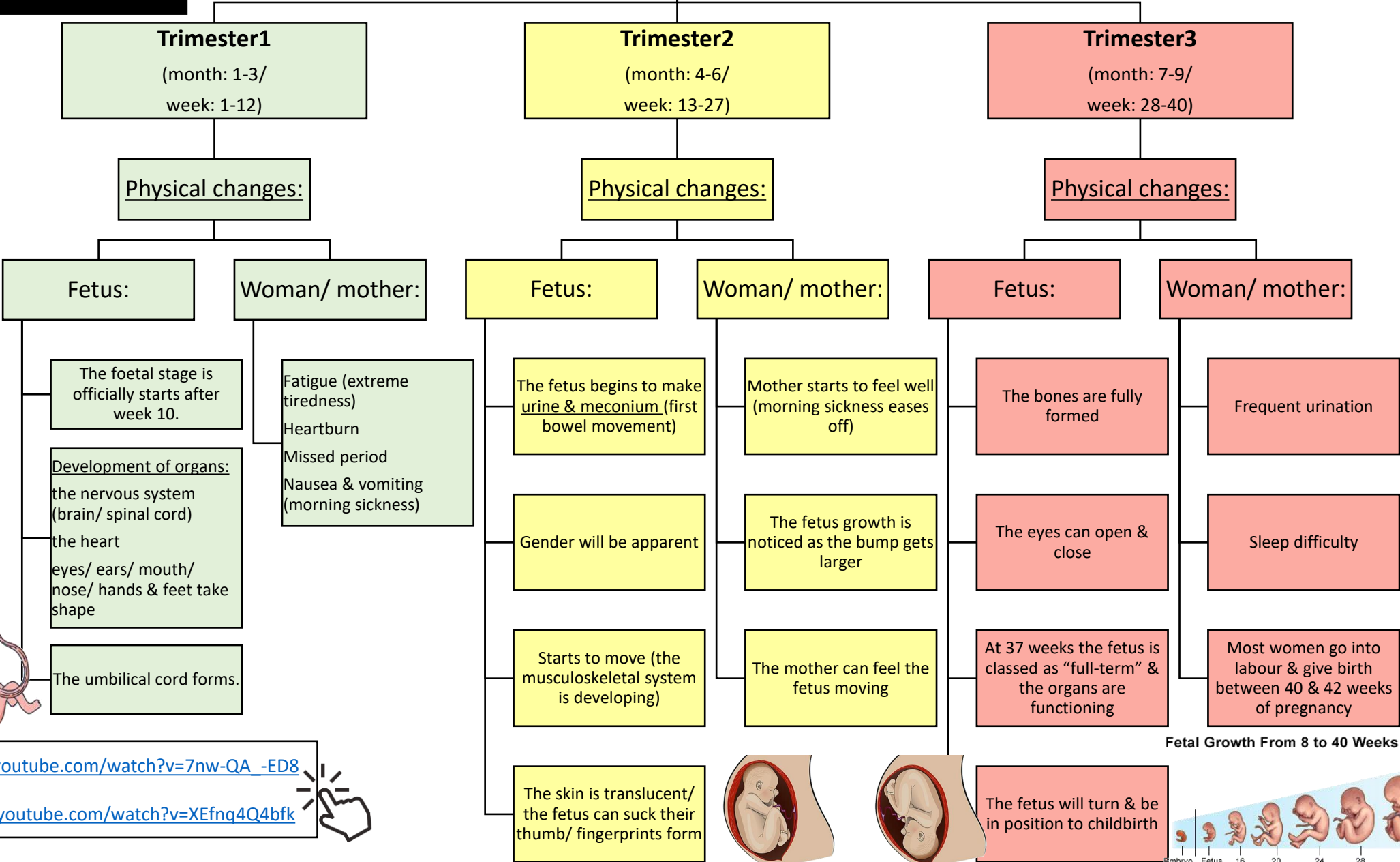




Trimester: a period of 3 months

Pregnancy/ gestation stages:



