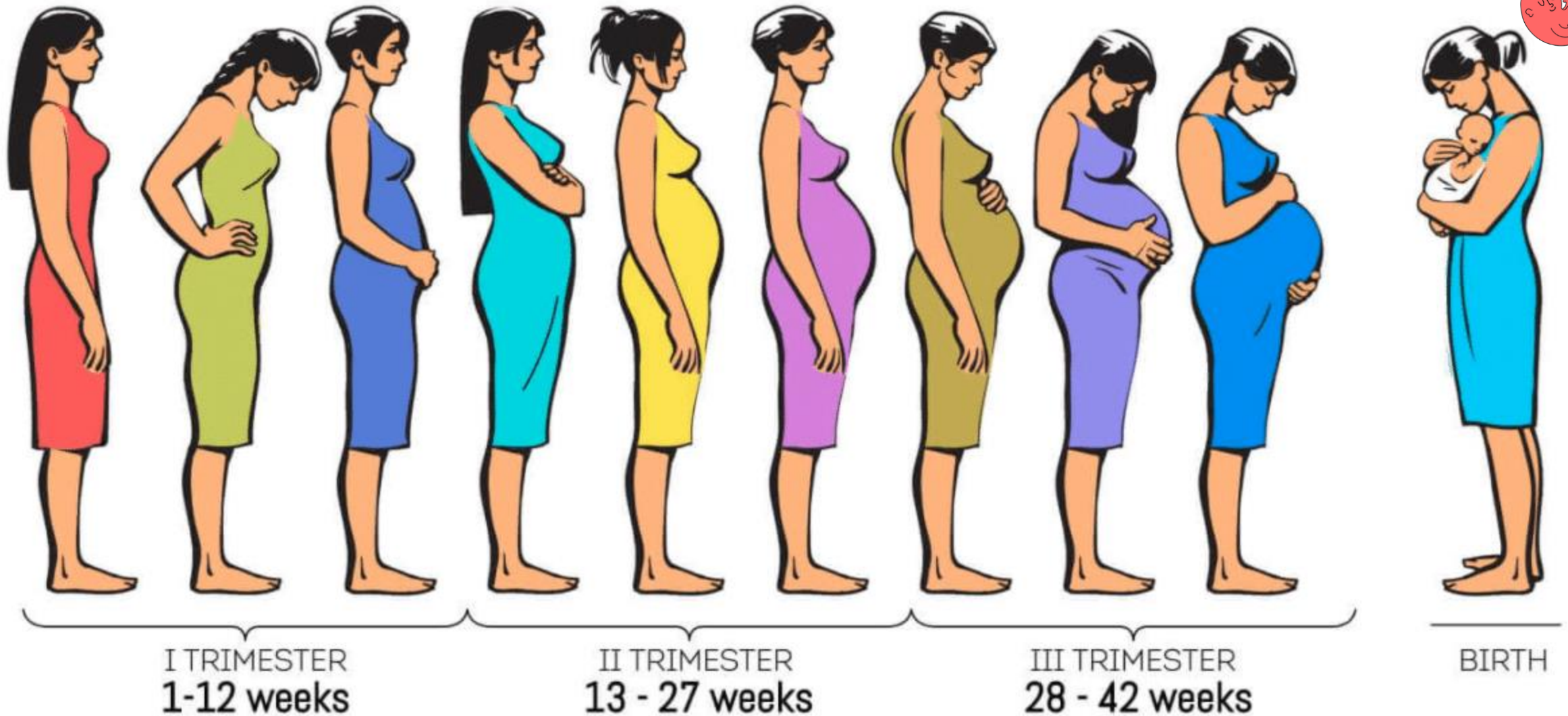


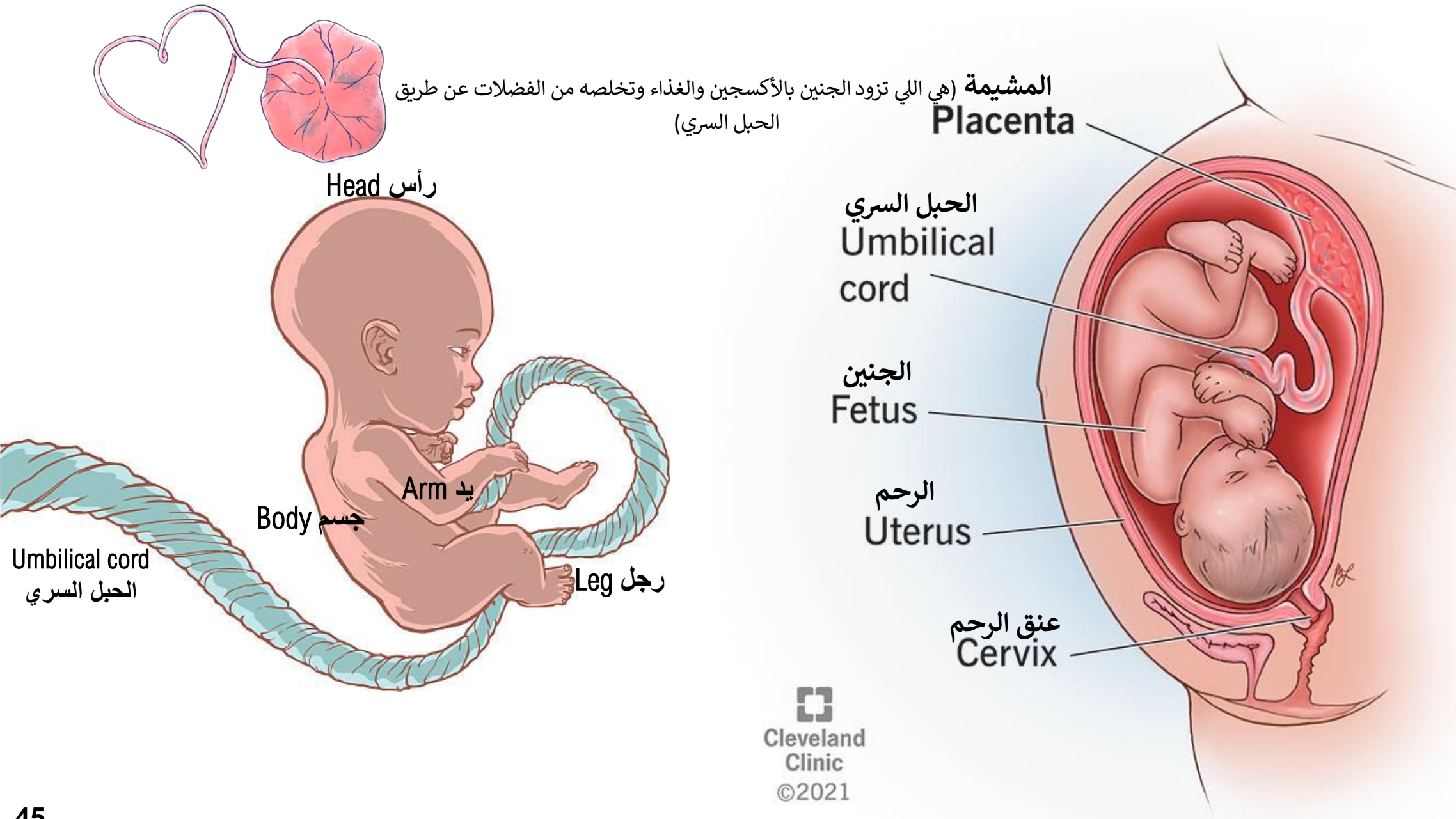
Fetal Development



Pregnancy Week By Week

MTG



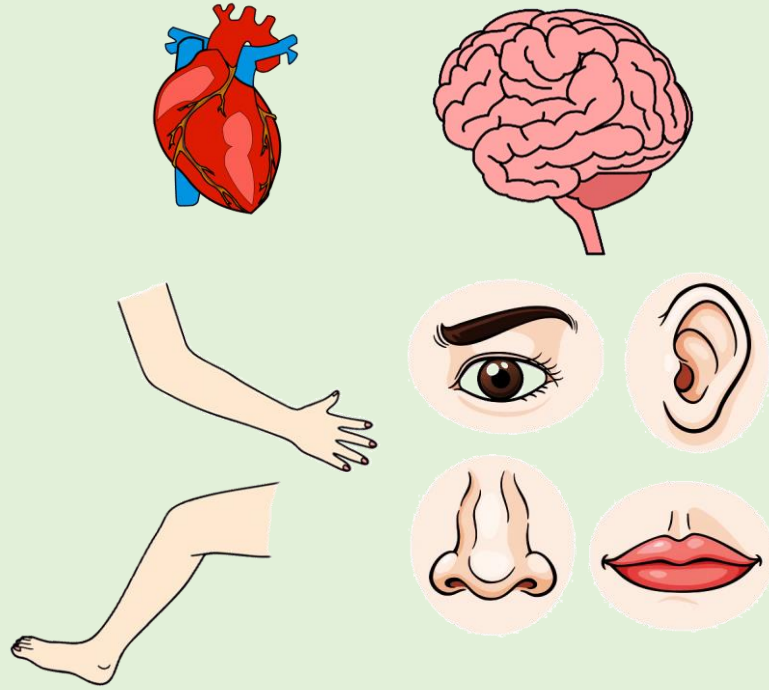


«وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلَالَةٍ مِنْ طِينٍ {12} ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَكِينٍ {13} ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ {14}».

Fetal development

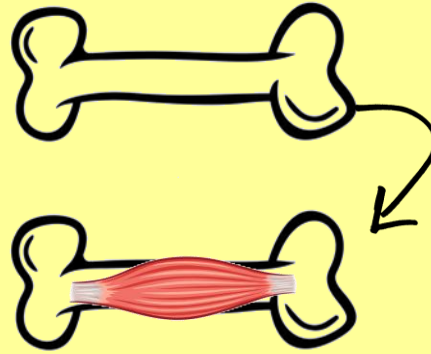


Trimester1 مضغة



تكون البداية الرسمية للتطور الجنيني بعد الأسبوع الـ 10 وتبدأ الأعضاء بالتشكل بحيث يكون الجنين يشبه البشر على نهاية الفصل الأول من الحمل.

Trimester2 عظام ولحم



الجنين في هذه المرحلة يبدأ يتحرك بسبب تكون العظام والعضلات وخلال هذه المرحلة يتمييز جنس الجنين.

