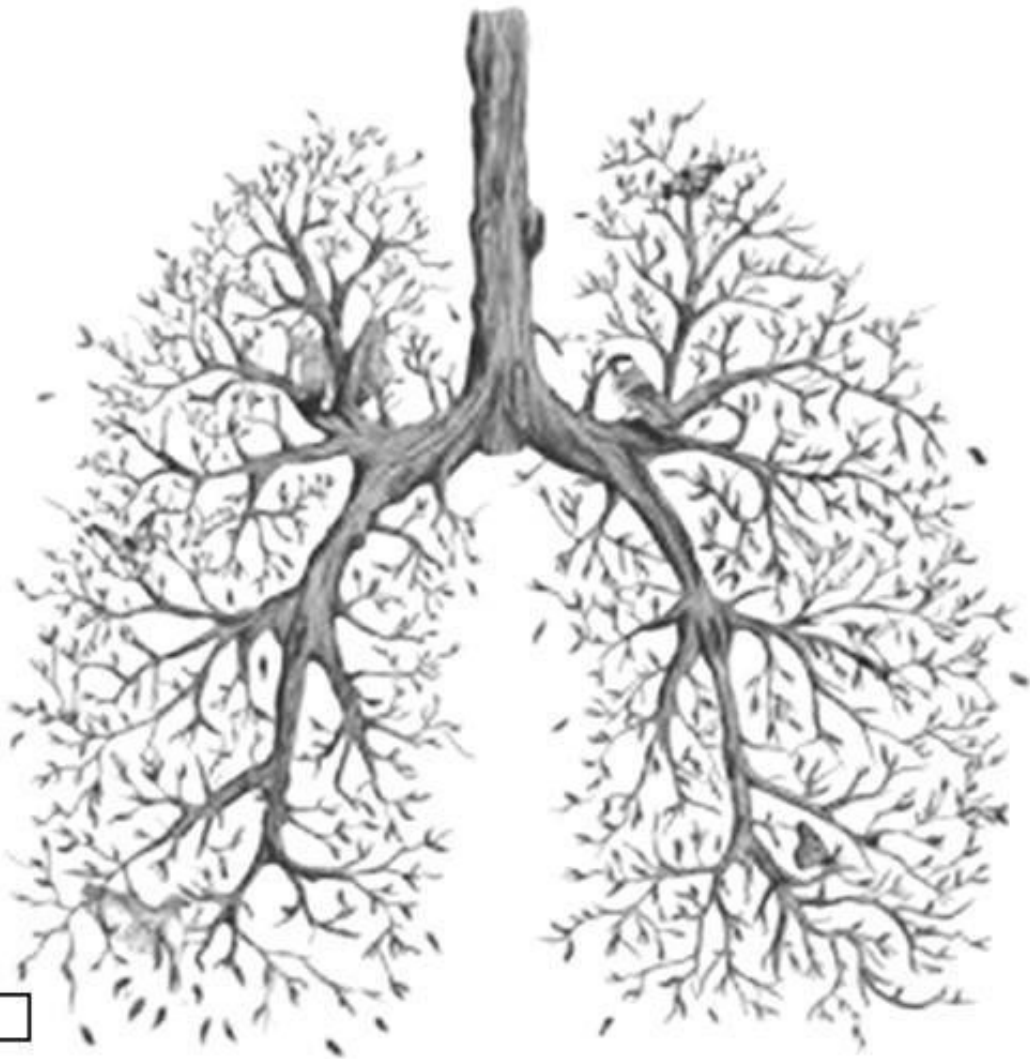


By Mohamed F. Abu Alia



Medical Committee
The University of Jordan

Community Medicine



Slides

Sheet

Lecture # **23**

Doctor: **Dr. Ahmad**

Done By: **Raneem Bader**

Revision

OUTLINE:

- REVISION (the doctor said that almost all of his questions will be from the material he revised with us)
- Some Past papers questions

The nutrients and their metabolism

- Nutrients are chemical substances in food that nourish the body by providing energy, building materials, and factors to regulate needed chemical reactions.
- Essential nutrients must be provided by food because the body does not produce them in sufficient quantities or cannot make them at all. Shortage of any one of them leads to the compound's deficiency.
- Nonessential nutrients can be taken from food, and healthy, well-nourished bodies can make them in sufficient quantities to satisfy their needs.
- Nutrients functions :
 - ✓ Energy source
 - ✓ Building tissues
 - ✓ Regulating metabolic processes
- Essential nutrients consist of :
 - ✓ 15 Vitamins
 - ✓ 25 minerals
 - ✓ Water