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

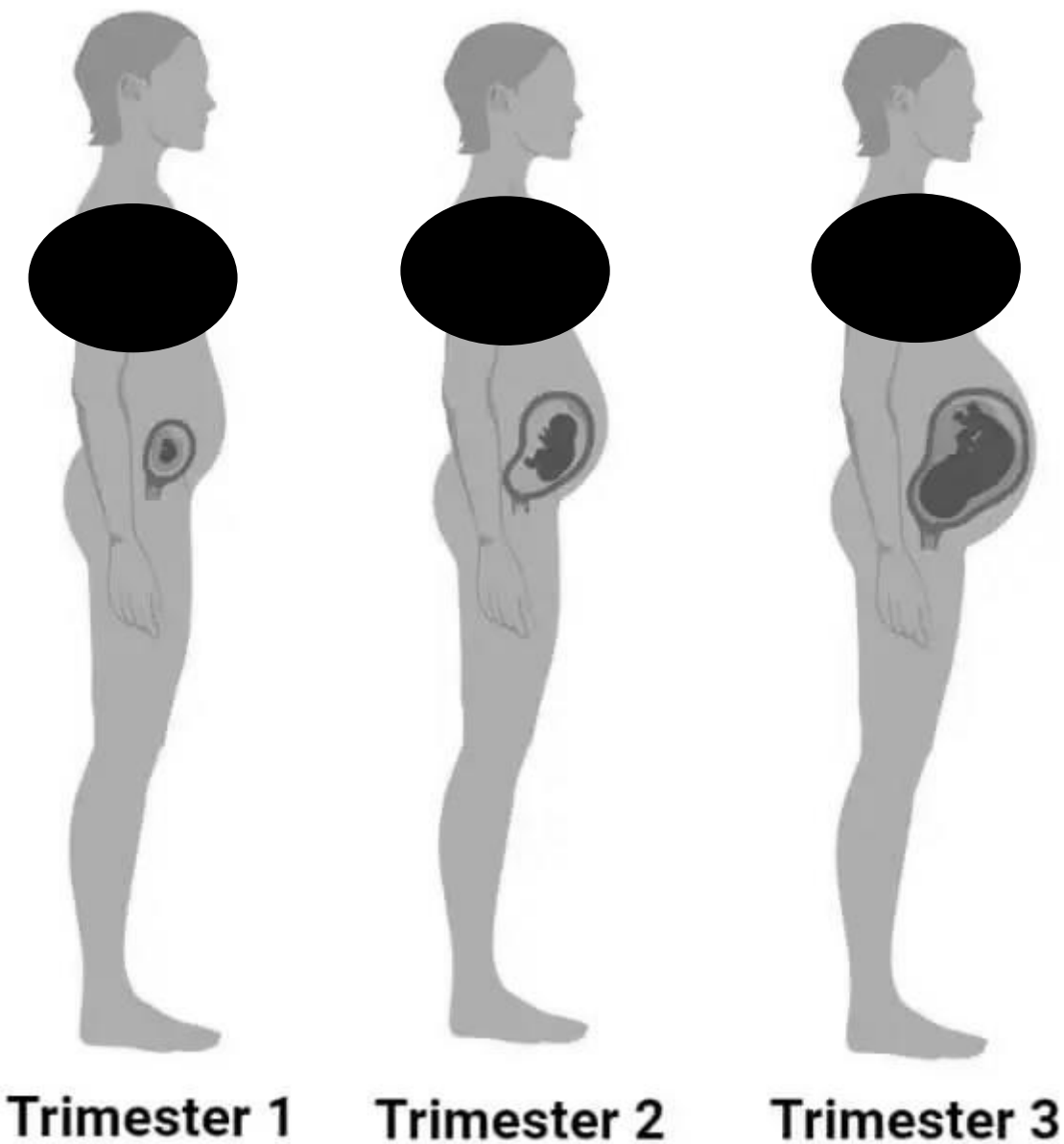
<https://www.youtube.com/watch?v=XEfnq4Q4bfk>



