



HEALTH SCIENCES

FINAL SUMMARY EXAM

TEAM (2)
GRADE (12)



(Girls)

Teacher : Amira Moustafa Gamea

UNT(5)

Disease prevention

Word	Definition
Disease	a disorder of a structure تركيب of function وظيفة that produces specific symptoms اعراض محددة or that affects a specific location of the body
Illness	a disease or period of sickness affecting the body
Prevention وقاية	to stop something from happening
Infectious	capable of being easily spread to other people
Communicable disease مرض معدي	an infectious disease that can be passed from one person to another
Risk factor عامل الخطر	something that makes a person more likely to get a disease
Modifiable قابل للتعديل	can be changed
Non-modifiable غير قابل للتعديل	cannot be changed
Body mass index مؤشر كتلة الجسم	(BMI) A measure of weight for height to identify if a person is a healthy weight
Percentage body fat نسبة الدهون في الجسم	The total mass of fat on the body divided by the total mass of the body
Calorie السعرة الحرارية	The energy needed to raise the temperature of water by 1 degree Celsius
Diet حمية	The collection of the foods and drinks regularly consumed by a person
Energy طاقة	Often referred to as calories in dietary term
Ethnicity العرق	a large group of people with the same customs or origin
Genetics علم الوراثة	the science of heredity; how characteristics are passed from parents to children
Behavior سلوك	the way a person acts or behaves
Blood Pressure ضغط الدم	how hard the blood is pushing against the walls of the arteries
Hygiene النظافة	keeping yourself and your surroundings clean
Intensity – كثافة	how much energy is used when exercising
Moderate – معتدل	average or normal
Endorphins – اندورفين (هرمون السعادة)	a group of hormones which are released by the brain and nervous system to reduce pain and raise pleasure and well-being

Recommendation – توصية	an idea or plan of what should be done
Sedentary – غير نشط	having an inactive lifestyle
Cholesterol الكوليسترول	a fat that your body needs to work properly, there is good and bad cholesterol.
Antibodies – الاجسام المضادة	a protein in your body that fights of diseases and illness
Immunisation التحصين	the process whereby a person is made resistant to an infectious disease
Vaccine اللقاح	it is injected into a person to protect them from a disease
Screening الفحص	doing tests on people's blood, skin, brain or urine to check for signs of diseases and illness
Diagnose التشخيص	to recognise a disease or illness in someone
Cervical – متعلقة بعنق الرحم	relating to the cervix
Pap smear – مسحة عنق الرحم	a test carried out on a sample of cells from the cervix

There are many reasons why people might develop a disease for example :

- Genetics وراثي
- environmental factors عوامل بيئية
- Lifestyle نمط الحياة

The best way that people can lower their risk of disease is by:

- Having a healthy lifestyle. اتباع أسلوب حياة صحي.
- Having good hygiene. التمتع بنظافة جيدة
- Having regular medical check-ups. إجراء فحوصات طبية منتظمة.

The cause of diseases can be split into two categories: تنقسم مسببات الامراض الى فئتين

Diseases which enter a person's body Via الأمراض التي تدخل جسم الإنسان من خلال :	person's lifestyle choices خيارات نمط حياة الشخص
bacteria بكتيريا	Environment Factors العوامل البيئية
Viruses فيروس	family history تاريخ العائلة
Parasites الطفيليات	

Communicable diseases are caused by: الأمراض المعدية تنتقل بواسطة

(Which can be passed or spread from one person to another) تنتقل من شخص الى اخر

- Viruses
- Bacteria
- Parasites

They can be spread through: تنتقل من خلال

- Contact with an infected person الاتصال بشخص مصاب
- Through contaminated food or drinks من خلال الأطعمة أو المشروبات الملوثة
- Through insect bites or the air عن طريق لدغات الحشرات أو الهواء

You can help to prevent them by: يمكن الوقاية منها عن طريق

- Practising good personal hygiene. ممارسة النظافة الشخصية الجيدة.
- Cleaning and disinfecting shared area. تنظيف وتعقيم المنطقة المشتركة.
- Staying a safe distance from people who are sick. البقاء على مسافة آمنة من المرضى.

Four of the most common non-communicable diseases are: أكثر الأمراض المعدية شيوعاً

- Cardiovascular disease أمراض القلب والاعوية الدموية
- Cancer السرطان
- respiratory disease أمراض الجهاز التنفسي
- Diabetes السكري

Modifiable risk factors	Non-modifiable risk factors
factors that you can change	factors that you cannot change
<ul style="list-style-type: none">• Sedentary lifestyle (lack of exercise)• Being overweight or obese• Type 2 diabetes• Smoking• High blood pressure (hypertension)• High blood cholesterol الكوليسترول• High stress levels	<ul style="list-style-type: none">• Gender: male or female.• Age• Family history• Ethnicity العرق

Personal health behaviors are lifestyle habits that can affect a person's health. They can be

positive or **negative** behaviors which can positively or negatively affect health.

Positive health behaviors	Negative health behaviors
<ul style="list-style-type: none">• Having a healthy diet and drinking enough water• Getting enough sleep• Having good personal hygiene• Being Physically Active• Getting regular medical check-ups	<ul style="list-style-type: none">• Eating healthy food• Smoking• Sedentary lifestyle• نمط حياة كسول (يخلو من الرياضة)

Healthy balanced diet:

A healthy diet can help prevent diseases. Here are some ways that having a healthy balanced diet can reduce the risk of certain diseases:

- It helps to maintain a healthy weight • يساعد في الحفاظ على وزن صحي
- It ensures you consume enough nutrients • يضمن لك استهلاك ما يكفي من العناصر الغذائية
- It helps to control cholesterol • يساعد على السيطرة على الكوليسترول
- It can benefit mental health and lower stress • يمكن أن يفيد الصحة العقلية ويقلل من التوتر

Getting enough sleep

Sleep is one of the most important things that the body needs to:

- Maintain health and wellbeing.
- Helps the body to repair إصلاح itself and be ready for the next day.

Tips on how to get enough sleep include:

- Aiming to get between 7-9 hrs of sleep a day
- Going to bed at the same time every night
- Do not eat large meals or drinking caffeine before bed
- Not using televisions or phones in the bedroom

Personal Hygiene

- Killing bacteria (germs)
- Keeping the body clean and healthy
- Stopping the spread of illness and infection.

