

Food and Cookery Unit 3: Exploring Balanced Diets

AC 1.1 Explain what is meant by a balanced diet

Fruits & Vegetables

40%

- Eat 5 portions a day!
- Choose a variety
- Provides fibre for healthy digestion
- Provides vitamins and minerals for healthy body functions and immune system

Starchy Foods

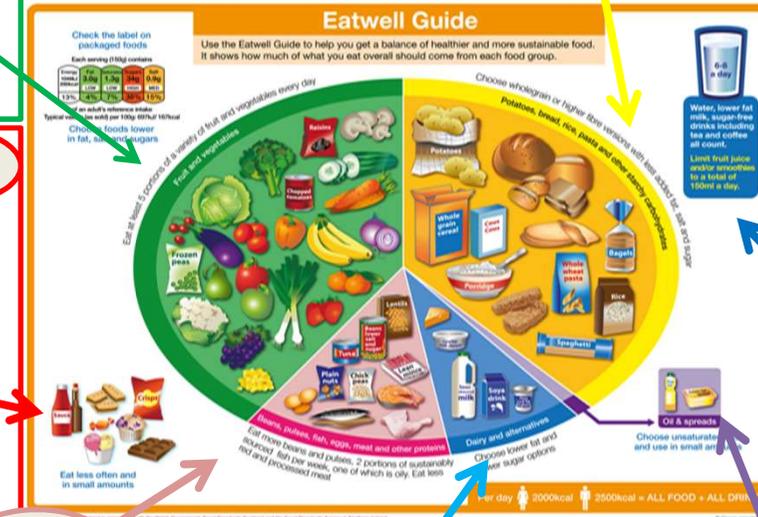
38%

- Provide slow release carbohydrate used by the body for energy
- Choose wholegrains for increased fibre (good digestion, reduced risk of heart disease)

Fatty and Sugary Foods

0%

- These are the danger foods:
- They are not part of a healthy diet
- Eat them only occasionally
- Eating too much fatty and sugary processed food is linked to increased risk of weight gain/obesity, diabetes, tooth decay and cardiovascular disease



Beans, Pulses, Eggs, Meat, Fish

12%

- Provide protein for growth, repair and maintenance of body cells
- Choose a combination of plant proteins
- Avoid eating too much processed meat like bacon and sausages as these are linked with increased risk of bowel and stomach cancer

Dairy Foods

8%

- Provide calcium for healthy bones, teeth and nails
- The body needs Vitamin D to absorb calcium effectively

Portion Control!

Healthy diets not only have the correct balance, but have the right portion sizes. Here is a 'handy' guide...

Vegetables = double cupped palm.

Grains/Starches = clenched fist.

Protein = palm of hand.

Fruits = clenched fist.

Thumb = fats.



Water Intake

A balanced diet must include water, it is required for nearly all brain and other bodily functions. See slide 2 for more details on water.

Fats, Oils & Spreads

1%

Provide fat soluble vitamins A, D, E & K

Are high in calories & energy so keep use to a minimum. It is recommended to choose unsaturated oils like olive oil.



The Eatwell Guide is the UK Healthy Eating Model. It shows what we should eat as a balanced diet. The size of the sections represents the proportion of our diet that particular food group should make up. The Eatwell Guide was updated in 2016 to take into account scientific opinion and public opinion. The main change was that sugary and fatty foods are shown off the plate as they are not part of a healthy diet.

AC 1.2 Describe the nutrients that make up a balanced diet

ALL ABOUT WATER...



FUNCTIONS

- Transporting nutrients in blood
- Removing waste products that are then passed in to the urine and faeces
- Regulating body temperature (e.g. by sweating)
- Aiding digestion and prevents constipation
- Acting as a lubricant and shock absorber in joints

WHICH SOURCES SUPPLY IT?

- **Water:**
Fresh water is the best way to hydrate the body; it contains no energy, is sugar free and will not rot teeth.
- **Other fluids:**
Milk (particularly low fat milk) is an important fluid, especially for children, and is about 90% water (whole milk should be consumed until two years old as under 2 years they may not get the calories they need from lower-fat milks). Tea can be an important source of fluid. It can help meet daily fluid recommendations, and is a source of antioxidants and polyphenols, which reportedly protect against heart disease and cancer. Caffeine drinks are stimulants and should be avoided as they cause the body to produce urine more quickly. Fruit and herbal teas are suggested instead of tea varieties that contain caffeine. Fresh fruit is preferable to fruit juice because it has more fibre and nutrients, and less sugar.

HOW MUCH IS NEEDED?

- In a typical UK diet, drinks provide 70-80% of water needs; the remaining 20-30% comes from food, e.g. soup, casseroles, fruits and vegetables.
- How much fluid a person needs will depend on factors such as: room temperature, room humidity, exercise.