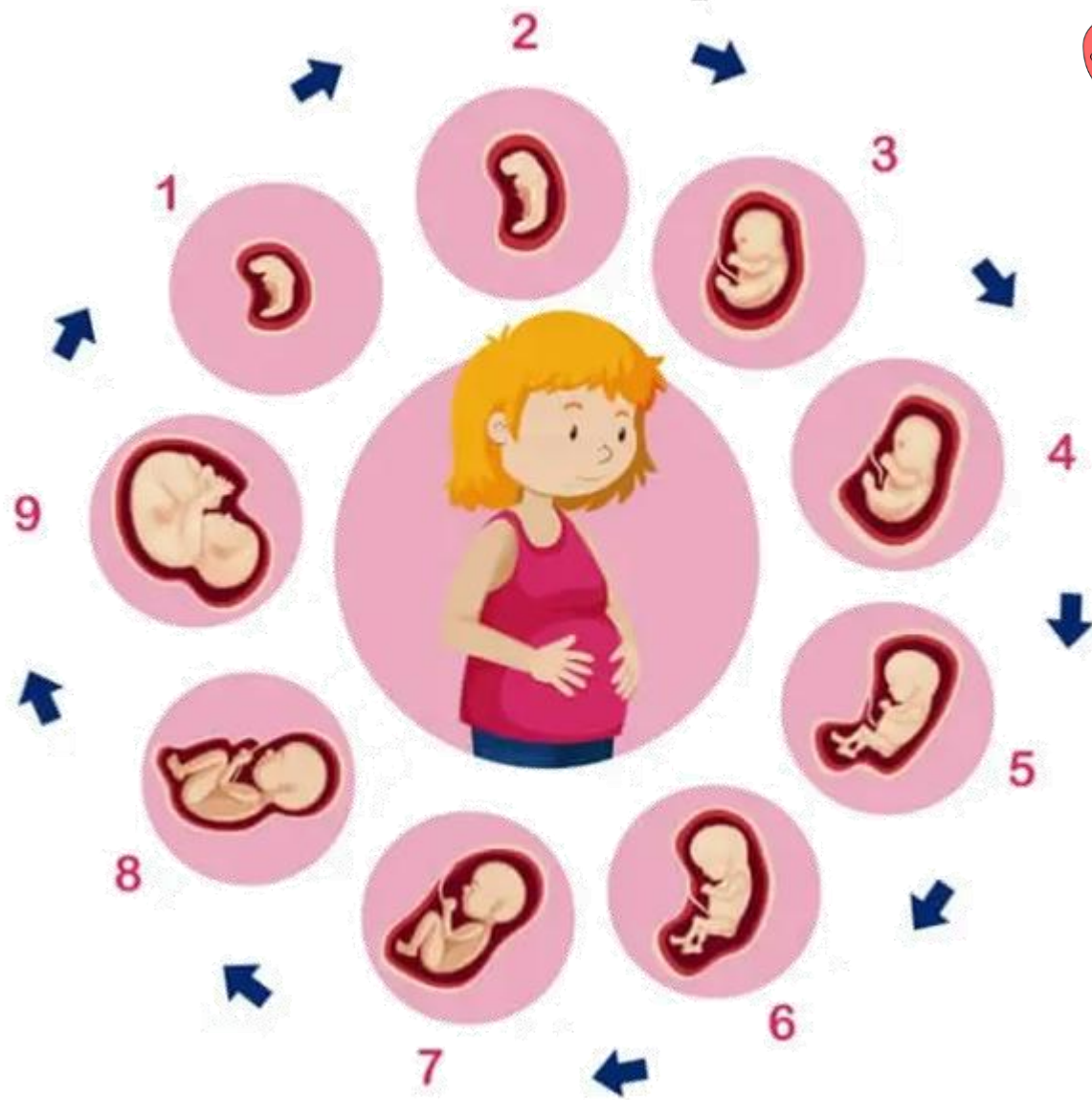
Pre-nancy estation



Pre**G**nancy = **G**estation = حمل

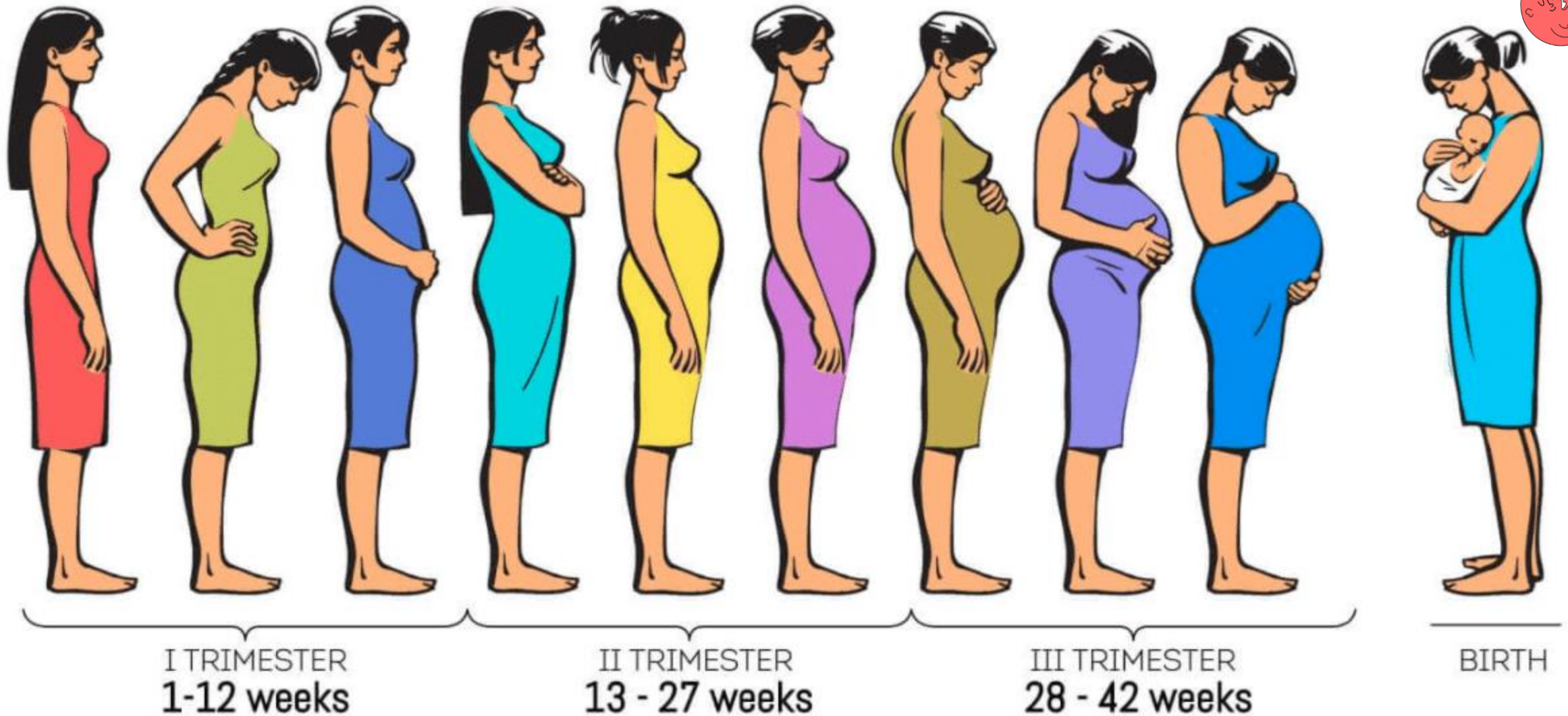


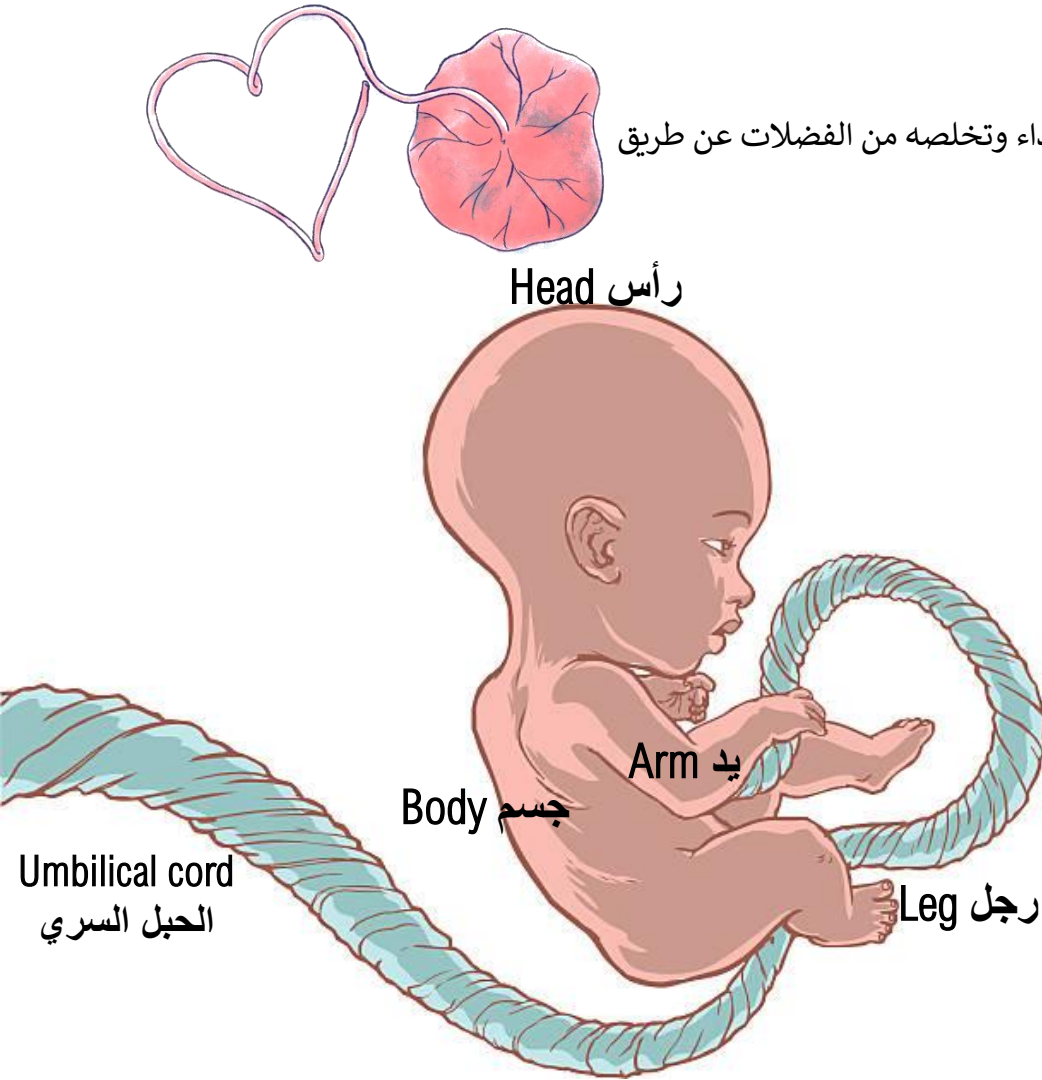
Fetal Development



Pregnancy Week By Week

MTG





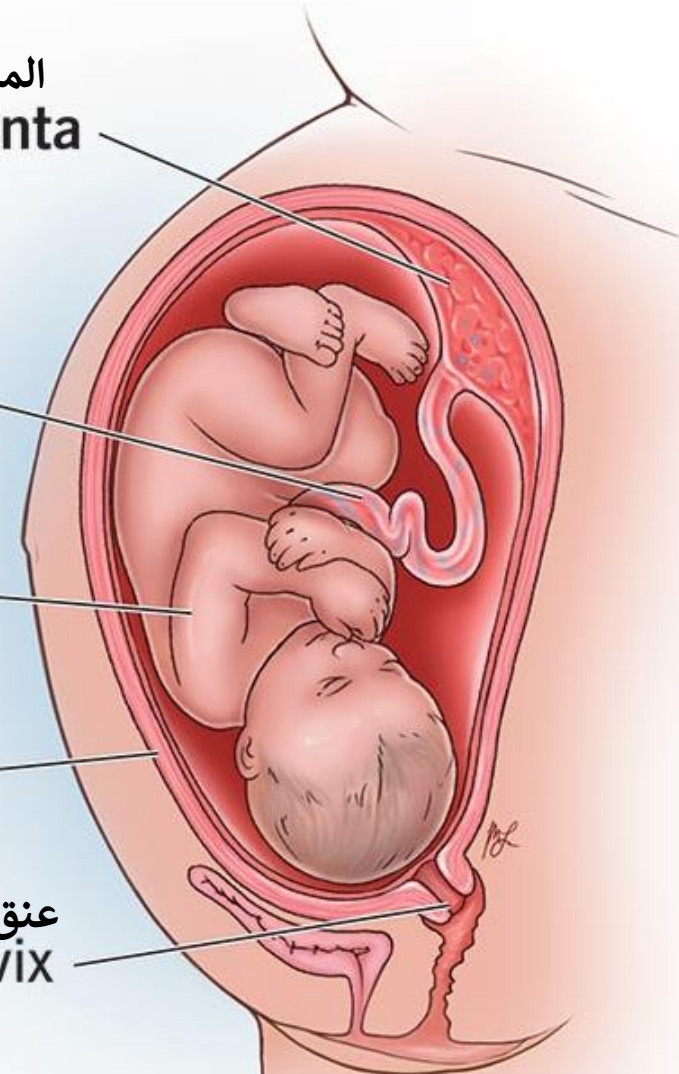
المشيمة
Placenta

الحبل السري
Umbilical
cord

الجنين
Fetus

الرحم
Uterus

عنق الرحم
Cervix



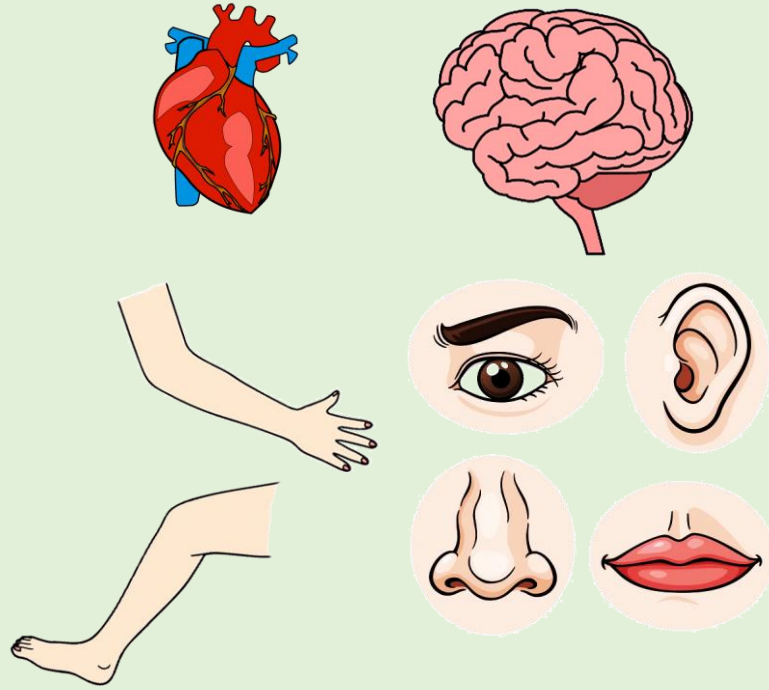
«وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلَالَةٍ مِّن طِينٍ {12} ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ {13} ثُمَّ خَلَقْنَا النَّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ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

Fetal development

MTG

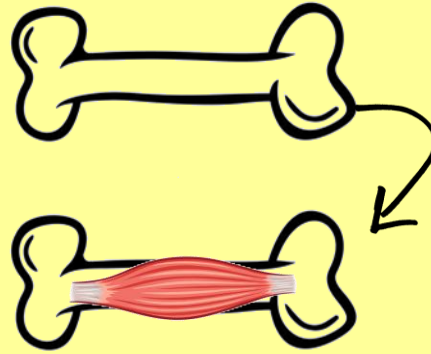


Trimester1 مضغة



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



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:

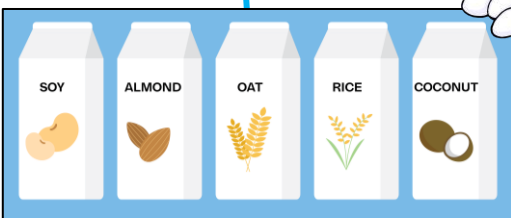
- ✓ Wholegrain cereals.
- ✓ Wholegrain rice & pasta.
- ✓ Potato-based meals.
- ✓ Wholegrain crackers as a snack.

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.



How it can be included in the diet:

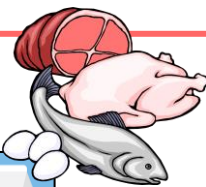
- ✓ Added to breakfast cereals/ fruit.
- ✓ Used in cooking.
- ✓ Eaten as a snack.
- ✓ Added to salad & sandwiches.

Meat, eggs & legumes
(2-3 servings)

A source of protein & iron.