You should wash your hands:

- Before, during and after preparing food.
- Before eating.
- After using the bathroom.
- After blowing your nose, coughing, or sneezing.
- After touching someone who is sick.
- Before and after giving first aid.
- After touching any animals.



Physical activity

The World Health Organization defines physical activity as:

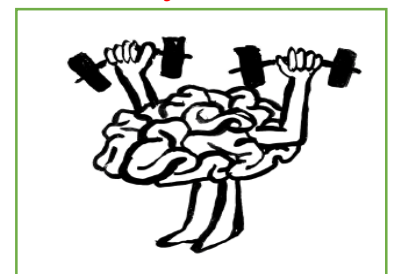
“Any bodily movement produced by skeletal muscles that require energy and expenditure.” أي حركة جسدية تنتجها عضلات الهيكل العظمي وتتطلب استهلاك طاقة

What does this mean?

Physical activity is anything that gets you moving and increases your heart rate from resting can be classed as physical activity.

Physical benefits of exercise

- Helping to control body weight
- Reducing the risk of certain diseases
- Improving bone and muscular strength
- Improving lung function



Mental and emotional benefits of exercise

- Improving energy levels.. تحسين مستويات الطاقة
- Improving emotional well-being.
- Raising brain function by improving motor skills, problem-solving, and increasing attention span.

Social health benefits of exercise

- Increase confidence. زيادة الثقة
- Learn leadership skills. تعلم مهارات القيادة
- Make new friends. تكوين صداقات جديدة.
- Increase motivation to exercise. زيادة الدافع لممارسة الرياضة



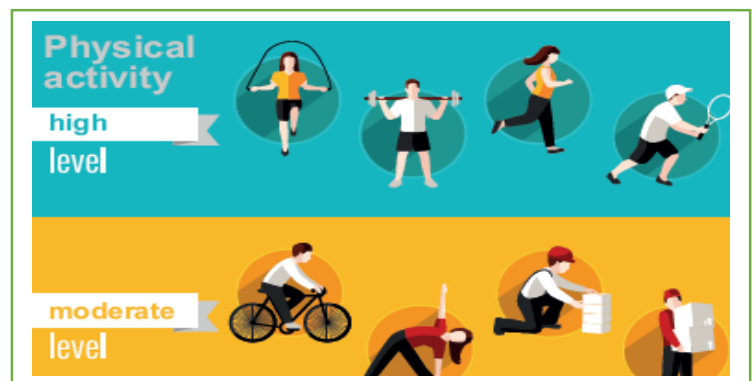
Recommendations for exercise:

The World Health Organization (WHO) recommends the following guidelines for exercise:

Age	Recommended time	Recommended activity
Children and teenagers aged 5-17 years old	At least 60 minutes of moderate to high-intensity activity every day.	Activities that strengthen muscles and bones at least three times a week.
Adults aged 18-64 years old	<ul style="list-style-type: none">• At least 150 minutes of moderate-intensity physical activity or 75 minutes of high-intensity activity each week should be done.• For further health benefits, adults should do 300 minutes of moderate-intensity physical activity or more each week.	<ul style="list-style-type: none">• Aerobic activities such as running, or swimming should last for at least 10 minutes at a time.• Activities that strengthen the muscles such as weight training should be done at least two times each week.

Exercise intensity

- Exercise intensity is how hard body works While doing physical activity.
- The exact intensity of exercises will vary between different people. كثافة التمارين بالضبط سوف تختلف بين مختلف الناس.
- It will depend on your level of fitness and the effort that you put into exercises.
- سوف يعتمد على مستوى لياقتك والجهد الذي تبذله في التدريبات.



Moderate-intensity activity نشاط متوسط الشدة	High-intensity activity نشاط عالي الكثافة
Moderate-intensity activity is when you are working at 70-80% of your maximum heart rate (MHR).	A high-intensity activity is an exercise that creates a big increase in your heart and breathing rate. You should be working at 80-85% of MHR.
<ul style="list-style-type: none"> • Moderate walking (around 5km per hour) • Cycling (less than 16km per hour) • Swimming slowly • Gardening/heavy housework • Golf 	<ul style="list-style-type: none"> • Running • Playing sports such as football • Swimming fast laps • Cycling (over 16km per hour) • Hiking in the mountains • High-intensity aerobics

التحصين Immunisation

Immunisation is where people are made immune or resistant to an infectious disease, usually by the injection of a vaccine.



كيف يعمل اللقاح ؟ How do vaccines work?

- Vaccinations work by injecting a very small amount of the virus or bacteria that causes a certain disease into the body. تعمل اللقاحات عن طريق حقن كمية صغيرة جدًا من الفيروس أو البكتيريا المسببة لمرض معين في الجسم.
- This makes the body's immune system create antibodies to fight off the injected disease. If the disease enters your body again in the future, your immune system knows what it is and already has the antibodies to fight it. هذا يجعل جهاز المناعة في الجسم يخلق أجسامًا مضادة لمحاربة المرض المحقون. إذا دخل المرض إلى جسمك مرة أخرى في المستقبل ، فإن جهازك المناعي يعرف ماهيته ولديه بالفعل الأجسام المضادة لمكافحته. This is called **immunity** . وهذا ما يسمى **بالمناعة** .
- Vaccines are being developed to protect against coronavirus (COVID-19). يتم تطوير لقاحات للحماية من فيروس كورونا (كوفيد-19)
- The virus spreads easily, and anybody can catch it. A vaccine would provide protection by training people's immune systems to fight the virus, so they don't become sick.