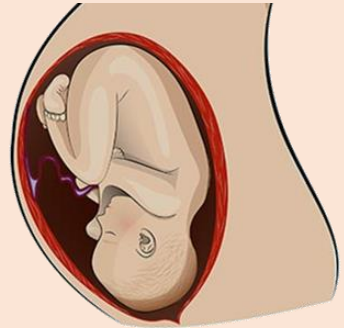
Trimester3



full-term fetus at week 37
جنين مكتمل النمو



pelvic presentation

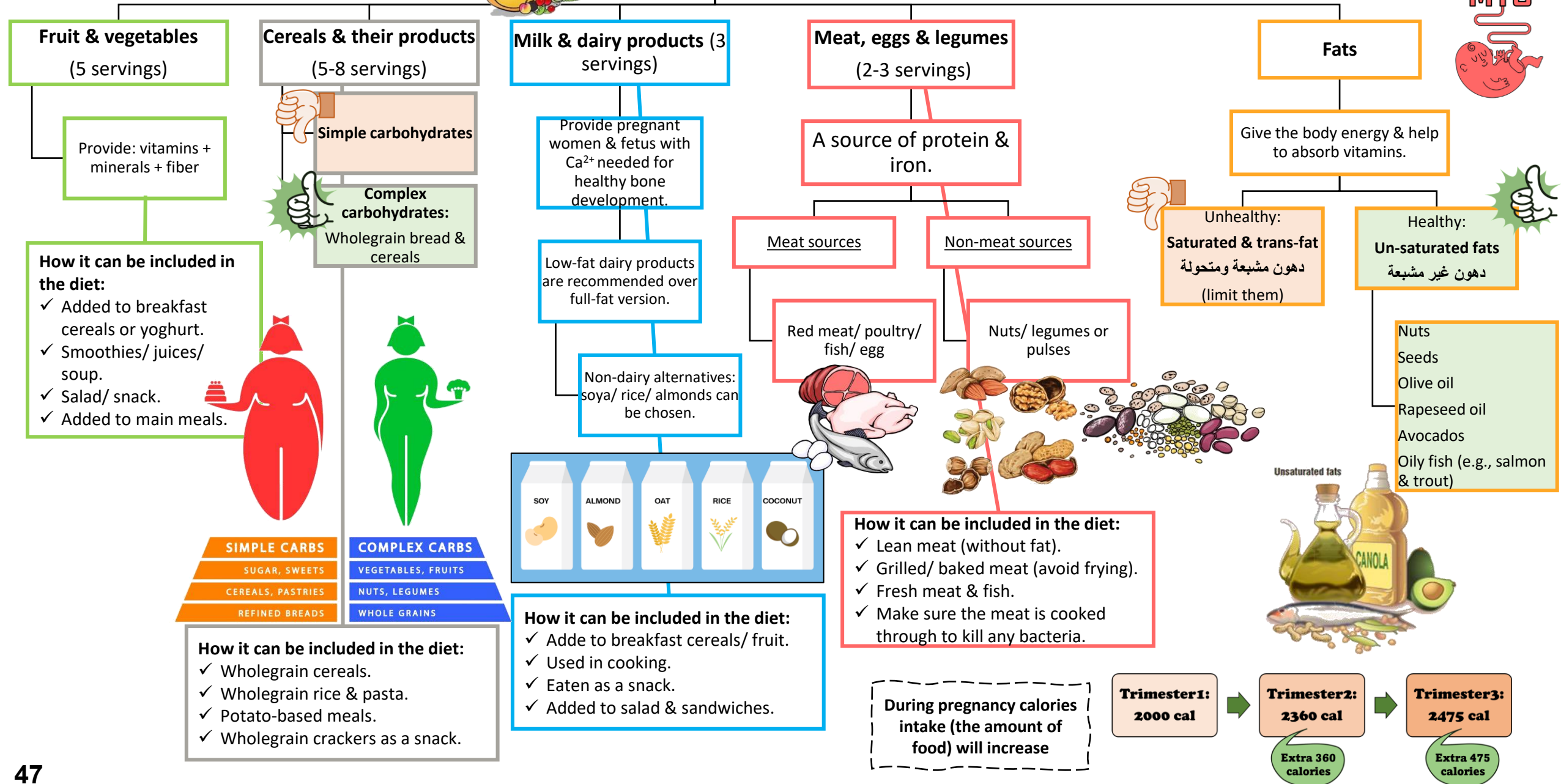