WHAT HAPPENS IF YOU DON'T HAVE ENOUGH?

- Lack of fluids causes dehydration. Symptoms include thirstiness, a dry and sticky mouth, feeling tired, losing concentration, dizziness and headaches.
- Dehydration can increase the risk of kidney stones and urinary tract infections.

WHAT HAPPENS IF YOU HAVE TOO MUCH?

- Very rare – but can damage the body and cause hyponatremia (water intoxication). Hyponatremia occurs when sodium in the blood drops to a dangerously low level (sodium is needed for muscle contraction and for sending nerve impulses).



The Bristol Stool Chart

The Bristol stool chart shows how the shape of different stools (poos) on a continuum.

Both dietary fibre and water play a HUGE role in keeping the digestive system functioning properly.

Too little water and/or fibre can result in constipation (the Type 1 and 2 stools)

Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid



FIBRE

What is it?

Fibre is found in fruits and vegetables, nuts, seeds, wholegrain cereal flours and products. It is not digestible and passes through the digestive system, forming the bulk of our stools (poo).

Dietary fibre has many health benefits:

- It can reduce your risk of heart disease, diabetes and some cancers, and also help weight control.
- Fibre is also important for digestive health - fibre bulks up stools and holds water in them, making them softer and easier to pass. It also makes waste move through the digestive tract more quickly, which is better for the gut and can help to prevent constipation.
- Some types of fibre can be fermented by gut bacteria, producing substances that appear to be good for gut health. Providing 'food' for gut bacteria can also help increase the number of healthy bacteria in the gut.

How Much do we Need?

30g a day for adults

2-5 years 15g per day, 5-11 years 20g per day, 11-16 years 25g per day, 16-18 years 30g per day

To increase your fibre intake you could:

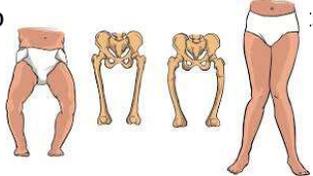
- Choose a high fibre breakfast cereal e.g. bran flakes, or porridge
- Choose wholegrains like whole-wheat pasta, bulgur wheat or brown rice, wholemeal bread
- Go for potatoes with skins
- For snacks try fruit, vegetable sticks, rye crackers, oatcakes, unsalted nuts or seeds
- Include plenty of vegetables with meals – either as a side dish or added to sauces, stews or curries
- Add pulses like beans, lentils or chickpeas to stews, curries and salads
- Eat fruit!
- Add nuts and seeds to recipes

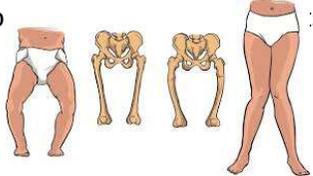
AC 1.2 Describe the nutrients that make up a balanced diet - MACRONUTRIENTS

	Nutrient	Source	Function	Effects of deficiency
MACRONUTRIENTS	Carbohydrates	Starches – found in cereal grains such as rice, wheat, oats, plus starchy tubers (potatoes and sweet potatoes) and vegetables (carrots, beets, corn) Sugars – lactose found in milk and dairy, fructose found in honey, fruits and some vegetables (peppers, tomatoes etc.)	Starches provide energy when broken down – slow release energy to the body (wholegrain provide slower release carbohydrates) Sugars provide quick release energy to the body's' cells.	Deficiency of carbohydrates is extremely rare in the UK. Long term lack of carbohydrates in the diet can cause Ketosis – a condition where the body switches to using protein as an energy source.
	Proteins	High Biological Value (HBV) protein: Meat, fish, poultry, eggs, Low Biological Value (LBV) protein: Tofu, beans, nuts.	Protein is digested by the body into its component parts – called amino acids. There are 8 which are essential for adults and 12 for children. HBV protein foods contain all the essential amino acids.	Protein deficiency can cause: <ul style="list-style-type: none"> • Wasting of muscle & muscle loss • Oedema – build up of fluids in the body • Slow growth in children Severe deficiency leads to kwashiorkor → 
	Fats	Butter, cheese, dairy foods including yogurt, crème fraiche, milk Oils, lard, suet, dripping.	Fat is a term used to describe lipids – this can refer to solid fats and oils. Fat is broken down by the body and used for energy, Also used to provide warmth when stored under the skin. Is a dietary carrier of fat soluble vitamins A, D, E & K.	Lack of fat in the diet can lead to deficiencies of fat soluble vitamins A, D, E & K.