Meat sources

Red meat/ poultry/ fish/ egg



Non-meat sources

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 through to kill any bacteria.

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

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)



Trimester1:
2000 cal

Trimester2:
2360 cal

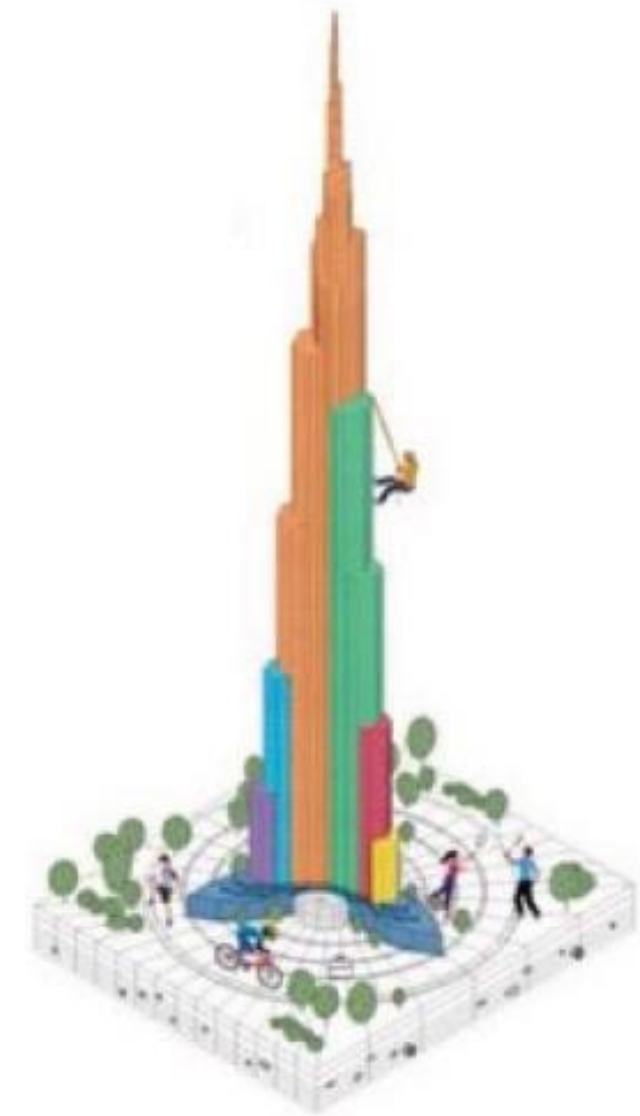
Extra 360 calories

Trimester3:
2475 cal

Extra 475 calories



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.

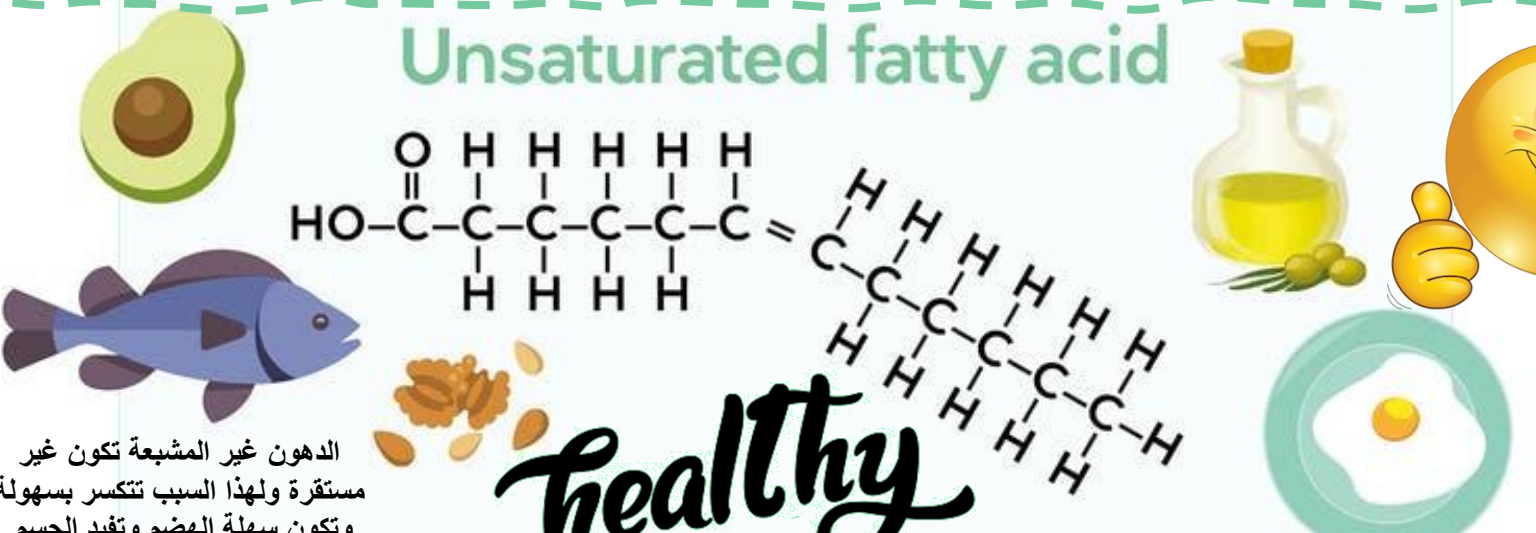


COMPLEX CARBS		VS	SIMPLE CARBS	
				
				
				