ينتشر الفيروس بسهولة ويمكن لأي شخص أن يصاب به. يوفر اللقاح الحماية من خلال تدريب أجهزة المناعة لدى الأشخاص على محاربة الفيروس ، حتى لا يمرضوا

Importance of vaccines

- Vaccinations save an estimated 2.5 million lives every year.
- Vaccines reduce the risk of getting a disease by working with the body's natural defenses to build protection.
- Vaccines are available to prevent more than 20 life-threatening مهددة للحياة diseases.
- Vaccinations are important for the prevention and control of infectious disease outbreaks. تفشي

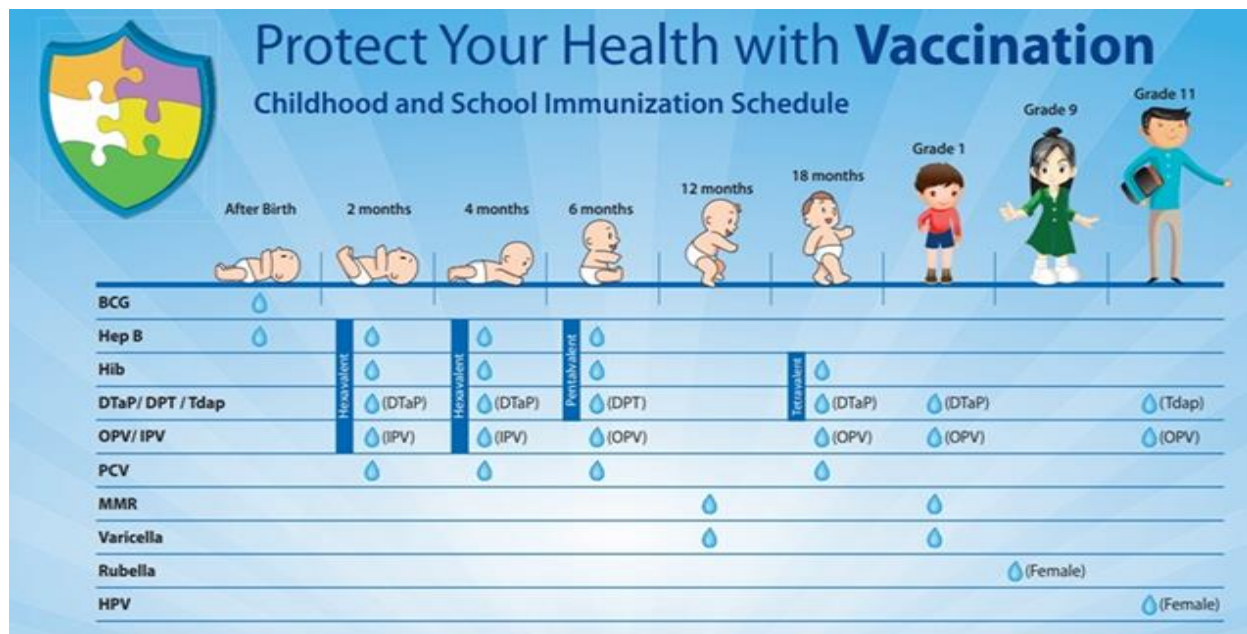
UAE National Immunisation programmer

- In the United Arab Emirates, there is an immunisation schedule to vaccinate children against many different diseases.
- The vaccination schedule starts when a child is born and usually continues until the child is in grade 11.
- If you miss some injections when you are a child, you can still have them as an adult.

UAE vaccines

The UAE vaccinates children against diseases such as:

- Tuberculosis السل (BCG)
- Measles, mumps, rubella الحصبة الألمانية (MMR)
- Hepatitis B التهاب الكبدى الوبائي (Hep B)
- Varicella الجدري (chickenpox)
- Polio شلل الاطفال (OPV/IPV)
- Influenza (Hib)



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هيئة الصحة - أبوظبي
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Screening

Difference between screening and diagnostic tests:

Screening	Diagnostic
• To check for early signs of disease	• To confirm the presence (وجود) or absence (غياب) 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 (أكثر تعمقاً) 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 accurate testing

Screening tests at different ages

In your 20s and 30s	In your 40s	In your 50s and
Blood pressure	Cardiovascular disease risk assessment	Osteoporosis risk assessment هشاشة العظام
Cholesterol and glucose levels	Eye checks for glaucoma المياة الزرقاء – الزرق	Bowel cancer سرطان الامعاء screening
BMI, waist, and hip measurements	Breast screening (females only) فحص الثدي	Sight and hearing tests
Dental check and cleaning	Prostate screening (males only) فحص البروستاتا	
Skin cancer checks		
Cervical screening فحص عنق الرحم (females only)		
Diabetes risk assessment		

Difference between screening and diagnostic tests

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To check for early signs of disease	To confirm the presence (وجود) or absence (غياب) 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 blood test	More in-depth (أكثر تعمقاً) testing which may include lots of different tests
Low cost أقل تكلفة	Higher costs أعلى تكلفة
To check for early signs of disease	

How infections spread

- An infection occurs when germs enter the body and multiply
تحدث العدوى عندما تدخل الجراثيم إلى الجسم وتتكاثر

Three things are needed for an infection to spread:

- **A Source:** مصدر This is where germs are found and can include surfaces in the home or public places and on the skin.
- **A person:** شخص with a way for the germs to enter their body
- **Transmission:** ناقل the way germs are moved to a person

What is infection prevention and control?

Infection prevention and control is an approach that aims to prevent patients and healthcare workers being harmed by avoidable infections.

Infections can lead to:

- more time spent in hospital قضاء وقت أطول بالمستشفى
- Disability عجز
- Death. الموت

It is not only patients that can be affected, healthcare workers are at risk of infection too.

The most common types of healthcare infections are:

Surgical infections, in the area a person has been operated on:

- Bloodstream infections. التهابات مجرى الدم
- Meningitis, an infection of the brain and spinal cord.
- Pneumonia, an infection in one or both lungs. التهاب السحايا ، وهو التهاب يصيب الدماغ والنخاع الشوكي .
الالتهاب الرئوي ، وهو التهاب في إحدى الرئتين أو كليهما
- A urinary tract infection (UTI), which affects the kidneys and bladder.
التهاب المسالك البولية الذي يصيب الكلى والمثانة.