AC 1.2 Describe the nutrients that make up a balanced diet - MICRONUTRIENTS

	Nutrient	Function	Source	Effects of deficiency
VITAMINS	Vitamin A	Required for a healthy immune system Keeps mucous membranes of eyes, digestive system and lungs healthy	Dairy products, fortified spreads, Egg yolk, oily fish, yellow and orange fruits and vegetables,	Deficiency is rare in developed countries but can lead to night blindness and a compromised immune system Dry mucous membranes
	Vitamin B Group	Needed to release energy from foods Needed to keep the skin, eyes and nervous system healthy	Meat, Liver, Eggs, Wholegrain foods, yeast/yeast extract	Severe deficiency rare in developed countries. Lack of B Group vitamins can cause dry, cracked skin
	Vitamin C	Helps the body absorb iron from food Essential for the formation of collagen (the body's scaffold tissue) Aids wound healing Supports a healthy immune system & fights infection	Fruits including – kiwi, strawberry, citrus fruits Peppers, tomatoes Dark green vegetables including cabbage, broccoli	Extreme deficiency is called scurvy. This is very rare however symptoms include bleeding gums, wounds not healing properly, tiredness. Lack of vitamin C can also be linked to iron-deficiency anaemia as absorption of iron is affected by lack of vitamin C
	Vitamin D	Essential for absorbing calcium from foods	Sunlight in UK summer Food sources – oily fish, eggs, liver, fortified cereals	Poor absorption of calcium – rickets (soft bones) in children and osteomalacia in adults (See below)
MINERALS	Iron	Iron is needed to make haemoglobin in red blood cells	Haem iron found in meat, offal Non-haem iron found in wholegrain foods, leafy green vegetables, fortified breakfast cereals Iron is only absorbed in the presence of vitamin C.	Iron deficiency anaemia is the most common dietary deficiency in the UK. Symptoms include tiredness, paleness, lethargy
	Calcium	Calcium is needed by the body to build strong bones and teeth. Essential for blood clotting process Essential for nerve signal transmission and muscle contraction	Dairy foods including milk, yogurt, cheese, butter Dark leafy green vegetables, Fish with edible bones including sardines and pilchards Non-dairy milks fortified with added calcium	Lack of calcium in children can cause rickets Osteoporosis  Rickets →



AC 1.3 Nutrient requirements for different groups of people – Age Groups

Nutrition through life differs mainly due to the need for energy and protein for growth and development – in younger age groups, growth and development occurs, in older age groups only maintenance of the body is required, therefore protein and energy requirements are reduced.

GENDER affects nutritional requirements after puberty – before puberty male and female requirements are the same. Puberty causes girls to begin menstruation, increasing their iron needs, which remain higher than men until the menopause which occurs around 50 years of age. Generally males are physically larger than females and therefore need to consume more energy and protein on a daily basis.

PHYSICAL ACTIVITY LEVEL affects a person's' energy requirements. The more active a person is, the more energy they need. It is recommended that extra energy requirements come from extra starchy carbohydrate in the diet,. Increased PAL could be from having an active job or from playing lots of sport.

<p>Babies and Toddlers</p> <ul style="list-style-type: none"> • Milk only for first 4-6 months • Weaning occurs from 6 months – introduce a wide variety of textures and colours • Avoid nuts (choking hazard), salt and sugar 	<p>Pre-school children</p> <ul style="list-style-type: none"> • Balanced diet needed – in line with Eatwell Guide from 12 months • High needs for energy and protein due to rapid growth and constant movement • Full fat dairy products should be consumed • Salt and sugar should be avoided 	<p>Children</p> <ul style="list-style-type: none"> • Balanced diet needed – in line with Eatwell Guide from 12 months • High needs for energy and protein due to rapid growth and constant movement • 5-a-day is recommended
<p>Teenagers</p> <p>Increased needs for iron in teenage girls due to menstruation</p> <p>Calcium intake & vitamin D are really important to ensure Peak Bone Mass is reached – setting up bone health for life</p> <p><i>Many UK teenagers are lacking in calcium, iron and vitamin A.</i></p>	<p>Adults</p> <p>No more growth means less energy is needed for adults than teenagers</p> <p>Well balanced diet modelled on the Eatwell Guide essential.</p> <p><i>Many UK adults eat too much fat, too much salt and not enough fruit and vegetables.</i></p>	<p>Elderly</p> <p>Sedentary older people will have reduced energy requirements. Calcium and vitamin D are still very important to prevent osteoporosis.</p> <p>Some elderly people do not get outside much and can be at risk of Vitamin D deficiency</p> <p>Sometimes elderly people may have issues getting access to food due to mobility issues, they may also be at risk of lack of variety of nutrients due to poor absorption.</p>
<p>Pregnancy & Lactation</p> <p>Because the body becomes more efficient at absorption during pregnancy, normal nutritional requirements apply until the last third of pregnancy, when some extra energy and calcium is required. Pregnant and lactating ladies should eat a varied diet rich in fresh fruit and vegetables and wholegrains (in line with the Eatwell Guide).</p> <p>There are some foods to avoid:</p> <ul style="list-style-type: none"> • Unpasteurised milk products and undercooked meats/cured meat products – they may contain listeria which is harmful to unborn babies • Pate, liver and liver products – due to high vitamin A content (Vitamin A is harmful to unborn babies if eaten in large quantities) • Swordfish, marlin and shark as they are high in mercury which can be harmful to unborn baby, 		