- ✓ Glucose and essential fatty acids : linoleic acid (omega-6) and linolenic acid (omega-3)]
- ✓ Some proteins

- There are 6 categories of nutrients :
 - ✓ Carbohydrates
 - ✓ Lipids
 - ✓ Proteins
 - ✓ Vitamins
 - ✓ Minerals
 - ✓ Water

- Nutrients are classified into :
 - ✓ Macronutrients (carbohydrates, fats, and proteins).
 - ✓ Micronutrients (vitamins, minerals, and water).

- Some Dietary guidelines :
 - ✓ Eat a variety of foods.
 - ✓ Maintain a healthy weight.
 - ✓ Choose a diet low in fat, saturated fat, and cholesterol.
 - ✓ Choose a diet with plenty of vegetables, fruits, and grains
 - ✓ Use sugars only in moderation.
 - ✓ Use salt and sodium only in moderation

- Components of a nutritional assessment :
 - ✓ Historical data (24-hour recall, FFQ)
 - ✓ Anthropometric measurements (height, weight, BMI)
 - ✓ Clinical assessment (physical examinations).
 - ✓ Biochemical analyses (laboratory).

- Glycemic index : Relative ability of different dietary carbohydrates to raise blood glucose levels

- Types of Fat :

- ✓ Saturated
- ✓ Monounsaturated
- ✓ Polyunsaturated: omega 3, omega 6.

Nutrient \ compound	Kcal\g given when burned in the body
Carbohydrates	4 kcal\g
Proteins	4 kcal\g
Fats	9 kcal\g
Alcohol	7 kcal\g

Essential amino acids	Non-essential amino acids
arginine (only in positive nitrogen balance)	alanine
histidine	asparagine
isoleucine	aspartate
leucine	cysteine
lysine	glutamate
methionine	glutamine
phenylalanine	glycine
threonine	proline
tryptophan	serine
valine	tyrosine

- Vitamins are organic compounds that have several functions.
 - ✓ Water- soluble vitamins
 - ✓ Fat-soluble vitamins (A, D, E and K)
- Anti-oxidants : (Anti-carcinogenic , Anti- fat oxidation)



- ✓ 3 Vitamins :
 - Vitamin A
 - Vitamin E
 - Vitamin C
- ✓ 1 Mineral :
 - Selenium

Vitamin	Scientific Name	Deficiency	Other information (FLASHES)
Vitamin A	Retinol (animal sources) Carotenoids (plants sources)	<ul style="list-style-type: none"> * Night blindness * Xerophthalmia * Hyperkeratosis * Keratomalacia * Immunodeficiency 	<ul style="list-style-type: none"> * for vision
Vitamin D	chole-calciferol	<ul style="list-style-type: none"> * Rickets in children * Osteomalacia in adults * Osteoporosis - women after menopause 	<ul style="list-style-type: none"> * produced in skin when exposed to UV radiation
Vitamin E	Tocopherol	<ul style="list-style-type: none"> * Break down of RBC * Anemia 	<ul style="list-style-type: none"> * Protection against damage by reactive oxygen species * Anti-oxidant
Vitamin K	Phylloquinones	<ul style="list-style-type: none"> * Hemorrhage * Fatal anemia * Hemorrhagic disease in the newborn * Hip fracture in older adults * Bleeding tendencies 	<ul style="list-style-type: none"> * Blood clotting factor * found in leafy vegetables

Water- soluble Vitamins

Vitamin	Scientific Name	Deficiency	Other information (FLASHES)
Thiamin		*Wet Beriberi *Dry Beriberi *Infantile Beriberi	*For carbohydrate metabolism
Riboflavin (Vit. B2)		*Ariboflavinosis *Wound aggravation *Cracks at corners of the mouth *Swollen red tongue *Eye irritation *Skin eruptions	
Niacin	<u>Nicotinamide</u>	*Pellagra (4 four D syndrome) : 1. Dermatitis 2. Diarrhea 3. Dementia 4. Death	*For energy production *From tryptophan (essential amino acid)
Vitamin B6	Pyridoxine	<ul style="list-style-type: none"> • Anemia • CNS: hyperirritability, convulsions, Neuritis 	
Folic acid		* <u>Megaloblastic anemia</u> *Macrocytic anemia *Neural tube defects (NTD).	*Part of DNA and RNA