fetal presentation head down



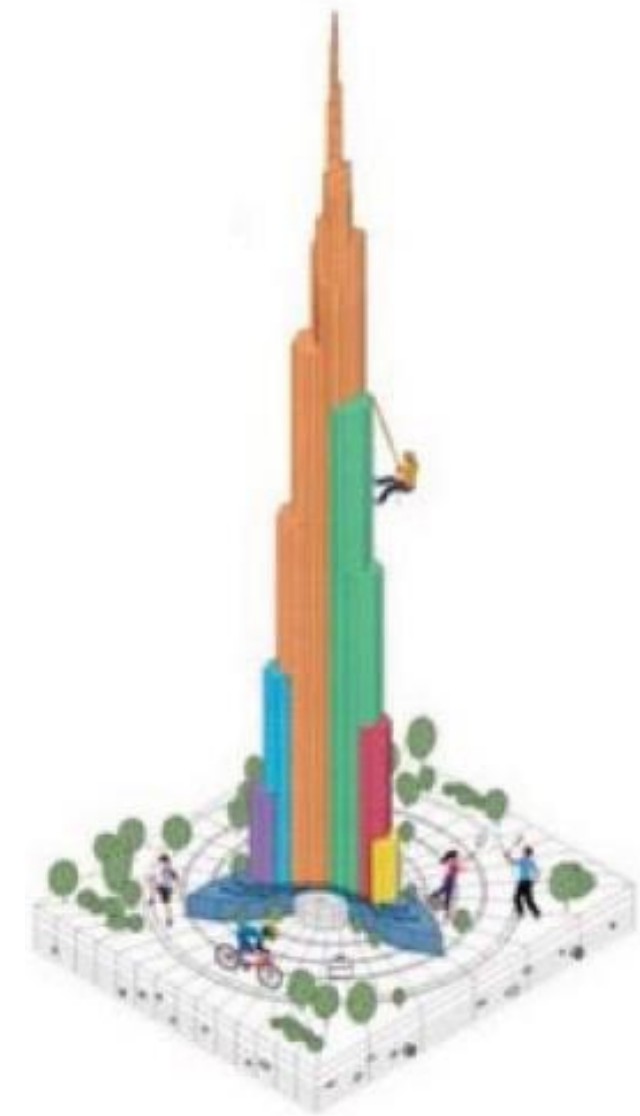
Nutritional requirements

MTG





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	
				
				
				