AC 1.3 Nutrient requirements for different groups of people – Special Diets (Religious, Medical, Ethical)

Medical Diets	Religious Diets	Ethical Diets
<p>Nut & other allergies Must avoid particular allergen, otherwise an allergic reaction may occur. Serious allergic reactions can result in anaphylaxis and even death. The 14 common allergens which must be declared on menus and food packaging are: Celery, Gluten, Crustaceans, Eggs, Fish, Lupin, Milk, Molluscs, Mustard, Nuts, Peanuts, Sesame, Soya, Sulphites.</p>	<p>Halal (Muslim) Halal is Arabic for permissible. Halal food is that which adheres to Islamic law, as defined in the Koran. Haram is the opposite to Halal and describes food which is not permitted under Islamic law. Haram items that Muslims will not consumer include pork and all pork products as well a alcohol.</p>	<p>Vegetarian Vegetarians do not eat any flesh – they do not eat meat, poultry or fish/shellfish. Vegetarians do eat dairy products and eggs (lacto-ovo-vegetarian).</p>
<p>Lactose intolerance People who are lactose intolerant do not make the digestive enzyme which is needed to digest lactose (a milk sugar found in dairy products). If they consume lactose, they will experience digestive discomfort including cramps, excess wind and diarrhoea. Lactose intolerant people can consumer lactose free milk and dairy products or dairy alternatives. They must be careful to ensure they get enough calcium in their diet.</p>	<p>Kosher (Judaism) Judaism instructs its followers to observe a kosher diet, this means no pork. Kosher food also does not mix dairy products and meat in the same meal/course. Foe example, a burger must be served without cheese.</p>	<p>Vegan Vegans avoid consuming any animal products – including milk and dairy products, Protein is a nutrient which can be lacking in a badly planned vegan diet – vegans can eat wholegrain cereals, nuts, beans, lentils and tofu. Calcium may be lacking in a vegan diet – some vegans replace dairy with calcium fortified alternatives such as soya milk or almond milk.</p>
<p>Coeliac Coeliac disease sufferers react to the presence of gluten, a protein found in wheat flour and wheat flour products. They must avoid consuming gluten. Gluten is present in any wheat flour – alternatives such as</p>	<p>Hindu Followers of the Hindu religion do not eat Beef, as they believe it is a sacred animal.</p>	<p>Pescetarian Pescetarians do not eat meat, but will eat fish and shellfish.</p>
<p>Coronary Heart Disease People who are diagnosed or at risk of Coronary Heart Disease are currently recommended to adopt a low sugar, low saturated fat, high fibre and fruit and vegetable Mediterranean style diet.</p>	<p>Buddhist Buddhists are usually vegetarian and do not consume meat or fish.</p>	<p>Flexitarian This is a new concept – followers of a flexitarian diet choose vegetarian or vegan diet meal choices for some parts of the week, in order to reduce their carbon foot print. Meat-Free Mondays campaign spearheaded this movement.</p>

AC 1.4 Current Healthy Eating Advice

Saturated fat

We are all eating too much unhealthy fat

Cut back on sat fat

We all know too much fat is bad for us – but we don't always know how much or what type of fat we're eating. There can be a surprising amount of saturated fat in everyday food and drinks.

Kids get a lot of their sat fat from...

- Butter Cheese*
- Cakes Pastries
- Chocolate Biscuits
- Sausages Pizza

How sat fat affects our kids

They might seem fine on the outside...
But too much saturated fat can lead to the build up of harmful fat in the body that we can't see. This can cause serious diseases in the future, such as heart disease, type 2 diabetes and some cancers.

Heart disease
Eating too much saturated fat can lead to high blood cholesterol. This can clog up our arteries and restrict the blood supply to our hearts, which can cause heart attacks.

Body weight
Eating too much fat, including saturated fat, can make us more likely to put on weight, because foods high in fat are also high in calories. We need about your child's weight for guidance advice and tips to help your child maintain a healthy weight.

Type 2 diabetes
Eating too much fat can make us put on weight. This can stop our bodies producing enough insulin, which can lead to type 2 diabetes.