Vitamin B12	Cobalamin	<p>Impaired cell division</p> <p>Megaloblastic anemia</p> <p>Neurologic abnormalities</p> <p>Pernicious anemia</p>	<p>*Contains Cobalt</p> <p>* In animals only</p>
Vitamin C	Ascorbic Acid	<p>*Scurvy</p> <p>*Impaired wound healing</p> <p>*Sore gums</p> <p>*Anemia</p> <p>*Wound healing, tissue formation</p> <p>*Tendency to bruise easily</p>	<p>*oxidation- reduction reactions</p> <p>*Strengthen Collagen</p> <p>*Anti-oxidant</p>

➤ Minerals: inorganic compounds.

- ✓ Macrominerlas (need it in mgs)
- ✓ Microminerals (in micro-grams)
- ✓ Ultratrace Minerals (very little amount)

➤ Calcium :

- ✓ Has intestinal absorption
- ✓ Renal excretion
- ✓ Skin losses
- ✓ Serum calcium
- ✓ Blood calcium and parathyroid hormone
- ✓ Role of other hormones

▪ Functions :

- ✓ Strengthen the bone mass. (bone mass is measured using DEXA)
 - ✓ Maintain bone health
 - ✓ Transport functions of cell membranes
 - ✓ Nerve transmission
 - ✓ Regulation of heart muscle function
 - ✓ Blood clotting
 - ✓ Role in obesity
-
- ✓ Found in Milk groups and dark leafy vegetables.

▪ Deficiency :

- ✓ Lower peak bone mass
- ✓ Increased blood PTH levels leads to low bone mass
- ✓ Osteomalacia
- ✓ Chronic diseases

➤ Phosphorous :

- ✓ A role in Calcium metabolism.
- ✓ In RNA and DNA
- ✓ Found in: Meat & Poultry, Cereals.

➤ Magnesium :

- ✓ Cofactor for more than 300 enzymes
- ✓ Important in Neuromuscular transmission and bone.

➤ Sulfur:

- ✓ Constituent of three amino acids: cystine, cysteine, and methionine

- Microminerals : Iron
 - ✓ Heme and non-heme
 - ✓ Ferritin carries bound iron
 - ✓ Role :
 - Hemoglobin synthesis (heme + big globin protein)
 - Red blood cell function
 - Myoglobin activity
 - Immune function
 - ✓ Found in: liver, whole grains, cereals, dry fruits, lean, meat and poultry.
 - ✓ Deficiency : Hypochromic, microcytic anemia
 - ✓ Iron overload: Hemochromatosis (precipitation in lungs) or Hemosiderosis.

- Zinc
 - ✓ Deficiency
 - Decreased taste acuity
 - Delayed wound healing
 - Growth retardation (esp. reproductive organs), Length and stature is affected. “cretinism”
 - Immune deficiencies
 - Skin lesions

 - ✓ Found in: Meat, fish, poultry and nuts.

- Fluoride :
 - ✓ For the health of the bones.
 - ✓ Deficiency: dental caries.

- Copper :
 - ✓ Found with Zinc (Copper-Zinc superoxide dismutase, Ceruloplasmin)
 - ✓ Found in: shell-fish, organ meats and chocolate.

- Iodine :
 - ✓ In thyroid gland
 - ✓ Synthesis of T₃ , T₄

- ✓ Deficiency:
 - Endemic goiter
 - Cretinism
 - Hypothyroidism
 - Hyperthyroidism

- ✓ Selenium is important in iodine metabolism.
- ✓ Found in: Iodized salt and seafood.
- Selenium :
 - ✓ Anti-oxidant (free radical)
 - ✓ Deficiency: Keshan disease (in Chinese people): heart muscle failure and cardiomyopathy.
 - ✓ Found in: Seafood, meat, poultry, liver and Kidney.