				



Saturated fatty acid

$$\begin{array}{cccccccccccccccc}
 & \text{O} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} \\
 & || & | & | & | & | & | & | & | & | & | & | & | & | & | & | \\
 \text{HO}-\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{H} \\
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 & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H}
 \end{array}$$



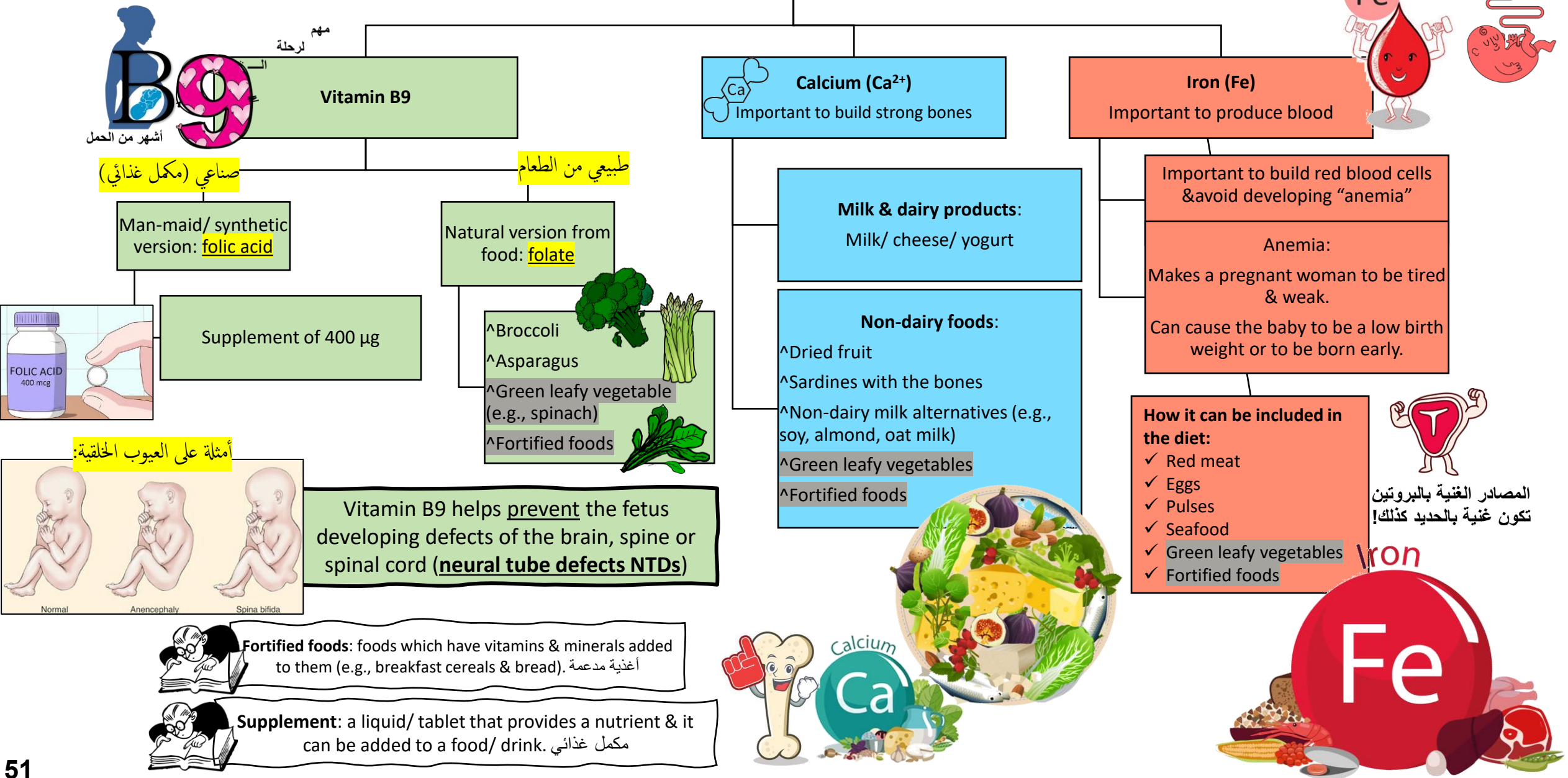
Unsaturated fatty acid

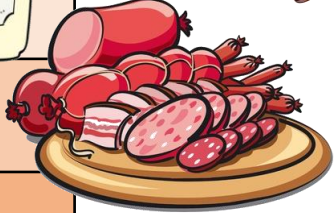
$$\begin{array}{cccccccc}
 & \text{O} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} \\
 & || & | & | & | & | & | & | \\
 \text{HO}-\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & -\text{C} & = & \text{C} \\
 & | & | & | & | & | & & | \\
 & \text{H} & \text{H} & \text{H} & \text{H} & \text{H} & & \text{H}
 \end{array}$$

healthy

الدهون غير المشبعة تكون غير مستقرة ولهذا السبب تتكسر بسهولة وتكون سهلة الهضم وتفيد الجسم.

Extra nutritional requirements:

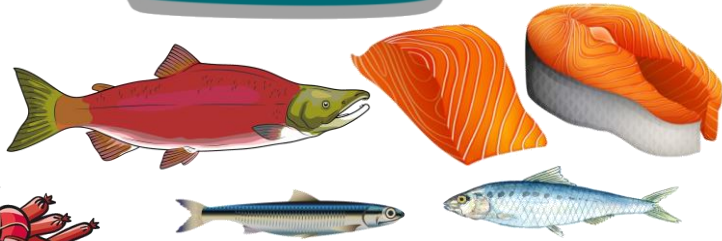


Foods to avoid during pregnancy:	
✗ Caffeine:	Soft drinks/ coffee/ tea 
✗ Fish high in mercury:	Bigeye tuna/shark/ mackerel/ marline/ swordfish 
✗ High fat, salt & sugary foods (too much can raise blood pressure & cause a pregnant woman to gain too much weight)	
✗ Saturated & trans-fat: (can lead to 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 

BLACKLIST

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

2-3 times a week!





Weight gain during pregnancy