Preventing hospital infections

Key points to consider:

- Infection control program
- Screening
- Hand washing
- Having good hygiene and regular cleaning of facilities
- Quarantine الحجر الصحي
- Procedures for the decontamination إزالة التلوث of people and the environment
- Personal protective equipment (PPE) معدات الحماية الشخصية

Personal protective equipment (PPE) can include:

- Gloves قفازات
- Masks كمامات
- Gowns ثوب طبي
- Overalls ثوب طبي كامل
- eye protection واقى العيون

Infection control in day-to-day life السيطرة على العدوى في الحياة اليومية

- Wash hands regularly and properly
- Prepare and handle food properly (you will learn more about this in term 3)
- Properly clean and disinfect surfaces in the home, especially kitchens and bathrooms
- Cough or sneeze into a tissue السعال أو العطس في منديل ورقي
- Don't share personal items with others
- Stay at home when you are sick
- Avoid touching wild animals تجنب لمس الحيوانات البرية
- Get vaccinated against communicable diseases such as COVID-19

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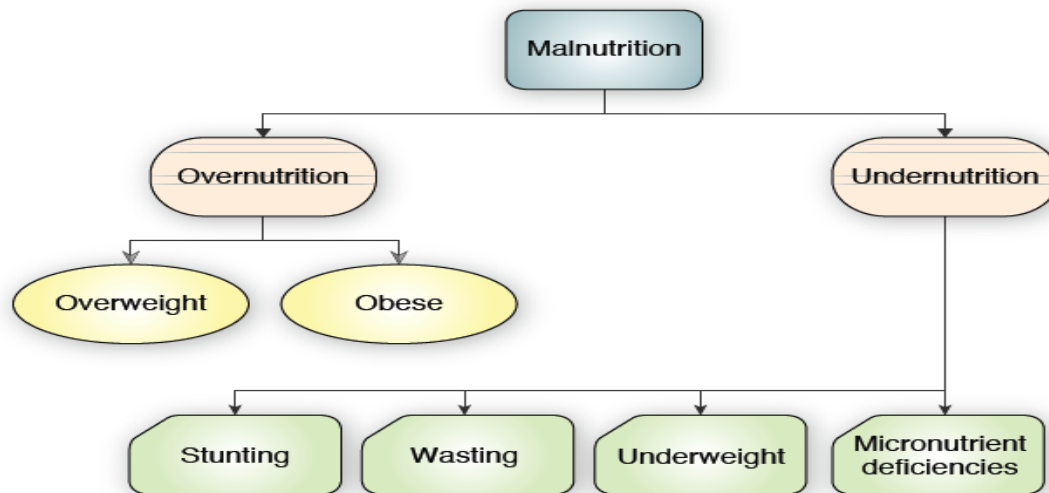
Assessment of nutritional status

Word	Definition
Anthropometry	الأنثروبومترية (القياسات البشرية) the study of measurements of the human body.
Circumference	محيط the distance around something
Technique – تقنية	a way of carrying out a task
analysis	تحليل detailed examination of something
interpret	to understand something in a particular way
plot	a point that shows the relationship between two things on a graph
Body mass index (BMI)	مؤشر كتلة الجسم the measurement of a person's weight for their height
Body fat percentage – نسبة الدهون في الجسم	the percentage of the body that is made up of fatty tissue
Biochemistry	A branch of science that explores the chemistry of living things.
Clinical – سريري	Relates to medical work done and treatment of patients.
Rickets – الكساح	A disease that causes the bones of children to become soft and not grow or develop properly.
Deficient – ناقص	Not having enough of something that is important or necessary.
Open-ended – مفتوح	Allows people to answer in a way that is not limited or controlled.
Nutritional status:	is the state of a person's health depending on his or her diet.
Dietician اختصاصي التغذية	A medical professional normally measures the nutritional status of a patient.
Malnutrition	سوء تغذية lack of proper nutrition
malnourished person شخص يعاني من سوء التغذية	someone who has the poor nutritional status
Undernutrition نقص التغذية	Used to describe the result of a person who does not eat enough food or get enough energy from the food they consume.
Wasting – الهزال	When someone is a low weight for their height
Stunting – التقزم	When a child is a low weight for their age

Dietician role دور اختصاصي التغذية

- Measure the nutritional status of a patient. قياس الحالة الغذائية للمريض.
- Understand and interpret the results. فهم وتفسير يفسر النتائج.
- Advise them on how to improve their diet and overall nutritional status.

إرشادهم حول كيفية تحسين نظامهم الغذائي والحالة التغذوية العامة



The purpose of nutritional assessment

- Identify people who are malnourished or at risk of malnourishment.
- Identify underlying issues or diseases which may be present.
- Develop healthcare programs to meet the needs of the community.
- Measure the effectiveness of nutritional programs and interventions once they are carried out.

الغرض من التقييم الغذائي

- تحديد الأشخاص الذين يعانون من سوء التغذية أو المعرضين لخطر سوء التغذية.
- تحديد القضايا الأساسية أو الأمراض التي قد تكون موجودة.
- تطوير برامج الرعاية الصحية لتلبية احتياجات المجتمع.
- قياس فعالية برامج التغذية والتدخلات بمجرد تنفيذها.

Nutritional assessments techniques:

- Nutritional assessments techniques allow health professionals to assess a patient's nutritional status.

Measuring a person's nutritional status will help the health professional to:

- Provide accurate advice and recommendations
- Help the health professional to understand if a patient's is nourished or malnourished

The ABCDE's of nutritional assessments includes a range of assessments that health professionals can use.

- Anthropometric methods طرق القياسات البشرية
- Biochemical methods (laboratory) طرق الكيمياء الحيوية (المختبر)
- Clinical methods الطرق السريرية
- Dietary assessment التقييم الغذائي
- Environmental factors العوامل البيئية

Anthropometric

It is the study of the physical measurements of the human body. Includes measuring the height, weight, as well as measuring proportions of the hips, waist, legs, arms, and skinfolds.

❖ **Waist circumference:** is the total distance around the waist. The larger it is = more abdominal fat around the middle of the body, which is associated with many non-communicable diseases (Diabetes, Cardiovascular disease, Cancer, etc..)

	Desirable	High Risk	Very High Risk
Males	Less than 94 cm	94-102 cm	More than 102 cm
Females	Less than 80 cm	80-88 cm	More than 88 cm

❖ To measure the waist circumference:

- Place the tape at the mid-point between the top of the hip bone and the lower ribs, this can be done over the clothes.
- The tape shouldn't be too tight nor too loose.
- Abdominal muscles should be relaxed.
- The measurements should be taken after breathing out.



❖ To measure weight:

- Make sure the weighing scale is accurate and measured in kilograms (kg).
- Remove heavy items from pockets and stand with arms by the sides.