- Manganese :
 - ✓ Activates many other enzymes
 - ✓ Formation of connective and skeletal tissues

- Cobalt :
 - ✓ Component of B12.
 - ✓ Deficiency : Macrocytic anemia

Nutrition during Pregnancy and Lactation

- Factors Affecting Conception
 - ✓ Extreme underweight or overweight
 - ✓ Nutritional status (Important)
 - ✓ Environmental toxins
- Practices incompatible with pregnancy
 - ✓ Smoking
 - ✓ Caffeine
 - ✓ Illicit drugs
 - ✓ Alcohol (causes Fetal Alcohol Syndrome)
 - ✓ Nutrient mega doses
- Weight Gain During Pregnancy :

- ✓ Normal weight women 11-16 kg
- ✓ Underweight women 13-18 kg
- ✓ Overweight women 7-11 kg
- ✓ Teenagers 16-18 kg

➤ Factors Affecting Pregnancy Outcome:

- ✓ Historical perspective
- ✓ Perinatal mortality and birth weight
- ✓ Maternal size
- ✓ Maternal weight gain during pregnancy
- ✓ Obesity
- ✓ Adolescence
- ✓ Multiple births

➤ Risk Factors presented at the onset of pregnancy

- ✓ Age: 15 years or younger, 35 years or older.
- ✓ Frequent pregnancies
- ✓ Poverty
- ✓ Poor obstetric history
- ✓ Diet

➤ Risk factors occurring during pregnancy

- ✓ Low hemoglobin or hematocrit
- ✓ Inadequate weight gain
- ✓ Excessive weight gain

➤ Risk Factors for Pregnant Teens

- ✓ Maternal age, especially <16 years old
- ✓ Pregnancy less than 2 years after onset of menarche
- ✓ Poor nutrition.

➤ Physiologic Changes of Pregnancy:

- ✓ Gastrointestinal function :
 - Nausea and vomiting
 - Anorexia
 - Constipation
 - Heartburn

- ✓ Renal function
 - Leg and ankle edema
- ✓ Placenta
 - Surface size affects infant nutrition and birth weight

- Effects of nutrient deficiencies on pregnancy outcome:
 - ✓ Energy : Low infant birth weight
 - ✓ Folate : Miscarriage and NTD (spina bifida)
 - ✓ Vitamin A : Congenital malformations
 - ✓ Vitamin D: Low infant birth weight.
 - ✓ Iron : Stillbirth, premature birth, and LBW
 - ✓ Iodine : Cretinism (varying degree of mental and physical retardation in the infant)
 - ✓ Zinc: Congenital malformations.

- Metabolism (in pregnant women) increases 15%
- DRIs add 340 to 360 kcal/day (pregnant women) and 500 kcal\day (lactating women).
- Macronutrients in Pregnancy : (balanced diet)
 - ✓ Protein
 - ✓ Carbohydrate
 - ✓ Fiber
 - ✓ Lipids

- Key Vitamins in Pregnancy:
 - ✓ Folic acid
 - ✓ Choline
 - ✓ Vitamin B₆
 - ✓ Ascorbic acid
 - ✓ Vitamins A, D, E, and K (fat soluble)

- Key Minerals in Pregnancy: calcium, Iron...etc.
- Recommended Food Intake During Pregnancy :
 - ✓ Calcium: Dairy products and Supplements.

- ✓ Fluids : 8 to 10 glasses daily
- ✓ Good supply of proteins, Sodium (2-3 g), minerals.
- ✓ Avoid alcohol and caffeine.
- Non-Nutrient Effects :
 - ✓ Alcohol (causes Fetal Alcohol Syndrome)
 - ✓ Caffeine
 - ✓ Artificial sweeteners
 - ✓ methyl mercury causes Minamata Syndrome
 - ✓ Polychlorinated biphenyls (PCBs)
 - ✓ *Listeria monocytogenes*
 - ✓ Pica: an appetite for substances.
- Diet-Related Complications of Pregnancy :
 - ✓ Nausea and vomiting
 - ✓ Heartburn
 - ✓ Constipation
 - ✓ Edema in legs
 - ✓ Hyperemesis gravidarum: extreme, persistent nausea and vomiting. (morning sickness)
 - ✓ Gestational diabetes (5% to 10%) around 7%
 - ✓ Pregnancy-induced hypertension (PIH) , (5% to 8%) which causes :
 - Preeclampsia
 - Eclampsia
 - Diagnosis
 - Management
- Risk factors associated with gestational diabetes :
 - ✓ Family diabetes
 - ✓ Previously unexplained stillbirths
 - ✓ Large babies weighing 4 kg or more
- Lactation :
 - Hypothalamus is affected due to the sucking effect. Then the anterior pituitary produces milk through prolactin, after that the posterior pituitary produces oxytocin and milk ejection.
- Prolactin :
 - ✓ A hormone secreted from the anterior pituitary gland...