Bowel cancer
Being overweight increases our risk of bowel cancer. But a diet high in fibre and low in saturated fat keeps our bowel healthy and reduces the risk of cancer.

How much is too much?

The maximum daily amounts of sat fat for you and your family are:

- 4-6 years: 18 grams
- 7-10 years: 22 grams
- 11+ years: 26 grams



- ### 8 Tips for Healthy Eating!
1. Eat more fibre
 2. Eat more fruits and Vegetables
 3. Eat more oily fish
 4. Eat less salt
 5. Eat less fat
 6. Eat less sugar
 7. Choose wholegrains
 8. Drink 6-8 glasses of water per day

2016 Update from Public Health England - The latest advice on Vitamin D intake

What is the new vitamin D advice?

The new advice from PHE is that adults and children over the age of one should consider taking a daily supplement containing 10mcg of vitamin D, particularly during autumn and winter.

People who have a higher risk of vitamin D deficiency are being advised to take a supplement all year round.

SACN's review concluded that these at-risk groups include people whose skin has little or no exposure to the sun, like those in care homes, or people who cover their skin when they are outside.

People with dark skin, from African, African-Caribbean and South Asian backgrounds, may also not get enough vitamin D from sunlight in the summer. They should consider taking a supplement all year round as well.

Focus on healthy fats!



Having **unsaturated fat** instead of saturated fat can help lower blood cholesterol to protect your heart. Foods like fish (especially oily fish such as mackerel, salmon and trout), unsalted nuts, seeds and yummy avocado are rich in unsaturated fat.

Healthy Eating Guidelines in the UK are set by Public Health England

Salt intake

- no more than 6g a day*.

Eating too much salt can raise your blood pressure. People with high blood pressure are three times more likely to develop heart disease or have a stroke than people with normal blood pressure.

Most of the salt eaten comes from the foods we buy, but some is also added during cooking, or at the table. Too much can easily be eaten without knowing it.

AGE	Target Maximum Salt Intake (grams)
0 to 6 months	less than 1g daily
7 to 12 months	1g per day
1 to 3 years	2g per day
4 to 6 years	3g per day
7 to 10 years	5g per day
From age 11 onwards	6g per day (as for adults)

Fibre intake

Age Group	Dietary Fibre Recommendation
<2 years	No specific recommendation. Diet including increasing amounts of whole grains, pulses, fruits and vegetables is encouraged.
2-5 years	15g/day
5-11 years	20g/day
11-16 years	25g/day
16-18 years	30g/day

Sugar Facts!

Kids are consuming **THREE** times more sugar than they should be*

The problem is that sugar is often lurking in our kids' food and drink, and the biggest source is sugary drinks.

*Based on the maximum daily added sugar recommendation

We're all having too much sugar

Our kids might seem fine on the outside, but too much sugar can cause **tooth decay** and lead to the build up of harmful fat on the inside that we can't see. This fat around their vital organs can cause serious disease in the future, like:

- Weight gain
- Type 2 diabetes
- Heart disease
- Some cancers

Sugary drinks have no place in a child's daily diet

Around **30%** of the sugar in kids' diets comes from sugary drinks, such as fizzy pop, juice drinks, squashes, cordials, energy drinks and juice.

So how much is too much?

The maximum daily amounts of **added sugar*** are:

- 4-6 years: 5 cubes max* or 19 grams
- 7-10 years: 6 cubes max* or 24 grams
- 11+ years: 7 cubes max* or 30 grams

* 1 cube = 4g of sugar

AC 1.5 Explain how nutritional information on food labels can inform healthy eating – Front & Back of Pack Labelling

Total fat, saturated fat, and sugar and salt - high or low?

Total fat

- High: more than 17.5g of fat per 100g
- Low: 3g of fat or less per 100g

Saturated fat

- High: more than 5g of saturated fat per 100g
- Low: 1.5g of saturated fat or less per 100g

Sugars

- High: more than 22.5g of total sugars per 100g
- Low: 5g of total sugars or less per 100g

Salt and sodium

Salt is also called sodium chloride. Sometimes, food labels only give the figure for sodium. But there's a simple way to work out how much salt you're eating from the sodium figure: salt = sodium x 2.5.

- High: more than 1.5g salt per 100g (or 0.6g sodium)
- Low: 0.3g salt or less per 100g (or 0.1g sodium)

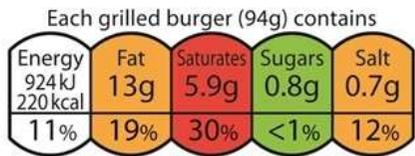
Energy intake as a percentage of RI

Traffic light system indicates with colour how much of intake is needed. Easy to see, quick to take in

Portion/Serving size is indicated on the label. This is NOT always the whole pack!

