

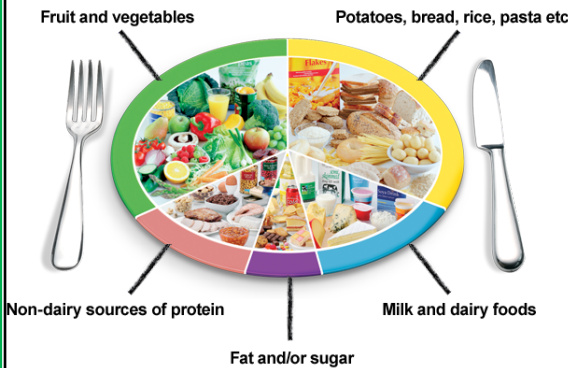


# Knowledge Organiser: Year 12 Health and Social Care Unit 19 Nutritional Health

## A. Concepts of Nutritional Health

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### The eatwell plate



**Over nutrition**= A condition that results from either eating too much or wrong food types or taking too many vitamin supplements

**Deficiency** = Absence of a particular nutrient in the body.

**Antioxidant**=Substances that may prevent or delay some types of cell damage e.g. cancer.

## A. Nutritional measures and dietary intake

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**Basal metabolic rate** = The amount of energy you need even when resting, depends on age, gender and size.

**Measuring Body Mass Index (BMI)**  
= chart identify if individual's are the right weight for their height.

**Dietary Reference Values**= estimates of the amount of energy and nutrients needed for good health

### BODY MASS INDEX BMI



## A. Characteristics of essential nutrients

**Basal Metabolism**= The energy necessary to maintain vital body functions e.g. respiration and circulation, while fasting and at total rest.

**Free Sugars** = Sugars added to foods including in baking as opposed to naturally occurring sugars, such as lactose in milk and fructose in fruit.

Mineral	RDA/AI		Best Sources	Functions
	Men	Women		
Calcium	1,000mg	1,000mg	Milk and milk products	Strong bones, teeth, muscle tissue; regulates heart beat, muscle action, and nerve function; blood clotting
Chromium	35ug	25ug	Corn oil, clams, whole-grain cereals, brewer's yeast	Glucose metabolism (energy); increases effectiveness of insulin
Copper	900ug	900ug	Oysters, nuts, organ meats, legumes	Formation of red blood cells; bone growth and health; works with vitamin C to form elastin
Fluoride	4mg	3mg	Fluorinated water, teas, marine fish	Stimulates bone formation; inhibits or even reverses dental caries
Iodine	150ug	150ug	Seafood, iodized salt	Component of hormone thyroxine, which controls metabolism
Iron	8mg	18mg	Meats, especially organ meats, legumes	Hemoglobin formation; improves blood quality; increases resistance to stress and disease
Magnesium	420mg	320mg	Nuts, green vegetables, whole grains	Acid/alkaline balance; important in metabolism of carbohydrates, minerals, and sugar (glucose)
Manganese	2.3mg	1.8mg	Nuts, whole grains, vegetables, fruits	Enzyme activation; carbohydrate and fat production; sex hormone production; skeletal development
Molybdenum	45ug	45ug	Legumes, grain products, nuts	Functions as a cofactor for a limited number of enzymes in humans
Phosphorus	700mg	700mg	Fish, meat, poultry, eggs, grains	Bone development; important in protein, fat, and carbohydrate utilization
Potassium	4700mg	4700mg	Lean meat, vegetables, fruits	Fluid balance; controls activity of heart muscle, nervous system, and kidneys
Selenium	55ug	55ug	Seafood, organ meats, lean meats, grains	Protects body tissues against oxidative damage from radiation, pollution, and normal metabolic processing
Zinc	11mg	8mg	Lean meats, liver, eggs, seafood, whole grains	Involved in digestion and metabolism; important in development of reproductive system; aids in healing

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## B. Dietary needs of individuals

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- Children e.g. protein for growth, minimising sugar and additives
- Adults e.g. monitoring calorie intake to minimise obesity
- Older people e.g. Calcium to help prevent osteoporosis
- Pregnant women e.g. iron to prevent anaemia
- Breastfeeding mothers e.g. limiting alcohol intake

## B. Factors affecting nutritional health

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**Dietary habits**

**Vegetarian** = a diet that does not include meat, poultry or fish, but does include eggs and dairy products.

**Vegan** = a diet that excludes all meat, poultry, fish, eggs and dairy products.

**Lifestyle** - including social eating and drinking, exercise/activity levels

**Socioeconomic** – including cost of food, access to shopping facilities

**Cultural** – including religious and cultural beliefs, role of food in families and communities

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## B. Factors affecting dietary intake

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**Specific conditions** e.g. diabetes mellitus, coronary heart disease

**Angina** = chest pain caused by inadequate oxygen supply to the heart muscle when it is under stress, usually relieved by rest or taking tablets to dilate the arteries.