- ✓ Important for secretion.
- Oxytocin :
 - ✓ Important for let-down reflex (release) of milk, ejection.

Epidemiology: the study of the distribution and determinants of health, disease and injuries in human population.

- Epidemic: A disease that clearly exceeds normal or expected frequency in a community or region.
- Pandemic: Epidemic with worldwide distribution, global.
- Endemic: **مستوطن** Continuing presence of a disease or infectious agent in a given geographic area means the disease is endemic to that area.
- Descriptive epidemiology: What, Who, Where and When.
- Analytic epidemiology: Why and Who.
- The relationship between the exposure and the disease :
 - ✓ What is the exposure?
 - ✓ Who are the exposed?
 - ✓ What are the potential health effects?
 - ✓ What approach will you take to study the relationship between exposure and effect?
- Study designs :
 - ✓ Descriptive :
 - Case report
 - Case series
 - Descriptive Epidemiology
 - ✓ Analytic :
 - Experimental: RCT: Clinical trial (the best design) and Community trial.

- Non-Experimental, Observational
 - Cohort Studies: Group of people who share common experience.
 - ✓ Prospective Study: Looking forward, interested in the future.
 - ✓ Retrospective Study: Looking backwards, the past.
 - Hypothesis formation :Descriptive epidemiology.
 - Hypothesis testing: Analytic epidemiology, Clinical trials.
 - Case report and case series important in hypothesis generation.
 - Observational Studies :
 - ✓ Group data
 - Ecologic (whole population)
 - ✓ Individual data
 - Cross-sectional: at a certain point at time. Study exposure and disease together. It is cheap, quick and easy to conduct but has some disadvantages (e.g. it only measures the prevalence, not suitable for rare and emerging diseases).
 - Cohort: monitors the exposed and the non-exposed individuals for a year or two, can be prospective or retrospective.
 - Case-control: (retrospectively) past exposure. It is less expensive and less time consuming. Good for studying rare diseases. But have some selection bias.
 - Case-crossover
 - Prevalence = Incidence X duration
Prevalence > Incidence (unless short duration, prevalence becomes equal to incidence, as in deadly diseases)

***** Make sure to read the advantages and disadvantages of each study design from the slides.**

- ✓ In experimental studies we have a treatment group and a comparison or control group.
 - ✓ Randomization (Random assignment/allocation): We have two groups: A and B. Group A takes a drug intervention, group B doesn't take it, or takes a placebo drug.
 - ✓ Blindness: only the head investigator knows the exposure status.
- Principal investigator controls everything about the environment of the study.

Medical Nutrition Therapy for Diabetes Mellitus and hypoglycemia of Nondiabetic Origin

- Diabetes :
- ✓ Type 1
 - In children
 - Two forms: Immune mediated and Idiopathic.
 - Symptoms : hyperglycemia, polyuria, polydipsia, weight loss,
 - ✓ Type 2
 - Risk factors:
 - BMI >25 (overweight)
 - Physical inactivity
 - HDL<40 (MEN) , <50 (WOMEN)
- Gestational Diabetes Mellitus (GDM)

- ✓ 7% of pregnant women.