❖ To measure height:

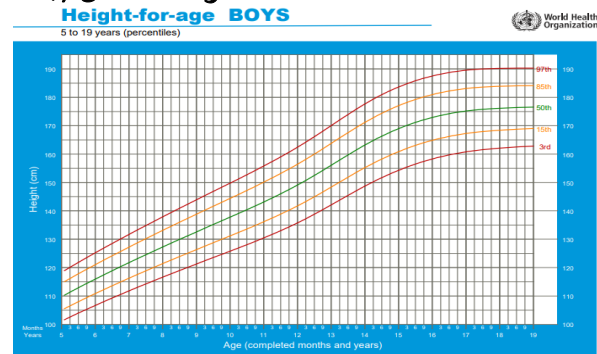
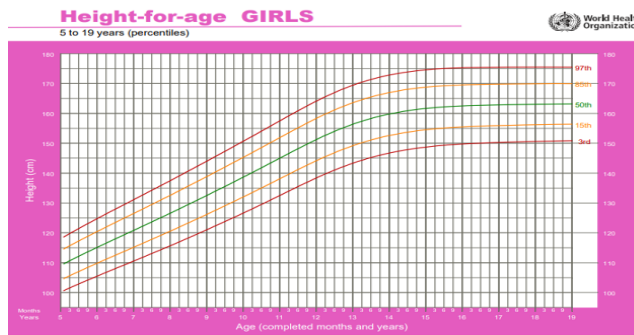
- Make sure the measure is straight and measure in centimeters (cm).
- Remove shoes, and make sure the person is standing straight with their heels, back, and head touching the measure while looking straight ahead.
- Lower the reading bar to the top of the head so a measurement. Can be taken.

❖ The WHO has put growth charts to compare the height and weight of children of the same age and gender, those charts can be used for children up to the age of 19 years to follow a child's growth and identify medical problems at an early age.

❖ There are charts for different age groups: 0-2 years, 2-5 years, 5-19 years, as well as charts for males and others for females.

❖ What is needed to use a height growth chart for a child?

- The person's gender (male or female) (جنس الشخص (ذكر أو أنثى))
- The person's age (usually in years) (عمر الشخص (عادة بالسنوات))
- The person's height (in centimeters) (طول الشخص (بالسنتيمتر))



- Percentiles are the colored lines in the chart, they show how many other people are taller, shorter and of the same - height.
- 50th percentile is the average and means that 50% of people of the same age and gender are the same height or taller.
- 97th percentile means that only 3% are at the same height or taller.
- 3rd percentile means that 97% are at the same height or taller.

• النسب المئوية هي الخطوط الملونة في الرسم البياني ، وهي توضح عدد الأشخاص الآخرين الذين هم أطول وأقصر ومن نفس الطول .

• النسبة المئوية الخمسون هي المتوسط وتعني أن 50٪ من الأشخاص من نفس العمر والجنس لهم نفس الطول أو أطول.

• النسبة المئوية 97 تعني أن 3٪ فقط لها نفس الطول أو أطول.

• النسبة المئوية الثالثة تعني أن 97٪ لها نفس الطول أو أطول

- Growth charts can be used by health care professionals to identify if there is a growth problem that can be related to malnutrition.

❖ **BMI (Body mass index) مؤشر كتلة الجسم**

Is a measurement of a person's height in relation to their weight, which is used to identify the weight status.

Weight status categories:



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

Body Fat percentage نسبة الدهون في الجسم

Methods used for measuring body fat percentage:

- **DEXA scanner:** uses x-ray to show the body's fat mass, muscle mass, and bone density.
- **Skinfold thickness:** uses calipers to measure areas of skin that can fold when pinched (skin folds) at various parts of the body.
- **Bioelectrical impedance analysis (BIA):** uses weak electrical impulse that the person doesn't feel.

You need three things for this:

- Total body weight (TBW) in kilograms (kg)
- Body fat in kilograms (kg)
- Age

$$\frac{\text{Body fat}}{\text{TBW}} \times 100$$

Four categories: blue, green, amber, and red.

Underweight	Healthy	Excess fat	high body fat
Too little body fat	Normal body fat	above the healthy percentage of body fat	So much body fat

Biochemical Methods

They are the laboratory measurements of nutritional assessment, which involve testing blood and urine samples.

طرق الكيمياء الحيوية

إنها القياسات المختبرية للتقييم الغذائي ، والتي تشمل فحص عينات الدم والبول.

To understand the results of the biochemical measurements correctly, some things about the patient need to be known, which are:

- Previous medical history. التاريخ الطبي السابق.
- Current medication. الدواء الحالي.
- A clinical examination report. تقرير الفحص السريري.

Some benefits of using biochemical methods:

- موثوق Reliable
- Fast result نتيجة سريعة
- Suitable for hospitals مناسب للمستشفيات
- Can show early deficiencies before they develop يمكن أن تظهر النواقص في وقت مبكر قبل أن تتطور
- Do not rely on the patient's to remember all of the foods they consumed. لا تعتمد على المريض لتذكر كل الأطعمة التي تناولها

Biochemical methods are the most accurate for assessing nutritional status, because they show exactly how much of a certain nutrient is present. It also shows if a nutrient is deficient by looking at their biochemical markers even before the patient develops symptoms.

Clinical methods

Are basically the physical examination done for the patient, looking for some physical clues related to health problems that result from malnutrition. These clues can be felt or seen.

Body parts to be examined are:

- Skin
- Eyes
- Nails may be indented due to iron deficiency anemia- Hair, may be pulled out very easily due to low protein
- Mouth and gums, maybe sore with bleeding due to vitamin and mineral deficiency
- Bones and joints, may have Rickets due to vitamin D deficiency

Before performing a physical examination, medical professionals should:

- obtain the patient's medical history
 - ask about previous and current medical conditions
 - ask the patient if he/she takes any medication or nutritional supplements
 - ask the patient if he/she has diarrhea or other digestive issues
 - ask about the patient's financial and social resources
- الحصول على التاريخ الطبي للمريض
اسأل عن الحالات الطبية السابقة والحالية
اسأل المريض عما إذا كان يأخذ أي دواء أو مكملات غذائية
اسأل المريض عما إذا كان يعاني من الإسهال أو مشاكل أخرى في الجهاز الهضمي
اسأل عن موارد المريض المالية والاجتماعية

In the medical history and physical exam, the following will be checked:

- Malabsorption of nutrients
 - Medications
 - Other medical conditions
 - Physical appearance
 - Presence of infection
 - Supplements use
 - Questions about digestive issues
- سوء امتصاص العناصر الغذائية
• الأدوية
• حالات طبية أخرى
• مظهر جسماني
• وجود عدوى
• استخدام المكملات الغذائية
• أسئلة حول مشاكل الجهاز الهضمي

Rickets الكساح

a disease typically caused by a lack of vitamin D and calcium in children. become soft, and don't grow or develop properly.

