

# Health sciences

## U-5 disease prevention

5-1

A disease or an illness : it's a medical condition that stops a person's body from working properly

The factors might people have develop in disease : genetics , environmental factors , person's lifestyle .

The best way that people can lower their risk of diseases by :-

- 1- living a healthy lifestyle .
- 2- Practising good personal hygiene .
- 3- having regular medical check-ups .

Causes of disease and illness i -

- 1- Person lifestyle choices
- 2- Caused by bacteria , viruses and parasites .

We can prevent communicable diseases by :-

- 1- Practising good personal hygiene
- 2- Cleaning and disinfecting shared areas
- 3- Keeping safe distance from people who are sick or unwell .

5-2

Modifiable: risk factors are risk factors that you change

Non modifiable: risk factors are ones that you cannot change

Modifiable risk factors :-

- Sedentary lifestyle
- Being overweight or obese
- type 2 diabetes
- Smoking
- High blood pressure (hypertension)
- High blood cholesterol
- High stress levels

Non modifiable risk factor

- Gender
- Age
- Family history
- Ethnicity

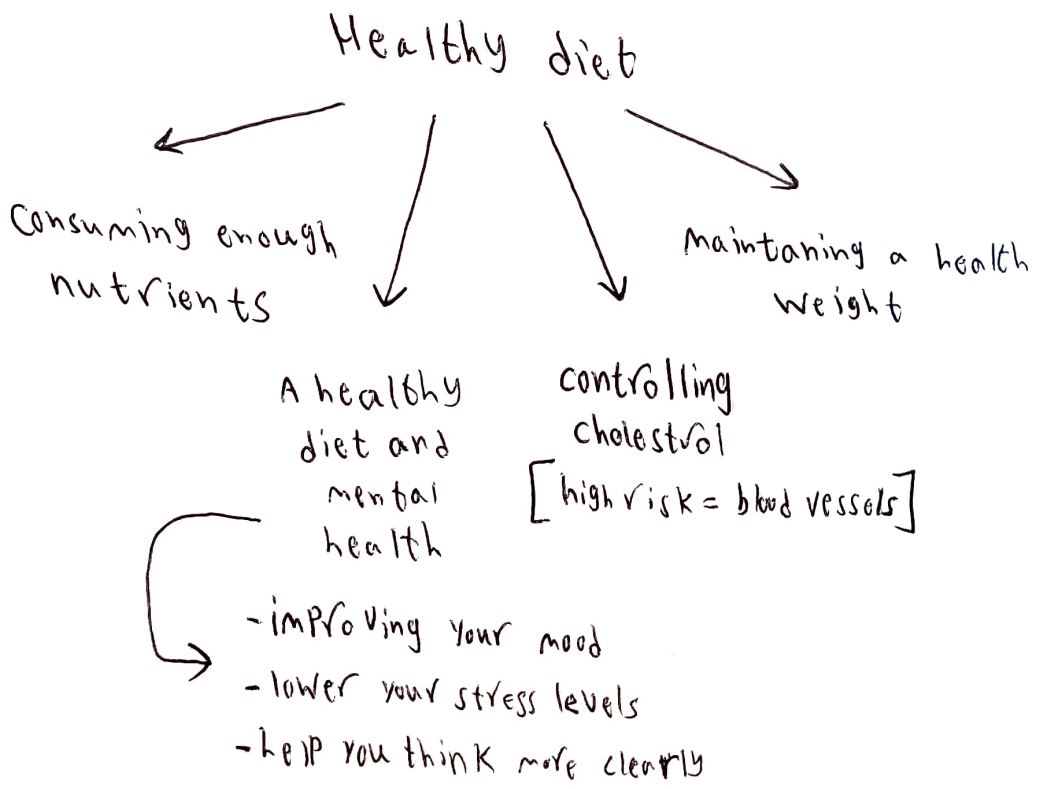
Genetics : is the study of the way that physical features and characteristics are passed from one ~~generation~~ generation to the next.

5-3

Personal health behaviours: are life style habits that can affect a person's health.

Positive health behaviours include:

- Having a healthy diet
- Drink enough water
- Getting enough sleep
- Having good personal hygiene
- Being physically active
- Getting medical check-ups regularly.



not getting enough sleep can have negative effect on health, such as:-

- feel tired.
- bad mood.
- even unwell.

and risk such as:-

- diabetes type 2.
- high blood pressure.
- heart disease.
- poor mental health.

How to get enough sleep? -

- 1- aim to sleep between 7 to 9 hours.
- 2- try to get a bed in a same time every day.
- 3- avoid large meals, caffeine.
- 4- avoid smartphones, electronics when you go to sleep.

important of hygiene

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

☆☆☆ You must wash your hand frequently to avoid a diseases

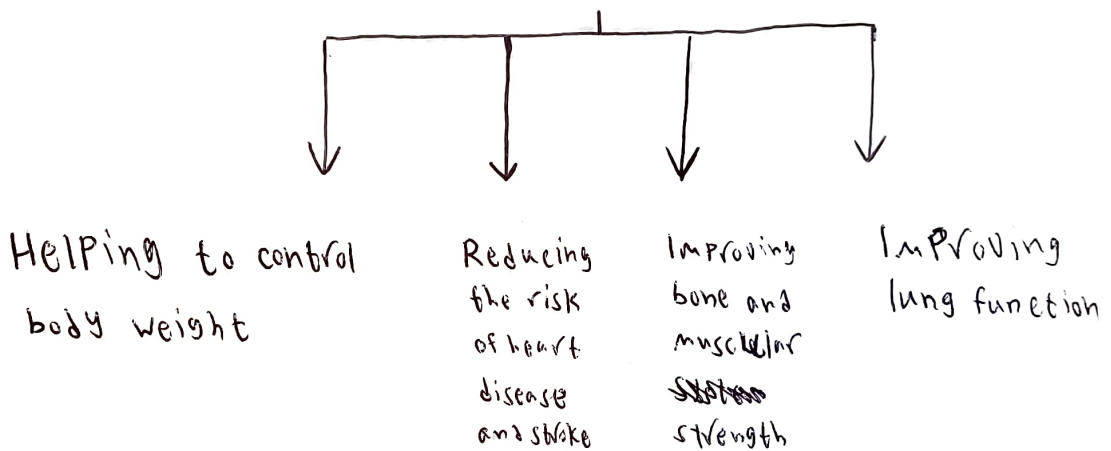
5-4

Physical activity define by WHO :-

any bodily movement produced by skeletal muscles that requires energy expenditure