- Diagnosis of diabetes:
 - ✓ FPG \geq 126
 - ✓ CPG and GTT (glucose tolerance test) \geq 200
- Insulin transfers glucose to the tissues
- Anti-Insulin Hormones :
 - ✓ Glucagon
 - ✓ Epinephrine (adrenaline)
 - ✓ Norepinephrine
 - ✓ Cortisol
 - ✓ Growth hormone
- Diabetes treatment goals :
 - ✓ HPA1C must be $<0.7\%$
 - ✓ Pre-prandial capillary plasma glucose must be 90-130 mg/dl.
- Long-Term Complications :
 - ✓ Macrovascular diseases:
 - Dyslipidemia
 - Hypertension
 - ✓ Microvascular diseases
 - Nephropathy
 - Retinopathy
 - Neuropathy
- Hypoglycemia of Non-diabetic Origin :
 - ✓ Alimentary Hyperinsulinemia

Medical Nutrition Therapy for Hypertension

- From the 10 leading causes of death in Jordan (9.34%)
- prevalence is 32.2%
- Normotensive = 120/80 mm Hg
- Stage 1 hypertension = 140–159/90–99 mm Hg
- 29% of adult in US population
- Potassium, Calcium, Magnesium and lipids have a vital role in Hypertension.
- Pay attention to PRUDENT DIEST (and the numbers)

Medical Nutrition Therapy for Cancer

- Cancer: malignant and benign.
- signs and symptoms include:
 - ✓ New lump
 - ✓ Abnormal bleeding,
 - ✓ Prolonged cough,
 - ✓ Unexplained weight loss
 - ✓ A change in bowel movements
- characteristics of cancer:
 - ✓ self-sufficiency in growth signaling
 - ✓ insensitivity to anti-growth signals
 - ✓ evasion of apoptosis
 - ✓ enabling of a limitless replicative potential
 - ✓ induction and sustainment of angiogenesis
 - ✓ activation of metastasis and invasion of tissue
- Causes of cancer
 - ✓ Environmental factors
 - ✓ Toxins
 - ✓ Chemicals

- ✓ Infection
- ✓ Tobacco

- Cancer Screening :
 - ✓ Universal screening
 - ✓ Targeted screening

- stages of cancer development:
 - ✓ Initiation
 - ✓ Promotion
 - ✓ Tumor progression, includes metastasis (not always)

- Stages of Tumor Development :
 - ✓ Hyperplasia
 - ✓ Dysplasia
 - ✓ Carcinoma in situ
 - ✓ Cancer (Malignant tumors)

- Cancer causes 14% of all deaths in Jordan.
 - The 5 most frequently reported cancers among adult males **IN JORDAN** were: lung, colorectal, leukemia, urinary and bladder and prostate. For adult females these were: breast, colorectal, leukemia, thyroid and corpus uteri.

- The most common types of cancer in males **IN THE WORLD** are: lung cancer, prostate cancer, colorectal cancer, and stomach cancer.

- The most common types of cancer in females **IN THE WORLD** are: breast cancer, colorectal cancer, lung cancer, and cervical cancer.

- There are five stages of cancer by TNM system (tumor formation (T), lymph node involvement (N) and presence of metastasis (M) :
 - ✓ Stage 0 (in situ)
 - ✓ Stage I
 - ✓ Stage II

- ✓ Stage III
- ✓ Stage IV

➤ Nutrition in the Etiology of Cancer (IMPORTANT)

➤ Guidelines for Cancer Prevention:

- ✓ Choose a diet rich in a variety of plant-based foods.
- ✓ Eat plenty of vegetables and fruits.
- ✓ Maintain a healthy weight and be physically active.
- ✓ Drink alcohol only in moderation, if at all.
- ✓ Select foods low in fat and salt.
- ✓ Prepare and store food safely.
- ✓ Do not use tobacco in any form

➤ Cancer Prevention :

- ✓ Screening
- ✓ Vaccination
- ✓ Not drinking alcohol

➤ Treatment :

- ✓ Surgery
- ✓ Chemotherapy
- ✓ Immunotherapy
- ✓ Radiation therapy
- ✓ Hematopoietic stem cell transplantation

** the doctor just read quickly the major topics of cardiovascular diseases.
(so READ THE SLIDES)

"لا تيأسوا من روح الله"

مهما كنتم في مدينة وشدة وضيق وهو

ثق أن هناك لطفه خفي من الله ينتظرك

فقط هو امتحان لصبرك

Last but not least, I would like to thank Hadil Zriegat, Amani Al -halabi and Riham Al-Hindi for making this semester a lot better.