مرض يحدث عادة بسبب نقص فيتامين (د) والكالسيوم عند الأطفال. تصبح العظام لينة ولا تنمو أو تتطور بشكل صحيح.



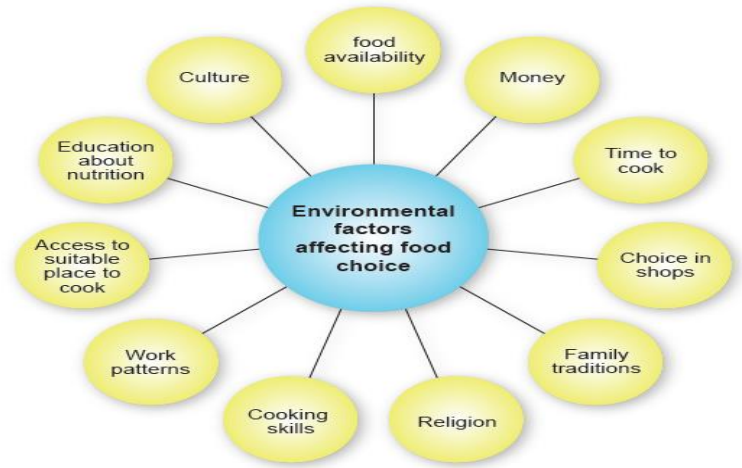
Dietary methods

This is where the patient records their eating patterns or the food and drinks that they consumed in a given period of time.

The most common ways to measure dietary intake are:

	Definition	Advantages	Disadvantages
Twenty-four-hour dietary recall open-ended	<ul style="list-style-type: none"> ➤ Usually from midnight to midnight. ➤ The patient needs to: <ul style="list-style-type: none"> • Recall the ingredient used • the cooking method used • the time of day they had it • the amount of food they ate • Any leftovers. 	<ul style="list-style-type: none"> ➤ easy to recall and collect ➤ it doesn't take time ➤ The information provided can estimate regular food and nutrient intake. 	<ul style="list-style-type: none"> ➤ relies on memory ➤ If the patient ate in a restaurant, they may not know the cooking method or the ingredients. ➤ Doesn't show the patient's regular eating habits. ➤ Some patients may not give honest responses.
Three-day food diary open-ended	<ul style="list-style-type: none"> ➤ 2 weekdays and one weekend day ➤ Should be recorded in real-time, not from memory. Also, the weights of foods should be measured by scales. Thus, its, more accurate than the 24-hour method. 	<ul style="list-style-type: none"> ➤ More details are recorded (three days, weights of meals). ➤ Do not rely on memory. 	<ul style="list-style-type: none"> ➤ Requires a high level of commitment (three days, weights of meals). ➤ People may not record some small meals or some ingredients. ➤ People may change their eating habits for these three days.
Food frequency questionnaire NOT open-ended	<ul style="list-style-type: none"> ➤ This questionnaire has a set number of questions with multiple choice answers 	<ul style="list-style-type: none"> ➤ Used on large groups of people. ➤ Quick and easy to complete. ➤ 	<ul style="list-style-type: none"> ➤ Specific foods are listed. ➤ Sometimes people's eating patterns are not consistent. ➤ It requires a level of memory

Environmental factors



Socioeconomic status الوضع الاجتماعي والاقتصادي

A person's socioeconomic status can impact their eating habits and food choice.

- If someone has limited income, they may not be able to spend much money on food.
- Healthier foods are generally more expensive than unhealthy foods.
- Where someone lives can impact their ability to cook healthy meals, for example, if their home does not have suitable cooking facilities or if there is no access to healthy affordable food near their home.

• إذا كان شخص ما لديه دخل محدود ، فقد لا يتمكن من إنفاق الكثير من المال على الطعام.

• تعتبر الأطعمة الصحية أكثر تكلفة بشكل عام من الأطعمة غير الصحية.

• يمكن أن يؤثر مكان حياة شخص ما على قدرته على طهي وجبات صحية ، على سبيل المثال ، إذا لم يكن لدى منزله مرافق طهي مناسبة أو إذا لم يكن هناك إمكانية للحصول على طعام صحي ميسور التكلفة بالقرب من منزله.

Nutrients available العناصر الغذائية المتاحة

- In certain countries, food availability will depend on weather and seasons.
- There could be other reasons that good food is not able to get to certain areas, such as war or natural disasters.

• في بعض البلدان ، سيعتمد توافر الغذاء على الطقس والمواسم.

• قد تكون هناك أسباب أخرى لعدم تمكن الغذاء الجيد من الوصول إلى مناطق معينة ، مثل الحروب أو الكوارث الطبيعية.

Food deserts الصحاري الغذائية

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.

صحاري الطعام هي مناطق لا يتمتع فيها الناس بسهولة الوصول إلى خيارات الأطعمة الصحية بتكلفة معقولة. هذا عادة بسبب عدم وجود محل بقالة على مسافة سفر مريحة.

Cultural factors العوامل الثقافية

People from different backgrounds and cultures consume different types of food. This is sometimes due to tradition and sometimes due to religion

يستهلك الأشخاص من خلفيات وثقافات مختلفة أنواعاً مختلفة من الطعام. هذا يرجع أحياناً إلى التقاليد وأحياناً بسبب الدين

- Foods from certain cultures 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 have certain food rules or restrict certain foods, this should also be considered, especially if someone lives in an area where it is not easy to access certain foods.

Vegan and vegetarian diet

The most common are related to animal welfare and environmental reasons.