				



Saturated fatty acid

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



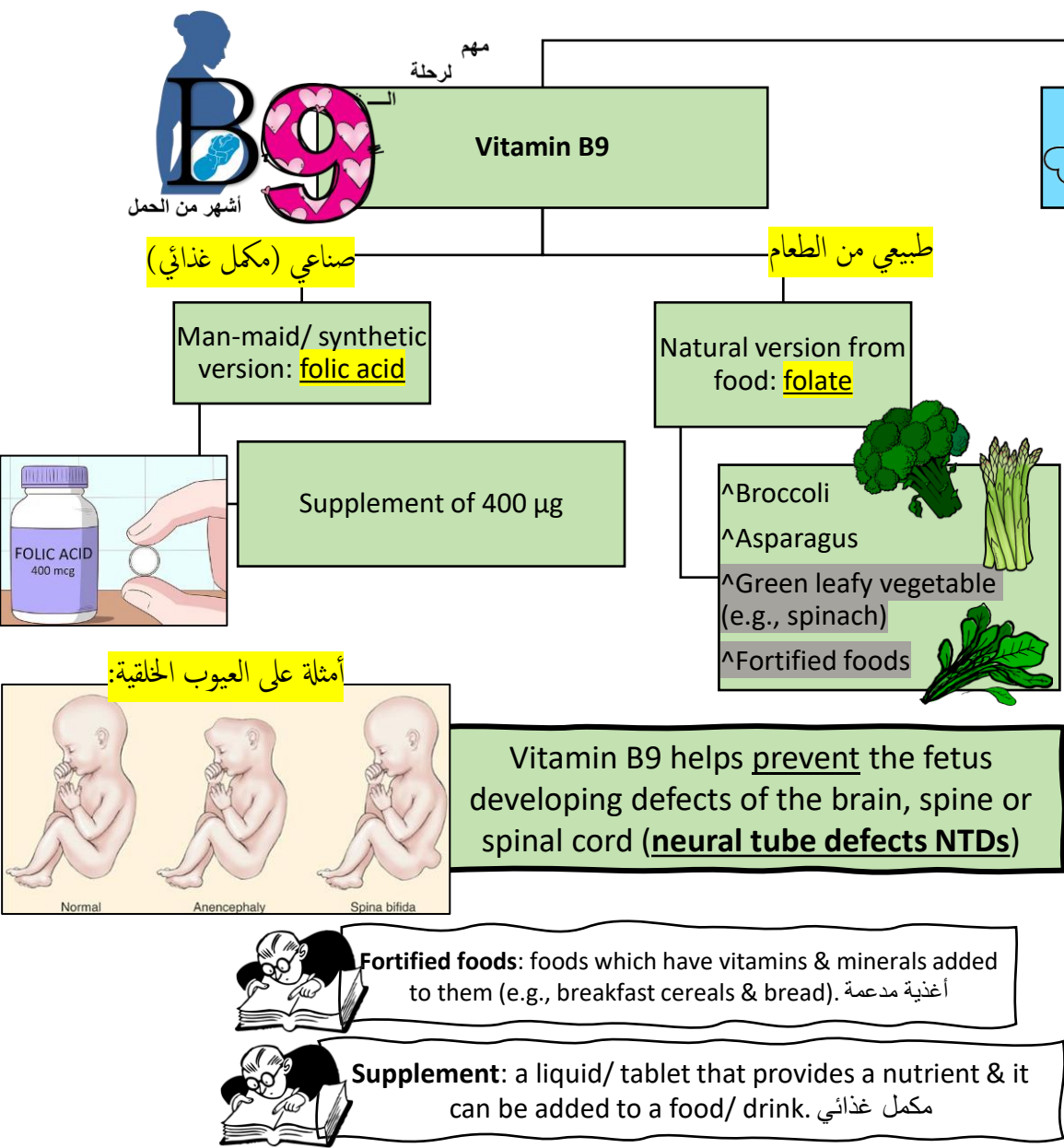
Unsaturated fatty acid

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

healthy

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

Extra nutritional requirements:



Calcium (Ca²⁺)
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



Iron (Fe)
Important to produce blood

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

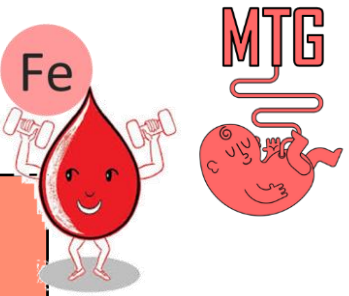
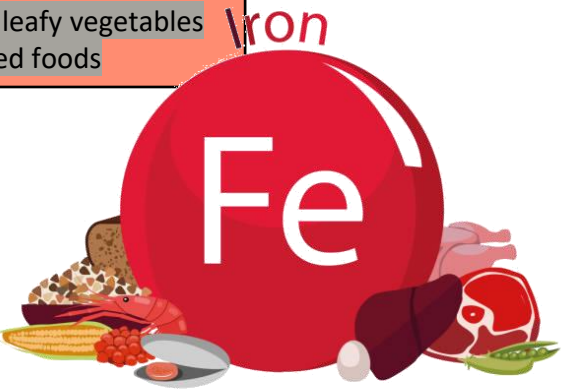
Anemia:
Makes a pregnant woman to be tired & weak.
Can cause the baby to be a low birth weight or to be born early.