PAST PAPER QUESTIONS:

- (1) The rate of consumption of water in Jordan in L/C/D is : 56
- (2) what is the element found in base paint? Lead
- (3) The percentage of women who use modern contraceptive methods :
42%
- (4) All of the following is iron rich except :
- a- Milk
 - b- Red meat
 - c- Poultry
 - d- Fish
 - e- All of the above
- (5) The most common cause of death in developing (low-income) countries:
- a- Diarrhea
 - b- Lower respiratory tract infections
 - c- Coronary diseases.
- (6) According to the last cause- specific death rates study, neoplasm is:
- a- The first cause.

b- The second.

c- The third.

(7) The percentage of death in low-income countries: 45%

(8) The best classification that describes how pollutants get to atmosphere:

a- solid, gas, liquid

b- primary Vs. secondary

c- Stationary Vs. mobile.

(9) The source of arsenic is:

a- Rodenticides.

b- Animal feed

c- Alcohol (الكحل العربي)

d- All of the above

(10) Which of following is one of chemicals estimated as criteria air pollutant:

a- O₃

b- CO₂

c- Methane

d- SO₃

e- All of the above

(11) One of the following is water related disease:

a- Malaria

- b- Bilharzias
- c- Cholera
- d- Typhoid
- e- All of the above

The malaria is insect-vectored water related, but all of them are **WATER RELATED** (if we talk in general.)

(12) What are the proximate factors that affect fertility in US?

- a- Abortion
- b- Contraceptive
- c- a+b

(13) One of the following causes simple asphyxia:

- a- CO
- b- Neon
- c- CNd-
- SO₂
- e- None of the above

(14) First cause of maternal mortality according to the higher population council 2009 is:

- a- Hemorrhage.
- b- Eclampsia.

(15) All of the following are included in PHC except:

- a- Episodic care.
- b- Joint responsibility.

c- Comprehensive care

(16SO₂ is:

a- Colorless

b- Odorless

c- Both a+b

(17Which one of the following should be under PHC: Housing and Education.

(18What is wrong about unmet need for family planning:

a- limiting is 5% and spacing is 7%

b- Is defined as the percentage of women who do not want to become pregnant but are not using contraception.

c- High in non-educational women.

d- High in rural.

(19Contagion theory of disease states: Contagion is a corruption which develops in the substance of combination, passes from one thing to another.

(20Which of following is true about methane:

a- It is the smallest component of the atmosphere. Community medicine / mid-term exam الدكتور 2011

b- It has a critical toxic effect.

c- It is produced by rice paddies.

(21Which one is the weakest service of PHC in Jordan?

a- Antenatal service.

- b- Well baby clinic
- c- Counseling
- d- Family planning services.
- e- Water sanitation

(22) Which one of the following is solid air pollutant:

- a- Lead in gasoline
- b- Mercury
- c- CO
- d- CO₂

(23) The definition of environment according to the WHO includes:

- a- Man-made climate change
- b- Diet
- c- Tobacco smoking
- d- Natural biological agents
- e- All of the above

(24) The highest maternal mortality rate in Arab countries is in:

- a- Jordan
- b- Sudan
- c- Dubai

(25) CFC's is used in food industry for:

- a- Insulation.
- b- Hair sprays.
- c- cooling

d- None of the above

(26) Infectious hepatitis is:

a- Water borne disease

b- Water based disease

c- Both a and b

d- None of the above

(27) Bio magnifications means:

a- Tendency to accumulate in living organisms.

b- Tendency to accumulate in soil

c- Can't be degraded by natural powers

d- None of the above.

(28) DALY is:

a- Disability adjusted last year.

b- Disadvantage adjusted life years.

c- None of the above

(29) Which of following is an eco-social problem:

a- Alcoholism

b- Smoking

c- Poverty

d- Age

(30) Which of following is true about radon:

a- Has short half life

b- The first cause of lung cancer in USA

c- it is one of the causes of sick building syndrome

d- it is a radioactive substance

e- all of the above

(31 One of the United Nations' Millennium development goals is to lower maternal mortality rate from 41 to 12

(32 Which of the following sectors should be under the umbrella of PHC ?

housing, education, industry, agriculture

(33 all of the following characterize PHC model except:

episodic care

(34 all is true about PHC services for a community as Jordan, except:

highly qualified medical and very little paramedical

(35 according to the last cause specific death in Jordan , neoplasm is:

the 2nd cause

(36 the rate of death in the low income countries:

%45

(37 the most common cause of death in the low income countries is:

lower respiratory infections

(38 the period census of the demography ?