أي حركة جسدية تنتج بواسطة الجهاز العضلي تتطلب طاقة .

### Benefits of Physical activity



Mental and emotional health :-

benefits of exercise :

- 1- Improves your mood
- 2- Reduce the stress
- 3- Release endorphins, that make your ~~happier~~ <sup>mood</sup> happy.

## social health :-

like group sport, the benefits of group sports like football, basketball, etc. --- :-

- 1- increase confidence.
  - 2- learn leadership skills.
  - 3- make new friends.
  - 4- increase motivation to exercise.
- 

## Recommendations for exercise

- children and teenagers [5 → 17] years old :-

- 60 (1 hour) for high <sup>to</sup> moderate intensity
- exercise 3 times a week for strengthen muscles, bones.

- Adult [18 → 64] years old :-

- 150 min moderate to 75 min high intensity activity
- 300 min moderate activity per a week.
- aerobics, swimming, running, should doing at least 10 minutes
- strengthen muscles, bones, weight training should do it 2 times per a week.



# Exercise intensity

## ① Moderate - intensity activity

(working the heart 70% → 80% of MHR, maximum heart rate)

Such as:-

- moderate walking  $\pm 5$  km/h
- Cycling (less than 16 km/h)
- Swimming slowly.
- Golf
- heavy housework / Gardening.

## ② High intensity activity

(working the heart 80% → 85% of MHR)

- Running
- Playing sport (football)
- Swimming fast laps.
- cycling (over 16 km/h)
- Hiking mountain
- High intensity aerobics.

60% to 85%  
People in word  
do not exercise  
enough.

How Medical care can prevent disease

- Immunisation, by vaccine
- Screening, by sign of a disease or illness

also can prevent the disease by :-

- Blood test
- lab test
- Vaccines
- medication

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\* the vaccine work by create antibodies to fight the disease

Importance of

Vaccination :-

- 1- Save 2.5 million every year.
- 2- Reduce the risk to get a disease.
- 3- help to prevent more than 20 disease.
- 4- control of infection disease outbreaks.



# UAE National Immunisation Programme

- 1- After birth
- 2- 2 months
- 3- 4 months
- 4- 6 months
- 5- 12 months
- 6- 18 months
- 7- Grade 1
- 8- Grade 9
- 9- Grade 11

Influenza  
(H1B)

Tu ber culosis (BCG)

مرض السل، البكتريا

H e Patitis B (HeP, B)

التهاب الكبد

Polio (OPV/ IPV)

شلل الأطفال

Measle, mump, Rubella

(MMR) الحصبة، النكاف، الحصبة الألمانية

Varicella (chicken pox)

الحصبة

Screening = diagnose

in different age:-

20's and 30's

- blood pressure.
- Cholesterol and glucose levels.
- BMI, waist and hip measurements.
- Dental check and cleaning.
- skin cancer checks.
- Diabetes risk assessment

~~for women~~ Cervical screening (females only)

40's

- Cardiovascular disease
- eye checks
- breast screening
- Prostate screening

50's, 60's

- osteoporosis risk assessment
- Bowel cancer screening
- Sight and hearing tests

# tests

~~Screening tests~~



## Screening test

- Check for early signs
- for large numbers of people
- one simple test
- low cost

## diagnostic tests

- to confirm the presence of the disease
- for one person
- more in depth
- High cost

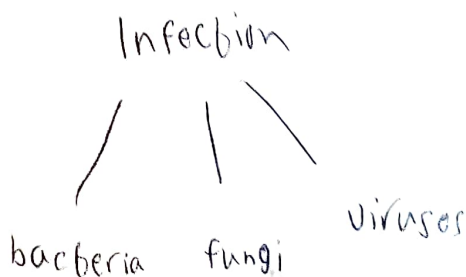
5-6

class  
5/8/21

PPE → Personal protective equipment

3 things ~~need~~ to spread the infection to spread:-

- 1- source
- 2- A Person
- 3- transmission



# Ways to practise infection control include :-

1- infection control program

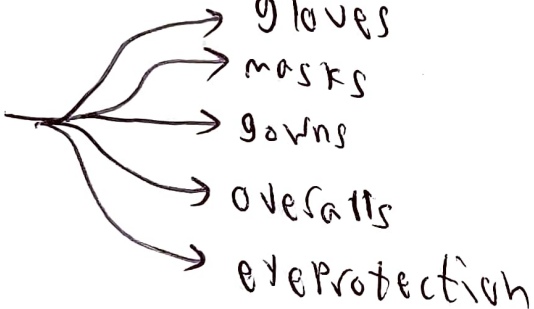
2- screening

3- Hand washing

4- good hygiene

5- quarantine

6- PPE



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graph LR; PPE --- gloves; PPE --- masks; PPE --- gowns; PPE --- overalls; PPE --- eyeProtection[eye protection]
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- gloves
- masks
- gowns
- overalls
- eye protection