If before pregnancy
you are:

Your recommended weight
gain during pregnancy is:

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



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

Exercise during pregnancy



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.
- # Strengths 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

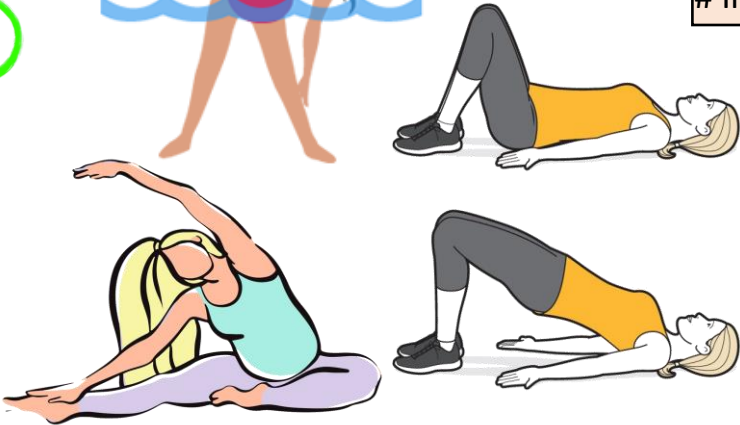


When to stop physical activity?

- # 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)



Medical care during pregnancy

Medical needs:

Foetal Development: Unborn Baby Movement at 24 Weeks | WIRED - YouTube

Ultrasound scans:

Check if the fetus is growing at a healthy rate.

2 things are recorded:

- 1) Heart rate
- 2) Breathing

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

Non-emergency medical care: (common problems)

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

Emergency medical care:

- # 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

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

Labor signs include:

- 1) Lower backpain & around the stomach
- 2) The release of amniotic fluid (water break)
- 3) Contractions

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

Stage1:

- # Contractions start (uterus/ womb muscles tighten & relax)
- # 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**

Stage3:

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

Cord Is Cut

Goodbye, umbilical cord.
Thanks for everything...