10

(39 affect the fertility rate in USA

abortion + contraceptive

(40 the lowest fertility rate:

Spain

(41) the pyramid of population of Jordan looks like the one of:

developing countries

(42) MMR, main target:

to reduce it from 41 >>> 12 in 2015

(43) the most common cause of maternal death according to the high population council 2009 is.....

hemorrhage

(44) the most important social-economical risk

poverty

(45) vitamin A is maximal needed during:

lactation

(46) what's the wrong about unmet need:

7% spacing & 5% limiting

(47) CFC is used in food industry as:

a) Fire extinguisher

b) insulation

c) hair spray

d) as fuel

e) none of the above

(48) example of sweepers in eco-systems:

ants

(49) according to contagion theory:

contagion is corruption which develops in the substance of the combination passes from one to another

(50 according to WHO , environmental factors include:

man-made, climate changes

(51 water related diseases , include:

malaria, bilharzias, typhoid

(52 CH₄ : can be released from agricultural activities

(53 The total morbidity during current pregnancy is:

a- 18.7

b- 34.5

c- 50

d- 41.3

e- 27.7

(54 The most common cause of diarrhea is:

a- E.coli

b- Pertussis

c- Rota virus

(55 The percentage of women who receive postnatal care is:

a- 15

b- 40

c- 68

d- 73

e- 90

(56) All of the following are considered as attenuated live vaccines except:

- a- Measles
- b- Mumps
- c- Pertussis

(57) RAD stands for : Radiation absorbed dose

(58) Which of the following is natural background radiation:

- a- Nuclear reactors
- b- Nuclear weapons
- c- Occupational exposure
- d- Industrial exposure
- e- Terrestrial

(59) Factory inspectors was the outcome of:

- a- World war 1
- b- World war 2
- c- Industrial revolution
- d- None of the above

(60) Risk assessment helps in:

- a- Identify the hazard
- b- Evaluate the risk
- c- Identify all affected by the hazard
- d- All of the above

(61) All of the following are true about diphtheria except:

- a- Can cause serious illness

- b- Kills 1 of 10 people infected with it.
- c- Has long incubation period.
- d- If not treated the child could die.
- e- Lives in mouth, nose and throat and can be spread by droplet infection.

(61 Which of the following considered as social factors affecting adolescent health:

- a- Economic
- b- Legal
- c- Religious
- d- Educational
- e- All of the above

(62 HSE in Britain is: Health and safety executive.

(63 To compare your study with other studies : Consistency

(64 Which of the following has the lowest sensitivity for radiation:

- a- Mucus membrane
- b- Bone marrow
- c- Lung
- d- Mature bone
- e- Optic lens

(65 Mechanical hazard? Slipping

(67 Which one of following contains lead:

- a- Unleaded gasoline
- b- All types of paint
- c- Solid batteries
- d- Rodenticides
- e- All of the above

(68) Which of the following is right about heat stroke:

- a- It is the same like heat exhaust
- b- The skin of the patient is wet
- c- It can be caused only from sun
- d- Alcohol consumption is a risk factor
- e- None of the above

(69) Which of following is an indirect cause for maternal mortality:

- a- Hypertensive disorder
- b- Breast cancer
- c- Preeclampsia
- d- infection
- e- None of the above

(70) The most common cause of maternal morbidity worldwide according to the 2003- WHO study:

hypertensive disorders

(71) The most common cause of maternal morbidity in Jordan according to the 2005-WHO study is:

UTI (urinary tract infection)

(72) Incidence rate and causality are used in which of the following studies:

- a- Cross section
- b- Cohort
- c- Case control
- d- Clinical studies
- e- B&D

(73) Having a cancer from workplace is considered as:

- a- Chemical hazard
- b- Biological hazard
- c- Hazard from workplace which is biological, physical, chemical and psychological one.
- d- None of the above.

(74) Which study is used to find efficacy:

- a- Cross section
- b- Cohort
- c- Case control
- d- Clinical
- e- B&D

(75) All of the following rates are calculated per 1000 births except:

- a- Neonatal mortality- Post neonatal mortality
- c- Infant mortality
- d- Child mortality
- e- Under-five mortality

(75) The percentage of children who die at first month is : 75%