أكثرها شيوعاً تتعلق بالرفق بالحيوان والأسباب البيئية

Vegan	vegetarian
excludes all meat and animal products (meat, poultry, fish, seafood, dairy and eggs) • يستثنى جميع اللحوم (اللحوم والدواجن والأسماك والمأكولات البحرية) • المنتجات الحيوانية (منتجات الألبان والبيض)	excludes meat, poultry, fish and seafood يستثنى من ذلك اللحوم والدواجن والسمك والمأكولات البحرية
low in saturated fat, protein, iron, and B12	
ensure that they getting enough of certain nutrients يجب التأكد من حصولهم على ما يكفي من بعض العناصر الغذائية	

UNT(7)

Healthy Pregnancy

Word	Definition
Childbirth –	the act or process of giving birth to children
Embryo – جنين	the name was given to a developing baby (of less than 8 weeks old) in the womb
Foetus –	an unborn baby that is still developing in the womb
Pregnancy –	duration when a woman is carrying a foetus before birth
Trimester –	a period of three months
Calorie –	a unit of heat used to indicate the amount of energy in foods
Recommendation –	advice or guidance given to someone
Fortified –	to add or supplement with something
Supplement – مكمل غذائي	something that provides a nutrient; it can be added to a food or a drink or taken in liquid or tablet form
Guidelines – القواعد الارشادية	a rule or instruction that shows or tells how something should be done
Moderate –	not too much or too little, an average amount
Contractions – تقلصات	a movement of muscles in the womb when a woman is giving birth to a child
Labour –	the process of childbirth
Folic acid -	One of the B vitamins that is found in fortified bread and cereals.
Gestation = Pregnancy -	Is the time a woman carries her developing embryo/ foetus in her womb.

“Pregnancy usually lasts 40-42 weeks ”

Trimester (1)

"A fertilized egg forms an embryo that looks like a group of cells. From around eight weeks, this group of cells gradually turns into the shape of the human body. Called fetus. 41 Month

Changes that happen to the baby during the First trimester:

- The nervous system (brain and spinal cord) begins to develop.
يبدأ الجهاز العصبي (المخ والحبل الشوكي) في التطور
- The umbilical cord forms. يتكون الحبل السري
- The heart, eyes, ears, mouth, nose, hands, and feet take shape.
يتشكل القلب والعينان والأذنان والفم والأنف واليدين والقدمين
- By the end of the first trimester, the organs have formed and are developing.
بحلول نهاية الثلث الأول من الحمل ، تكون الأعضاء قد تكونت وتتطور

A lot of changes happen to the mother during pregnancy, These include:

- - Missed period انقطاع الدورة الشهرية
- - Nausea and vomiting (morning sickness) الغثيان والقيء (غثيان الصباح)
- - Heartburn حرقة من المعدة
- - Fatigue إعياء

Trimester (2)

Changes that happen to the baby during the Second trimester:

- - The foetus begins to make urine. يبدأ الجنين في تكوين بول
- - They develop meconium. This is the first bowel movement. يتطور العقي وهو حركة الأمعاء الأولى
- - The gender will become apparent يتضح الجنس
- - The musculoskeletal system is developing, and the bones begin to harden.
يتطور الجهاز العضلي الهيكلي ، وتبدأ العظام في التصلب
- - The skin is translucent (almost see-through). الجلد (شبه شفاف)
- - The foetus can suck their thumb, and their fingerprints form.
يمكن للجنين أن يمص إبهامه وتتشكل بصمات أصابعه
- - By the end of this trimester, they are gaining some body fat. اكتساب بعض الدهون في الجسم
- - Mothers start to feel better and the morning sickness goes away. The mother can feel the foetus moving.
تشعر الأمهات بالتحسن ويختفي غثيان الصباح. يمكن للأم أن تشعر بتحريك الجنين.

Trimester (3)

Changes that happen to the baby during the Third trimester:

- The foetus' bones are fully formed.
- The eyes can open and close.
- At 37 weeks, they are classed as full-term and the organs are functioning.

- Mothers feel uncomfortable as the foetus gets bigger, it becomes more difficult for them to sleep, and the frequency of urination increases as the baby, is pushing against her internal organs
- Near the end of the third trimester, the woman's body will prepare for childbirth.
- The foetus will turn and be in position for childbirth.

• تكون عظام الجنين مكتملة التكوين.

• يمكن أن تفتح العيون وتغلق.

• في الأسبوع 37 ، يتم تصنيفها على أنها كاملة المدة وتعمل الأعضاء.

• تشعر الأمهات بعدم الارتياح عندما يكبر الجنين ويصبح الأمر أكثر صعوبة بالنسبة لهن في النوم ، ويزداد تواتر التبول مع قيام الطفل بدفع الأعضاء الداخلية

• قرب نهاية الثلث الثالث من الحمل ، يستعد جسد المرأة للولادة.

• سوف يستدير الجنين ويكون في وضع يسمح له بالولادة

Healthy diet and nutritional requirement during pregnancy

- During pregnancy, there are many different nutritional requirements for the mother and for the developing baby.

Eating a healthy balanced diet means that the mother must consume a variety of foods.

- Energy needs increase during pregnancy, so the mother should consume more food.
a pregnant woman. Will need to increase her calorie intake by 360/calories during the second trimester and by 475 calories in the third trimester.

The food groups include:

- Cereals and their products, like grains, wholegrain cereals, wholegrain bread, potatoes, rice, crackers, and pasta make up this food group. These foods are a good source of carbohydrates.
- Fruits and vegetables, as they contain lots of vitamins and minerals. They are also a good source of fiber. Pregnant women should aim to eat at least five fruit and vegetables every day. It doesn't matter if they are raw or cooked, eaten on their own or as part of a meal.
- Milk and dairy foods, provide pregnant women and the foetus with the calcium needed for healthy bones, heart, muscles and nerves. Pregnant women should aim to eat three servings of dairy products every day. Low-fat dairy products are recommended over the full-fat versions. non-dairy alternatives to milk such as soya; rice or almond milk can also be used.
- Meat, eggs, and legumes, Foods from this group include meat, poultry, fish, pulses and eggs. These sources give the mother and foetus protein and iron. Pregnant women should aim to eat two to three servings from this food group every day because iron deficiency is common in pregnancy and these foods contain iron,

- **Fats** are essential to give the body energy. However, not all fats are healthy, There are different types of fats; saturated, unsaturated and trans-fat. Pregnant women should eat unsaturated fat, limit their intake of saturated fats and avoid trans-fats.

Foods containing unsaturated fats include the following: Nuts, Seeds, Olive oil, Rapeseed oil, Avocados, Oily fish such as salmon and trout.