Front of pack nutrition labelling is optional

Most pre-packed foods have a nutrition label on the back or side of the packaging. These labels include information on energy in kilojoules (kJ) and kilocalories (kcal), usually referred to as [calories](#). They also include information on [fat](#), saturates ([saturated fat](#)), carbohydrate, [sugars](#), protein and [salt](#). All nutrition information is provided per 100 grams and sometimes per portion of the food. Supermarkets and food manufacturers now highlight the energy, fat, saturated fat, sugars and salt content on the front of the packaging, alongside the [reference intake](#) for each of these. You can use nutrition labels to help you choose a more balanced diet



of an adult's reference intake
Typical values (as sold) per 100g: Energy 966kJ / 230kcal

Reference Intakes used on Labelling

Adult reference intakes

Unless the label says otherwise, RI values are based on an average-sized woman doing an average amount of physical activity. This is to reduce the risk of people with lower energy requirements eating too much, as well as to provide clear and consistent information on labels.

As part of a healthy balanced diet, an adult's reference intakes ("RIs") for a day are:

- Energy: 8,400 kJ/2,000kcal
- [Total fat](#): 70g
- Saturates: 20g
- [Carbohydrate](#): 260g
- [Total sugars](#): 90g
- Protein: 50g
- [Salt](#): 6g

More detailed information on back of pack labelling :
Details of food per 100g
Plus info on fibre and protein

Front of Pack label

Back of Pack label

Nutrition				
Typical values	100g contains	Each slice (typically 44g) contains	% RI*	RI* for an average adult
Energy	985kJ 235kcal	435kJ 105kcal	5%	8400kJ 2000kcal
Fat	1.5g	0.7g	1%	70g
of which saturates	0.3g	0.1g	1%	20g
Carbohydrate	45.5g	20.0g		
of which sugars	3.8g	1.7g	2%	90g
Fibre	2.8g	1.2g		
Protein	7.7g	3.4g		
Salt	1.0g	0.4g	7%	6g

This pack contains 16 servings
*Reference intake of an average adult (8400kJ / 2000kcal)

Energy Values of Nutrients

A kilocalorie (kcal for short) is an energy measurement used in food - it is the amount of energy needed to heat 1 litre of water by 1°C.

Carbohydrates provide 4 kcal per gram	Protein provides 4 kcal per gram	Fat provides 9 kcal per gram
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All macronutrients provide energy and eating them in excess will result in the body storing the extra energy as fat (new research suggests this is most true with refined starchy carbohydrates and sugars) .

AC 1.6 Assess a food diary and make recommendations

1. Look at the overall balance of the diet – does it fit the Eatwell Guide? Is there any food group which is featuring in food diary too heavily? Any which is lacking? Identify this and recommend adjustments/replacements
2. Recall the 8 tips for healthy eating – are they being applied to this diet? Discuss, if they are not being applied, make recommendations for change based on this.

“Emma’s diet does not reflect the balance of the Eatwell Guide



WAGOLL

“Emma’s diet does not fit with the overall balance recommended by the Eatwell Guide.