**Heart attack** = Chest pain, caused by blockage of the artery supplying oxygen to the heart muscle. The pain is not relieved by rest or angina tablets and is a medical emergency

**Digestive disorders** e.g. Irritable bowel syndrome, Crohn's disease

**Food allergies and intolerance** e.g. coeliac disease, lactose intolerance

**Alternative methods of feeding** e.g. Nasogastric tubes, percutaneous endoscopic gastrostomy and thickening fluids.

## C.. Assessment of nutrient intake

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**Nutritional assessment score** =

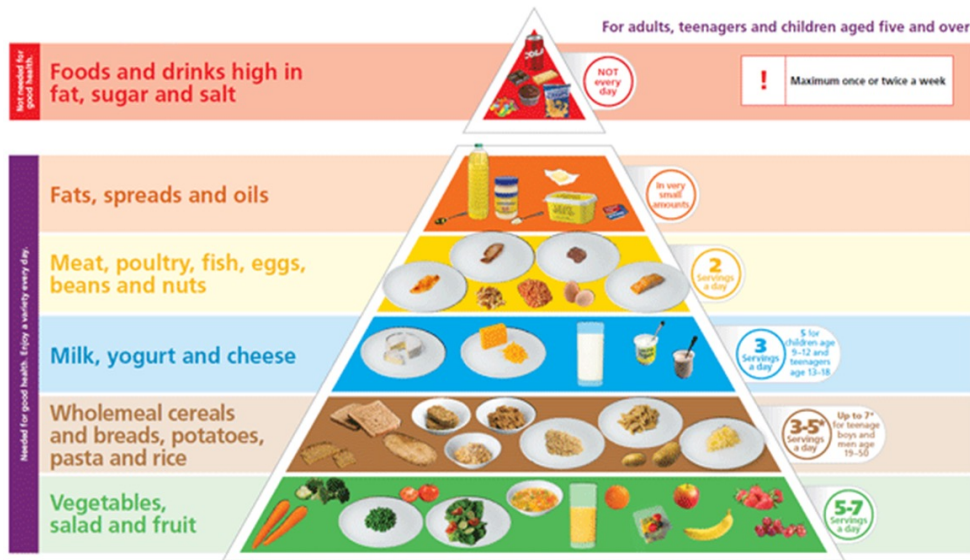
The 'Malnutrition Universal Screening Tool (MUST) Helps to identify if a person is at risk of malnutrition.

**Sources of nutritional information** e.g. Food analysis tables, chart relating to portion size, information on food packaging.

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g	1.3g	34g	0.9g
	LOW	LOW	HIGH	MED
13%	4%	7%	38%	15%

of an adult's reference intake  
Typical values (as sold) per 100g:697kJ/167k



## C. Nutritional Health Improvement Plan

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### Use of plans:

A risk has been identified that could be avoided with changes to the diet

A person making a conscious decision to improve their diet e.g lifestyle or training for sports events.

### Recommendations for activity level

Adults aged 19-64 should aim to be active every day, with muscle strengthening activities on at least 2 days each week.

Children and young people aged 5-18 years should aim for 60 minutes or more of moderate activity daily, with vigorous activity on three days of the week.

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# How do we use Knowledge Organisers in Health and Social Care

## How can you use knowledge organisers at home to help us?

- **Retrieval Practice:** Read over a section of the knowledge organiser, cover it up and then write down everything you can remember. Repeat until you remember everything.
- **Flash Cards:** Using the Knowledge Organisers to help on one side of a piece of paper write a question, on the other side write an answer. Ask someone to test you by asking a question and seeing if you know the answer.
- **Mind Maps:** Turn the information from the knowledge organiser into a mind map. Then reread the mind map and on a piece of paper half the size try and recreate the key phrases of the mind map from memory.
- **Sketch it:** Draw an image to represent each fact; this can be done in isolation or as part of the mind map/flash card.
- **Teach it:** Teach someone the information on your knowledge organiser, let them ask you questions and see if you know the answers.

## How will we use knowledge organisers in Health and Social Care?

- **Test:** We will do regular low stakes tests to check your ability to retrieve information from memory.
- **Mark our answers:** Once you have done a low stake test you can mark your work using the knowledge organiser.
- **Improve our work:** Once you have finished a piece of work you may be asked to check your knowledge organiser to see if there is any information on it that you could add into an answer.

<u>ASSESSMENT</u>	<u>SECTION ON KNOWLEDGE ORGANISER</u>	<u>DATE</u>	<u>SCORE</u>
Learning Check point 1			
MID UNIT EXAM			
Learning Check point 2			
END OF UNIT			