- **Water**

Foods to avoid during pregnancy:

- Caffeine, can reach the foetus and be harmful.
- Fish high in Mercury, like: bigeye tuna, shark, mackerel, marlin and swordfish should be avoided. Pregnant women should choose fish and seafood that are low in mercury such as canned light tuna, salmon, anchovies and sardines. These are safe to eat 2-3 times a week.
- High fat, salt and sugary foods. These can raise a pregnant woman's blood pressure and cause her to gain too much weight.
- Saturated fat such as: butter, crisps, chips, mayonnaise and the fat on meat. Trans-fat as: fried fast food, cookies and cakes. These can build up fat layers in arteries.
- Processed meat such as: hot dogs, canned meats, cured or salted meats and many fast food. These contain high salt and saturated fat.
- Food that contain bacteria and parasites, such as: raw or undercooked food (fish, meat, eggs); unwashed fruits and vegetables, unpasteurized) milk, and dairy products.

certain supplements that are so important in pregnancy:

- **Folic acid**. Women should take a supplement of 400 g of folic acid before, and up to the 3 months of pregnancy.

3

Importance of Folic acid

- Help prevent the foetus developing defects, of the brain, spine or spinal cord (these are known as neural tube defects).
- Folic acid is the synthetic (man-made) version of folate (vitamin B9). Folate can be found in spinach, broccoli and asparagus.
- **Calcium**. Pregnant woman should aim to eat three servings of calcium-rich foods every day. Food that are rich in calcium are: Milk and dairy products (cheese, yogurt), soy, almond and oat milk, green leafy vegetables, dried fruit.

- **Iron**, the demand for iron increases as the foetus grows. Iron rich food include: Red meat, Eggs, Pulses, Seafood, Green leafy vegetables, Fortified foods.

Exercise during pregnancy

Pregnant women should exercise at least 150 min /week = 30 min /day for 5 days/week

Remember Moderate exercise increase breathing and heart rate but the person can still hold a conversation.

When women get pregnant should not over exercise and should follow/exercise guidelines:

- Those who are not active consult a doctor and start with light activity then increase gradually.
غير النشطين يستشيرون الطبيب ويبدأون بالنشاط الخفيف ثم يزدادون تدريجياً
- Those who are already active but not enough .continue to, slowly increase their level of activity.
أولئك الذين هم بالفعل نشطون ولكن ليس لديهم ما يكفي. استمروا في زيادة مستوى نشاطهم ببطء.
- Those who are already doing cardiovascular and resistance training don't stop and keep following the guidelines throughout pregnancy.
أولئك الذين يقومون بالفعل بتمارين القلب والأوعية الدموية والمقاومة لا يتوقفون ويستمرون اتباع الإرشادات طوال فترة الحمل

Benefits of physical activity during pregnancy:

- Help reduce stress and anxiety. Improve mood and energy levels.
- Help women gain only healthy amount of weight during pregnancy.
- Maintain cardiovascular and muscular fitness that help the mother's body be ready for childbirth.
- Reduce the risk of gestational-diabetes.
- Help the mother recover faster after giving birth.

Recommended Exercises during pregnancy

- Walking
- Swimming
- Low impact aerobics (with a qualified instructor)
- Pelvic floor strengthening exercises

Exercises to avoid

- Rock climbing
- kickboxing
- judo
- squash
- Horse riding

Remember

- A pregnant woman should consult their doctor if they want to start to exercise, if they want to change their exercise routine, or if they feel unwell when exercising.
- Pregnant woman should not lie flat on their back for long periods of time, particularly after 16 weeks, as she might feel faint or dizzy.

When to stop physical activity during pregnancy

- | | |
|----------------------------------------|-------------------------------|
| • Bleeding or fluid loss | النزيف أو فقدان السوائل |
| • Chest pain | ألم صدر |
| • Decreased movement from the foetus | قلة حركة الجنين |
| • Dizziness | دوار |
| • Difficulty breathing before exercise | صعوبة التنفس قبل التمرين |
| • Muscle weakness | ضعف العضلات |
| • Pain around the stomach or pelvis | ألم حول المعدة أو الحوض |
| • Pre-term labour or contractions | الولادة المبكرة أو الانقباضات |
| • An irregular heartbeat | عدم انتظام ضربات القلب |

Medical care during pregnancy

Women can experience **hypertension (high blood pressure)** during pregnancy. High blood pressure during pregnancy should be monitored by a healthcare professional.

Gestational diabetes is a type of diabetes that sometimes develops during pregnancy. It happens because the body cannot produce enough insulin to meet the extra demands of the pregnancy. This leads to hyperglycemia. This generally goes away after pregnancy is finished.

An ultrasound scan will let the doctor know if the foetus is growing and developing at a healthy rate. The scan will record the heart rate and breathing.

Other symptoms

- Back pain ألم في الظهر
- Low iron levels in the blood (anemia) انخفاض مستويات الحديد في الدم (فقر الدم)
- Constipation إمساك
- Fatigue (tiredness) الشعور بالاعياء
- Heartburn
- Morning sickness
- Swelling of the legs (oedema)

Oedema is swelling caused by excess fluid trapped in your body's tissues
عن تورم ناتج عن السوائل الزائدة المحتبسة في أنسجة جسمك

When to get emergency medical care?

- No movement from the foetus عدم وجود حركة من الجنين
- Excessive fatigue الإعياء المفرط
- Excessive thirst العطش الشديد
- Feeling of anxiety الشعور بالقلق
- Heavy bleeding نزيف شديد
- More than three contractions per hour أكثر من ثلاث تقلصات في الساعة
- Sudden loss of fluid فقدان السوائل المفاجئ
- Unexplained pains آلام غير مبررة

Stages of labour:

• Stage 1

During the first stage of labour, the woman will feel contractions. These will be about five minutes apart. خلال المرحلة الأولى من المخاض ، ستشعر المرأة بانقباضات. ستكون حوالي خمس دقائق.

• Stage 2

During this stage, the woman will feel the urge to push. Contractions become stronger and last longer. This stage usually lasts 1-2 hours. خلال هذه المرحلة ، ستشعر المرأة بالحاجة إلى الدفع. تصبح التقلصات أقوى وتستمر لفترة أطول. تستمر هذه المرحلة عادة من ساعة إلى ساعتين.

• Stage 3

After the birth of the baby, the umbilical cord is clamped. The placenta is delivered 5-20 minutes after the delivery of the baby. بعد ولادة الطفل ، يتم غلق الحبل السري. يتم تسليم المشيمة بعد 5-20 دقيقة من ولادة الطفل

*My best wishes for success,
doctors of the future
Teacher: Amira Moustafa Gamea*