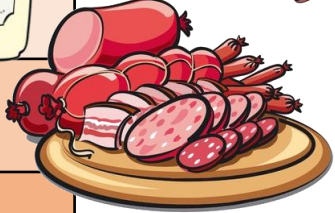




How it can be included in the diet:

- ✓ Red meat
- ✓ Eggs
- ✓ Pulses
- ✓ Seafood
- ✓ Green leafy vegetables
- ✓ Fortified foods



المصادر الغنية بالبروتين تكون غنية بالحديد كذلك!



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:	<ul style="list-style-type: none">Raw sprouts vegetables براعم النباتات Under-cooked or raw meat/ egg/ fish Processed meatUnpasteurized 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



Exercise during pregnancy



BLACK LIST

Benefits of physical activity:

- # Improves self-esteem & mood.
- # Helps to gain healthy weight.
- # Improves energy levels.
- # Reduces stress & anxiety.
- # Reduces the risk of developing gestational diabetes.
- # Strengths muscles & helps to prepare mother's body for childbirth.
- # Faster recovery after giving birth.

Recommended exercises:

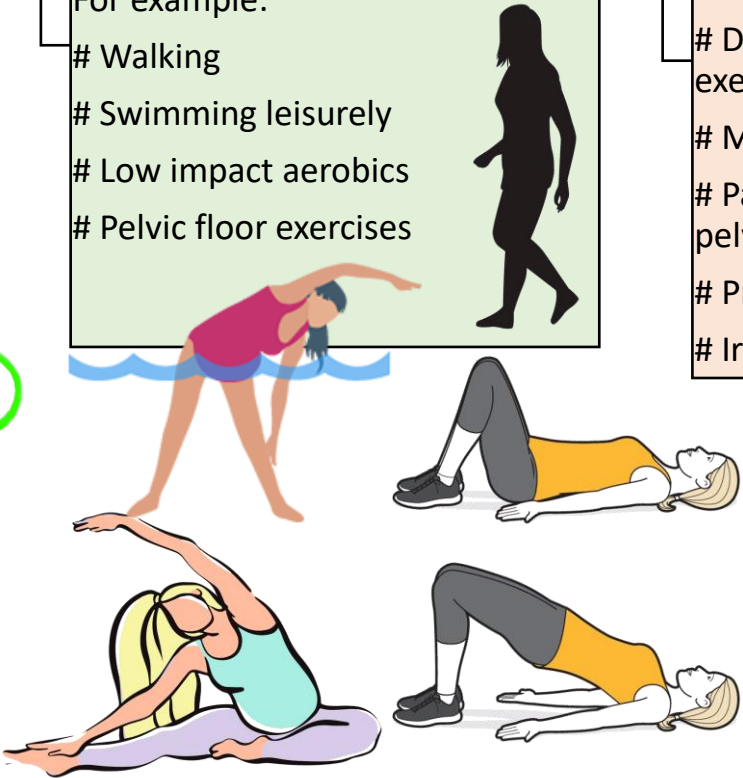
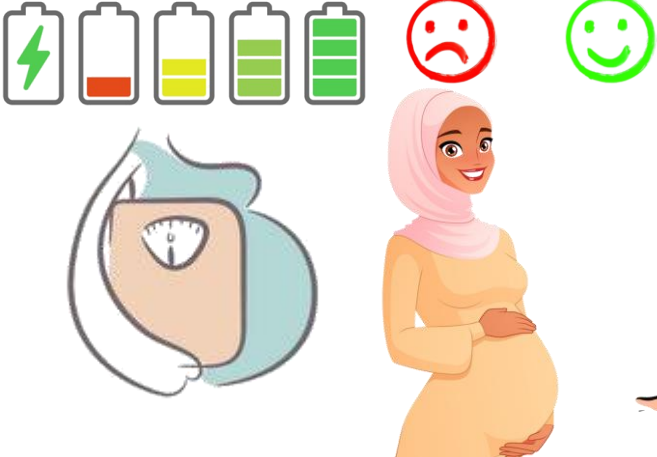
- Moderate intensity activity for 150 mins a week or 30 mins 5 days a week.
- For example:
- # Walking
 - # Swimming leisurely
 - # Low impact aerobics
 - # Pelvic floor exercises

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

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

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

Stage1:

- # Contractions start (uterus/ womb muscles tighten & relax)
- # Contractions around 5 mins apart.

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

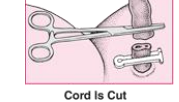
Stage2:

- # 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.

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



Cord Is Cut



Goodbye, umbilical cord.
Thanks for everything...