8 Tips for Healthy Eating!

1. Eat more fibre
2. Eat more fruits and Vegetables
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WAGOLL



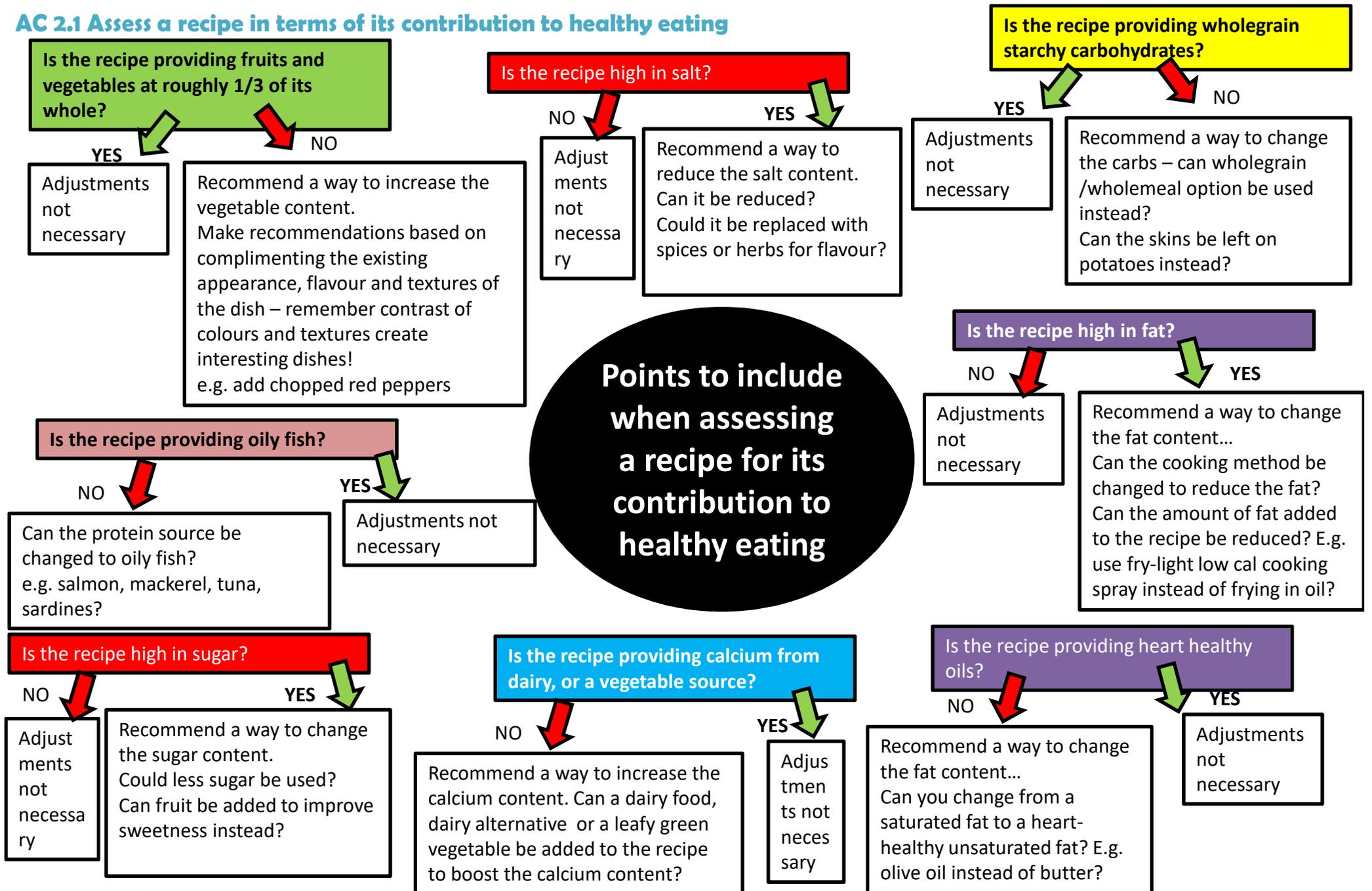
Emma's FOOD DIARY	
Breakfast	2 slices of thick white toast with chocolate spread Glass of concentrated orange juice Cup of tea with 2 sugars
Lunch	Slice of pizza Chips Bar of Dairy Milk
Dinner	Takeaway Creamy chicken and vegetable curry Boiled white rice Garlic naan bread
Snack	Packet of crisps Can of Diet Coke

Actions Emma should take to have a more balanced diet:

- At breakfast reduce 'free' sugar intake by swapping orange juice for slices of orange, swap chocolate spread for marmite, or a olive oil spread
- Reduce sugar in tea – use whole milk as it has a naturally sweet taste
- At lunch replace pizza and chips with jacket potato, beans, cheese and salad – this includes lots of fibre, lots of protein
- Swap takeaways for 'fakeaways' – cooking homemade version of these dishes will reduce fat, sugar and salt content of her evening meal
- Replace white rice and naan bread with wholemeal chapati and brown rice
- Reduce the chocolate intake – for snacks, choose nuts or dried fruit/fresh fruit to snack on instead as this is high fibre
- Swap the diet coke for water

“Emma’s diet is lacking in fibre. Fibre is needed for effective digestion and lack of fibre can cause constipation. To increase fibre in this diet, choose wholegrains – swap the white toast in the morning for wholemeal/granary bread, ditch the naan bread and choose a wholemeal chapati. Emma also needs to include more fresh fruit and vegetables in her diet– there is only 1/5 of the recommended daily fruit and vegetables portion present! She could swap the chips at lunch for a side salad, and a banana or some strawberries for dessert. She could also swap some dried fruit for her crisps as a snack. Emma does not have any oily fish in her diet – she could have a salmon salad at lunch instead of the pizza. Emma’s diet includes lots of processed food, which is high in salt. Emma could try cooking food from scratch to help her reduce her salt intake to below recommended 6g per day. Too much salt in the diet can increase blood pressure. Emma’s diet is high in fat, too much fat is linked to risk of coronary heart disease – the chocolate spread could be replaced with honey on toast – this is natural and not processed, although does still contain sugar. Emma could also reduce fat by ditching the chocolate bar and choosing some nuts and dried fruit instead, this would also reduce Emma’s free sugar intake .

AC 2.1 Assess a recipe in terms of its contribution to healthy eating



AC 2.2 Explain how to change recipes to make them healthier

Cooking methods

Some cooking methods add fat, adding too much fat to food increase the calories (energy content) drastically and is also thought to be a risk factor in cardiovascular disease. Cooks should be minimise their use where possible.

These include:

- Frying - deep (submerging food in hot fat)
- Frying – shallow (frying food in 1cm or less of fat in a pan)
- Roasting (cooking in fat in the oven)



Healthier cooking methods only add small amounts of fat, or do not add fat to food at all. They can be dry (cooking without the use of water) or moist (cooking with water or steam). Healthier cooking methods include:

- Stir frying (cooking quickly in a small amount of oil at v high temps)
- Poaching (cooked gently in simmering liquid)
- Boiling (cooking food submerged in vigorously boiling 'rolling boil' water)
- Steaming (holding food above boiling water to be cooked by the steam)
- Grilling – on a cooker or on a BBQ (food cooked by radiant heat from a flame or glowing element)
- Baking in the oven (dry heat)
- Stewing (slow-cooking on hob or in slow-cooker with liquid)
- Casseroling (slow-cooking in oven with liquid)
- Braising (slow-cooking **pre-sealed** meat and vegetables in oven with liquid)



Preparation methods

- Do not add too much extra fat when preparing/marinating or cooking
- Trim fat off excess fat from meat where possible (leaving some is fine for flavour)
- Do not add too much extra salt when seasoning/marinating foods before cooking
- Do not add too much sugar when marinating foods



CHANGE THE INGREDIENTS USED:

- ✓ Avoid saturated fats such as butter, lard and dripping - Use heart healthy unsaturated fats such as olive oil, avocado oil
- ✓ Avoid using white flour where possible – use wholegrain or brown versions for extra fibre and B vitamins
- ✓ Leave the skin on potatoes for extra fibre and vitamin C
- ✓ Replace cream in recipes with reduced fat crème fraiche
- ✓ Replace mild cheeses with stronger ones, and use less
- ✓ REDUCE sugar content of recipes by using naturally sweet ingredients such as fruits
- ✓ Add **extra VEGETABLES, FRUITS, NUTS and SEEDS** into recipes where possible, **for extra fibre, vitamins and minerals** - these can be blended into sauces to 'hide' them for fussy eaters

AC 2.3 Describe other factors which can affect the finished dishes

Changes to make dishes healthier can affect OTHER aspects of the finished dishes in several ways....

<p>Appearance and presentation of the meal</p> <ul style="list-style-type: none">• Adding vegetables to a dish to increase fibre, vitamins and minerals may also affect the colour of the dish.• Adding greens such as green peppers or green beans will create a fresher, more vibrant look.• Adding tomatoes/red peppers to a dish will make it look brighter. <p>Remember – contrast in colours within a dish is good, makes dishes look more appealing and delicious!</p> <p>Changing carbs to wholegrain or skin-on versions may also change the colour of the dish, however this time may increase the presence of brown in the dish, which is considered a ‘dead’ or dull colour, and will need brightening up in other ways...</p> 	<p>Taste</p> <p>Reducing fat content in recipe may alter the taste – it can reduce creaminess aka ‘mouth feel’</p> <p>Reducing the fat content of baked goods can also alter the taste – making them taste less rich.</p> <p>Adding vegetables to dishes can alter the taste in many ways depending on what fruit/vegetables is added – e.g. red peppers will bring sweetness, adding kale will bring an earthy taste, adding broccoli will add a fresh taste etc...</p> <p>Changing carbs to wholegrain or skin-on versions will affect the taste, making the dish have a more ‘nutty’ flavour</p> <p>Adapting the cooking method may also change the taste of a dish – steaming or poaching will preserve the flavours of the original food whereas barbecuing or grilling food will also impart charred flavours</p>
<p>Texture</p> <p>Reducing fat content in recipe may alter the texture, making it drier or more brittle.</p> <p>Adding vegetables or fruits to dishes can bring crunchiness, softness, chewiness.</p> <p>Changing the cooking method will also alter the texture – frying or roasting food in fat creates crispy crunchy textures, whereas replacing frying/roasting with the healthier methods of steaming, boiling, stewing etc will create soft textures. Grilling and barbecuing will also create chewy/crispy textures.</p>	<p>Appeal</p> <p>Making dishes ‘healthier’ may also change their appeal – depending on the combinations of ingredients, preparation and cooking techniques selected.</p> <p>Remember - consider your choices, even though the change will make the dish healthier, will it create a desirable flavour/texture/appearance combination???</p> 